

REFERENCE AND INTERNAL REALISM:  
AN INQUIRY INTO HILARY PUTNAM'S PHILOSOPHY OF LANGUAGE

A THESIS SUBMITTED FOR THE DEGREE OF  
DOCTOR OF PHILOSOPHY

BY  
KEYA MAITRA



DEPARTMENT OF PHILOSOPHY  
SCHOOL OF HUMANITIES  
UNIVERSITY OF HYDERABAD  
HYDERABAD - 500 134, INDIA.

AUGUST. 1994.

**DEDICATED**

**TO**

**BABA & MAA**

CERTIFICATE

This is to certify that the thesis entitled Reference and Internal Realism: An Inquiry into Hilary Putnam's Philosophy of Language submitted by Ms. Keya Maitra for the degree of Doctor of Philosophy to the Department of Philosophy, School of Humanities, University of Hyderabad, has been done under my supervision and embodies the result of bonafied research work. This work or a part thereof has not been submitted for any other degree or diploma to any University or Institution.

I recommend that the thesis be sent to the examiners for evaluation.

*Amitabha DasGupta* 8.8.94.

Amitabha DasGupta  
Department of Philosophy  
University of Hyderabad

## ACKNOWLEDGEMENTS

At the outset I would like to express my gratitude to the following persons who have been in varying degrees of help to me in the completion of this work

My supervisor Dr Amitabha DasGupta whose valuable guidance and critical insight played a crucial role in the shaping of this work His meticulous and thoroughgoing attitude has been an inspiration to me in my acquisition of knowledge in this field

Professor A Rammurthy Professor Yuresh Chandra Dr Ramesh Chandra Pradhan Dr Y S Kulkarni and Dr K Y Prasad for their help and encouragement

Dr Ekhanda Gupta and Mr Bijoy Mukherjee for our fruitful discussions which helped me in the shaping of my ideas at various stages of this thesis Thanks are also due to Dr Phefali Moitra for her help and encouragement

The Indian Council of Philosophical Research for granting me the General Fellowship and the University Grants Commission for its award of the Junior and Senior research fellowships

Professor D L Anderson Professor J Van Brakel and Lopadi for providing me with some very important study materials

The staff members of the libraries of ICPR Butler Palace Lucknow the University of Hyderabad and Visva Bharathi Yantiniketan Mr Sangaji and other staff members of the Computer Centre University of Hyderabad for their cheerful concern and ready help

My parents and other family members for their love and encouragement

Dr Pama DasGupta whose warmth and concern made my stay at Hyderabad a homely and pleasant one

Amanulla Yarwakala and Mohsin for helping me in typing out the thesis

Anna Yarwakala Praveena Padmasri Ara Rekha and Jaya for their painstaking care in proofreading this thesis

Tomy and other research scholars of the Department of Philosophy for providing a friendly atmosphere to work in

## CONTENTS

Acknowledgements	
Introduction: Setting the Stage	1-19
Chapter I	
Theory of Reference	20-73
1.1 Centrality in Semantics – Sense or Reference?	
1.2 Underlying Realist Intuitions	
Chapter II	
From Reference to Realism	74-109
2.0 Introduction	
2.1 The Empirical Hypothesis of Realism	
2.2 Two Pillars of Empirical Realism: Causal-Explanatory Notions of Reference and Truth	
2.3 Interest-Relativity of the Empirical Realist Hypothesis	
Chapter III	
Reference and Internal Realism: Towards the Untenability of Metaphysical Realism	110-154
3.0 Reference and Internal Realism: An Introduction	
3.1 A Brief Outline of Metaphysical Realism	
3.2 Critique of Metaphysical Realism	
Chapter IV	
Internal Realism, Anti-Realism and Cultural Relativism	155-184
4.0 Introduction	
4.1 Internal Realism and Anti-Realism	
4.2 Internal Realism and Cultural Relativism: A Source of Controversy	
4.3 Conclusion	
Chapter V	
Unity in Putnam Through Reference	185-215
5.0 Introduction	
5.1 Justification of the Centrality of Reference	
5.2 Presuppositions	
Conclusion: The Realism of Internal Realism	216-227
Bibliography	228-237

## INTRODUCTION: SETTING THE STAGE

The rise of twentieth century brought the 'linguistic turn' in philosophy. A concern with language has since then become the characteristic feature of contemporary philosophy. Analysis of language is thus taken as a method to solve (or to dissolve, as Wittgenstein said) philosophical problems which perplexed all the great philosophical minds of the past. But analysis of language as a philosophical method though important could not deliver the goods which it was expected to. Philosophy practiced as linguistic analysis becomes virtually confined to the mere analysis of concepts and words without having much bearing on wider philosophical issues. This is why philosophers these days are more and more critical of the practice of linguistic philosophy. There is a growing realization among the philosophers that language can be taken not only as a tool to solve philosophical problems but can also be a tool in terms of which we can understand the traditional philosophical problems in a new way. In the light of this new understanding we may be able to restructure these problems and restate them in the idiom of analytic philosophy. This, in other words, is to give a new meaning to the traditional philosophical issues in the light of philosophical analysis.

Among the modern analytical philosophers Hilary Putnam

## Introduction

is eminently known for his work in philosophy of language that explicitly addresses the wider issues of traditional philosophy. It is through his work on language that the entire realism has been conceived and restated in a new way. In this way, the traditional conception of realism is now approached in a new direction. This becomes evident when we see that it offers a perspective which enables us to understand the debate between realism and anti-realism in a much more comprehensive way so that we can be aware of both the strong and weak aspects of these two contrasting frameworks. This new approach to realism consists of representing realism in the light of the following two features. Firstly, realism is conceived in the form of an empirical hypothesis which, in actual terms, implies an explanatory framework. Secondly, this realist hypothesis intimately depends on the notion of reference. These are the two central features that indeed make Putnam's philosophy of language unique in contemporary analytic philosophy.

This uniqueness of Putnam's position becomes apparent if we take into the account the controversy that centers around realism in contemporary writings. With the emergence of linguistic analysis, the intimate relation between concepts like reference and truth on the one hand, and realism on the other hand, has been recognized to play a very important role in our understanding of the nature of realism. However, contemporary philosophers are not in agreement in this regard. On the one hand, there are philosophers like Devitt, who take realism to be

a metaphysical theory with no semantico-epistemological features. He thus maintains that reference and truth have no role to play in our discussion of realism. On the other hand, there are philosophers like Quine, Davidson and others who want to eliminate the concept of reference altogether. Philosophers of this persuasion maintain that our talk of realism does not depend on the concept of reference. On the contrary, they maintain that the concept of reference makes our talk of realism hazy. The reason is, the concept of reference forms an integral part of our 'representational' world-view. These philosophers further hold this 'representational' picture to be responsible for the problems associated with traditional (metaphysical) realism. Thus in their attempt to overcome the problems rising from a 'representational' picture they eliminate the concept of reference totally. Quine, while giving up the representational picture, maintains that reference is inscrutable in nature and should be given up. In a like manner, Davidson maintains that, "[I]t is good to be rid of representations, and with them the correspondence theory of truth . . ."• (Davidson, 1989, 165-6). Thus both these philosophers attribute the problem of traditional realism to its insistence that there exists a unique reference relation between our words and the objects outside. This reference again ensures the correspondence relation which serves as the basis of the traditional realist notion of truth. So in their attempt to overcome the problem resulting from the correspondence theory of truth, they give up the notion of reference altogether. But the elimination of this notion of

reference invites a host of problems for both Quine and Davidson. As a result, Quine is forced to conclude that translation becomes indeterminate. This conclusion is counter intuitive since for all practical purposes we carry on with translation and interpretation inspite of this historic pronouncement of Quine, The same is equally true of Davidson. Since sameness in reference assignment forms the basis of all translation and interpretation, Davidson's rejection of the concept of reference makes it very difficult for him to account for these facts about our rational exercise.

Putnam's view differs from both these approaches to the relation between reference and realism. Contrary to Devitt, he maintains that realism enjoys a very intimate relation with reference. Our concept of reference in fact shapes the nature of our realism to a great extent. But to accept this is not to accept the metaphysical (traditional) realist concept of unique reference. Unlike Davidson and Quine, Putnam does not think that an elimination of the concept of reference is the only way out of the erroneous notion of unique reference of the metaphysical realist. It does not warrant such elimination either. Putnam's philosophy assumes uniqueness in presenting a novel way in which realism can be shown to depend on its notion of reference. Perhaps it will be more appropriate to say that an interplay between those two has been made possible because of Putnam's new approach to reference and realism. In so doing, he also provides us with deeper understanding into the age old problem of realism.

The ideas expressed above spell out the main theme of this research. To put it in specific terms, its objective is to establish that Putnam's philosophy of language offers a framework that allows an interplay between reference and realism, the outcome of which offers a new conception of realism.

This proposed thesis, however, may not be acceptable to all. The idea that there is an interplay between reference and realism may be seriously questioned on the consideration that this idea is merely a part of a transitory phase in Putnam's philosophy. The various major shifts in Putnam's philosophical position strongly suggest that there cannot be any such thematic continuity as expressed in the idea of interplay between reference and realism. In fact, it is pointed out that Putnam's views on both reference and realism do not express any uniformity. In this respect it may be specially mentioned that there is a widespread belief among interpreters of Putnam that he has converted from hard core realism to anti-realism. Now in view of these drastic changes a serious doubt can be raised against the very consistency of the basic theme of the proposed research. Hence along with the objective stated earlier, the second objective of the thesis is to establish that there is a uniformity in Putnam's views on realism and reference. To establish the second objective is necessary in order to establish the first one.

To pursue the second objective, this thesis will question and refute the view which holds that there is a drastic change in Putnam's position. Certainly, Putnam has changed his position on the notion of realism as well as on reference, but amidst all these changes there is also an underlying unity in his philosophy. To establish this, Putnam's entire philosophy of language needs to be reconstructed. Accordingly, his philosophy of language may be divided into three phases. Thus, the first phase of Putnam refers to the period of his philosophizing till 1975. This phase is marked by an overt concern with the problem of reference in the context of the semantic framework. The underlying realist intuitions of this theory of reference though not explicitly stated, can easily be inferred from a detailed analysis of this theory. The second phase, which lasts for a comparatively shorter span, refers mainly to Putnam's *John Locke Lectures, 1976* and also includes his illuminating article, "Reference and Understanding" (1978a). This phase consists of his attempt to explicate realism as an empirical hypothesis to explain the success of science. Reference, however, is not given up at this level. On the other hand, it is understood in the broader scheme of explanatory (empirical) realism. The concept of reference is conceived here as a causal-explanatory one constituting one of the pillars of the empirical hypothesis of realism. The third and the final phase points to the shaping of his internal realism which starts in the later phase of 1976 with his "Realism and Reason" (1978b). Internal realism provides a transcendental defense of realism formulated in the form of an

## Introduction

abductive argument which takes reference as a fact. This division in Putnam's writings may appear as purely chronological in nature. But it will be argued in this thesis that this division is based on conceptual consideration. All these above mentioned phases have a common theme; they all try to depict the interplay between reference and realism. This interplay is represented through different routes and in varying degrees in these three different phases. This fact therefore can be taken as the basis for our division of Putnam's entire philosophical writings into these three phases.

Having made this division of Putnam's philosophy into three phases, our task now is, as stated in the second objective, to show a continuity between these allegedly intermittent stages of Putnam. It will be carried out by demonstrating that the problem of reference, with which Putnam is overtly concerned in his early period remains his major concern in his later period of internal realism. This thesis thus tries to establish that reference remains central throughout the different phases of Putnam's philosophy. In addition, an attempt will also be made to work out the presuppositions of Putnam's entire philosophy of language in order to show that the different phases share some common basic ideas. Both these points refer to the existence of uniformity in Putnam's work.

The thesis that reference remains central to all the phases of Putnam's writings has significant bearing on the nature

of his realism. The centrality of reference is defined here in terms of the notion of invariance or constancy of reference. This means, to put in a nutshell, that it is in the light of this notion of invariant reference that all the other notions of Putnam's different frameworks assume relevance. The nature of realism, likewise, depends to a great extent on this invariance of reference. The centrality of reference thus shapes the course of the interplay between reference and realism at all these different phases of Putnam. With this brief introduction we now lay out the chapter plan of this thesis in order to show how the centrality of reference and the ensuing interplay between reference and realism in Putnam's work is worked out.

#### The Structure of the Thesis

The first phase of Putnam's philosophy forms the subject matter of the first chapter of this thesis, entitled, "The Theory of Reference". Here Putnam takes reference as a purely semantic notion. In this phase, Putnam develops his new or causal theory of reference which presents his polemic against the traditional theory of meaning. This phase does not contain any detailed discussion of realism. But the underlying realist intuitions can easily be brought out from a detailed discussion of his semantic theory of reference. The centrality of reference in this phase may be termed semantic centrality. This is because the invariance that explicates the nature of reference here and from which the above mentioned centrality is derived, is semantic

## Introduction

in nature. The theme of this chapter is dealt with in two sections. The first section devotes itself to the question of centrality in a semantic framework. In this respect the lacuna of the sense centrality, of the traditional theory of meaning will be examined. The second section makes explicit the underlying realist intuitions of Putnam's new theory of reference. This underlines our attempt to show that an interplay between reference and realism can be traced even in this early phase of Putnam's work.

The concept of invariance, when understood in a semantic framework, gets related to the criteria or conditions of applicability of a term/word. A component of a semantic scheme will be called invariant when it supplies the criteria of applicability. In other words, when it (that particular component, viz., sense or reference) serves as the ultimate arbiter in applicability. We will see that in the framework of traditional theory, an invariant position has been ascribed to sense rather than to reference. It is the sameness of sense that finally decides the question regarding semantic sameness. The sense of a term gives us the route to its referent. It thus provides the criteria for identity as well as the applicability of the term. Two terms may not share the same meaning inspite of having the same referents. For example, 'morning star' and 'evening star' are not considered synonymous or as having the same meaning inspite of the fact that both of them have the same referent. The reason is, they represent two different routes to

the same object, namely, Venus. This difference is reflected in belief contexts also as these two terms cannot be interchanged in such contexts without affecting the truth-value of the belief statement.

Putnam's reformulation of the traditional theory shows that this invariance of sense in the traditional theory results in a mentalistic and individualistic thesis. It is mentalistic as our mental states (psychological states) of grasping the meaning (or the sense) of a term determines the intension and thereby the extension of the term. The individualistic nature of the traditional theory is implied by its mentalism and also by its theory of language understanding. Understanding or semantic competence is a matter of pure knowledge in this framework. Both these jointly imply the individualism; a person can learn the meaning of a term/word in the privacy of his own mental state without depending on any external factor or any other speaker. These two features of the traditional theory invite a number of problems for it. It fails to incorporate the results of scientific change; it also fails to account for the abnormal members of a class. In short, it fails to be a proper semantic theory of language since it cannot explain our talk about counterfactual situations.

Putnam's theory, on the other hand, is an attempt to incorporate all these phenomena. Reference is considered invariant in this semantic framework as it supplies the criteria

for sameness. The causal theory of reference maintains that the reference (and the meaning) of a term is determined not by any conceptual content but by a causal chain that attaches a present use of a term with the initial introductory event when the term was dubbed onto the object for the first time. The concepts of paradigm or the sample used in the initial dubbing ceremony and causal chain running through the different generations assume utmost importance here. The causal chain points to the social nature of language which is captured in Putnam's concept of 'linguistic division of labor'. The concept of paradigm implies the contribution of the environment to our language. It also signifies, as will be made explicit in our fifth chapter, the humanistic perspective of our language. The causal theory of reference along with its concept of 'linguistic division of labor' points to the existence of trans-theoretic reference. It thus implies convergence which serves as the strongest realist intuition of Putnam in both his early and later phases. In addition to it/ the underlying realism of this phase implies Putnam's faith in the extra-theoretic notions of truth and reference. These two notions are given up in the later phases of Putnam.

The second chapter of this thesis, entitled, "From Reference to Realism", points to a transitory period of Putnam's writings where his focus is shifted from purely semantic issues to the wider issue of realism. Reference is viewed from a different perspective - from its contribution to the empirical

hypothesis of realism envisaged to explain the success of science. Reference is given a causal-explanatory explication here. This phase also shows how intimately reference is related to truth. This observation thus serves the basis for the main premise of Putnam's model-theoretic argument against metaphysical realism, which says that the notion of a determinate reference supplies the support to the entire realist hypothesis. Another significant feature of this phase is Putnam's pronouncement that the causal-explanatory hypothesis of realism is interest-relative in nature. Reference, likewise is considered interest-relative here. This interest-relativity is derived from the interest-relativity of the very notion of explanation. This chapter is divided into three sections. The first section delineates the nature of the causal-explanatory hypothesis of realism. The second section deals with causal-explanatory notions of truth and reference that form pillars of this empirical realist hypothesis. In the third section, the interest-relative nature of this hypothesis as well as of its two constituents will be discussed.

The significance of this phase lies in the fact that it is the forerunner of the internal realism of Putnam's later phase. It clarifies Putnam's underlying intentions for shifting from strong realism involving the extra theoretic notions of truth and reference to the moderate position of internal realism. Explanatory reference, Putnam observes, might be achieved through the physicalistic theory of reference also. That is how Field

and Devitt explain explanatory reference. Putnam, however, realizes the implicit incoherence of such an absolutist notion. This is because Putnam accepts the conclusion of Garfinkel that explanation by its very nature is a 'interest-relative' concept. It is essentially tied with its context as understood in the wider sense. Explanatory reference in a like manner is interest-relative. As Putnam clarifies in his next phase that reference is essentially related to our 'referential intentions'. The acceptance of this 'interest-relativity' of reference reflects Putnam's awareness of the problems of the extra-theoretic notions of truth and reference. It prompts him to consider the epistemological implications of the extra-theoretic notions of truth and reference needed for the world picture of metaphysical realism. The results of this deliberation of Putnam is reflected in his model-theoretic arguments against metaphysical realism. The model-theoretic argument, to put in a nutshell, maintains that since reference is indeterminate in nature, the unique correspondence that the metaphysical realist assumes is not achievable.

The third chapter entitled, "Reference and Internal Realism: Towards the Untenability of Metaphysical Realism", deals with the final phase of Putnam's writings. This phase will be further discussed in our fourth chapter. This phase of Putnam consists of his explication of his notion of internal realism. Internal realism can be explicated in two ways: (1) as an option offered against the problems arising from metaphysical realism.

These problems, as we have already seen, are made explicit by his model-theoretic arguments. (2) by contrasting it with anti-realism and cultural relativism, that is, with views that are often confused with internal realism. The third chapter is devoted to the first objective, while the fourth chapter takes care of the second objective. In third third chapter, Putnam's arguments develop in three steps. The first step shows how the metaphysical realist notion of truth as correspondence depends on its idea of reference. The notion of a unique, determinate referential relation serves as the basis of the total metaphysical realist picture. The second step consists of showing that no such unique, determinate relation is possible. The reason is, in order to accept such a unique relation, we have to accept an extra agent in addition to the set of operational and theoretical constraints which would identify the 'intended' (and thus unique) reference relation. Putnam's model-theoretic arguments, which are the result of the extension of the implications of Löwenheim-Skolem theorem to the field of philosophy of language, show that no such extra agent is available to a metaphysical realist. The third and final step consists in providing a demonstration of the implications of his model-theoretic arguments. Putnam's 'Brains in a Vat' argument is presented as a demonstration of his *reductio* against the metaphysical realist premises. This argument also shows the inefficiency of the proposal of the metaphysical realist that the causal chain fixes the reference and thus makes reference determinate.

The third chapter thus is divided into three sections. The first section enumerates the principal tenets of metaphysical realism in order to explicate how the unique referential relation serves as the basis of such a picture. The second section presents a critical exposition of Putnam's model-theoretic arguments and provides Putnam's 'Brains in a Vat' argument as a demonstration of this. The third section provides a brief outline of internal realism.

In continuation with the previous chapter, our fourth chapter, entitled, "Internal Realism, Anti-Realism and Cultural Relativism", further discusses the final phase of Putnam. Here internal realism is differentiated from anti-realism and cultural relativism. The difference between internal realism and anti-realism, the theme of the first section of this chapter, lies in the fact that internal realism, with its concept of objectivity, as implied by its notion of truth as the idealization of justification, surpasses the mere verifiability of anti-realism. Putnam's notion of truth again differentiates internal realism from cultural relativism. This will be discussed in the second section of this chapter. Cultural relativism holds that whatever is justified by a culture is true for that culture. Putnam does not accept this extreme conventionalism. His internal realism accepts that there are some facts to be discovered. This implies the objectivity of internal realism and it thereby underlines its difference from

cultural **relativism**.

In both these **chapters**, viz., the third and the fourth, reference remains central to Putnam's discussion. In the third chapter, it is reflected in the fact that the metaphysical realist notion of reference is the main target of Putnam's attack as represented in the model-theoretic arguments. In the fourth chapter also, reference retains centrality though in an indirect way. In our discussion of the relation between internal realism and anti-realism, we have seen that the anti-realist theory of meaning gets exhausted in its verificationism. On the other hand, for Putnam, verificationism is accepted only as providing the theory of language understanding. But this does not exhaust his entire semantic theory. Theory of reference along with its causal mechanism is retained as a theory of language functioning. This mechanism makes available correspondence relations (though not of the unique nature) needed for the objectivity in Putnam's internal realist notion of truth. Objectivity, thus, is made available by Putnam's empirical theory of reference as incorporated in his internal realism.

The fifth chapter, entitled, "**Unity** in Putnam: Through Reference", is sharply different from the other four chapters in its focus. The first four chapters together try to give an exposition of Putnam's philosophy as developed in the course of his three phases. The focus of the final chapter, on the other hand, may be termed as reflective. This chapter tries to

delineate, in explicit terms, how reference remains central in all the different phases of Putnam and how that centrality can be taken as evidence for the continuity between the different phases of Putnam. \* It thus points to the uniformity in Putnam's views on reference and realism as explicated in the different phases of Putnam. This chapter is divided into two sections. The first section deals with the justification of the centrality of reference in Putnam's work. This section is further divided into two subsections, one dealing with external justification and the other dealing with notional justification. In the second section of this chapter we will work out two presuppositions that regulate Putnam's entire writing in varying degrees. The question of how reference is considered central in the different phases of Putnam is dealt with in the external justification of the centrality of reference. Here the reasons that prompt Putnam to ascribe centrality to reference during his various philosophical persuasions will be enumerated. In this respect, a methodological distinction between presupposition and reason is made. All the different reasons for Putnam's ascription of centrality to reference are guided by a single presupposition, namely, the principle of benefit of doubt. This principle therefore can be taken as a presupposition of Putnam's entire philosophy of language. The second section of the fifth chapter will give a detailed analysis of this principle and of its functioning as the presupposition of all the different phases of Putnam.

The notional justification of the centrality of reference shows that apart from maintaining the centrality of reference, Putnam also retains the same notion of reference throughout all his different phases. This notion of reference can be explained with the help of the notion of invariance. Invariance, on the one hand, explicates the notion of reference and on the other it explains or provides internal defense to the centrality of reference. Thus it will be noted that all the three most crucial concepts of the three different phases of Putnam, viz., the conditions of the semantic applicability of a name/term of his first phase, the causal-explanation of the second phase and interpretation as rational exercise of his final phase assume significance in relation to this invariant nature of reference. The invariant nature of reference thus plays a crucial role in explicating the continuity and the ensuing unity in Putnam's philosophy. The invariance of reference that is involved in the first phase, due to its focus on semantics, can be called semantic invariance, that of the second phase may be called explanatory invariance and that of the final phase may be called empirical invariance. It is called empirical as here the semantic and explanatory invariances of first two phases are placed within a conceptual scheme. The seeming absolute invariance of the first phase thus makes way for non absolute invariance of the later phases. This observation is crucial from the point of view of the present thesis as this point gives rise to the charge of discontinuity in Putnam philosophy of language. Critics (namely Devitt, Hacking etc.) maintain that by shifting

from absolute invariance to non absolute invariance in his notion of reference, Putnam also shifts from full blown realism to anti-realism or nominalism. This objection can be answered in the light of the first objective of this thesis, namely, the interplay between reference and realism. That is to say, in order to reply to this charge, the interplay that exists between reference and realism in the different phases of Putnam needs to be studied closely. Such a study will help us identify the realist intuitions of his first phase in his later phase of internal realism. This also expresses the viability of the claim that internal realism is still a realism, though of a moderate nature. Our conclusion, thus, consists of a discussion of the interplay between reference and realism in Putnam. In this respect, it will be argued that the presence of the interplay between reference and realism at the final phase of Putnam ensures the presence of realism at this phase of internal realism.

CHAPTER I

THEORY OF REFERENCE

This chapter devotes itself to the first phase of Putnam's writings. The objective here is twofold. Firstly, it gives a detailed discussion of Putnam's theory of reference. Secondly, it tries to formulate, in explicit terms, the underlying realist intuitions of this theory of reference. This is to demonstrate the intimate interplay between reference and realism that exists in Putnam's work at this early stage. This chapter is thus divided into two sections. The first section deals with the question of centrality in a semantic framework. We can trace two kinds of centrality in a semantic discussion, viz., one that assigns centrality to meaning (sense) and the other that assigns centrality to reference. Centrality is explained here in terms of 'invariance' that explains the concept of applicability in a semantic scheme. This section begins with a critique of the view that assigns centrality to meaning which is followed by an attempt to formulate reference as central to a semantic framework in the manner of Hilary Putnam. The second section tries to explicate all the underlying realist principles of this theory of reference.

## 1.1 Centrality in Semantics – Sense or Reference?

### 1.1.1 Introduction

Semantics is broadly defined as the study of meaning. But there are very few notions in philosophy as **obscure** and **'hard'** as meaning. Traditionally the word **'meaning'** has been used to mean either of two things, **viz.**, intension and extension. Intension stands for the concept, or idea attached to a word and extension stands for the object or class of objects to which the word is applicable. These two notions are taken as constitutive of any semantic framework devised to provide an understanding of the relation between language and reality. In an attempt to explicate the relation between language and reality, a semantic framework tries to explain in clear terms the criteria or conditions of applicability of a name/term to an object or a class of objects. This applicability is worked out with the help of the concepts of intension and extension. But it is done differently by the different theories of semantic framework. Until recently meaning was almost unanimously identified with intension. This consensus of traditional theory was first subjected to severe criticism by the proponents of the direct reference theory who instead placed importance on the extension or reference component of a semantic framework. In both the

For obvious reasons, while discussing the direct reference theory I will mainly concentrate on Putnam's version of it. The other prominent proponents of this theory are **Kripke, Donnellan** and Kalpan.

frameworks a tendency to underplay one component by making it subservient or dependent on the other can be found. In the framework of traditional theory, reference is made subservient to sense as sense is taken as the sole supplier of the criterion of identity and applicability. On the other hand, the direct reference theory, as the name suggests, considers reference to be central as it is reference which ultimately decides the applicability of a name/term to an object or class of objects. Intension, in this framework, is made subordinate to reference. Thus, sense in the traditional theory and reference in the direct reference theory are given special status. This special status is due to the fact that they provide stability to their respective frameworks by being the ultimate arbiters in the case of applicability. Applicability of a term is therefore solely dependent on the invariance of sense in the traditional theory and on the invariance of reference in the direct reference theory; The idea of invariance as attached to sense and reference respectively cannot be thought of in any other terms or order. Since invariance of the reverse order, i.e., to take reference as central in the framework of traditional theory and sense as central in the direct reference theory does not guarantee applicability. Centrality is thus defined here in

2

This possibility will be brought out in two different ways. In the case of traditional theory it will be shown that sameness of senses ensures sameness of the associated referents whereas sameness of referents does not ensure sameness of the associated senses. For the direct reference theory, on the other hand, it will be argued that the sameness of senses does not ensure the sameness of referents and is rather dependent on the latter.

terms of the invariance that ensures stability, and thereby invariance of the entire **framework**.

### 1.1.2 The Centrality of Meaning: An Exposition of Traditional Theory

Semantics or the study of meaning was traditionally conceived as providing a solution to the problems of synonymy and that of analyticity. The native speakers of a language use certain expressions as expressing the same thing. This fact is explained through the concept of meaning by maintaining that two expressions express the same thing, *i.e.*, they are synonymous if they have the same meaning. The concept of meaning is also taken to explain the concept of analyticity. A statement is called analytic if it is true by virtue of its meaning.

The notion of sense or intension gets centrality as it is conceived to answer both these questions – regarding analyticity and synonymy. Traditional philosophers thus have equated meaning with intension. Two terms are said to be synonymous, if the **ideas/concepts/intensions** attached to them are the same. This trend can be traced back to Aristotle's *De Interpretatione*. Aristotle maintains that the mind forms '**mental likenesses**' (Blackburn, 1984, 41) when confronted with external things. And words of our language cannot refer to external objects by themselves but only by associated ideas or '**mental likenesses**' in the mind. That is to say, the associated idea

provides the meaning. As Locke (1947) says, "... words in their primary or immediate signification, stands for nothing but the ideas in the mind of him that uses them ...". For the traditional philosophers intension or concept captures the notion of meaning in its entirety, i.e., without any residue. Intension, for them, exhausts the whole meaning of the term. For this reason extra-linguistic matters are not given any importance in their discussion of meaning. This results in their making reference subservient to intension. Meaning (taken in the sense of intension) is thus considered as central in this semantic framework.

Though different forms of this traditional theory can be identified in the writing of different philosophers, Frege was the first philosopher to formulate it systematically. In "On Sense and Reference" (ed. P. Geach and M. Black, 1970) Frege formulates his theory of meaning about proper names (singular terms) and declarative sentences. Frege does not explicitly deal with the meaning of general terms. However, we can extend his treatment of meaning to these terms.

Keeping in line with the traditionalist's intension-extension distinction, Frege also distinguishes between the sense and reference of a name/term. It is the distinction between the mode of presentation of an object and the object presented; the latter being the referent of an expression, the

former its sense.

A possible question which might arise in this respect is regarding Frege's introduction of the notion of sense in addition to the notion of reference. The reason for introducing this notion of sense makes sense central to Frege's framework. Frege introduces the notion of sense while considering identity statements involving pairs of descriptive expressions which uniquely specify the same object. This point can be explained by considering two kinds of true identity statements where the identity sign is flanked by proper names. To cite Frege's classic example, '(a) The morning star is the evening star'; and '(b) The morning star is the morning star'. What makes (a) true is the fact that the proper names concerned have the same bearer. Here, we should mention one fundamental assumption of Frege's theory which is that the meaning of a sentence is a function of the meanings of its constituent expressions. So the meaning of a sentence remains unchanged, if we substitute an expression occurring in that sentence with another expression with the same meaning. But now by this Fregean assumption (a) must have the same meaning as (b) which results from (a) by the substitution of a coreferential expression. But (a) and (b) cannot have the same meaning, for they differ in crucial respects: (i) (a) is a contingent truth, as it could have been otherwise, whereas (b) is a necessary truth; (ii) (a) is an a posteriori truth, as its truth can only be known by empirical investigation, whereas (b)

is an a priori truth; and (iii) (a) is an informative truth while (b) is uninformative.

The question is how could two sentences have the same meaning while differing in various respects? Frege's answer is that it is the difference in sense between 'the morning star' and 'the evening star', which accounts for (a)'s being contingent, a posteriori and informative while (b) is necessary, a priori and uninformative. Thus he primarily introduces the notion of sense for explaining the difference between two sorts of true identity statements.

Frege holds that expressions of natural language express senses, and through these senses only they refer to or stand for their respective referents. That is to say, in Frege's opinion the sense of an expression provides us with the route to the object, which the expression stands for. The route to the reference, according to Frege, is contained in some descriptive specification of the object. An object satisfying that description will be the object named. This description of the sense of a name is a part of its meaning, and is known or unknown by any speaker with mastery of the name concerned. Reference, thus, " does not form a part of meaning. Reference, so conceived, may be considered a consequence of meaning.

For Frege, the mere knowledge of the referent of a name

is not enough to know the meaning of that name. As Dummett puts it, "merely to know that a name has as its referent an object with which we are confronted, or which is presented to us in some way, at a particular time is not yet to know what object the name stands for" (Dummett, 1973, 545). We do not know this as we do not know "how to recognize the object as the same again", i.e., the associated criterion of identity. Sense supplies us with the criterion of identity and also with the criterion of application. Sense provides, as it has already been mentioned, some identifying description of the referent. Frege's semantic theory is based on two relations, one of the meaning sort and the other of the referring sort. However, the relation of the meaning sort assumes primacy since the relation of the referring sort is ultimately dependent on the criterion of identity which is provided by the relation of the meaning sort. Thus this central tenet of Frege's scheme can be condensed to his characteristic slogan 'sense determines reference'.

The centrality of sense in this framework, thus, is derivable from the fact that it is taken to supply the criterion of identity and that of applicability. In order to grasp the meaning of a name it is necessary to know the associated criteria of, identity and applicability. Frege's treatment of proper names explicitly exemplifies this. For example, we may take the term 'Aristotle' which, according to Frege, is logically equivalent to the descriptions like 'pupil of Plato', 'theteacher of Alexander

the Great', 'the philosopher who was born in Stagira', etc. And these descriptions will give us the 'criteria of identity' in the sense that the object which falls under these sets of description will be called by the term 'Aristotle'. In that way the sense of a name specifies a set of necessary and sufficient conditions to fall under its expression .

Following this discussion, we can formulate Frege's treatment of the meanings of natural kind terms. Natural kind terms are general terms. In Frege's framework we can trace two slightly different concepts of sense that a general term can get attached to. As Dummett (1973, 548-50) observes, there can be countable general terms whose sense will involve criteria of application as well as criteria of identity. On the other hand, there can be uncountable general terms whose senses get exhausted in the attached criteria of applicability only. Geach in his *Reference and Generality*, has accused Frege of not having made this distinction explicitly. But since it lies beyond the scope of this thesis I would take it that for Frege all general terms have univocal sense. However, it really does not make much difference for my conclusion here. In this view, the meaning of a natural kind term say, 'lemon' is given by specifying a set (conjunction) of properties which will give us the necessary and

3

Frege's treatment of proper names is subject to alternative interpretations. Notable in this respect are the writings of Searle, Kripke, Wittgenstein etc. Depending on their varying interpretations of the criteria of identity and application, they propose disjunctive or conjunctive theories of names.

sufficient conditions for membership in that class (i.e., the class of objects called 'lemon').

Keeping the centrality that is assigned to meaning in mind, we should now give a detailed exposition of the Fregean notion of sense (Sinn) which is nothing but meaning. This analysis assumes importance in the light of Putnam's criticism of Frege's theory. This notion of sense and its relation to reference have played a central role in the contemporary arena of philosophy of language. So, this notion is of immense importance as far as philosophy of language is concerned. We have already seen that according to Frege the sense of a proper name cannot be consisted in its having the reference that it has and that he argues for the existence of sense in terms of the notion of 'cognitive value' which constitutes its 'informative content'. The sense of a proper name or any referential expression is something that forms a part in any belief whose expression involves that term or expression. The sense of a term supplies a concept and the denotation or referent of that term is identified as something that uniquely satisfies that concept. Tyler Burge (1979) has talked about three different functions that Frege's notion of sense is asked to carry out. Following Nathan U.

In analytic philosophy the semantic aspect of sense is taken into consideration. But for our purpose here we can take the other two functions of sense also into account. The failure to see the inherent psychologism in Fregean philosophy can be ascribed to the analytic philosophers' failure to focus on the other two functions of 'sense' in addition to treating it as a semantic notion.

Salmon (1982) we can outline these three distinct functions or properties of sense as Sense.. Sense , and Sense ;

Sense ; Sense is taken here as a psychological or conceptual notion. This is a purely qualitative property, i.e., the conceptual representation of an object which any competent speaker of a language associates in a particular way with his or her use of the term. This notion of sense is something which a subject "grasps" or "apprehends" and in this way it has only conceptual ingredients .

Sense,: This is a semantic notion. We have already noticed that Frege's semantic theory is based on two sorts of relations and one of them is of the referring sort. That is to say, sense provides us with a mechanism by which the reference of the term is secured. Sense gives us the route to the reference.

When sense is identified as 'psychological' under Sense,, it, by no way, means that Sense. of a term is like a private subjective expression (e.g. images), accessible to the mind of only one subject. This is because Frege makes a distinction between his concept of sense and the concept of mental images. Sense, in any form, is supposed to be something which is 'objective', i.e., intersubjective in the sense that it is graspable by different subjects and by the same subject at different times. Similarity for Frege, senses are immutable (Dummett, 1973). For him, the sense of a term can never be altered though two different senses can be attached to a term. Again, senses are timeless entities that neither come into nor pass out of existence. The reason which has been given by Frege is that otherwise we would be unable to maintain that anything was true at a time when there was no one to think about it. Because what we count as true or false is a thought, and if the existence of a thought depends upon its being grasped there would be nothing true at a time when there was no one who grasped it. So the thoughts, i.e., senses are to be regarded as eternal entities. Thus in being objective, immutable and eternal, Frege's notion of senses is comparable with Plato's Ideas.

Sense.: This is a cognitive or epistemic notion. This property of the sense of a term sense contributes to the informative content of sentences containing that term. This sense of a term forms a part of any belief expressed by means of the term, and is relevant to the epistemological status (a priori, a posteriori, trivial, informative) of sentences containing the term.

At an initial glance, it might seem that for any meaningful singular term, the Sense of the term is the Sense of the term is the Sense of the term. In Salmon's opinion, this three-way identification, which makes a rigid theoretical claim, is only possible in the cases of definite description in attributive use. It is true that we cannot say with certainty whether Frege would accept this three-way identification in the case of all proper names. But it should be accepted that the Fregean notion of sense, which is introduced as the mode of representation of the referent, soon becomes complicated by the diverse roles it is called upon to play. Sense is regarded as the route to reference, as the grounding for a competent speaker's understanding, as the informative content and more generally as the criterion of the same saying. All these diverse motivations speak for the central role that sense plays in Frege's framework.

The centrality of sense can also be made evident from the conception of language understanding which Frege's theory

holds. Frege maintains that the understanding which a speaker of a language has of a word in that language can never depend merely on his associating a certain thing with it as its referent. In addition to that there must be some means by which the association is worked out and the knowledge of which precisely constitutes the speaker's grasp of its sense. Understanding here consists of mere knowledge of sense or intension. Thus understanding of reference becomes only a consequence of the understanding of meaning. The evidence of the centrality attached to the concept of sense in this Fregean framework is Frege's denial of the fact that two terms can have the same senses but different referents. For Frege, as we have pointed out before, two terms can have same referents but different sense depending on our ways of conceiving the referent. For example, 'Morning Star' and 'Evening Star' have the same referent (Venus) while differing in meaning. But the Fregean scheme blocks the possibility of the reverse order, i.e., the possibility of two terms having the same sense but different referents. This possibility becomes counter intuitive in this scheme as sense only provides us with the route to reference,

### 1.1.3 Putnam's Reformulation of Traditional Theory

Before going into the reformulation which is provided in the light of Putnam, one point should be clarified. Here the principal aim is to examine the viability of traditional theory.

But a reformulation of this theory will give us better understanding into Putnam's criticism of it. So, we begin with the reformulation. In order to do that we subsume the whole of Frege's theory under two features, viz., mentalism and individualism. We will try to show Putnam's criticism against traditional theory as advanced against them. Thus this reformulation has a *methodological* rather than a *substantive importance*.

The centrality attached to the concept of meaning (sense) in the Fregean (traditional) semantic framework also results from its internalistic (mentalistic) account of semantic understanding and cognition. We have already noted that the theory of understanding here consists of mere knowledge of intension. We may now ask, how is any speaker going to learn the meaning of a term? It is possible by 'grasping' the intension. This grasping is to be ultimately involved in a psychological state. Frege himself insists that one gains access to the sense of an expression only by a special mental apprehension. For him 'grasping' or 'apprehending' a sense is a mental process and this is in some ways analogous to visual perception. Frege writes, "[A]lthough the thought does not belong to the contents of the thinker's [private] consciousness yet something in his consciousness must be aimed at the thought" (ed. Strawson, 1967, 35). This evidently suggests that the grasping of a sense always essentially involves a directed mental/psychological experience.

But since understanding for them consists solely in grasping the intension and grasping is purely a mental act, understanding presupposes the existence of nobody other than the person grasping it. This points our attention to the 'methodological solipsism' presupposed by traditional theory. 'Methodological solipsism' can be taken as an outcome of the centrality that is attached to meaning (sense) in this framework. 'Methodological solipsism' of traditional theory is evident from the fact that in this theory understanding of an expression is regarded wholly internal, involving nothing in addition to the speaker but what is directly accessible to his or her mind. Similarly Salmon has pointed out,

A person's being in (such) a psychological state entails the existence of the person and perhaps of some things that are conceptual in nature, but nothing essentially or fundamentally external to the subject is involved. On the orthodox Fregean theory, the objects of thought consist solely of general properties that do not involve direct reference, and hence do not include non-intensional entities as constituents" (Salmon, 1982, 58).

Thus we can reformulate two basic assumptions of the traditional theory of meaning in the following manner: (i) to know the meaning of a term is to be in a psychological state and (ii) meaning of a term determines its extension or reference. We can attach to these premises the principle of 'methodological solipsism'. Keeping all these presuppositions in mind the traditional theory can be shown as consisting of the following two features:

1.1,3.1 **Mentalism:** This feature can be regarded as a direct outcome of traditional theory's ascription of centrality to meaning (sense). Traditional theory can be considered as mentalistic since this theory implies that whatever goes on *inside* a speaker's mind while grasping a term, is enough to determine the meaning (and in turn reference) of that term. Traditional theory of meaning considers the state of knowing the meaning of a term (say A) as exactly the same as the state of having a mental concept (i.e., to be in a 'psychological state, say S') • To be in a psychological state S is to know that it is the intension of A. This means that the psychological state S determines the intension of A. This intension (or the 'psychological state') in turn determines the extension (or the set of objects referred to) of the term as meaning determines reference. Thus the psychological state involved in grasping specifies a set of necessary and sufficient conditions to be fulfilled by an object to fall within the 'extension' of that term. Thus one may determine the properties (the necessary and sufficient conditions) which are included in a given sense by investigating the properties that are included in the psychological state of a subject in grasping the sense. The set of properties included in a sense in turn must uniquely determine the extension with respect to any possible world and time. Thus, according to this traditional view, the psychological state of a subject in grasping the sense of a term A must uniquely determine

the semantical intension as well as the extension of the term A. This can easily be seen as an expression of mentalism or psychologism as the psychological states are taken here to be the determining factors. We have already noted in the footnote 5 that Frege argues against the psychological interpretation of his theory on the ground that senses are objective entities, and, therefore, they are not subjective psychological states. But Putnam shows that the very act of grasping these so-called objective senses involves psychologism. The reason is that grasping is solely a mental act. This makes Putnam conclude that, "Frege's argument against psychologism is only an argument against identifying concepts with mental particulars, not with mental entities in general" (Putnam, 1975, 222). Thus, according to Putnam, the psychologism/Platonism controversy introduced by Frege is "somewhat like a tempest in a teapot",

1.1.3.2 Individualism: This aspect can be seen as a corollary of the internalist account of language understanding and is made explicit by Putnam's concept of 'methodological solipsism'. According to traditional theory, to know the meaning of a term is to 'grasp' its intension. But as has already been mentioned, since 'grasping' is solely a mental act, it presupposes the existence of nobody other than the person grasping it. Thus, meaning can be acquired fully in the privacy of one's own mental states.

#### 1.1.4 Putnam's Critique

Against this centrality ascribed to meaning (sense) in the Fregean framework, Putnam proclaims that 'meanings are not in the head'. In the framework of Putnam, the centrality is ascribed to reference and to extra-linguistic fact. We will start with the problems arising from the mentalistic and individualistic scheme of Frege's semantic theory. In his criticism Putnam confines his discussion of traditional theory to providing a satisfactory analysis of the meaning of natural kind terms. For the sake of brevity we will confine our discussion mainly to natural kind terms, although with the help of Kripke's theory, this discussion can easily be extended to the treatments of proper names and other terms.

The consequence that follows from the above reformulation of traditional theory is that a psychological state of a speaker in grasping a word determines the intension and this intension further determines the extension of that term.

Against the mentalism of traditional theory Putnam offers his Twin Earth argument to point out that extension can never be determined by psychological states. Because "it is possible for two speakers to be in exactly the *same* psychological state . . ., even though the extension of the term A in the idiolect of the one is different from the extension of the term A

in the idiolect of the other" (Putnam, 1975, 222).

Thus, to show that 'meanings are not in the head', Putnam has given the highly imaginative Twin Earth argument with the help of a little science fiction. We may imagine that there is a distant planet exactly like Earth in every respect except in some minor points. Following Putnam we may call this imaginary planet 'Twin Earth'. This 'Twin Earth' differs from Earth in some respects due to some peculiarities of 'Twin Earth'. We now imagine that on Twin Earth in place of water there is a different liquid which is superficially indistinguishable from water on Earth. This liquid has a long and complicated chemical formula and for the present concern it is abbreviated as XYZ. We also imagine that for every speaker on Earth (e.g.,  $S_1$ ) there is an exact counterpart or *Doppelgänger* ( $S_2$ ) on Twin Earth whose mental biography is qualitatively the same as that of the given Earth speaker ( $S_1$ ). Specifically, we can even imagine that "the same course of non-relational mental associations, events and images run through the minds of any given Earth subject and his or her alien counterpart" (Salmon, 1982, 67).

Now, if a spaceship of Earthians goes to Twin Earth, they will, at first instance, think that 'water' has the same meaning on Earth as well as on Twin Earth. But after discovering the difference between water (Earth water,  $H_2O$ ) and water (Twin Earth water, XYZ) in terms of their chemical composition, the

Earthian will say: "on Twin Earth the word 'water' means XYZ".

On the other hand, if a spaceship from "Twin Earth" visits Earth, they will come up with the observation that, "on Earth the word 'water' means H<sub>2</sub>O".

In 1994 with the help of advanced chemical theories, it is possible to say that "on Earth 'water' means H<sub>2</sub>O" and "on Twin Earth 'water' means XYZ". But we can very well think of 1790 when these chemical compositions of both the water of Earth and Twin Earth were unknown to us. But even then by 'water' on Earth we meant H<sub>2</sub>O and on Twin Earth we meant XYZ. As has been mentioned earlier, these two planets are identical in almost all respects and an Earthian can find his counterpart on Twin Earth. It has also been imagined that when an Earthian S and Twin Earthian S<sub>2</sub> use the word 'water' they are in the same psychological state because they understand them on the basis of their indistinguishable phenomenal features in the absence of the developed chemical theory. But in fact S. understands H<sub>2</sub>O when he says 'water' and S<sub>2</sub> understood XYZ when he says 'water'. Thus the extensions of these two 'waters' of Earth and Twin Earth are different even though the speakers' (S<sub>1</sub> and S<sub>2</sub>) psychological states in grasping these waters are the same. It follows, then, that extension of the term 'water' is not a function of the psychological state of the speaker by itself. Meanings, if understood properly, as Putnam observes, are not just in the

head. Hence, meaning does not determine extension. "Even given the meaning, whether something is a lemon or not, is, . . . ., a matter of what is the best conceptual scheme, the best theory, the best scheme of 'natural kinds'" (Putnam, 1975b, 142).

This Twin Earth argument also shows that the conception of the invariant sense of traditional theory falls short of a viable semantic component. It is a general requirement of a semantic framework that it identifies an unique referent for a term/name. In the framework of traditional theory the component of sense, due to its centrality, is supposed to provide this uniqueness. But this sense invariance fails to capture the 'uniqueness' of the reference identification as with the help of the Twin Earth argument we can show that there is nothing in the sense theory which can block the term 'water''s getting attached to both H<sub>2</sub>O and XYZ<sup>6</sup>.

Again, the primacy that is attached to the criterion of identity as specified by sense in this sense theory renders any statement of meaning analytic. The reason is, this framework equates meaning with sense and then reduces sense to a set of exhaustive (necessary and sufficient) conditions. So the

Putnam's original argument maintains that 'water' gets attached to H<sub>2</sub>O and XYZ in two different Earths. But with the help of an example provided by S. Boer (ed. B. K Matilal and J. L. Shah, 1985, 103-150) we can show that even in the same Earth 'water' might get attached to H<sub>2</sub>O and XYZ if we accept the sense invariance provided by traditional theory.

statement of meaning becomes analytic. This is also because the set of properties associated with the sense of a term becomes logically synonymous with the term. In Putnam's words,

In the traditional view, the meaning of, say 'lemon', is given by specifying a conjunction of *properties*. For each of these properties, the statement 'lemons have the property P' is an analytic truth; and if P, P, ..., P are all the properties in the conjunction, then 'anything with all of the properties P, ..•, P is a lemon' is likewise an analytic truth (Putnam, 1975b, 140).

If meaning can be given in terms of analytic definition, then these statements of meaning should express a truth that is both necessary and knowable a priori.<sup>7</sup> And to say that a statement is necessarily true is to say that in discourse about counterfactual situations the term 'lemon' must apply to just those things, whatever they may be, that have all the features mentioned in the meaning statement. There can be no possible worlds, in which lemons, properly so-called, lack these features and in any possible world anything that has all these features is by definition a lemon.

But we can very well think of a few abnormal members of a class which are produced due to some change in conditions or in some other parts. The problem with traditional theorists is that

This point is also reiterated in Putnam's later writings (e.g., "Why is a Philosopher?" (Putnam, 1990a) where he has attributed the problems of traditional conceptualism to its aprioristic nature.

they cannot accommodate the existence of abnormal members of a natural kind within the range of its theory. Putnam gives examples of these cases and argues: 'A three-legged tiger is still a tiger', 'A green-colored lemon is still a lemon'.

One of the implications of the traditional theory is that the preservation of the distinction between the disagreement about the meaning of words and the disagreement about the facts is a prerequisite of the sense invariance of this semantic framework. One of the major defects coming out of this distinction is that it rules out the possibility of accommodating scientific change within this framework. But we can imagine that, owing to some scientific discovery, the things we have been

o

calling cats turn out to be robots controlled from Mars . The robot cats obviously do not have any of the normal properties of an animal cat. Thus it is conceivable, without involving ourselves in contradictions, that cats may lack the properties mentioned by the traditional theorists, as being analytically tied to the term 'cat'. But if these sentences expressed analytic truth, to conceive cats as robots would involve contradictions. The unavailability of an explanation of scientific change is also derivable from another consequence of the centrality of sense. We have already pointed out that the sense of a proper name or any referential expression forms a part

<sup>8</sup> This, like the Twin Earth argument, is a widely used argument of Putnam.

in any belief whose expression involves that term or expression. This indicates that the sense of a term should remain invariant under normal process (both scientific and nonscientific) of belief fixation. This aspect of sense invariance thus rules out the possibility of accommodating the results of scientific change. The traditional theory, due to its sense invariance thesis, is forced to maintain that as a result of these discoveries cats cease to exist. But from the point of view of our everyday linguistic practice as well as our scientific practice this conclusion sounds counter intuitive. These considerations indicate that the sentences expressing meaning can never be analytic. They express propositions that are neither necessary truths nor truths knowable a priori.

This same distinction between disagreement about meaning and disagreement about facts also blocks the way of meaning holism within the scope of the framework of traditional theory. The very nature of meaning through sense requires that each sentence be given independent truth-value. Because the meaning of a declarative sentence is taken to be the associated thought and this thought is taken to be providing the route to the truth-condition which is the referent. So, there is no problem whatsoever in this scheme to relate a sentence independently to the range of experience that confirms it. So

<sup>9</sup> J. Katz has explicitly stated this.

there is no need and also scope of holism in this framework. The highly questionable distinction between analytic and synthetic truth can also be shown as an outcome of this meaning invariance thesis of sense theory. Moreover, after the publication of Quine's 'Two Dogmas of Empiricism', the holistic nature of knowledge (scientific and linguistic) has been widely accepted. So if we take holism as a fact of our language use, then the major lacuna of the sense invariance of traditional theory can be identified as its failure to accommodate holism. This is due to its analytic meaning statement which results in the absolute nature of semantic invariance.

Against the 'individualist hypothesis' of traditional theory, Putnam proposes his notion of 'division of linguistic labor'. By this notion he establishes the fact that reference and meaning are social or 'collective' phenomena. So any semantic scheme, which fails to take note of this fact cannot be considered as a correct model of semantics. We can explain this concept of 'division of linguistic labor' with the help of the example of gold. In our community gold is important for many reasons. It is a precious and monetary metal, it is a metal which many people like to wear. In our community some people wear gold, some people sell gold, some people are engaged in the job of telling whether or not something is really gold. To say this is not to say that these categories are strictly exclusive in the sense that the person who wears gold cannot sell gold. We

are considering it as if it is the 'job' of some people in a community to wear gold and that of some to sell gold and so on. But it is a fact about our society that whoever buys or wears gold or discusses 'gold standard' cannot tell whether something is really gold or not.

Putnam explains this fact by introducing a distinction between acquiring the use of the term 'gold' and acquiring the method of recognizing whether something is gold or not. In order to communicate in a society one has to acquire the use of a term. A speaker can do so by acquiring the basic normal characteristics (i.e., the stereotype) of the kind that the term represents. But this does not mean that every speaker has to acquire the methods of recognizing whether something belongs to that kind or not. Methods of recognition are a matter of empirical scientific investigation and a few speakers of a linguistic community (the scientific experts in that field) are able to acquire those methods. In case of doubt about the true extension of a term, a normal speaker can depend on the experts in that field who have acquired the methods of recognizing whether or not a thing belongs to a class. The experts, in turn, determine the extension by conducting different tests. By using those tests they will tell whether a thing belongs to a kind or not. But these tests do not form a part of meaning. Different experts might use different tests. The difference in tests does not matter so long as they pick up the same set of objects as the

extension of a term. An expert can select a particular test depending on his convenience, the advancement of scientific findings, etc. As Putnam concludes, "[T]he test isn't part of the meaning; but that there be some test or other (or something, e.g. a sample, from which one might be derived), is necessary to preservation of 'the normal usage'" (Putnam, 1975b, 151).

All these aspects are there in a language which is considered as a collective body. But in Putnam's opinion, language or linguistic community divides the 'labor' of acquiring and knowing the use and the extension into two parts. The way of recognizing the extension possessed by the expert is very much a part of the knowledge possessed by the collective linguistic body, even though it is not possessed by each individual of that community. Thus, for example, advanced scientific theory about a term may fall under the social meaning of that term without being known to all speakers who acquire the term. Putnam observes:

Every linguistic community exemplifies the [] division of linguistic labor...: that is, possesses at least some terms whose associated 'criteria' are known only to a subset of the speakers who acquire the terms, and whose use by the other speakers depends upon a structured cooperation between them and the speakers in the relevant subsets (Putnam, 1975, 228).

Frege's individualistic framework, in missing this 'cooperative' aspect of our language use flounders as a satisfactory explanation.

#### 1.1.4 Neo-Classical Theory: An Attempt to Restore Meaning Centrality

Recently in the tradition of transformational generative grammar, an attempt has been made to restore the centrality of meaning by showing the limitations of the criticisms advanced by new theorists against traditional formulation of meaning centrality. The attempt made by J. Katz in his formulation of neo-classical theory of reference may be particularly mentioned. However, note that this attempts can never be taken as independent from the traditional approach to meaning. It is a mere variant of the traditional theory. Thus my attempt will be to show that the criticisms which hold against traditional theory are equally applicable to the theory of Katz.

Katz accepts the lacuna of traditional theory in specifying a priori the criterion of identity for the application of a term. This lacuna is ascribed to traditional theory's failure to differentiate between the empiricist approach to language and a rationalist approach to meaning. Language is taken as a historical entity in the traditional theory. Katz, on the other hand, offers a rationalist approach to language and as a part of it he introduces the linguistic distinction between type and token. The level of type is confined to the level of grammar and at this level semantic competence is purely determined by the speaker's knowledge of syntactic and

phonological features of the language. Thus meaning, at the level of type, does not 'appeal to extensional notions like applicability or truth' (ed. French et al, 1979, 107).

With the help of this above mentioned improvement on traditional theory Katz tries to show that the counter examples given by Putnam apply only to the level of token of meaning and reference. The reason is that, these examples depend on the presupposition of language as historical. But at the level of type we can still maintain without contradiction that meaning determines reference. Against this attempt of Katz we can propose the following criticisms:

(1) The mentalism and individualism of traditional theory can be traced even at the level of type, since this level keeps the mentalistic premise, i.e., of meaning determines reference intact. We can follow Putnam in maintaining that Katz has merely presented the traditional theory in an ornate garb.

(2) Katz accepts 'division of linguistic labor' as a fact of language use. But any model which ascribes centrality to meaning is individualistic in nature. Because, if understanding consists of only knowledge and that knowledge is encapsulated in meaning, then any person can acquire that knowledge in the privacy of his mental states. So individualism results as a direct outcome of this model. Thus Katz's semantic framework fails to account for a fact which Katz himself accepts as a feature of our language.

(3) The differential device of type-token renders the class

(extension) of type reference, at least in the case of natural kind terms, empty. With the help of the Twin Earth argument we can argue that the meaning attached to each natural kind is empty. This follows from Katz's conclusion that if cats turn out to be robots controlled from Mars then there is no cat. Similar thought experiments can be extended to all natural kind terms with the consequence that all of them become empty. This concept of empty reference does not serve any philosophic purpose.

(4) Katz accepts Mill's distinction between the meaning of proper names and general terms. For him proper names are like indexicals and therefore devoid of any meaning content. He accepts a system of direct reference for them. But as natural kind terms (and also artifacts) are shown to be indexicals by Putnam, we can treat them as proper names even in the framework of Katz, So the attempt of neo-classical theorists fails to restore centrality of meaning. Thus Katz's attempt, as mentioned earlier, is not a new departure from traditional or Fregean approach to meaning. The reason is that it retains the basic shortcomings of the Fregean model.

#### 1.1.5 Reference as Central

Putnam's critique of the traditional theory shows that the psychological states of grasping the meaning of a term do not determine its reference. But the question arises of how reference is determined, if not by the associated sense.

Putnam's reply to this question is contained in the constructive side of his semantic theory. On the constructive side of Putnam's theory of meaning, we get his anti-mentalist 'causal theory of reference' and his anti-individualist notion of 'division of linguistic labor' and his unique conception of language understanding and semantic competence. These are aspects of his semantic framework which ascribe centrality to reference. The criterion of identity and applicability are supplied here by his notion of invariant referent. The criterion of identity is encapsulated in the sameness of its reference. Likewise the criterion of identity and applicability of a term is also provided by the sameness of its reference. To present Putnam's causal theory of reference in a nutshell: reference of a term is fixed by an initial 'introductory event' where the term is 'dubbed' onto the object for the first time. This reference is then carried on through a 'causal chain', to use Putnam's phrase, which links every future use of a term to its initial 'dubbing ceremony'. Later generations share this reference by being causally connected with this initial 'dubbing ceremony'. The concept of causal chain, thus, plays a very important role in Putnam's scheme.

The position will be even clearer if we approach it from the point of view of what constitutes linguistic

Donnellan's discussion on descriptive expressions with referential use makes this point explicit.

understanding in this framework. In the case of the traditional theory, as a result of its sense invariance, understanding is explained solely in terms of knowledge, viz., knowledge of intension. But, for Putnam, the concept of linguistic competence is not a mentalistic notion. Linguistic understanding or competence is not a matter of unalloyed knowledge. In this respect he differs from traditionalists and linguists like Chomsky. Linguistic competence consists, as Putnam observes, in the ability to strike the right sort of relationship to certain situations. The right use of a term has to be related to a situation in which the referent of the term is present, i.e., the initial 'dubbing ceremony'. The associated conceptual content of a term/name does not play any role in this initial 'dubbing ceremony' of term introduction. Even if we accept that the associated conceptual content sometimes helps us in picking up the reference, it never provides the ultimate identifying description. Knowledge of the meaning of the term therefore does not necessarily include any conceptual content. To understand the meaning of a term is to be a part of the causal chain, which is after all a social chain, associated with the use of it. This point has twofold implications - firstly, it implies that this framework ascribes centrality to the referent (object or class of objects) involved in the initial dubbing ceremony; secondly, it implies that language understanding has a social or collective nature. Putnam's famous concept of 'linguistic division of labor' is an expression of the social aspect of his direct theory

of reference. In our section on Putnam's Critique, we have discussed the notion of 'linguistic division of labor' at length. It is to a critical discussion of causal theory of reference that we now turn our attention.

According to Putnam, as we have already seen, the referent of a term provides invariance to the semantic framework related to it. The question before us is how this reference makes available the criteria of applicability and identity. Such criteria are explicated in terms of two factors: one is the object or a sample of object involved in the initial dubbing ceremony and the other is the contribution of final sciences. The initial 'dubbing ceremony' serves as the paradigm for future use. This factor of paradigm also includes the aspect of locality by maintaining that the paradigm should be from our environment, something which our forefathers confronted while introducing the term. Final sciences make this contribution by determining the nature of the referent of a term. Thereby they determine the nature of the sameness relation that holds between a present use and an initial or other use. These two factors point to the two components of causal theory of reference. The first component that refers to the initial 'dubbing ceremony' and the causal chain that connects a present use of a term to the initial use of it is discussed in the subsection, 'Indexicality and Paradigm'. The second component, viz., the contribution of final science is dealt with in the subsection 'The Contribution

of the Final Science'.

#### 1.1.5.1 Indexicality and Paradigm

Putnam equates natural kind terms with indexicals. By indexicals, we commonly refer to the words that change their extensions from context to context. 'Here', 'Now', etc. are examples of such indexical terms. However, as Putnam notices, nobody has ever tried to apply the view of traditional theory that 'intension determines extension' to these indexical terms. This is for the obvious reason that no such attempt is possible. We can make this impossibility explicit with the help of the Twin Earth example. In that example, we have assumed that each one of us on Earth has a counterpart (*doppelgänger*) on Twin Earth. And that each Earthian has exactly the same mental make-up as his counterpart on Twin Earth. So, when I think on Earth, that 'I have a headache', my counterpart on Twin Earth also thinks 'I have a headache'. But the extension of the particular token of 'I' is different in both these Earths. In my verbalized thought the extension of 'I' is myself, whereas the extension of the same token of 'I' in my *doppelgänger's* verbalized thought is himself. Thus the same word 'I' has two different extensions in two different idiolects and since we (myself and my *doppelgänger*) are in the same mental state in having the headache, we cannot say that the concepts or meanings associated with that word are different. Putnam, through this

example, succeeds in showing that the two assumptions of the traditional theory of meaning – viz., (a) words have intensions and (b) intension determines extension – fail to be true in the case of indexical terms.

Putnam summarizes his semantic theory about natural kind terms by maintaining that they (natural kind terms) "have an unnoticed indexical component". The indexicality of Putnam's theory can be derived from two aspects of his scheme. Firstly, the reference here is determined by tracing a causal chain back to the initial dubbing ceremony that serves as the paradigm. Secondly, it is maintained that the paradigm has to be local. This is the implication of the contribution of the environment. By environment here, Putnam also refers to the nature of the things (i.e., kinds) themselves. In the example of 'water', the nature of water (H<sub>2</sub>O) fixes the reference of 'water'. This indexicality is further clarified by the fact that "... the entire society" as "embedded in its environment" (Putnam, 1990a, 110) fixes the reference. Thus, for any sample x, we say that x is water only if x bears the relation of *sameness* to the water *around here*. Putnam's view that natural kind terms are indexical and Kripke's view that they are rigid designators can be regarded as two sides of the same coin

It should be remarked here that Kripke's talk of rigid designator is essentially related to his notion of possible world. A kind of necessity thus follows from the possibility of identifying same referent (rigid designator) across different possible worlds. Putnam, in his "The Meaning of 'Meaning'",

But critics like Zemach (1976) have pointed out that the phrase 'around here' fails to take care of a few serious difficulties in new theory. To name a few:

- 1) We do not and cannot know the correct reference of any substance term as we are not in a position to determine which particular case served as the paradigm in the initial instantiation.
- 2) Given a defective historical paradigm, we would be forced to deny some *conceptually necessary* proposition like "our prime example of 'water' is water".

About the second criticism, following Boer, we can say that it is based on too strict a reading of the new theory. This criticism seems to presuppose that a "*single* historical episode of ostensive dubbing *infallibly* fixes the extension ..." (Boer, 1985, 108). But there is no such infallibility involved here.

While explicating this point, Boer calls our attention distinguishes between metaphysical necessity and epistemological necessity and maintains that natural kind terms have metaphysical necessity, whose negation is rationally conceivable. But Putnam clarifies his position further in his recent publication, "Is Water Necessarily H<sub>2</sub>O?" (1990). He identifies metaphysical necessity with 'physical necessity' (1990, 56-7) which has no element of inconceivability. He also distances himself from Kripke especially by giving up all talk about the possible world (Putnam, 1990, 69). Talk of the possible world is not a prerequisite for Putnam's semantic scheme due to its empirical nature. As Putnam writes in "Why is a philosopher?" (1990a), 'no metaphysical glue' fixes the reference.

to a very illuminating point involved in all the initial naming ceremonies. He says that our initial user (i.e., dubber) does not work in a *vacuum*. But his use of a term in the initial naming ceremony is assisted by his experiences with the particular object concerned on different occasions and a *battery of referential intensions*. Before introducing the term, he has a clear picture of the different features/properties of the object which he wants to bring under one name by the introduction of the term. Thus, "the demonstrated sample is just a heuristic device to focus his own and the audience's attention . . . .The paradigm sample thus plays a purely derivative role" (Boer, 1985, 109). Thus, even if the paradigm sample is XYZ, since the liquid, the acquaintance of which on different occasions leads the initial user to such a naming ceremony, is H<sub>2</sub>O, we will conclude that all other subsequent uses of 'water' refer to H<sub>2</sub>O and not to XYZ.

Still it may be imagined that the initial dubber lived in a place filled with XYZ instead of H<sub>2</sub>O which resulted in his being acquainted with only XYZ. Does this mean his use and all subsequent uses of 'water' refer to XYZ? This criticism can be countered by maintaining that the new theory does not make any claim that a *single historical* event serves for the introduction of the term. As Kripke observes, there may be different independent dubbing ceremonies in the case of natural kind terms. It can be interpreted as making a 'weaker claim' that there are a number of historical introductions of a term such that every

subsequent use of that term "has its extension fixed by some such introductory event or other" (Boer, 1985, 109).

In fact, the objection raised by Zemach is against the very possibility of our current uses of a term as stemming from a defective initial dubbing. Such a possibility can never be ruled out *theoretically*. But practically we tend to *readjust*<sup>12</sup> our uses of a term within our speech community. New theory does not prevent us from any such 'readjustment' as the meaning statement here is not analytically associated with the term. The contingent and empirical nature of Putnam's conception of language and meaning uniquely makes room for such readjustments. Such a readjustment takes place where (i) the associated stereotype is fairly detailed, (ii) the object plays an important role in the speech community and moreover, where the speech community uses the same word to refer to different objects at different times. For example, 'water' is initially associated with XYZ and then its referent is shifted to H<sub>2</sub>O. On the other hand, where the stereotype is vague, and is associated with a socially unimportant substance, there are more chances of retaining the historical usage and accepting a change in the present use of the term.

In order to answer the first criticism, we all have to

12

Such readjustments are implied and also governed by the principle of benefit of doubt, which Putnam takes as regulative of any viable philosophy of language.

be clear about what we mean by 'knowing the correct reference'. If we mean knowing the totality of stuff which bears the sameness relation to the stuff which is initially dubbed by the term, then we can fairly maintain that we do know the reference. Zemach's problem comes as for him knowing reference equals to knowing 'decision procedure'. Knowing the reference amounts to the decision as to the proper application of the term, provided by the associated 'intensions'. As new theory fails to do it, so the critics maintain, it should be rejected.

But in the case of the terms with strong stereotype, we tend to *reintroduce*<sup>13</sup> them (if necessary) depending on the local samples. So there remains a good chance of our knowing the reference of such terms as we fix their reference by continually reintroducing the term by means of local paradigm. In the case of terms (e.g., 'elm') with less strong stereotype and of lesser social interest, we tend to follow the initial *single historical* dubbing. But due to their unimportance in speech community, we are not willing to assert that they *must* apply to such and such local things. It may be objected that this sort of redubbing or readjusting undermines the unity and continuity of reference, theoretically, as we do not depend on a single initial naming ceremony. But practically we can make room for unity and continuity within a given speech community over a long period of

Such reintroductions are obviously versions of the readjustments that a speech community makes in its use of a term.

time, as

bounded at the one end by an initial introduction of a term and at the other by a *de facto* redubbing under the collective pressure of autonomous referential intensions regarding local stereotypical stuff or things (Böer, 1985, 112).

But our usual formulation of new theory has to be emended as *prima facie*, it seems to exclude all the *theoretical terms* as it relies on the *observability* of the object in the initial naming ceremony. The emendation can be made by showing that the function of ostensive paradigm is only a *derivative* one. What the user has in mind (battery of referential intensions) under some description or other plays an important role. Such description might have an indexical component in order to provide the spatio-temporal framework within which the descriptive elements single out the intended subject. But we should make it clear that the descriptions are in no way synonymous with the terms used. *Reference fixation* is different from *synonymity creation*.

#### 1.1.5.2 The Contribution of the Final Sciences

This aspect of the new theory comes to the forefront when we try to determine the nature of the sameness relation mentioned in the ostensive definition of a term. It is said in the definition of 'water' that whatever bears a sameness relation to this liquid, while pointing to a glass of water, will be

water. The question arises: what sort of sameness, that is, sameness of appearance or of deep structure is being referred to here?

A possible reply might be that it is sameness of appearance that counts. It might be maintained that if one's psychological concept of 'water' is so loose as to include not only liquid samples of H<sub>2</sub>O but also liquid samples of chemical compounds distinct but superficially indistinguishable from H<sub>2</sub>O – i.e., imaginary compound XYZ – then the term 'water', at least for the speaker, does not designate H<sub>2</sub>O, but some general category of liquid with the features colourless, odourless, thirst-quenching etc., which would include samples of both H<sub>2</sub>O and XYZ. A challenger of the new theory might ask, why should we suppose otherwise? Of course, in 1994 almost everybody knows that a liquid sample is a sample of water if and only if it is basically composed of H<sub>2</sub>O. But in 1790, in the absence of any such advanced chemical theory, why should we suppose that the term water would properly apply only to samples of H<sub>2</sub>O and not of XYZ?

This sort of doubt cannot be answered simply by

14

In his early phase, Putnam takes micro structure of the paradigm of a kind to determine its nature. But in his later phase he prefers concepts of obeying the same set of laws, 'lawful behavior' (Putnam, 1990, 70) etc., to micro structure. As such niceties do not make any difference to the purview of this thesis, a detailed explication of them is not attempted here.

reproducing the initial argument for the theory of direct reference. The traditional theory bases itself on a conditional statement that if the term 'water' is descriptive in terms of the properties of being colourless, odourless, thirst-quenching etc., then the term 'water' must refer to any substance that happens to have all these properties. The direct reference theorist's denial of the consequence of this conditional consists in drawing a *modus tollens* inference. But the present doubt is over the question as to why we should not be performing *modus ponens* instead of *modus tollens* (Salmon, 1982).

Putnam attempts to get himself out of this doubt by presenting an alternative picture. We may imagine a person pointing to a glass of water and saying "this liquid is called 'water'". In this case his "ostensive definition" of 'water' is based on an empirical presupposition. This empirical presupposition is that the body of liquid he is pointing to bears a certain sameness relation to most of the stuff that he and other speakers of his linguistic community have called 'water' on different occasions. \* This presupposition becomes false if unknowingly instead of pointing to a glass of water he points to a glass of hydrochloric acid. In such cases he does not intend his ostensive definition to be accepted. Thus, we might say that ostensive definitions give us a *defeasible* necessary and

This point is reiterated in "Is Water Necessarily H<sub>2</sub>O?", where Putnam takes paradigm as defeasible (1990, 60).

sufficient condition for a membership in a class. In the case of 'water', this necessary and sufficient condition is that the liquid has to bear the relation Same<sub>r</sub> to the stuff in the glass to which the speaker is pointing and saying "this liquid is called 'water'". But this condition is based on the above mentioned empirical presupposition. Only given that the empirical presupposition is satisfied, we can say that the ostensive definition provides a defeasible, necessary and sufficient condition.

To ascertain the nature of reference invariance of this semantic framework, we should look into this sameness relation. What sort of sameness is it? How hard is it? Putnam holds that the sameness relation is a theoretical relation which is determined by scientific findings. But deciding sameness with the help of scientific discoveries naturally points to a precondition, viz., the sameness of appearance, which serves at the initial level of naming should *coincide* with the scientific sameness. But as the critics point out, in many respects, this is not the case. Consider, for example, the case of 'jade' as it is found to be associated with two different chemical compounds, viz., jadeite and nephrite. Under such findings, what should be the extension of 'jade'? Or should we maintain the counter intuitive conclusion that the extension of 'jade' is empty like that of 'unicorn'?

Again, how strict and uniform should this sameness be?

We may take Putnam's example of iron. Putnam says:

Consider an ordinary sample of iron. By the standards of high school chemistry/ it is 'chemically pure'. But it consists of different isotopes. . . . Any naturally occurring sample of iron ... will exhibit the same lawful behavior as any other ... . But if we use a cyclotron or some other fancy gadget from atomic physics to prepare a sample of iron which is mono-isotopic, that sample will - ... - behave slightly differently from a 'natural' sample. Should we then say that a hunk of iron consisting of a single isotope and a hunk of natural iron ... are two different substances or one? (Putnam, 1990, 68).

All these examples direct our attention to the interest-relativity aspect of the criterion of applicability provided by this reference invariance. Interest-relativity can be traced in both term-introduction and term-identification. We have already seen that every semantic framework presupposes that uniqueness in term-introduction be retained. We do presuppose while using a term that it will pick up a unique referent. But, as Boer (1985, 115) points out, this presupposition is not an 'indefeasible semantic presupposition'. We always readjust our usage following the scientific findings. This readjustment is largely interest-relative. In the case of 'jade' the different underlying traits of its referents are accommodated within the linguistic community with the help of qualification. What regulates the application of the qualification is our interest, that is, the purposes that are served by the use of the term. Depending on our social interest, i.e., taking the interest of jewellers into account, we use adjectivally qualified 'true jade'

for jadeite as opposed to nephrite jade. Acceptance of this interest-relativity, however, does not "amount to the admission that the original term failed to get any grip on reality". This tolerance is not unlimited. The 'openness' which is allowed to a term largely depends on the various purposes for which a natural kind term is introduced.

We can trace 'interest-relativity' even in term-introduction. We can differentiate between two kinds of 'desires' for introducing a term. One is the nonscientific desire of common people to talk about a number of things showing resemblances by using one single word. The other is the scientific desire that introduction of these terms should ultimately prove useful in formulating significant inductive generalizations, that is to say, it should perform explanatory functions.

In some cases, classification or grouping of things depending on these two desires coincide. But in some cases it does not. In the cases where final sciences provide determinate number of kinds of things or stuff that are exemplified in the paradigm class, we can still use the term with some added adjectival qualification\* But what will be the case with terms referring to biological species for which even scientists can offer different kinds of classifications or grouping? In the case of biological kind, viz., 'beetle' the extension of the terra

will depend on **'the determinate** principle for sorting the paradigm-class'. By **'beetle'** we usually mean several different kinds of insects. So the extension of **'beetle'** will depend on whether we want to refer only to the kind to which our present sample belongs (resulting thereby in a very narrow extension of **'beetle'**) or "the **'lowest'** taxon embracing all the individuals in the sample" (resulting thereby in an absolutely broad extension, as Dupre says "counting onions as lilies"). The decision depends on the interest of the decider

What makes room for interest-relativity in the framework of direct reference theory is the collective nature of the conception of language understanding of this framework. This collective nature is partly regulated by the **'principle** of benefit of doubt'. This principle says that we should grant the introducers or scientists who determine the nature of the referent of a term the possibility of **"reasonable** modification of [his] description" (Putnam, 1975a, 275). But the users of a term can also be granted this benefit of doubt from the point of view of **'significant'** use of the term. **'Linguistic** division of **labor'** maintains that in case of doubt an ordinary speaker can get his doubt clarified by an expert. But **this**, by no means, claims that the whole of common speaker's language is laden with **doubts**. Moreover, it points to the existence of scientific **and**

Putnam explicitly endorses all these **modifications** in his "Is Water Necessarily **H<sub>2</sub>O?**" (1990, 68-9).

nonscientific uses of our language and their interdependence. In most of the cases both these methods pick up the same referents. But interest-relativity takes care of the few instances where there is apparently slight difference between the common man's use and the expert's use.

We might now turn to Putnam's overall conception of meaning. He does not want to define 'meaning' by showing it as synonymous with the traditional notion of 'sense' or 'concept' or any other notion. He, instead, provides a description of meaning or to use his expression 'normal form for the description of meaning'. His proposal is that the normal form for the description of the meaning of a word can be given in the form of a finite sequence or 'vectors'. This description should include as its components the following aspects; (1) *the syntactic markers* that apply to the words, e.g., 'adjectives'; (2) the *semantic markers* that apply to the word, e.g., 'natural kind'; (3) a *description* of the additional features of the stereotype, if all of them are not contained in (2); (4) a description of the extension. This last component is, in a way, different from the other three components. The first three "represent a hypothesis about the individual speaker's competence<sup>1\*</sup>. But extension is a matter of scientific discovery. "It means that (*we say*) the extension of the term 'water' as *they* (the speakers in question) use it is *in fact* H<sub>2</sub>O" (Putnam, 1975, 269). In order to give a description of extension as a component of meaning description,

we present the extension (the set) not the description of extension. It is different in another very important way: we have already seen that it is reference which provides invariance here to the semantic scheme.

## 1.2 Underlying Realist Intuitions

This section tries to formulate in explicit terms the realist intuitions that underlie Putnam's theory of meaning of natural kind terms. Before going into the details, it is important to make clear the nature of realism that Putnam was interested in. Realism has never been a purely metaphysical doctrine for Putnam. Instead, realism is empirical here. Realism is conceived as presenting an empirical hypothesis (though not in the strict scientific sense of hypothesis) to explain the phenomena we observe (Putnam, 1975c, 21). Philosophy of language here takes the phenomena we observe as fact, and tries to explain such fact. Realism is called upon to furnish such explanation. Putnam in his "Why Is a Philosopher?", observes that his realism is different from the traditional realism which was held by the traditional theory of meaning. As he says, "[T]his (his new or direct theory of reference) kind of 'realism' goes with a more fallibilistic spirit in philosophy" (Putnam, 1990a, 110). Putnam thus proposes an 'explanatory inductivist' argument, which, in his later writings, is termed as an abductive argument. Keeping this empirical (explanatory)

nature of Putnam's realism into mind we can now proceed to formulate a few realist intuitions underlying Putnam's semantics of natural kind terms.

In "Language and Reality" (1975a), Putnam enumerates two principles, viz., the principle of benefit of doubt and the principle of reasonable ignorance as two methodological principles of any viable philosophy of language. These two principles govern Putnam's entire theory of meaning. These two are realistic in nature. A brief exposition of them will help us in deriving the realist model underlying the semantics of natural kind terms.

The first principle, the principle of benefit of doubt (hereafter PBD) points to two aspects of Putnam's theory of meaning, viz., 'causal theory of reference' and the 'linguistic division of labor'. These two concepts, as we have seen, together point to the fact that our use of language depends on a mutual social cooperation. But the most significant point here is that 'causal theory of reference' uses descriptions *contingently*, i.e., *only* to pick up the referent of a term and does not, therefore, consider it (description) as synonymous with the term. This phenomenon, thus, keeps it open for a name to be attached to a wrong description. An initial dubber might want to talk or refer to a certain object. But due to 'ignorance or inadvertence' the description which he uses might not hold true

of that referred object\* This is mostly the case with scientific terms. With our advancement in scientific findings we might come to realize that the existing description attached to a term does not hold for that object *in toto*. The PBD says that in such cases we should grant the dubber the possibility of 'reasonable modification of his description'. That is to say, we should give him the benefit of doubt that he wanted to talk about the same object as we do, but due to limited nature of scientific knowledge available, used a partially wrong description. For example, according to PBD we should assign the same reference to the term 'electron' which occurs in Bohr's 1900 and 1934 theories inspite of the slight change in the informative status of these two theories. Putnam maintains that this principle should be observed as it makes 'stable reference to theoretical entities' possible. The application of PBD is however not unreasonable. It is applicable to 'electron' but not to 'phlogiston'. The reason is, in the case of 'phlogiston' no 'reasonable reformulation' of its original description is available that can turn into a characterization of a kind of entity that we recognize.

The second principle, the principle of reasonable ignorance (hereafter PRI) takes into account two aspects of Putnam's theory of meaning, viz., 'division of linguistic labor' and the 'indexicality' or 'the contribution of environment'. 'Division of linguistic labor', contrary to common philosophical

assumption, shows that the knowledge of the meaning of a term need not amount to knowledge of its total meaning. Contribution of the environment says that 'paradigm' of a kind should be paradigm 'for us' that is, from 'our' environment. The 'actual nature of the paradigm' which is found in our environment has to be taken into consideration.

PBD and PRI, thus, have the feature of 'linguistic division of labor',<sup>17</sup> in common which posits that meaning is not in the head. But the difference between them is evident from the fact that while PBD asserts that meaning is not in the common speaker's head, PRI asserts that it is not in the head of the experts. They thus serve as two pillars of Putnam's social and natural theory of meaning.

The two principles mentioned above, which are

17

In a recent paper, James Beattie (1993) accuses Putnam of being inconsistent and parochial in his semantic theory. His charge of inconsistency assumes relevance here. He charges that causal theory of reference cannot consistently accommodate 'division of linguistic labor'. He attributes this inconsistency to the alleged tension between the nonhuman environment taken as the arbiter in the causal theory of reference and the human (expert) decision making taken as the arbiter in the 'division of linguistic labor'. But this charge depends on a misconception about Putnam's entire scheme. Philosophy has never been an impersonal, alienated affair for Putnam. This presupposition of Putnam, which remains latent in his early phase, is made explicit in his later writings. Our speech community as embedded in its environment is taken to fix the reference of a **term**. So there is no room for any tension of the Beattie kind. For this **same** reason, Putnam also does not need to take help of the suggestion of Devitt and Sterelny (1987) that 'division of linguistic labor' should be drawn in a physicalistic **term** and not in human terms.

themselves realistic in nature, cover the whole of Putnam's theory of meaning and point to a few realist intuitions. These can be enumerated in the following terms:

(1) The very use of PBD is to make 'stable reference' possible. In this manner it makes room for trans-theoretic terms, that is for 'terms that have same reference in different theories'. Acceptance of trans-theoretic terms is undoubtedly a realist intuition as opposed to the anti-realist conception of theory-dependence of scientific terms.

(2) PBD along with the acceptance of trans-theoretic terms point to another aspect of Putnam's theory, viz., 'convergence' of scientific terms and consequently, of scientific knowledge. This aspect points to the 'cumulative' or convergent nature of scientific knowledge, which forms a part of the explanatory realist model.

(3) Both (1) and (2) along with PRI point to a deeper aspect of Putnam's theory. This aspect consists of his acceptance of theory-independent entities or reality of which our theories give alternative descriptions. This is due to the acceptance of 'the contribution of environment' which says that the 'actual nature of these entities' (paradigm) shape our final meaning of the terms referring to them. This is undoubtedly a strong realist intuition. It would not be irrelevant here to mention that Putnam in his later stage of internal realism gives up this faith in theory-independent entities. In fact, this rejection is responsible for the charge of shifting stances against later

Putnam. Later, in this thesis, an attempt is made to argue that the aspect of 'the contribution of environment' (and with it the explanatory realist model) can be retained, notwithstanding the rejection of mind-independent entities.

(4) From (3) and PRI it may follow that realism underlying natural kind terms accepts an extra-theoretic (non-epistemic) concept of truth which consists of the correspondence to the mind-independent reality. This aspect, again, has been given up in the internal realist model.

(5) Apart from these two methodological principles, Putnam's theory of language understanding also implies a realist intuition. Understanding of language here, as has been mentioned earlier, expands beyond knowledge, namely to the state of being causally connected to an external situation, and thus points to a realist undertone.

The semantic centrality that is ascribed to reference in this early phase of Putnam is thus intimately related to a strong realism. It, in fact, derives much of its force from the realist principles of PBD and PRI. PBD, which Putnam takes as a regulative principle has a very wide implication in Putnam's entire writing as consisting of three phases. In the first phase PBD functions within a semantic framework. We have already noticed in our discussion that the reference here supplies the criterion of applicability. It thus assumes centrality. This centrality is further qualified as interest-relative in nature.

This interest-relative nature is made possible by the PBD. In the second phase, on the other hand, this PBD is applied to a wider scheme, viz., to the causal-explanatory hypothesis of realism. The interest-relativity that is inherent in this causal-explanatory hypothesis is also made available by PBD. A detailed discussion of this phase is offered in the next chapter.

## CHAPTER II

### FROM REFERENCE TO REALISM

#### 2.0 Introduction

The central argument of this thesis seeks to establish that reference remains central throughout Putnam's entire philosophical writings. In this direction, our previous chapter delineates the semantic centrality of reference as derived from Putnam's direct or new theory of reference which is proposed in the first phase of his writings. The present chapter concerns itself with the second phase of Putnam's writings. This phase, as mentioned in the introduction of this thesis, is marked by a change of focus. Instead of adopting a direct approach to reference as exemplified in the first phase, Putnam in his second phase adopts an indirect approach to reference. Realism, as would be evident from the title of this chapter, comes to the forefront at this stage of Putnam's writings\* Reference is considered here through its contribution to the empirical hypothesis of realism. The centrality of reference is likewise explained here in terms of its contributive function; that is to say, from its interplay with realism or with realist hypothesis.

This distinction between realism and realist hypothesis is crucial as the former functions as a metaphysical notion whereas the latter has an empirical nature.

It is in the light of this feature of Putnam's writings the interplay between realism and reference that this chapter assumes relevance for the entire thesis. This interplay which remains dormant in his first phase, is explicitly worked out in this second phase. The force of this interplay and especially the dependence of the nature of such interplay on the concept of reference are fully explicated in the internal realism of Putnam's final phase. This chapter, thus provides the link; it takes the reference of first phase to the final stage of internal realism. This chapter, therefore, devotes itself to a critical discussion of the precise nature of this realist hypothesis and its relation to reference and truth.

To delineate the nature of this realism of Putnam and its complex relation to the notions of reference and truth, this chapter has been divided into three sections. The first section makes explicit the precise nature of Putnam's realist hypothesis, viz., the empirical hypothesis of realism. In the second section, the relation of this hypothesis of realism to the notions of truth and reference will be critically examined. The third section explicates the interest-relativity of this realist hypothesis by explaining the interest-relativity of explanation as such and that of its constitutive notions of truth and reference. In so doing we will also bring out the nature of centrality that is ascribed to reference in this phase of Putnam.

## 2.1 The Empirical Hypothesis of Realism

One of the objectives of this chapter, as has been mentioned earlier, is to present realism in the fashion of Putnam as an empirical hypothesis. But we will start with a brief general discussion of realism which would help us see the empirical hypothesis of realism as against the background of realism as traditionally conceived.

The history of realism goes back to antiquity. It is 'as old as philosophy' itself. This maturity in age, however, has not given realism any specific form nor has it provided our talk of realism with any generally agreed direction. Realism is traditionally conceived as a system, as a world-view. In a nutshell, this thesis of realism holds that things exist independently of our minds. This thesis proposes to answer the main problems of epistemology as well as metaphysics, the two fields considered to be the principal components of philosophy in those days. Realism, epistemically construed, holds that the subject of our knowledge is the external world that exists independently of the human mind and more importantly, the validity of our knowledge ultimately depends on its correspondence with this external world. Metaphysically construed, this thesis maintains that the world exists independently of any human conception and therefore is not a product of human mind. A. Fine (1991, 80) calls this traditional thesis of realism 'epistemological-cum-metaphysical'.

This traditional way of conceiving **realism**, however, is not totally out of fashion in present day philosophy. One of its principal exponents in contemporary philosophical writings, viz., Michael **Devitt**, holds a view which is very similar to the traditional conception of realism. In our discussion we will specially focus on **Devitt's** arguments directed against the second stage of Putnam's realism. We take this special note of Devitt because of several reasons. First, Putnam himself has not paid much attention to this particular phase of his realism due to its transitory nature. The only work devoted to this phase in his work, *Meaning and The Moral **Sciences***, (1978). So we feel that the discussion of Devitt and the objection raised by him against Putnam can certainly bring out the various aspects and implications of Putnam's realism as advocated by him in his second phase. In this connection it may be further noted that there are other philosophical works which do recognize this aspect but in all these works this phase of Putnam's realism has been mostly discussed along with his internal realism. As a result the distinctive nature of this phase has never been adequately recognized. In this respect **Devitt's** work is perhaps the only notable exception inspite of its utterly critical and negative stand.

For Devitt (1991, 44), realism is a metaphysical thesis which is composed of two dimensions, viz., the existence **dimension** and the independence dimension. The existence

dimension answers the question, what are the things that exist? and the independence dimension refers to the question, how do they exist, that is, dependently or independently of any mind (human or superhuman)? The metaphysical thesis needs to be separated from semantic as well as epistemic issues as Devitt ascribes the '**sad state**' of present day realism to the failure of drawing such a distinction. This is the reason for **Devitt's** attack on Putnam's general construal of realism, as a faith in the correspondence theory of truth, which obviously is a semantic concept. Putnam, **thus**, Devitt (1991, 57) maintains, puts the semantic cart before the metaphysical horse of realism. But is any such sharp distinction between metaphysical and epistemo-semantic issues of realism available to Devitt? In the course of my argument, I shall show that Devitt has failed to preserve this distinction. In this respect, my argument against **Devitt's** position is twofold. In the first place, I shall reconstruct the metaphysical/epistemological distinction of Devitt in terms of another pair of distinctions. This new pair of distinctions will make explicit the untenability of **Devitt's** claim, namely, that the metaphysical thesis of realism expresses realism in its entirety. It will further argue that any adequate formulation of realism must incorporate both metaphysical and epistemological distinctions. Secondly, I shall argue how **Devitt's** own position on the metaphysical thesis of realism is not free from epistemological underpinnings.

The distinction between the metaphysical and the

epistemological theses of realism may be recast in the light of the suggestion offered by J. Bigelow and R. Pargetter in their article, "**From** Extroverted Realism to Correspondence: A Modest Proposal" (1990). In their work, they make a major distinction between what they call the extroverted and the introverted realism. These distinctions come close to the distinctions made by Devitt between metaphysical and epistemological theses of realism. Extroverted realism makes the claim that objects of our common sense as well as objects posited in different scientific theories exist. In **this** way it is reminiscent of the old-fashioned realism of traditional philosophy or of the **metaphysical** Realism of Devitt. Introverted realism, as the name suggests, is a result of an introverted or reflective mind where realism gets related to the semantic issues of truth and reference and the epistemological issue of knowledge. Even if we accept that extroverted realism precedes introverted realism, it does not by itself prove that extroverted realism can serve the philosophical purpose required to be served by any viable realist hypothesis on its own, without taking any help from its introverted cousin. One of the major objectives of any realist hypothesis is to quiten the anti-realist rival. Any attempt in this direction will seriously involve the correspondence theory of truth and reference. Devitt accuses the anti-realist of '**blurring**' the distinction between metaphysical and epistemological issues. But does this distinction help to save realism? As against Devitt my point is: the mere pointing out of this distinction between metaphysical and epistemological issues

will not serve the realist purpose fully. For that, the realist hypothesis needs to show what is wrong with anti-realist epistemology. A proper reply to the anti-realist should not only refer to the distinction but should also include the **problems** for the anti-realist even in the blurred state. This can be done only with the help of a discussion of the realist semantics, viz., its correspondence theory of truth. So with the imposition of this distinction, **Devitt's** Realist hypothesis not only becomes '**boring**', as most of the exciting issues are kept out of this hypothesis, but also becomes incomplete for the purpose of realism.

Secondly, there is a further problem with **Devitt's** distinction. As B. Taylor (1987) remarks, **Devitt's** independence dimension ('**independently** of the mental') '**smacks**' of epistemology. This independence dimension comes closer to Putnam's allegedly '**epistemic**' characterization of traditional realism as a theory that maintains that, "even an '**ideal theory**' could be false" (Bigelow and Pargetter, 1990, 442). Bigelow's preference for keeping this independence dimension of **Devitt's** metaphysical Realism out of the domain of extroverted realism further confirms the epistemic bearing of **Devitt's** formulation of metaphysical Realism. Thus **Devitt's** Realism is not as '**innocent**' as it appears to be.

**Quite**' contrary to Devitt and traditional philosophers, Putnam has never conceived of realism as an '**impersonal**'

world-view. We have already noted that realism has never been a purely **metaphysical** doctrine for him. Throughout **Putnam's** writings, realism is conceived of as an empirical hypothesis with explanatory purposes. The empirical nature of this hypothesis is a result of the revisability that is accepted in this scheme. Realism, construed in this fashion, is always called upon to explain certain facts. At the initial phase of Putnam's writings, the fact to be explained is taken to be the '**phenomena we observe**' (Putnam, 1975c). At the later stages, it is taken to be the success of science and that of total human behaviour and the realist hypothesis is constructed to explain this fact. The **empirical** hypothesis of realism is conceived of as causal-explanatory in this phase of Putnam. The significance of the term '**causal-explanatory**' will be made explicit later in this chapter.

The empirical realist hypothesis can be shown to depend on two separable but interdependent principles: viz.,

- (i) the explanatory principle: this hypothesis tries to explain the success of sciences and total human behaviour;
- (ii) the convergent principle: this second principle, which is **subsumable** under the wide purview of the first principle maintains that knowledge (scientific or otherwise) is '**cumulative**' in character and that this cumulative knowledge is explained by the empirical realist hypothesis.

The reason for making this distinction is to bring out the significance of two crucial notions, viz., that of '**success**' and

'convergence' in Putnam's empirical realist hypothesis. These two principles, viz., the explanatory and the convergent, make it clear that the empirical hypothesis of Putnam has the nature of a method rather than of an 'ism'. In fact, it is this nature of method which makes room for revisability and in turn attributes the empirical character to it. Following Enfield (1991), we may call it, the 'methodological realism' which concerns itself with the explanation of the success of total human behaviour and that of science also.

It must be evident from our previous discussion that the concept which plays a crucial role in an empirical realist hypothesis is the concept of 'success'. 'Success' having an appearance of an evaluative term stands in need of clarification. Laudan (ed. J. T. Cushing et al, 1984) observes that the logical positivists' rejection of any talk about success of science is due to their misconception that success is an evaluative term. But this is not the case. As Laudan rightly points out that there can be 'successful robbers', 'military campaigns' etc. By calling an action or event successful, we do not 'imply' any "endorsement of that activity" ( ed. J. T. Cushing et al, 1984, 87) . Success conceived in this way is a value-free descriptive concept.

Again, success is relational in nature. Without going into the detailed discussion involving the aims, needs and ends, of success we may define it in general terms as involving the

relation between a proposed set of outcomes and the actual outcome. This proposed set need not be conceived of in restrictive terms. It does not depend on any particular aim of the scientist concern, nor does it depend strictly on any common aim of the existing scientific community. This is because in scientific research it is a common phenomenon that many of the scientific discoveries (i.e., actual outcome) are not the fulfilled aims of the concerned scientific community. The proposed set of outcomes are projected by us as we reconstruct the process of scientific change to judge whether it is successful or not. It is 'we' who "typically impute certain goals to a highly idealized caricature of the scientist (or, even more abstractly, to science as an institution) and then ascertain whether science has achieved those goals" (ed. J. T. Cushing et al, 1984, 88). In determining the set of outcome, we take into account certain "cognitive attributes which we find specially interesting" (ed. J. T. Cushing et al, 1984, 88). Our concept of success thus becomes a highly interest-relative one. This interest-relativity is projected in the explanation of this success. Putnam is therefore right when he observes that explanation by itself is interest-relative and subsequently that our causal-explanatory realist hypothesis is also

2

This kind of success which is involved in the reconstructed theorizing is different from the mere predictive success that the instrumentalists speak of. The aim of the realist hypothesis is to explain the success of behaviour and science and not merely to predict the future events. Thus the charge that Putnam's convergent realism is a form of instrumentalism is far from being a proper charge.

interest-relative. So inspite of Laudan's charge that Putnam has taken the concept of success as 'primitive' in nature, much of Laudan's observations regarding 'success' can easily be accommodated in Putnam's empirical realist framework.

The second principle of our empirical realist hypothesis, as already mentioned, takes realism as convergent in nature. Convergence here refers to the convergence of scientific knowledge. Convergence of knowledge makes the preceding scientific theories 'the limiting cases' for the subsequent theories. It maintains that our different theories of science talk about the same phenomena or aspects of nature. Thus convergence of knowledge intimately depends on our regulative principle of benefit of doubt. PBD speaks of the possibility of identifying same reference across different theories. Such an identification, in turn, makes convergence of knowledge possible. This aspect of convergence is referred to as 'progressive success' by Devitt where he takes it to be an evidence for realism and not a constituent of it. For Putnam, however, convergent aspect becomes a constituent of his realist hypothesis. This is evident from his "Three Kinds of Scientific Realism" (1982) where he endorses 'convergent realism' against 'metaphysical realism' and 'scientific realism'. This convergence, as mentioned earlier, can be taken as a fact about scientific practice and therefore evidentially related to realism. It can also be taken as something implied by the success of our science. Putnam's criticism of anti-realism that

it leaves the success of science as a '**miracle**' **assumes** relevance here. Thus it becomes constitutive of realistic hypothesis. Convergent realism of Putnam (1978, 20-22) operates on two Boydean **principles**, viz.,

- (i) laws of mature sciences are approximately true,
- (ii) most of entities of mature science '**typically**' refer.

Putnam, following Boyd (1978), maintains that scientists behave the way they do because they believe in these two principles and their process succeeds because these two principles are true.

Related to this notion of convergence is the concept of causal-explanation, which also calls for our attention. At the outset, it should be remarked that for Putnam the explanation involved in the empirical hypothesis of realism is ultimately interest-relative in **nature**. But we will postpone our discussion of the interest-relativity of explanation to the last section of this chapter. Instead, we shall now focus on the concept of causal-explanation as it has been conceived in the **philosophers'** attempts to construe realism as providing an explanatory hypothesis.

The association of the concept of causal-explanation with the realist-anti-realist debate gained prominence in the twentieth century with the rise of logical positivists or empiricists, though this association dates back to the beginning

of these debates. Logical empiricists tried to explain causal-explanation solely with the help of the deductive model. According to them,

To give a *Causal explanation* of an event means to deduce a statement which describes **it**, using as premises of the deduction one or more universal laws, together with certain singular statements, the initial conditions (Popper, 1959, 59).

But later logical empiricists (**Hempel**, for example,) realized the limitations of this maneuver as explanation does not always warrant deduction. Deduction is not always the only relation between **explanandum** and **explanans**.

Then there is the problem with the insistence on observational data. This can be seen as a corollary of the **positivists' verificationist** theory of meaning that equates meaning of a sentence with the verifiability status of the sentence. This deductive model at best points to the fact that, as **Putnam** puts it, if theories of science "... are to be *better* than the theories they succeed, [they] must imply many of the observation sentences of the earlier theories (especially the *true* observation sentences implied by the earlier **theories**)" (Putnam, 1978, 20). Convergence that is available to a positivist is very minimal, as it does not include acceptance of the unobservable terms and likewise the scientific laws involving those terms. Thus this model fails to depict '**conservation**' as involved in scientific practice.

The other attempt at explaining the notion of causal-explanation involved in scientific progress **comes** from Kuhn who takes causal-explanation as '**crisis** followed by revolution'. Such revolution consists of the '**overthrow**' of the existing model which is '**replaced**' by a totally new paradigm or model. Kuhn thus rejects convergent realism and also the cumulative nature of knowledge.

For Putnam, **causal-explanation**, as has been mentioned already, points to the success of **science** and also to the convergent nature of scientific knowledge as well as progress. Such explanation is called '**causal**' as it involves reference to the ontological existence of the things taken to be explanatory. As McGinn (1979) maintains, it points to a distinction between the **explicandum** (success) and *explanans* (ontological existence of things). Realism is called causal-explanatory as it gives explanation of the success of science and convergence of knowledge by positing existent objects (observable and unobservable). The two Boydean principles, viz., that of reference and truth constitute this causal-explanatory thesis of realism.

But it is argued that this '**explanationist defense**' of realism is "a paradigm case of begging the **question**" (Fine, 1991, 82). To elaborate in the fashion of Fine,

For the issue under discussion in judging realism in this debate is precisely whether explanatory success provides grounds for belief in the truth of the explanatory story. To use explanatory success to ground belief in realism, as the explanationist defense **does**, is to employ the very type of argument whose cogency is the question under discussion (Fine, 1991, 82).

But the case for the causal-explanatory hypothesis of realism is not as grave as Fine takes it to be. **Fine's** total argument is based on a misconstrual of the **causal-explanatory** hypothesis of realism. To see what is wrong with Fine's argument, we start with the rephrasing of the whole concept. Let us call the attempt of an **empirical** realist a '**retroductive**' one. '**Retroduction**' here simply means a process of reasoning that "**allows** the scientist to infer from effect to unobserved cause" (McMullin, 1991, 100). What Fine argues, to put the argument in terms of '**retroduction**', is that "a retroductive form of argument cannot properly be used by the philosopher at the **metalevel** to validate the use of retroduction by the scientist at the first level" (McMullin, 1991, 104). McMullin feels that Fine is correct to **some** extent as the Putnam-Boyd formulation of causal-explanation does give the appearance that there are really two levels, viz., that of scientists and that of philosophers. But he goes on to argue that causal-explanation need not embrace this two-level division and can very well be carried out at the level of scientists, i.e., the first level. My suggestion is that even Putnam's empirical hypothesis can be construed at the

This retroduction has come to be known as the transcendental **argument** for realism in Putnam's later stage of philosophizing.

level of scientists. **McMullin's** objection that what is arguable at the level of philosophers cannot be argued at the level of scientists in this **Putnam-Boyd** hypothesis is not valid. Putnam's empirical hypothesis is an attempt to explain the success of **scientists'** behaviour and the appearance of the metalevel of philosophers is only a methodological one. The explanatory hypothesis is given at the level of **scientists.**

After this brief exposition of what we mean by causal-explanation we now turn our attention to the two constitutive Boydean principles of the empirical realist hypothesis: they point to two constitutive pillars of this empirical **realism**, viz., reference and truth. It is on these two concepts that we focus in the next section.

## 2.2 Two Pillars of Empirical Realism: **Causal-Explanatory** Notions of Reference and Truth

We have mentioned in our discussion of the previous section that truth and reference play causal-explanatory roles in the empirical hypothesis of realism. This section devotes itself to the unpacking of these two concepts. In our discussion here, following Putnam, we will focus on truth. However, it is not hard to see the intimate relation of truth to reference as the concept of reference serves as the basis of any theory of truth. Thus our discussion of truth will naturally make the related notion of reference clear. So we start with the impending

question, what sort of truth is it? It is well accepted in contemporary literature that this causal-explanatory role of the concept of truth cannot be performed by one of the 'deflationary' theories of truth as they do not say anything about the nature of truth beyond accepting merely the T Schema of Tarski, "'Snow is white' is true if and only if snow is white".

Truth needs to have a 'substantive' (D. Grover, 1990, 673) nature to play the causal-explanatory role. That is to say, our theory of truth should include a theory that connects our language to the world in order to be an explanatory factor in our process of explaining the success of human interaction with the world. Substantiality of truth is needed, as Putnam observes in his "On Truth", because only such a notion assumes philosophical importance by serving the purpose of philosophical explanation. Thus truth has to have a 'distinctive', 'relational' nature to be a pillar of the causal-explanatory hypothesis of empirical realism. 'Deflationary' theories, as they fail to provide truth with the typical 'relational' nature, lack the causal-explanatory force.

Keeping the 'deflationary' theories aside, we can note that there have been two different ways of conceiving truth as causal-explanatory in literature. Both try to project truth as a 'substantial' 'relational' property. The first claim is made popular by Devitt. He maintains that a correspondence theory, which is a combination of Tarski's theory of truth and a

'causal-historical theory of reference', presents truth as a substantial and hence as a causal-explanatory notion. This type of truth and reference is physicalistic for Devitt. The other claim is less strong and is made popular by Putnam where he maintains that Tarski's theory of truth along with a realist background, regarding our interaction with the world, which is subsumed under the concept of interest-relativity, succeeds in presenting truth and also reference as causal-explanatory notions.

Before elaborating on the substantial notion of truth as envisaged by Devitt, the relevance of truth to any realist hypothesis should be made precise. We have seen in our previous section that the empirical hypothesis of realism as conceived by Putnam, is intimately related to the concept of success. And the story of success of our total behaviour (including that of scientists) is a story of the involvement of concepts of truth and reference in our explanation of it. But Devitt questions this intimate relation between truth and the empirical thesis of realism (success). While distinguishing between four kinds of success, he (1984, 88) tries to show that none of them needs truth for their explanation. To enumerate the four kinds of success of Devitt: (i) Individual success; (ii) Species success; (iii) Theoretical success and (iv) Progressive success. Without going into details we can say that while the first two focus on the success of behaviour (individual or species) the last two take the success involved in scientific theories into

consideration.

However, although Devitt is quite sceptical about the existence of any intimate relation between a theory of truth and a realistic hypothesis, he nevertheless accepts that truth has a causal-explanatory role to play in any explanation of the success of science. But unlike Putnam, he maintains that such causal-explanatory role can only be played by a physicalistic conception of truth and **reference**. What is this physicalistic notion of truth? Devitt maintains that **Tarski's** theory of truth falls short of the correspondence needed for the explanation of the success of science • This is because Tarski takes the list of primitive reference *arbitrarily* defined by the list of primitive predicates. Thus it fails to make this notion of truth '**relational**' which uniquely connects our language with the world. Truth thus loses its force to be a causal-explanatory **property**. So he proposes to bring in the component of '**distinctive**' substantiality by adding some sort of a 'causal-historical' theory of reference to it. But following Grover (1990, 679), we can say that even this inclusion fails to give truth the needed boost to function as a proper substantial notion required for explaining success. This is because the explanatory notion of truth calls for different causal connections with the world for true and false sentences. But the '**causal-historical**' chain of

4

Devitt acknowledges this view to Field (1972). Field was the first philosopher to comment that **Tarski's** theory needed supplementation.

reference provided by the reference theory of Devitt does not make any such distinction. The causal chain that determines the reference of, say, 'water' remains the same notwithstanding the occurrence of 'water' in a true or a false sentence. So 'causal-historical' theory falls short of the duty of providing a substantial boost to Tarski's theory.

One striking feature of Devitt's formulation of the causal-explanatory notion of truth is his addition of the causal theory of reference to Tarski's theory of truth and his resultant derivation of physicalism from them. Both of these theories are equally available to Putnam. But Putnam denies any such derivation of physicalism. This distinction in their results, inspite of having the same theories available to them, calls for a closer examination of their views. This difference between the views of Putnam and Devitt can be drawn at two levels. One at the level of foundation which concerns the precise nature of explanations and another at the level of their understanding of Tarski's theory of truth and also the causal-historical theory of reference.

The disagreement at the level of foundation refers to the ways in which these two philosophers define explanation. Devitt understands explanation in purely *physicalistic* terms. Physicalism coupled with the strong independent thesis of realism serves as the basis for Devitt's conception of explanation. Explanation, on the other hand, for Putnam is interest-relative

in nature. Explanation, like other concepts of Putnam, is not a part of a highly impersonal world-view as it is for Devitt. According to Putnam, explanation *presupposes* some of our interests as it is we who explain and it therefore cannot be merely physicalistic as Devitt contends. We will postpone a discussion of this topic till the next section and concentrate on the second difference between the views of Putnam and Devitt, viz., their ways of understanding Tarski and the causal theory of reference.

As mentioned earlier, Devitt's realism has two dimensions: independence dimension and existence dimension. A 'natural corollary' (McGinn, 1979) of the independence dimension is a causal theory of perception, action, and also of reference. The independence thesis holds that our behaviour, perception, action, referring, etc., are caused by something which is *ontologically* 'distinct' from such behaviour, perceptions, actions and referring. This, while construed 'introvertedly' (Biglow and Pargetter, 1990) means that truth-conditions should be differentiated from assertibility (verifiability) conditions. This independence thesis is important not only for a realist hypothesis, conceived as purely metaphysical in nature, but it assumes utmost importance even in the explanatory realist hypothesis. Explanation as a process requires a distinction between the *explanandum* and *explanans*. Anti-realism, our explanatory realist hypothesis holds, cannot differentiate between truth-conditions and assertibility-conditions. An

anti-realist therefore fails to avail himself of any explanation of the assertibility-conditions in terms of the truth-conditions such an explanation will require a distinction between the *explicandum* and *explanans* which his anti-realism does not provide him.

But the question before us is how sharp the difference between truth-conditions and assertibility-conditions should be to provide a realist with his explanatory hypothesis. Devitt conceives it the strongest way. He speaks for a very strong distinction between truth-conditions and assertibility-conditions where truth-conditions are totally dissociated from assertibility-conditions. His correspondence theory/ as we have already noted, is a combination of Tarski's theory of truth and the causal-historical theory of reference. Devitt takes Tarski's theory of truth as a formalization of the correspondence theory of truth. It, however, fails to provide the 'relational' substantial component to the theory of truth which has to serve as causal-explanatory. Tarski's theory of truth misses the 'relational' component of truth as it defines the concept of primitive reference by means of a list, which fails to furnish truth with the unique 'relational' property it ought to have in order to play the causal-explanatory role. This property can be provided by the supplementation of Tarski's theory of truth with some kind of causal-historical theory of reference.

Putnam, however, does not accept the idea that Tarski's

theory of truth is a formulation of the correspondence theory of truth. Putnam, in Haack's (1987) opinion, rightly, points out that Tarski's theory of truth is quite neutral to any realistic (correspondence theory of truth) or idealistic formulation; what it does is to present a *formal definition* of truth and reference which can be interpreted either realistically or idealistically depending on the background theory, i.e., the total theory of knowledge (our knowledge of nature, of our interaction with nature, our overall idea of our subject of knowledge) that one adopts. Putnam, quite contrary to the contention of Field and Devitt, maintains that primitive reference is not as arbitrary as these philosophers take it to be. In the *Lecture II* of his *John Locke Lectures*, Putnam shows that the list of primitive reference "has a very special structure" (Putnam, 1978, 31), viz., 'electron' refers to electron or 'gene' refers to gene, etc. These definitions have close 'similarity' to the famous criterion T, viz., "'Snow is white' is true if and only if snow is white". This 'similarity', as Putnam contends, "is not coincidental: 'true' is the 0-adic case of satisfaction" (Putnam, 1978, 31). Thus the list of primitive reference can be shown to be determined by the criterion S (S for satisfaction) and the criterion S is a generalized form of the criterion of adequacy or

Even Tarski seemed to have this idea, at least regarding empirical truth. As he says, "the semantic conception [of truth] is completely *neutral* towards all these issues" (Tarski, 1944,

The idea of Tarski's theory of truth being neutral and a formal definition of truth is endorsed in Sen (1988).

criterion T. Criterion T expresses the formal character of truth as it serves as the criterion for the acceptability of any definition of truth. Thus, **Putnam**, unlike Field and **Devitt**, does not think that Tarski's theory of truth needs supplementation by any theory that provides the much sought after '**relational**' component required for an explanatory notion of truth (and also of reference). **Devitt's** failure to realize the full implication of Tarski's theory of truth forces him to look for the relational property in some form of causal-historical theory of reference.

Putnam and Devitt differ also in their ways of conceiving the causal theory of reference. While **Putnam** has well-developed causal theory of reference to offer, Devitt does not talk at length about any particular formulation of such a theory. He accepts **Kripke's** formulation of it, which at this level is fully compatible with Putnam's causal theory of reference. But what exactly distinguishes Putnam from Devitt in this respect is their purpose of conceiving a causal theory of reference. For Devitt such a theory is conceived in order to provide the definition of reference, which it does in a physicalistic manner. This is evident from **Devitt's** aim of providing the '**relational**' component of truth by the addition of this theory of reference. It thus defines it in physicalistic terms, i.e., in terms of the underlying physical traits of different things, the unique relation of our words with the objects outside, irrespective of any particular language. For **Putnam**, on the other hand, the causal theory of reference does

not define the concept of reference. It rather **'presupposes' it**. His causal theory of reference is **"the social co-operation plus contribution of the environment theory of the *specification* of *reference*"** (Putnam, 1978, 58). It thus specifies how the reference of a term is determined within any language. Truth as well as reference is defined within **'our realist conceptual scheme'** with the help of a **'transcendental deduction'** which maintains that the definition of truth should fulfil the criterion T. These definitions thus are part of our **'home'** language and are to be translated to other languages. No physicalism of the Devitt kind is warranted here. Apart from being unnecessary, physicalism has its own problems which will be dealt with in the next section.

We have already spoken about the relation between truth-conditions and **assertibility-conditions** and the importance of such a distinction in an explanatory scheme. We have also noticed that, Devitt, due to his adherence to strong physicalism, wants to draw the distinction in the strongest possible way.

The question that will be pursued now is whether **Devitt's** way is the only way to draw such a distinction. As against Devitt we have views of Dummett who does not **make** any distinction and equates truth-conditions **with assertibility-conditions**. My reply to the above mentioned question, following Putnam, is that there does exist a way to differentiate between truth-conditions and

assertibility-conditions which is, on the one **hand**, not as sharp as **Devitt's**, nor on the other hand, as inexistent as **Dummett's**. This question of distinction is linked by Devitt and others to the correspondence theory of truth. Devitt maintains that only the correspondence theory of truth supplies the required distinction between truth-conditions and assertibility-conditions. If we couple this contention of Devitt with Putnam's observation that any realism is intimately related to some sort of correspondence theory of truth, we are forced to draw the conclusion that only correspondence can provide the required distinction. But what sort of correspondence is it? Obviously Devitt can think of only one kind of correspondence theory of truth: which serves as the basis of his physicalism and which takes correspondence to be a unique relation between our world and objects. But this need not be the only way of conceiving correspondence. In this respect, it is worth noting the two kinds of correspondences that S. Haack (1987) refers to in her illuminating article, "Realism". She talks about '**correspondence-with-teeth**' and '**correspondence-without-teeth**' (Haack, 1987, 288-9). Haack writes:

Consider what one might call '**the** correspondence formula': A sentence (proposition, statement, belief) is true just in case it corresponds to (agrees with, copies, mirrors) the facts (reality). This formula can be interpreted either with or without teeth. Without teeth, it is taken idiomatically, as no more than a variation on '**S** is true just in case *really, in fact, p*'. With teeth, the formula is taken to involve a commitment to an ontology of facts, and to an explanation of truth as a structural isomorphism of truth-bearer to fact- (Haack, **1987**, 288-9)

She points out that both these formulations are quite compatible with Tarski's theory of truth. So, Devitt cannot expect to get any help from Tarski's theory of truth. While 'correspondence-with-teeth' does commit oneself to a particular kind of 'structural isomorphism' (unique, physicalist, for Devitt) 'of sentences to facts' (Haack, 1987, 289), 'correspondence-without-teeth' does not restrict one to any such 'structural isomorphism' beyond the mere contention that truth relates "something linguistic to something non-linguistic" (Haack, 1987, 289). Thus 'correspondence-without-teeth' also preserves the 'relational' property of truth needed for the causal-explanatory conception of truth. So, unless Devitt provides some other arguments for accepting 'correspondence-with-teeth' over 'correspondence-without-teeth', the mere need for having relational property incorporated within one's conception of truth does not bring him closer to either of these two conceptions. Besides, this argument also shows that even the 'correspondence-without-teeth' includes the relational property of truth needed for explanation. So, Tarski's theory of truth, which is quite compatible with 'correspondence-without-teeth', need not be supplemented on the ground that it misses the 'relational' component. Tarski's theory of truth involves this 'relational' property. It, therefore, can serve as one of the pillars of the causal-explanatory hypothesis of realism when supplemented by a 'personal' theory of human interaction with his environment.

A note of clarification. In our discussion of the causal-explanatory notions of truth and reference we have mainly focused on truth. One may wonder if such a detailed discussion of truth is really warranted since reference is claimed to be central here. A discussion of reference is therefore more relevant, it may be argued. However, a detailed analysis of truth assumes significance for the following reasons. Firstly, truth, when taken as relational property, depends on a reference relation that exists between our language and the world outside. Truth here presupposes a reference relation. Secondly, the nature of truth, viz., 'correspondence-with-teeth' and 'correspondence-without-teeth' is also dependent on the kind of reference relation accepted. This point forms the central feature in Putnam's critique of metaphysical realism advanced in his final phase of internal realism. A detailed discussion of truth here thus serves as a perfect stage setter.

### 2.3 Interest-Relativity of the Empirical Realist Hypothesis

Explanation becomes very important in any discussion of an empirical hypothesis of realism as it serves as the pivot around which the whole empirical hypothesis revolves. It is to *explain* certain facts that the empirical realist hypothesis is conceived. But what is the nature of this explanation? Explanation has been conceived differently by the *physicalists*

(e.g. Devitt) and non-physicalists as mentioned already . We have even attributed the difference in their views about truth to their different ways of conceiving explanation, but how do they conceive explanation?

Both these views accept that explanation is a reply to a 'why' question or a process which starts with a 'why' question. It consists of two components, viz., *explanandum* and *explanans* the fact to be explained and that which explains that fact. Physicalists, due to their reliance on strict correspondence to reality and the ensuing physicalistic theory of reference, are led to believe in the possibility of an 'absolute' explanation, i.e., the possibility of an explanation being objectively correct as opposed to other explanations. Non-physicalists like Putnam, on the other hand, do not have faith in any possibility of an absolute explanation. Explanation is interest-relative for them. Before proceeding we should elaborate on the concepts of absolute explanation and interest-relative explanation.

Physicalists hold that there is a unique determinate relation between terms of any language and the objects referred by such terms. Such determinate relation consists in reducing

I am using this distinction on the basis of Putnam's *John Locke Lecture* where the term 'physicalist' has been explicitly mentioned. However, the term 'non-physicalist' does not figure in any existing literature on this subject. I have used this term mainly to designate Putnam's stand which accepts truth and reference as casual-explanatory, but does not define them in physicalistic terms.

the object to physical particles and their determinate relation holds irrespective of any language we talk about. An explanation, therefore, becomes absolute when it hits upon this unique determinate relation. No other explanation can be as correct and objective as this. There is no room for any sort of interest-relativity here.

Putnam, on the other hand, is of the opinion that no explanation is possible without taking into account the interest of the people seeking such explanation. Explanation for him forms a part of man's interactive dealing with the world. Philosophy, for him is (at least 'in part') a "... normative description of our institutions; a theory of knowledge seeks to explain and describe our practice that contributes to the success of inquiry" (Putnam, 1978, 47). The 'usefulness' of explanation thus assumes importance; now the question is: 'useful' for what and to whom? Both these questions define the inherent interest-relative nature of explanation. They refer either to the interests of the person asking for the explanation in the restrictive sense, or to the community interest from the point of view of its capacity to promote successful behaviour in the wider sense.

In this connection it should be mentioned that the explanation involved in an empirical realist hypothesis as the *explicandum*, viz., the success itself, is an interest-relative concept. This point was made in the first section of this

chapter while maintaining that success means the fulfilment of the proposed set of outcomes projected from the point of view of the practitioners i.e., from our point of view. Thus the natural corollary of such a process of explaining success is its relativity to our interests.

The question **arises**, whose interest is it after all? This is a very crucial question which applies, like in success, even in the case of explanation. As brilliantly observed by Laudan (1984), every action can be shown to be successful or explanatory by taking into account particular interest. Interest thereby reduces to a mere **'psychological'** interest. So the impending question before Putnam is what kind of interest are we supposed to refer to in our discussion of interest-relativity? Or is it the indiscriminate interest of any individual? Putnam's reply to the latter question will be a resounding **'no'**. The reasons are not hard to see once we take note of his observation that philosophy is a **'normative'** activity which through the process of explanation tries to maximize the possibility of the success of total human behaviour. We have to differentiate between **'useful'** and **'useless'** explanations. **'Useless'**

**explanations are ones that are totally 'uninteresting' for our purposes. Interest is 'useful' or 'interesting' if it is**

8

Uninteresting here is not used in the psychological sense which means boring. **'Uninteresting'** is used in a **'pragmatic'** sense where it means useless for our purpose of **maximizing** the possible success of total human behaviour.

conducive to the success of total human behaviour. So the interests we are interested in are *methodological* not merely psychological. As Putnam observes,

... given our *normative* outlook, we are only interested in explanations which are compatible with such aims of inquiry as *stating truths, uncovering errors, stating laws* (in the case of scientific inquiry), *finding out what can possibly happen and what is impossible, describing various important kinds of processes, aiding technology and control of nature in general, etc.* (1978, 47).

Interests that take into account all these above mentioned features are to be taken seriously while explaining. Those are what Putnam calls 'genuine' interests. But Devitt, in his "Critical Notice" on Putnam's *Meaning and the Moral Sciences*, observes that by ascribing a privileged position to certain interests (viz., "interest in understanding and controlling nature" Devitt, 1980, 401) as opposed to others, Putnam submits to an 'absolutist' position regarding explanation. The problem of absolutism does not arise for Putnam as absolutism is a corollary of physicalistic notions of reference and truth. Thus, even though Putnam restricts the range of interest to be taken into account, as he does not adhere to any kind of physicalism, the problem of absolutism does not arise for him. Moreover, absolutism is an offshoot of an impersonal world-view. Putnam's empirical realist hypothesis, by taking our interests into account, forms part of 'human' world view and thus does not leave any room for absolutism.

In his attempt to save the absolute explanation, Devitt wants to push the problem of interest-relativity back to the level of our request for explanation, thereby "leaving explanation as absolute as ever" (Devitt, 1980, 400). He, therefore, maintains that explanation need not be interest-relative. But it is hard to see how exactly this maneuver saves the absoluteness of explanation, since, for Putnam also, interest-relativity cropped into the picture through the same route. What Putnam states is that our request for explanation is usually laden with our different kinds of interests, viz., 'our interest to prevent or control' some situation or our 'methodological interest' etc. Devitt (1980) seems to think that interest-relativity at the level of request for explanation does not affect the absolute nature of explanation once we have the same set of 'background knowledge'. What we are interested in, Devitt would argue, even accepting the wide range of varying interests, is what causes an action in a certain background.

But Putnam's second example, where W. Sutton, the famous bank robber, replies to the question 'why do you rob bank?' by saying that 'That's where the money is' shows the problem with Devitt's solution to interest-relativity of explanation. This answer, Putnam goes on to note, though satisfies (at least particularly) another robber's query, does not satisfy a priest who would have liked to know the reasons or whatever it is that causes Sutton to rob at all and not only why

he robs banks as against gas stations. So even if we try to see explanation purely in terms of causation, the interest-relativity of our request for such an explanation will definitely force us to look for different causes for different requests (i.e., different interests).

No one can fail to notice the intimate relation between Putnam's interest-relative explanation and Quine's indeterminacy of translation. Indeterminacy of translation can be shown to be diametrically opposed to the absolute explanation of Devitt. The thesis of absolutism maintains that an objectively correct reply is possible to all our queries regarding reference, truth and explanation. Indeterminacy, on the other hand, holds that no such objectively correct reply is possible. Indeterminacy with the related thesis of inscrutability of reference holds that our theories (scientific or otherwise) remain underdeterminate by observational data and thus reference and truth of our terms remain indeterminate.

Putnam, with the help of notion of his interest-relativity of explanation, offers a position which stands at a middle spot against this dichotomy between absolutism and indeterminacy-cum-inscrutability. Putnam accepts Quine's

9

Talk of translation assumes importance in our discussion about explanation since following Putnam we can define translation as rationalizing the speaker of target language's behaviour and any such rationalizing therefore definitely involves explaining.

worries as genuine. The problem of absolutism becomes clear once we realize the problems of physicalism. In the absence of a unique determining relation of correspondence relating our terms to objects, absolutism cannot hold its fort at all. But the question before us is, whether giving up absolutism brings us to indeterminacy. Putnam rightly replies that Quine was led to indeterminacy as he did not take the concept of interest-relativity into account. The interest-relativity of our explanation is a unique concept which shows that the underdetermination of theories by observable data is possible when we move to the impersonal level of theorizing. But the moment we look at it from the point of view of our 'normative' purposes, such indeterminacy vanishes. We will therefore be led to accept one reply which is compatible with *our interest*. Thus, though we do not fall into the trap of absolutism, we avoid the hopelessness of indeterminacy as well. It is in this concept of the interest-relativity of our whole enterprise that we should look for the germ of the internal realism of Putnam's later stage. It is to a detailed discussion of this internal realism that we turn in our next chapter.

Before moving onto the next chapter, it is worth noting how reference remains central to Putnam's writings in this phase. Reference along with truth is conceived here as a causal-explanatory notion. Together they contribute to the causal-explanatory hypothesis of realism. This explanatory hypothesis of realism draws heavily on its principle of

convergence. What makes convergent or cumulative knowledge possible is the PBD or the principle of **charity**. This is also because the causal-explanatory hypothesis of realism here derives its force from retrodution which involves '**retrospective reference assignment**' (Putnam, 1978). PBD thus assumes **relevance** in the functioning of this causal-explanatory hypothesis of realism. This relevance of PBD ultimately speaks for the centrality of reference at this level of Putnam. The centrality of reference here is distinct from that of the first phase, as unlike the first phase, this centrality has a derived nature. A detailed discussion of how PBD makes room for the centrality of reference at this phase will be given in the fifth chapter on the unity in Putnam.

## CHAPTER III

### REFERENCE AND INTERNAL REALISM: TOWARDS THE UNTENABILITY OF METAPHYSICAL REALISM

#### 3\*0 Reference and Internal Realism: Introduction

In the previous chapter realism has been explicated in the form of an empirical hypothesis which was called upon to explain the success of total human behaviour. This empirical realist hypothesis thus assumes the nature of causal-explanation. Causal-explanatory notions of reference and truth lend support to this empirical hypothesis of realism. This makes explicit the intimate relation that exists between reference and realism. Putnam's view about this causal-explanatory notion of reference, however, is markedly different from that of other philosophers. These philosophers, most prominently Devitt, explain causal-explanation in terms of physicalism. In their discussion on reference, they define reference on the basis of physical ('causal' to be more precise) relations. Putnam, on the other hand, does not accept physicalism of any form, as explanation for him is . in itself an interest-relative concept. Physicalism, which has the inherent ideal of reducing every concept to the physical level, assumes an absolute nature, thereby leaving no scope for interest-relativity.

What constitutes the most striking feature of the second phase of Putnam's writing, as we have already seen, is his dissatisfaction with the physicalistic theory of references and his admission of the inherent interest-relative nature of all explanation. This interest-relativity ultimately paves the way for Putnam's internal realism, which is developed during the final phase of his philosophical writings. This internal realism subsumes the realist hypothesis under a conceptual scheme. Internal realism expresses in clear terms the most remarkable feature of Putnam's idea of philosophizing, namely, to pursue philosophy from a human point of view. Keeping in tune with this attitude, he outlines the principal maxim of his realist hypothesis. This maxim (Putnam, 1978b, 123) says we (speakers) *construct* a 'symbolic representation' of our environment. This needs to be differentiated from the traditional realist supposition that our theory, language, etc., 'mirror' the external world. In this process of 'mirroring' the faculty of reason does not have any contributory role to play. Traditional realist, therefore, subscribes to an impersonal world-view. Internal realist, on the contrary, does not 'mirror', but constructs. As Putnam says, "the mind and the world jointly make up the mind and the world" (Putnam, 1981, XI) .

Internal realism explains our relation to our environment and the role that language plays in this

relationship. Thus the world-view presented by the internal realist is not an 'alienated', impersonal one; rather it is a human one in which we, the speakers, are at its centre. This project thus is reminiscent of Kant's Copernican revolution, which said reality should conform to man and not the other way. The unique feature of internal realism consists in its concept of **subsumption**. Internal realism, undoubtedly, is a difficult concept to grasp considering its peculiar position. As Putnam calls it, "a third way ... between classical realism and **antirealism**" (Putnam, 1988, 107). The best way to explicate this notion is to contrast it with metaphysical realism on the one hand and anti-realism (including cultural relativism) on the other. My task in this chapter is to contrast it with traditional realism or metaphysical realism as Putnam calls it. We will postpone our discussion on internal realism's relation to anti-realism until next chapter.

This chapter consists of three sections. First section elaborates the nature of metaphysical realism by enumerating its major tenets. These tenets demonstrate the impersonal nature of the world-view provided by the traditional **realist**. I will conclude this section with the observation that a particular referential relation serves as the basis of this whole project of metaphysical realism- The second section provides a critique of metaphysical realism. This critique has two parts. The first part deals with the model-theoretic **arguments** that Putnam gives

against the concept of reference implied by metaphysical realism. The model-theoretic argument against reference works as a *reductio* of the metaphysical realist premises. The second part of the second section presents Putnam's well-known 'Brains in a Vat' argument which serves as a demonstration of the *reductio* presented by the model-theoretic arguments of Putnam. In the third section internal realism is discussed at length. It involves a discussion of the nature of reference and truth that is acceptable within the scope of internal realism.

### 3.1 A Brief Outline of Metaphysical Realism

The name metaphysical realism does not stand for the views of any particular philosopher. It rather stands for the general conception of realism as traditionally conceived. Putnam has described metaphysical realism as a bundle of related ideas, among which truth is the most important. Following are the general tenets commonly shared by all traditional realists:

(1) Metaphysical realism starts with the presupposition that there exists a mind-independent reality and our theories are descriptions of this reality. Anderson subsumes this feature under the name 'ontological realism' which maintains that "all (or most) of the objects (middle-sized and theoretical) countenanced by twentieth-century science and common sense exist independently of any mind" (Anderson, 1992, 51).

(2) Metaphysical realism defines truth as the relation of *correspondence* that holds between our words/thought signs and the external reality. Thus a statement is true if it bears the (unique) correspondence relation to the *mind-independent* reality.

(3) Related to this metaphysical realist theory of truth as correspondence and dependent on it are the ideas of 'uniqueness', 'independence' and 'bivalence' (Putnam, 1988, 107). But before elaborating on these aspects, we should explicate the nature of truth that these realists accept: it is 'non-epistemic'. As truth consists in the correspondence with external reality, truth becomes radically non-epistemic in this metaphysical realist picture. A metaphysical realist distinguishes between the truth-conditions and the assertability-conditions of a statement. As Putnam writes, metaphysical realists have claimed "that truth outruns even idealized justifiability" (Putnam, 1983b, 85). Anderson subsumes this tenet of metaphysical realism under the name of 'semantic realism' and defines this aspect by maintaining that a "[S]tatement(s) ... will be true or false in virtue of the intrinsic nature of mind-independent reality, and thus in virtue of conditions the obtaining of which may be, in principle, inaccessible to human beings" (Anderson, 1992, 51). A statement in this theory can turn out to be false in spite of being under

'ideal epistemic conditions' that is to say, an ideal theory may turn out to be false.

(4) The '**uniqueness**' and the '**independence**' aspects together **imply** that there can be exactly one true and complete description of the external world. This aspect has not been shown to be so important by many commentators (e.g. Anderson) of Putnam. But our textual evidence speaks in favour of taking it as an essential tenet of metaphysical realism. Moreover, the possibility of many descriptions will automatically lead to many correspondences between our descriptions and the world. This has two major implications: firstly, it denies the '**uniqueness**' aspect of metaphysical realism. Secondly, due to this plurality of descriptions, the intrinsic nature of reality ceases to act as an adjudicator of the truth of our theories as required by the metaphysical realist. If, on the other hand, it is maintained that all descriptions are equivalent (in the manner of the 'sophisticated realist'), then it will be difficult to say what our theory of the world will be. In this situation all such **theories** are necessarily relative to this or that description.

Without going into the complex nature of the ideal theory, we will here, following Putnam, define the ideal theory as a theory which fulfils the theoretical and operational constraints.

In his article "**Equivalence**" (1983a) while explicating **the** concept of equivalent descriptions, Putnam observes that a **metaphysical** realist, while accepting the existence of equivalent descriptions, points that all "**such** theories are '**One**' at some deeper level ..." (26-7). This is because they are all taken as different descriptions of the same '**mind-independent** reality'.

As a result, we will not be able to know what the world is in itself apart from those various descriptions. To put it in Putnam's phrase, the world, the most important component of the metaphysical realist picture, thus becomes "empty" (1978b, 133).

The most important observation that Putnam makes from all these different tenets of metaphysical realism is that its world picture is dependent on the existence of a unique, determinate reference relation. This point is directly derivable from the non-epistemic nature of realist truth and the ensuing realist assertion that even the ideal theory may turn out to be false. How is it possible? This is possible, a metaphysical realist may say, because the intrinsic nature of the external reality (e.g. the existing objects) is different from the way it is conceived by our ideal theory. That is to say, the world might turn out to consist of different objects than are enumerated in our ideal theory. Thus the world will render our ideal theory false. This is because a determinate unique referential relation is assumed to exist between our terms and the external objects in this metaphysical realist picture. This referential relation will serve as the basis of the correspondence theory of truth and the related notion of uniqueness. As Anderson observes, "Putnam argues that a necessary condition for correspondence truth and the accompanying distinction is the existence of a *determinate relation of reference* between our words and mind-independent objects"

(Anderson, 1992, 55, emphasis added). Putnam, in "Model Theory and the 'Factuality' of Semantics" (1989), maintains that metaphysical realism involves two kinds of 'uniqueness', viz., 'uniqueness of the true theory' and 'uniqueness of reference relation' (Putnam, 1989, 215). The latter uniqueness, in fact, paves the ground for the former. Before moving on to the next section, it may be mentioned here that this aspect of metaphysical realism reiterates the central tenet of this thesis that the theory of reference serves as the basis of any metaphysical position.

Putnam's model-theoretic arguments against reference attacks this above mentioned feature of metaphysical realism, viz., our words possess a determinate unique reference relation to the external world. We will focus on Putnam's critique of metaphysical realism in the next section.

### 3.2 Critique of Metaphysical Realism

#### 3.2.1 Introduction

As already mentioned in the introduction of this chapter, Putnam's critique of metaphysical realism consists of his model-theoretic arguments against the metaphysical realist notion of reference involving a unique, determinate relation between our words and the objects of the world. Since this referential relation serves as the nerve of metaphysical realism,

Putnam in his critique focuses solely on the possibility of this unique referential relation. Putnam's critique can be discussed in two parts. The first part involves a discussion of the model-theoretic argument whereas the second part involves a demonstration of this argument. The proposed demonstration has been offered in the light of Putnam's 'Brains in a Vat' argument.

### 3.2.2 Model-Theoretic Arguments Against Reference

Putnam's problem with the idea of a unique determinate reference started with his uneasiness regarding the epistemological implications of the concept of correspondence involved in any realist world picture<sup>3</sup>. This uneasiness, which<sup>4</sup> in Putnam's opinion dates back to the time of Berkeley and Kant, consists of the worries regarding the possibility of a determinate relationship between two factors, viz., our words, sentences etc., on the one hand and the external world on the other, which do not have any feature in common. How can the mind

In this connection we may note at a general level an important observation of Putnam regarding the significance of the epistemological position in philosophy. In the introduction of his *Realism and Reason*, Putnam wrote, "... one cannot come to grips with the real problems in philosophy without being more sensitive to the epistemological position of the philosopher ..." (Putnam, 1983, vii). This expresses the change in his philosophical outlook as he becomes conscious of the epistemological implications of his metaphysical position.

<sup>4</sup> "As far back as Berkeley and Kant it had been pointed out that the notion of a 'correspondence' is difficult once one becomes even a little bit psychologically sophisticated" (Putnam, 1983, VIII).

compare its ideas (representations) with the objects outside? In the absence of any common property shared by both, there can be nothing in which such correspondence may consist. As Putnam says, "You can't single out a correspondence between two things by just squeezing one of them hard (or doing anything to just one of them); ..." (Putnam, 1981, 73). We have already observed that the metaphysical realist attributes the possibility of this correspondence to there being a unique, determinate referential relation. Putnam with the help of the model-theoretic argument tries to argue that unique reference is not possible, nor is unique correspondence. This, in effect, shows the bankruptcy of the metaphysical realist concepts.

Model-theoretic arguments were the results of Putnam's attempt to extend the implications of Lowenheim-Skolem theorem of mathematics to the field of philosophy of language. Without going into the details of this theorem, we can say that it consists of the resolution of the apparent paradox resulting from Skolem's theory that every consistent non-empty theory has a denumerable (countable) model. On the other hand, Cantor proved that reals are non-denumerable (uncountable). Skolem held that even Cantor's theory, as it is a consistent theory, can be interpreted over a countable model. Thus there results a paradoxical situation as it appears that reals are both countable and uncountable. It is maintained that this "... anxiety expressed in feeling the Lowenheim-Skolem theorem as a paradox

results in part from the desire to grasp a formal object apart from its setting in a formal system;" (Myhill, 1967, 42). This paradox was resolved by Skolem with the help of the concept of 'referential shift'. This resolution says that a formalized theory can be given different interpretations depending on the referential relation chosen. The terms of a theory will be defined internally for any particular interpretation. Thus the apparent paradox is due to the misconception that terms used in our mathematical theory can be given absolute definition irrespective of any model/interpretation we assume. The implication of this theorem in the field of philosophy of language, as worked out by Putnam (1983c), maintains that problem for metaphysical realist arises from this attempt to define reference in absolute terms. Thereby he tries to take his notions of truth and reference out of their contexts. This attempt underlines the reasons for his failure. This suggestion serves the basis of Putnam's model-theoretic arguments against metaphysical realism.

Putnam maintains that there cannot be any determinate referential relation which is also absolute. This unique referential relation is required, as we have already observed, for the non-epistemic concept of truth which maintains that even an ideal theory may turn out to be false. The concept of an ideal theory needs some clarification. An ideal theory is one which is rationally justified in its ideal limit. This theory is

one that fulfils all the operational and theoretical constraints put by the canons of rationality. The possibility of such an ideal theory's being false is explained by the metaphysical realist by the fact that the reference relation involved in such an ideal theory is not the 'intended' one. Putnam, in his model-theoretic arguments, questions the very existence of such

5

'intended' relations . Even if such an 'intended' relation exists, the question is, how is it specified? What is the nature of such a relation? The operational and theoretical constraints obviously fail to capture this 'intended' relation. This is because the operational and theoretical constraints specify our ideal theory. If, in addition, they are taken to specify the 'intended' reference relation then the ideal theory will always have the 'intended' relation. So the very possibility of an ideal theory's going wrong, i.e., having unintended reference, forces a realist to accept that there exists some extra feature over and above the operational and theoretical constraints that single out the 'intended' referential relation. Putnam maintains

This idea is developed in detail in "Realism and Reason", one of the early writings of Putnam on the model-theoretic arguments (Putnam, 1978b, 126). A formalistic interpretation of this same criticism of Putnam is presented in Putnam (1981, 33-35). A metaphysical realist argues that the truth of a sentence determines the 'intended' reference relation for the words/terms occurring in that sentence. The operational and theoretical constraints are thus taken to determine the truth or falsity of a statement. Putnam's model-theoretic arguments show that "*no view which only fixes the truth-values of whole sentences can fix reference*" (Putnam, 1981, 33). Reference thus remains indeterminate.

that this idea of an extra agent as determining the '**intended**' relation is *incoherent* (Putnam, 1978b, 124). Later (1989) while elaborating on this idea of incoherence, he distinguishes it from '**inconsistency**' which is dependent on logical **laws**. Putnam defines incoherence in terms of '**unintelligibility**', which, in other words, means being empty. Thus, the interpretation of the term '**incoherence**' here does not refer to the idea of logical inconsistency. It **is** here that one needs to see the distinctive feature of Putnam's argument. Putnam arrives at this interpretation by showing that intelligibility is a product of a philosophical argument and not of pure logic. That is why we find that Putnam's critique of the **realists'** candidates for intended relation does not consist in showing that they involve logical contradiction. Putnam thus argues that they are unintelligible or empty since they fail to provide the intended relation. Before elaborating on this point, let us for a moment consider the possible candidates of the intended reference relation as proposed by metaphysical realists.

There have been several attempts to reply to the **model-theoretic** arguments of Putnam. Broadly two tendencies in

Putnam's idea of 'incoherence' as defined **in** terms of '**unintelligible**' should be understood as '**unintelligible with** reference to us, i.e., speakers'. This can be seen as a reflection of his humanistic, **anti-scientistic** outlook. The same point holds when he maintains that the '**Brains in a Vat**' argument is incoherent because of philosophical reasons (unintelligibility or unconceivability). In spite of being '**physically**' possible, this argument is taken to be philosophically **unintelligible**.

those replies can be identified. The first group **of** reply assigns a **'magical'** power to the mind which enables the mind to see the *intrinsic* relation existing between a token of a language and the world outside. This tendency goes back to the time of Aristotle and is echoed in Locke's **'Similitude** theory of reference'. Our words represent the external objects by sharing the forms (i.e., the intrinsic nature) of that object. The mind while learning the meaning of a **word, 'grasps'** this form encapsulated in the sense of the term. This attitude, as Putnam maintains, due to its mythical appearance does not warrant much of our attention as there will be hardly any philosopher who will be eager to hold such a mythological view. But there is another kind of reply which assigns the referential relation to some relation/property. This reply, as Anderson (1992, 56) maintains, is "... **scientifically** respectable but incapable of actually **fixing reference**". This **group** asserts that there is some physical relation which serves as the fixer of determinate reference in addition to the set of operational and theoretical constraints, and thereby try to combat Putnam's charge of the indeterminate relation of reference. One of the candidates offered as determining a unique referential relation is physical relation/property<sup>7</sup>. A token of a term will refer to any x if x possesses a certain physical property (Putnam, **1989**, 216). This proposal, however, does not have much credentials against

This candidate, as we have discussed at length in the previous chapter, offers a physicalistic theory of reference.

model-theoretic arguments as it fails to explain how that particular physical property/relation gets 'singled out'. The offshoot of Putnam's model-theoretic arguments is that there exist other physicalistic relations which may as well serve the physicalists' purpose.

The second candidate is a more plausible one: this also puts forth the physicalistic relation, but in relation to the notion of explanation. A term refers to a particular object, a proponent of this view would argue, because it bears a physical relation with it and this relation in turn "... explains the way we behave with those tokens, our observable actions and their observable results ..." (Putnam, 1989, 216-7). Putnam confesses that he himself thought this to be the way out of the model-theoretic arguments, before 'going public' with his 'internalist' attitude. But as we have seen in our previous chapter, Putnam's concept of explanation has been inherently interest-relative. He thus did not need the reference relation which is "fixed from the point of view of the universe" (Putnam, 1989, 219). On the contrary, when a physicalist philosopher takes a certain physical relation as determining 'the' reference relation by explaining our behaviour, he takes explanation in the absolute sense. But that is a myth; explanation is interest-relative. Moreover, the mechanism of such an explanatory scheme depends on the fact that certain of our sentences come out true. So truth is taken to be determining the

reference relation. But this involves 'flagrant circularity' as reference, needs to be determined first if we are to consider the possibility of our ideal theory turning false (The metaphysical realist premise 3).

There are other problems with this candidate of explanation as determining the referential relation. This concept of explanation of the physicalists depends heavily on the concept of truth. Reference is identified with a particular physical relation which renders most of the concerned sentences true and thereby explains the behaviour as a whole. The purport of model-theoretic arguments, as has already been pointed out, is to show that a theory can be given different interpretations (by assigning different referential relations) all of which preserve the truth-value of the total set of sentences. So any of such reference relations will be able to perform the explanatory role by rendering the entire set true. Thus this feature of explanation fails to single out any particular 'intended' reference relation and thereby fails to be the additional constraint that will serve to pick out the 'intended' referential relation.

The main trouble with metaphysical realists is that they assume that "what is outside of our mind somehow *interprets our language for us*" (Putnam, 1989, 219). Now the task for them is to single out such an interpretation. The major

responsibility of model-theoretic arguments, on the other hand, is to show that there can be many such interpretations- Singling out is internal to a model as it is also an interest-relative concept.

A 'variant' of this candidate of explanation is 'causal connection', an yet another proposal of physicalism. Reference is singled out by causal connection. A token of a term is said to refer (determinately) to an object when it is 'causally connected' with the latter.

The most common rejoinder to it from Putnam is called the argument of 'more theory'. The question before us is to determine what identifies the 'intended' reference relation. If we say that the linguistic symbol 'causal connection' does it, then Putnam will ask the question, what is the referent of 'causal connection' and how is it determined? When the referential relation of the total language is indeterminate, just to offer 'more language' ('causal connection') as a candidate is to beg the question.

Another problem is how to differentiate between 'background condition' and what Putnam (1989) calls the 'bringer about conditions' of a certain event. Such distinction is thoroughly interest-laden. So the realism that speaks of an impersonal world-view alienates the observer and therefore cannot

refer to our interest (which may be termed as pragmatic constraints) as providing the difference between 'background conditions' and 'bringer about conditions' (Putnam, 1989, 219-20).

The realist might retort by maintaining that this argument of just 'more theory' really does not hold against him as 'causal connections' themselves are taken to fix the intended reference and not the linguistic symbol 'causal connection'. As Van Cleave charges, "... in putting forth the causal theory, ...; one poses an external constraint on reference, a constraint that works from outside the theory rather than within it... . It is not causal language that fixes reference; it is causation itself<sup>11</sup> (Van Cleave, 1992, 349).

Or as Brueckner, in his well researched paper "Putnam's Model-theoretic Argument Against Metaphysical Realism", maintains:

We maintain that the use of language together with non-linguistic facts about the world (e.g., causal relation between the world and the use of language) do fix the intended interpretation of the language. Unless Putnam can discredit the foregoing claim, he has given us no reason to suppose that every attempt at a linguistic specification of a theory's intended interpretation must fail (Brueckner, 1984, 137).

What the metaphysical realists point out in this manner is that the 'burden of proof lies on Putnam. As they are convinced of

the reasonableness of their claim that there does exist a determinate reference relation, Putnam's argument fails to gain much ground. So Putnam's argument from incoherence fails. But incoherence, as we have noticed, is defined by 'unintelligibility' or as being empty. And we have also seen Putnam's meticulous argument against each candidate of 'intended' relation of reference. Thus against this realist rejoinder of 'burden of proof Putnam will appeal to the concept of 'intelligibility'. Putnam asks, is the mere statement that causal connection or causality fixes the intended reference relation enough for our purpose? Is it not the realists' responsibility to make this precious notion of causal connection or causality precise and intelligible? Putnam, as brilliantly brought out by Anderson (1993), maintains that the realist candidate of causality lacks this intelligibility and thereby becomes incoherent. Following Putnam we can draw a distinction between the way a theory fixes reference for its terms (which obviously is an empirical endeavour) and a *theory* of reference that deals with the nature and determinateness of the concept of reference, which is an a priori question. Model-theoretic arguments demand an answer for the latter question. As Anderson maintains,

The conditions that Putnam places upon the causal realist, then, are not conditions necessary for a word to refer to an object, but rather are conditions necessary for a theory of reference to be substantive and plausible" (Anderson, 1993, 315).

Putnam's attempt in the course of the model-theoretic arguments is to show that all possible candidates for such a 'substantive and plausible' and therefore intelligible theory of reference will have either of two characteristics and will thereby fail to execute the function of reference fixing. The characteristics are such that, if present, they preclude any candidate from becoming the proper theory of reference required by the realists. These two principles are explicated as follows:

(1) The empirical nature of the candidate. This is the characteristic of the theories of reference that provide empirical determinants of reference. Such theories, for their 'modesty' and empirical nature, fail to meet the high standards of the a priori question. It thus "lacks the resources necessary to 'hook onto' mind-independent reality" (Anderson, 1993, 315). The theories which are considered scientifically respectable fall short of being the 'intended' reference due to their empirical nature.

(2) The second characteristic maintains that any such candidate should not have extravagant ontology which is *prima facie* implausible. They will thus replace semantic 'indeterminacy' by 'ontological absurdity'.

The concept of modesty is used here in the sense of incapacity. Later, in the discussion of this chapter we will talk about another kind of modesty which is a realist attitude, encapsulated in the acceptance of 'coherence of scepticism' -

Thus a realist should prove that all the candidates for reference fixing and especially causal connection or causality do not possess the above mentioned characteristics. Taking causality as an a priori, already defined property will not be of much help. In this respect, we can take into account the 'causality trilemma' that is implied by Putnam's writings on causality. Anderson, following Putnam, identifies three ways of interpreting the concept of causality. 'The first lemma' of the trilemma is to assume causality as "a mere place holder for something we know not what" (Anderson, 1993, 316). It is obvious that when our search is for a substantive and plausible account of reference, this first candidate of causality will hold little hope.

Second comes the familiar notion of causality, as exemplified in Hume's writings, which is empirical in nature. This empirical nature, as already mentioned, deters it from reaching "beyond the empirical all the way to things in themselves" (Anderson, 1993, 317). Moreover, as Anderson argues, any concept that is empirical in nature, should be captured by means of the operational and theoretical constraints. Since the 'intended' referential relation required by the realists cannot be captured by the operational and theoretical constraints, this empirical version of causality definitely fails to serve the purpose of reference fixing.

Finally **comes** the '**third lemma**' of causality that defines causality as '**a** genuinely metaphysical notion'. **Brueckner** (1984, 138) is ready to define causality in this fashion. He rejects Putnam's criticism of "**surd** metaphysical truth" (Putnam, **1981**, 46) as an unreasonable **objection**. This proposal, however, does not say much as it is very difficult to **make** sense of this metaphysical notion of causality. Moreover, even if we accept that existence of such metaphysical facts, it is hard to imagine how a knowledge of such metaphysical facts is possible. This cannot count as a "plausible *naturalistic* explanation for how reference is fixed" (**Anderson**, 1993, 317). Thus the mere insistence that '**causal connections**' or causality by themselves do the reference fixing does not offer much hope.

Thus by maintaining that causal connection or causality themselves fix the reference the realist is not confronting Putnam's real threat. Putnam himself accepts causal theory of reference along with '**division** of linguistic labor as the right semantic theory of reference fixing. What a realist is required to offer is a reply to the a priori question regarding **the** nature of reference and not the empirical question of determining reference. In fact, Hansen (**1987**, 88-9) is aware of this distinction and also of the fact that the model-theoretic arguments create problems for the realist as the realist lacks a theory of reference that apriorily explains reference as a

unique, determinate relation. Hansen thinks this is a very unreasonable demand and charges that even anti-realists cannot offer such a theory of reference. But my argument is that the internal nature of an anti-realistic theory/model as opposed to the external one of metaphysical realism (as captured in expressions like 'God's eye view', 'no eye view', 'from the point of view of the universe' etc.) does not need such a referential relation that is being determined externally. The verificationist semantics will do the job of furnishing the background against which the (empirical) causal theory of reference works.

Hansen (1987), in his desperate attempt to reply, falls back on the 'burden of proof gambit and asks "why does Putnam think that it is incumbent upon realism to prove that our terms have determinate extensions?" (Hansen, 1987, 89). Devitt, in the same spirit, maintains, "Putnam, in effect, accuses the metaphysical realist of begging the question in appealing to a theory to determine reference for a theory. I have accused him of begging the question in claiming that the reference of 'causally related' is not determinate" (Devitt, 1984, 190).

The real force of Putnam's charge of incoherence, at

9

This term, when accepted by Putnam does not imply all the implications of verificationism. It only implies that the understanding of a sentence consists in our ability to use it (Putnam, 1978a).

the face of all these realist rejoinders, will become explicit if we construe the model-theoretic argument in the form of a *reductio* of realist premises . This *reductio* can be identified at two levels. Firstly, it renders the referential relation presupposed by the metaphysical realist premises *indeterminate*. It thus poses a *reductio*, since the possibility of a 'determinate referential relation' is a prerequisite of the metaphysical realist picture

The second *reductio* points to the inherent inconsistency of metaphysical realism. It may also be considered as the reply to the realist rebuttal to Putnam's first *reductio* argument which says reference remains indeterminate in a realist picture. The force of Putnam's *reductio*, however, is not exhausted at the first level. The *reductio* cuts the metaphysical realist premises even at a very deeper level. But to appreciate this we should first consider the reply which the metaphysical realists commonly give to the model-theoretic arguments. Here their strategy is to 'shield' the metaphysical realism come what may. They maintain that the metaphysical realism is not defeated even if the model-theoretic arguments are taken to be valid. It

I am indebted to Anderson for this brilliant idea of *reductio*, (1992, 1993).

Reduction of this kind is even accepted by Hansen (1987) and Brueckner (1984). Their attempted reply to it consists of their denial of the conclusion of Putnam's model-theoretic argument that reference is indeterminate.

only proves 'referential plurality' or 'semantic plurality'. And as a result, as Lewis (1984) maintains, "[T]he *metaphysics* of realism survives unscathed. What does suffer, if Putnam has his way, is realist semantics and epistemology" (Lewis, 1984, 232). What model-theoretic arguments have shown is that there can be many interpretations and in like manner, many correspondences. "Truth of a theory on a given interpretation", however, as Lewis argues, "would still make sense, and in a *non-epistemic* way" (Lewis, 1984, 231, emphasis added).

Our question is, can it really remain non-epistemic? My point is that the concessions that Lewis is ready to make at the level of 'realist epistemology and semantics' by way of referential plurality cuts very deep. It robs metaphysical realism of much of its power as this concession forces the realist to give up his premise of non-epistemic nature of truth. This points to the other *reductio* of metaphysical realist premises. The correspondence theory of truth of metaphysical realism is taken to be radically non-epistemic. It is reflected in the fact that even our ideal theory might go wrong. But as we have argued before, this picture is intimately tied with and in fact dependent on the concept of determinate unique reference. If, on the other hand, referential plurality is conceded, in the manner suggested by Lewis, the realists will lose the ground required for maintaining their premise that even our ideal theory might turn out to be false. The concessions made by the realists

thus defeat the major realist premise and thereby renders the total realist picture 'incoherent'. This point can be made explicit if we take into account Putnam's 'Brains in a Vat' argument which, as Anderson (1992) contends, is a demonstration of the force of the *reductio* presented by the model-theoretic arguments. It is more so as Putnam's 'Brains in a Vat' argument takes the causal theory of reference as one of its premises. Thus the ensuing *reductio*, if justified, cuts even the realist rejoinder of the first *reductio* that 'causal connection' or causality determines the unique reference relation. It is to a detailed discussion of the 'Brains in a Vat' argument that we turn in the next part of this section.

### 3.2.3 The 'Brains in a Vat' Argument<sup>12</sup>

The importance of the BIV argument lies in the fact that it demonstrates the 'unanticipated' and 'unacceptable consequences' that metaphysical realism will have (in the field of epistemology and semantics), given the concessions that it makes at the face of the force of the *reductio* of the model-theoretic arguments. Before going into the critical details of the metaphysical realist position, we start with a brief outline of this well-known BIV argument of Putnam. Putnam

A terminological clarification: Throughout this thesis 'BIV argument' refers to Putnam's argument whereas 'BIV' refers to an inhabitant of the Brains in a Vat world speaking Vat-English.

imagines a world in which the brains of all sentient beings are removed from their heads (not by some evil scientists but that is how that world is!) and put in a vat which is controlled by some highly sophisticated computer. The most interesting point about these BIVs is that they all experience the same mental representations which, we, the non-BIVs experience while interacting with our environment. Putnam attributes this aspect to the impulses from the computer that cause the BIVs to have the illusion that they are having the same experiences as the non-BIVs. Against this background Putnam asks the question, can the words of BIVs (supposing that they also use English which of course is Vat-English) have references in the same way that the words of English (as spoken by non-BIVs) have? That is to say, can their language have the same references as that of the non-BIVs? Putnam's reply to this question is an emphatic 'no'. This is due to his conviction that the 'causal requirement' must be met for successful reference. This is derived from Putnam's early stage of philosophizing where he advanced the new theory of reference with its characteristic slogan that 'meanings just ain't in the head'. To put it in Putnam's words, "one cannot refer to certain kinds of things, e.g. trees, if one has no causal interactions at all with them, or with things in terms of which they can be described" (1981, 16-17). This point assumes

Putnam thus does not accept restrictive causal connection. As he later elaborates in *Reason, Truth and History*, "[T]he idea that causal connection is necessary is refuted by the fact that 'extraterrestrial' certainly refers to extraterrestrials whether

utmost importance from the point of view of the present thesis. The reason is that it reinforces the central tenet of the thesis that there exists a continuity between the allegedly intermittent stages of Putnam's writings. It shows that Putnam's causal theory of the first phase has been carried over to the final stage of internal realism where it provides the correct theory of reference fixing. But there is another crucial point here. This theory of reference occurs as a premise of an argument, which I will show, ultimately works as a *reductio* of the metaphysical realist premises. One may, of course, approach this problem of *reductio* in a different way. A realist like John Heil (1988), for example, argues that this *reductio* arises due to the inherent inconsistency of the causal theory of reference. In his reply, Putnam rejects this realist argument. He argues that the causal theory works perfectly well when it is assumed within the scheme of internal realism. The apparent inconsistency is due to the realist's attempt to couple the causal theory with metaphysical realism and more importantly to his attempt to present the causal theory in the garb of apriorism. We will elaborate on this point later. Now to get back to the BIV argument:

The point which Putnam wants to make with the help of this argument is that we are not brains in a vat. This is because the very supposition that we are brains in a vat is false

we have ever causally interacted with any extraterrestrials or not!" (1981, 52).

and therefore **self-refuting**. Thus the **BIV** argument can be represented as an anti-sceptical **argument** similar to that of **Descartes'** *Cogito* argument. As **Tymoczko** (1989) comments "... Putnam has extended **Descartes'** *Cogito* argument in a new and powerful way" (281). It is true that the BIV argument is popularly represented as an anti-sceptical argument . But in the context of this thesis, I have used this argument to represent a **reductio** of metaphysical realist premises. Thus the argument goes as follows:<sup>15</sup>

Premise I

Metaphysical realism is true and truth is radically **non-epistemic**; we may all be brains in a vat.

**Premise II**

For the purpose of referring to an object, we need to be causally (directly or indirectly) connected to it. This causal requirement also shows that we cannot be **wrong about every** thing (i.e., we are not brains in a vat).

Alternatively, this premise **in a more familiar form runs as**, "If **we** were brains in a Vat, we could **not** consider **whether we were** brains in a vat".

14

There are a number of articles **in literature who take the BIV** argument as anti-sceptical and argue **that it fails to prove the** statement '**I** am not a brain in a **vat'** needed to quieten the **sceptic**.

15

This form of the argument **is** suggested xn Peter Van Inwagen's "On Always Being **Wrong**".

Conclusion

So, we are not brains in a vat. These two premises constitute Putnam's *reductio*, that truth is not radically **non-epistemic**.

Before going into a detailed discussion of the realist rejoinders to this argument, we should see how this argument works. Given Putnam's causal requirement as expressed in premise **II**, to refer to trees, brains and vats **etc.**, we need to be causally connected with these things. The **BIVs** are, on the other hand, *ex hypothesai* incapable of any such causal connection since their referential functions are necessarily confined to the range of computer impulses. They cannot go beyond those **impulses**. **However**, one may still talk about an indirect causal connection between the Vat-English word '**tree**' and the tree outside. This claim is made on the ground that there is a connection existing between the designer's (of the computer) word '**tree**' and the tree outside. But in reply we will say that this defense will not be of much help since the **BIV** *ex hypothesai* do not have any such designer. Thus follows Putnam's conclusion: the BIVs cannot say that they are BIVs in a way in which the **non-BIVs** can say this (even though they may have similar mental **representations**). However, there is only one way, as Putnam argues, in which the sentence uttered by a BIV, namely, '**I am** a brain in a **vat**' say have a meaning. In Putnam's explanation the BIV **sentence**, '**I as** a brain in a vat' as uttered by a BIV essentially means '**I as** a

brain in a vat in image' or something very similar, but not that 'I am a real (physical) brain in a real (physical) vat'. Thus, this sentence, when uttered by a BIV, results in a false statement. Again, when a non-BIV utters it, it is definitely false as a non-BIV cannot possibly be a brain in a vat. Thus comes Putnam's oft quoted argument,

So, if we are brains in a vat, then the sentence 'We are brains in a vat' says something false (if it says anything). In short, if we are brains in a vat, then 'We are brains in a vat' is false. So it is (necessarily) false (Putnam, 1981, 15).

This BIV argument is one of the most frequently and severely attacked arguments in contemporary analytic philosophy. We can divide the various criticisms against this argument broadly into two categories: the first derives its force from the charge of equivocation and the second from proving the sceptical worry as self-refuting.

The critics who belong to the first group (e.g. McIntyre 1984, Smith 1984, Harrison 1985, Iseminger 1988, etc.) hold that Putnam's argument fails as it involves equivocation, i.e., the premises of Putnam's BIV argument use the sentence 'I am a brain in a vat' in two different senses, viz., one in English and the other in Vat-English. So the conclusion is not valid. Brueckner (1986), on the other hand, accepts the formal validity of this argument. However, he complains that due to its equivocation, or as Brueckner calls it, 'meaning-scepticism', it

fails to prove the conclusion 'I am not a brain in a vat'. He maintains that Putnam's argument has force only at the 'metalinguistic level', where it shows that the sentence 'I am a brain in a vat' is false. But due to Putnam's meaning-scepticism or equivocation, this sentence expresses different statements in different worlds (i.e., at the level of the object language), which are rendered false for different reasons. Putnam's BIV argument does not provide any ground for accepting one statement over the other. Thus, Putnam's argument fails to make any assertion at the object language level. It only proves that if we were BIVs then we could not have asserted that 'we are brains in a vat'. But that, however, does not prove that we are not brains in a vat. Thus the non-epistemic force of the metaphysical realist theory of truth as correspondence is retained. We may still all be BIVs! And the *reductio* of Putnam is thus defeated.

My argument here will try to show that the *reductio* is not really defeated. To appreciate the force of this *reductio*, we should keep in our mind one epistemological attitude which all realists, especially metaphysical realists, share. This is, to use C. Wright's term, an attitude of 'modesty', that is, the acceptance that the mind-independent world makes our beliefs etc., true. Gaining knowledge is a real victory in a real war in

This point is developed in C. Wright's "Realism, Anti realism, Irrealism, Quasi-realism" (25).

this view. What follows from this attitude of 'modesty' is the 'coherence of scepticism'. The sceptic's apprehension that we might all be wrong in formulating our theories about the world, is a meaningful one, given this realist attitude of 'modesty'. Putnam's *reductio* derives its force from the point that metaphysical realism, when supplemented by the causal theory of reference, renders the 'coherence of scepticism' unintelligible within the realist scheme. It thus proves that the proposals and concessions that a realist makes at the face of the model-theoretic arguments of Putnam cuts back into the premises of metaphysical realism. This may be explained in the following way.

Brueckner and Van Inwagen concede that if we were brains in a vat then we could not have asserted that 'we are brains in a vat'. This is because all the BIV assertions are caught in the 'causal wave' which cannot refer to the real brains in real vats. But one of the consequences of this is that it robs the BIV of the power of philosophical speculation. To entertain a Cartesian sceptical doubt, the BIV should be able to assert, 'If we are all brains in a vat, then ...' i.e., a conditional whose antecedent should express, as Anderson (1992, 71) observes, a 'non-standard' theory. But as already conceded by Brueckner and others, this non-standard theory is not available to a BIV as 'the cognitive range' of his language is seriously limited due to its limited causal reach. So a BIV is

thus incapable of entertaining a sceptic worry characteristic of the **'modest'** attitude of the traditional realist, and thereby fails to be a traditional realist. This **conclusion**, however, does not worry **Brueckner** and others as they attribute it to the odd and restrictive set-up of the **BIV** world. Anderson also assumes that it does not affect us, the **non-BIVs**, as we "in the actual world bear the proper causal relation to the *Kind* of the objects that make speculation about the ultimate nature of reality possible" (Anderson, 1992, 73). Our **'vat'** refers to a real vat and **'brains'** refer to real brains. So we can speculate that we are brains in a vat.

But can we really speculate in the above mentioned manner? We can use the **predicament** of the **BIVs** as an **eye** opener regarding our predicament within the range **of** causal realism. A sceptic's worry goes as follows:

(A) **If** we are brains in a vat, then grass is not green.

One way of considering this possibility is **to think of** a possible world, other than our **own**, where the conditional **holds**. But a sceptic wants us **to entertain** this conditional in our own world. Given this sceptic demand, **we are to think that** in the actual world we are brains **in a vat and our reflection of** (A) is a reflection of **a BIV. But this is not possible; this** requires us to take the conditional firstly as **a sentence of BIV** and secondly as a supposition that provides the occasion **for** entertaining the possibility that I am a brain in a vat. But as

Anderson rightly observes, these two cannot be held together. If I consider the first condition, that is, if I take a BIV reflection of (A), then my utterance of (A) will not express the hypothesis that I am a brain in a vat as no BIV can entertain that hypothesis. On the other hand, if we try to entertain the second condition, i.e., the supposition that I am a brain in a vat, then I am already presupposing that I am not a brain in a vat, and thus cannot entertain the first condition<sup>17</sup>. As Anderson maintains,

[T]o entertain the possibility that the actual world is a BIV world I must be able coherently to believe both that some sentence I entertain expresses the claim that I am a BIV and that no sentence I could possibly entertain expresses the claim that I am a BIV (Anderson, 1992, 73-4).

The argument given above shows that a causal realist cannot entertain the sceptic worry that he is a brain in a vat. So scepticism does not remain coherent for him any longer. Apart from this linguistic argument, we can also give a conceptual argument against the intelligibility of the coherence of scepticism within a causal realist framework. This simple but often overlooked argument revolves around the pronouncement of the causal theory of reference that our words have reference (and in turn meanings) by being "causally tied to *whatever* reality is ultimately causing us to have the experiences that we do, and so

This brilliant argument is suggested in Anderson (1992, 73).

we just will end up holding true beliefs about *that reality*" (Anderson, 1992, 76). Since causality with its enormous power relates us to the Kantian noumenal world, all our beliefs which are the results of that relation cannot but be true. There is thus no room left for sceptical worry that we might be wrong as we *cannot* be wrong. The world in itself has reached the courtyard of our theory through the front door of causal connection. So we can no more say 'You never know, we might all be wrong'. Because there is no reality left that can prove us wrong. Our causal connections have captured the reality in its entirety. So there is no room for any apprehension. Anderson writes,

[C]ertainly something of the 'dignity' of the quest for knowledge is lost inasmuch as the wondrous powers of 'causal relations of the appropriate type' will literally carry us up the mountain, regardless of how bad our epistemic situation might be (Anderson, 1992, 76).

This *reductio* as suggested by the BIV argument thus aims two blows at the metaphysical (causal) realist: it makes 'coherence of scepticism' implausible for him and thereby the non-epistemic view of truth is also rejected. A possible observation in this respect is that, Putnam's internal realism to be realism proper, has to accommodate this realist attitude of 'modesty' as reflected in the 'coherence of **scepticism**'. Internal realism, as has already been mentioned, accepts the causal theory of reference as the correct theory of **semantics**. The question thus arises, does not the inclusion of the causal

theory within the scope of internal realism impair the intelligibility of the 'coherence of scepticism' within that framework, as it does for metaphysical realism? This will be dealt with in detail in our next section. Before going into that we will briefly consider the other common criticism of the BIV argument.

The second common criticism starts with the observation that even a BIV can ask the question 'am I a brain in a Vat?' and given the formal validity of Putnam's BIV argument, reach the conclusion that 'I am not a brain in a vat'. The BIV argument thus, the critic says, turns out to be a paradoxical argument and the sceptic worry to be self-refuting. This seeming paradox disappears when we compare it with Skolem's resolution of the Löwenheim-Skolem paradox. Skolem pointed out that our terms (scientific or otherwise) have meaning internal to a model/interpretation. In like manner, the BIV argument presents a hypothetical situation relative to our language (English) and our theory. Thus the hypothesis is an internal one. So "it makes no sense to wonder whether we really are brains in a vat in some absolute sense, apart from the sense we give these terms in the context of our language and theory" (Tymoczko, 1989, 290). This aspect of the **internality** of the BIV argument has a significant implication for the entire framework of the later Putnam. In our next section we will notice that this internality makes room for the 'coherence of **scepticism**' within this

**framework, which,** as we have already observed, is a prerequisite for any realism.

In our next **section,** an outline of internal realism will be drawn with the focus on its theory of truth and reference.

### 3.3 Internal Realism: An Outline

Putnam's internal realism is a shift from his strong realism of his early days which is at times taken as a version of metaphysical realism. **However,** internal realism is, by no means, a total break from his earlier realism. Realizing the internal incoherence of metaphysical realism, Putnam now adds the aspect of **internality** to his earlier realism. Now the question is, how is this '**internality**' incorporated?

**Internality** points to the fact that our world-views **are** always conceived in relation to us – speakers. The realist model is always a model from our point of view and **not from the** point of view of the universe. The given world is our **world and** the realist model too should be envisaged as **an attempt to** explain our interaction with this world. Realism, to put it in Putnam's phrase, thus appears here with '**a human face**'. **The impersonal world-view** of metaphysical realism **makes way for** a personal interactive world-views. In *Representation and Reality*

(1988, 109), Putnam identifies two principal features of internal realism, viz., conceptual relativity and objectivity,

Conceptual relativity is the direct outcome of the incorporation of internality within the realist **model**. In it, the concept of interest-relativity of the second phase of Putnam reaches its culmination. Conceptual relativity is also an outcome of Putnam's attempt to apply the **Löwenheim-Skolem** theorem to the field of philosophy of language. It maintains, to put in a **nutshell**, that only in relation to a model interpretation does our world picture make sense. We can talk about truth or reference of a sentence only within the scope of a system of which it is a part. In traditional philosophy, conceptual relativity is usually coupled with some versions of conventionalism. This might be the reason why the prevalent interpretations of internal realism takes it as a variant of cultural relativism or pragmatism. We will not go into a detailed discussion on this issue since this will be the topic of discussion of our next chapter. But before passing onto **the** other feature of internal realism, viz., objectivity, we can notice that internal realism does not talk about **mere** conventionality. Rather, reality is conceived here in **terms** of a **'conventional-factual-continuum'**.

The notion of objectivity is reflected in internal realism's concepts of truth and reference. One point should be

made clear at the outset while discussing the concept of objectivity of internal realism: that this concept does not refer to the traditional objectivity with capital O. The concepts of truth and reference also, in a like manner, do not refer to Correspondence and the unique, determinate relation between our words and the world outside. This, however, does not mean that internal realism rules out our concepts of truth and reference altogether. Internal realism only subsumes them under the scope of a conceptual scheme. Internal realism, quite contrary to metaphysical realism, does not try to define the concept of reference in terms of an 'essential' unique relation to the objects outside. Such a priori questions (methodological and otherwise) are rejected here as senseless. Concepts of reference, meaning, etc., are taken as primitive (in the sense of being irreducible) concepts with many different uses.<sup>18</sup> The conceptual relativity of a realist hypothesis consists of the fact that it specifies a particular use for the concepts used in that theory. This empirical realism accepts the causal theory of reference as a theory of reference fixing. It, however, makes it clear that talking about reference does not specify what reference is in the absolute sense, nor does it maintain that reference is a determinate, unique relation. Internal realism, owing to its adherence to conceptual relativity, adds one core **normative** constraint to its regulative principle of PBD, viz., that the

18

According to Putnam, concepts like meaning, reference and truth etc., have 'open texture' (Putnam, 1988, 120).

comparable theories should treat ('use') the concept of reference in a similar fashion. This aspect is evident in Putnam's comment that "[M]eanings have an identity through time but no essence" (Putnam, 1986, 11). That is to say, they should be identifiable as using the same concept of reference in order to apply the PBD to them.

We now move on to the internal realist's concept of truth. It is usually maintained that truth here consists of coherence and not of correspondence. But I would like to argue that there is room for a kind of correspondence, namely, an internalized correspondence. It will be necessary to accept this because faith in some correspondence is a prerequisite for a realist picture. It is reflected in the attitude of 'modesty'. Following Anderson, we may note that, Putnam "... does not dismiss our pre-philosophical convictions about the meaning of the word 'true' (Anderson, 1992, 77). This pre-philosophical conviction requires that a sentence, say, 'grass is green', is true only if grass is really green. But it does not talk in favour of any unique correspondence, viz\*, 'correspondence-with-teeth'. So internalized correspondence which is a 'correspondence-without-teeth' can also explain the pre-philosophic notion of truth. Putnam accepts truth as a regulative ideal. It is reflected in his explication of truth as an 'idealization of justification'. This insertion of idealization has twofold implications: firstly, it distances

internal realism from anti-realism and cultural relativism where truth is explicated purely in terms of justifiability. Secondly, this idealization helps Putnam retain the 'modesty' required of any realism. It helps us to identify the component of correspondence in the framework of internal realism. Both these implications point to the objectivity aspect of Putnam's notion of truth.

Truth as 'idealization of justification' means that truth is independent of any temporal (individual or collective) justification (as opposed to the view of anti-realism). It also implies that truth is independent of the belief of the majority of the members of a culture (as opposed to the view of cultural relativism). Both these features point to the availability of the attitude of 'modesty' in the internal realist framework. In our discussion of the critique of metaphysical realism, we observed that the wedding of metaphysical realism with the causal theory of reference proved to be fatal. That disastrous union robs metaphysical realism of the realist attitude of 'modesty'. In this respect, we had raised the question of how internal realism would avoid the fate of metaphysical realism, once it was united with the causal theory of reference. Internal realism avoids this disastrous outcome due to two reasons; one is its empirical nature and the other is its inclusion of the notion of idealization in its concept of truth. The empirical nature of the internal realist scheme is evident in its aspect of

internality. The sceptic worry, thus, when construed within the scope of internal realism, does not express the absolute worry as to 'how do we know that we are not BIVs?' Even the sceptic worry is formulated as an internal question. The sceptic's worry is made intelligible as an internal question here and then rejected. Internal realism does not accept the Cartesian-style of scepticism which is a reflection of the metaphysical realist's conception of truth as non-epistemic. But the realist attitude of 'modesty' does not warrant a Cartesian-style of scepticism either. 'Modesty' only reflects the fact that our beliefs are not made true solely on the basis of our ideas. This aspect is captured by the internal realist notion of truth as idealized justification. Such idealization keeps the possibility open that even if a sentence is true in the light of our present day scientific findings, future scientific discoveries might prove it to be wrong. That is to say, the sentence might turn out to be wrong in the ideal limit of the concerned scientific knowledge. That is, to put it in C. Wright's words, "... we (also) want it to be a real mountain, not some sort of reification of aspects of ourselves" (Wright, 25). But this does not speak for a Cartesian-style of scepticism. However, the **Cartesian-style** of scepticism is not the only possible kind of scepticism that we may have. As Anderson says, there can be empirical **scepticism** as opposed to the "... transcendental [one in a] way presupposed either by Cartesian scepticism or by **Putnam's** own **BIV scenario**" (Anderson, 1992, 79).

Thus this feature of idealization points to the objectivity of Putnam's notion of truth. It, therefore, as we have already mentioned, stops the reduction of this view of truth to mere conventionalism. This can be showed with the help of an example. Unless we decide upon how we are going to use concepts like 'object', 'existence' etc., the question 'how many objects exist' does not really make any sense. It thus makes room for conceptual relativity. But once we decide the use of these concepts, the answer to the above mentioned question within that use or 'version', to put it in N. Goodman's phrase, is no more a matter of 'convention' (Putnam, 1988, 110-113). It then becomes a factual question and a reply to it depends on how the facts are and not solely on what we think about them.

The aspect of conceptual relativity suggests the dependence of the internal realist notion of truth on its notion of reference. Truth, though explained in terms of idealized justification, is not reduced to the latter; they are, on the other hand, shown to be 'interdependent' concepts. Putnam goes on to argue that "... truth is not the *bottom line*, truth itself gets its life from our criteria of rational **acceptability**" (Putnam, 1981, 130). These criteria are ultimately tied with the ways in which the words of a language are given referential import. This is what explains the *relevance* of truth. As Putnam's example shows (Putnam, 1981, 137-8), a person's

description of a room will be acceptable as true only if he uses our 'concepts' of tables and chairs. Otherwise, his description will not *make any sense to us* inspite of being formally true. This notion of 'making sense' is made intelligible by the internal realist notion of reference. This speaks for the centrality of reference in this framework which will be dealt with in our fifth chapter. Before that we will consider internal realism's relation to anti-realism and relativism in the next chapter.

## CHAPTER IV

### INTERNAL REALISM, ANTI-REALISM AND CULTURAL RELATIVISM

#### 4.0 Introduction

Realism stands for a **mind-independent** world-view. It is thus ardently opposed to anti-realism and relativism of any kind. However, any discussion of realism cannot **avoid a** discussion of its contrast with anti-realism as well **as relativism**. But as has already been mentioned in **the** previous chapter, this kind of contrast assumes special importance **in** the context of internal realism. This is largely **due to the 'peculiar'** nature of internal realism as of being **'the third way'** between traditional realism (conceived in terms of metaphysical realism) and relativism. Internal realism, **as we have** characterized in our previous **chapter, is realism with a** qualification, namely, the **'internalization'** or **'conceptualization'** of the realist world-view. This **'peculiar'** nature can be held responsible **for the wide misunderstanding of** the nature of internal realism. **The standard interpretation of** internal realism tries to place **it** under **the scope of various**

shreds of anti-realism, viz., idealism, extreme nominalism, or conventionalism etc. It also tries to consider internal realism as a special case of relativism. It is against this backdrop that a contrast of internal realism with anti-realism and relativism assumes greater relevance. Firstly, such a contrast offers a reply to the above mentioned interpretation of Putnam by bringing out the points of difference between internal realism on the one hand and anti-realism and relativism on the other. This contrast therefore seeks to identify what is realistic in internal realism. In so doing, it becomes an integral part of the central tenet of this thesis that there exists a continuity throughout the intermittent stages of Putnam's writings. Such contrast helps us in identifying the realism of early Putnam in the scope of later Putnam. Secondly, this contrast serves in grasping the special significance and the various implications of internal realism in their entirety.

This chapter is divided into two sections. The first section deals with the relation of internal realism with anti-realism and the second section presents the contrast between internal realism and cultural relativism. In the conclusion of this chapter an attempt will be made to bring out the common reasons for this standard 'mis'interpretation of Putnam's

Such charges are found in Hacking (1991), Devitt (1984, 277). Devitt writes, "In a vivid and comprehensive way Putnam has captured most of the intuitions that motivate anti-realism." (277).

internal realism.

#### 4.1 Internal Realism and Anti-Realism

It should be conceded at the outset that internal realism enjoys a close relationship with anti-realism<sup>2</sup>. Putnam's conversion to internal realism was in fact initiated by his realization that only a verificationist or anti-realist semantics succeeds in providing an adequate theory of language understanding and that of language acquisition (Putnam, 1978a). As a result of this, Putnam adds the internality aspect to his realism through which he injects the 'human perspective' to his realist hypothesis. An internal realist thus 'constructs' a representation of the world from our point of view - - that is, that of the speakers.

While reflecting on the epistemological implications of his realism of early days, Putnam becomes aware of the problems implicit in the realist conception of truth as Correspondence to the mind-independent reality. This reflection also made explicit to him the inconsistencies of realist semantics, that is, the incoherence of the realist theory of language understanding. The traditional realist maintains that understanding of a language consists in the acquisition of the truth-conditions of the

My discussion here focuses solely on **Dummett's kind of anti-realism** due to its closeness to Putnam's internal realism.

sentences of that language. Further, as we have already seen, correspondence theory of truth, when coupled with the realist thesis concerning absolute mind-independence of reality, commits itself to a view of truth which takes truth as non-epistemic. Thus the traditional theory of language understanding will consist in the acquisition of the non-epistemic truth-conditions of the sentences of his language. Dummett questions this possibility. Dummett asks, if truth-conditions are totally non-epistemic in the way a metaphysical realist takes them to be, then a knowledge of such conditions becomes totally unintelligible. We cannot think of anything in which our knowledge of such non-epistemic truth-conditions could possibly consist in. Putnam sees the point in Dummett's criticism and accepts the untenability of the realist semantics. To quote Putnam,

The point is that Dummett and I agree that you can't treat understanding a sentence (in general) as knowing its truth conditions; because it then becomes unintelligible what that knowledge *in turn* consist in. We both agree that the theory of understanding has to be done in a verificationist way. (Putnam, 1978b, 129)

The acceptance of a verificationist theory of language understanding and that of language acquisition leads Dummett to embrace an anti-realist world-view. The consequence of Putnam's acceptance of a verificationist theory of understanding, in a like manner, leaves only this option open for him. That is, Putnam now has to concede the untenability of the entire realist

world-view and thereby he has to convert himself into a thorough anti-realist. This is how Putnam's internal realism is popularly projected in the literature as a version of anti-realism. This, however, does not conform to Putnam's own stand as expressed in his various writings. Putnam does not think that acceptance of a verificationist theory of understanding, that is, accepting the lacuna of metaphysical realism leaves him with only one option, i.e., anti-realism. On the contrary, he throughout asserts his theory to be a realist one. His own theory of internal realism serves the purpose of realism. As he writes, "[S]o metaphysical realism collapses. But internal realism - the empirical theory ... - doesn't collapse (I claim) .... *Internal realism is all the realism we want or need*" (Putnam, 1978b, 130)•

The obvious question that can be raised in this connection is, how internal realism after being reconciled with a verificationist semantics can retain its realist status. This worry is due to the common conviction that **verificationism**, by its very nature, leads to **anti-realism**. Putnam's reply to this above mentioned question can be constructed by referring to two points of his internal realism: firstly, the existence of 'human perspective' within the framework of internal realism which is not available to a traditional **realist**, and secondly, the precise nature of Putnam's verificationist theory of understanding.

Internal **realism**, as has already **been** mentioned in the previous chapter, subsumes the realist hypothesis under a conceptual scheme or **language**. This subsumption makes the realist hypothesis internal to a particular scheme (theory/language). Realist **hypothesis**, in this framework, is constructed from the point of view of the speakers. Truth is thus defined in this framework as relative to the conceptual scheme and to the human perspective. Truth, is not taken as something **non-epistemic** in the fashion of the metaphysical realist. Internal realism, therefore, can easily maintain that realist truth can be coupled with the verificationist theory of language understanding, that is, the theory which maintains that we learn the meaning of words, sentences etc., of a language by learning their **'use'**. The question that we raised in the previous paragraph, points to the tenability of such a union of realist truth with a verificationist theory of language understanding. We will postpone our discussion of this point till we discuss the nature of Putnam's concept of truth and also of his verificationist theory of understanding. In this **respect**, the difference between internal realism and **Dummett's** anti-realism is drawn by exhibiting that the realist **spirit**, which was defined in terms of the availability of coherence of scepticism in our previous chapter, can be identified in the internal realist framework but not in the anti-realist framework of Dummett. This is due to the nature of **verificationism** that Putnam accepts within the scope of his internal **realism**.

Truth is defined in relation to a scheme in an internal realist framework. But this does not exhaust completely the force of truth in this framework. Putnam does not accept the metaphysical realist conception of truth as unique correspondence to some 'uninterpreted, thing-in-itself reality' (Anderson, 1992, 77). He, however, as we have already noted, does not "dismiss our pre-philosophical convictions about the meaning of the word 'true'" (Anderson, 1992, 77). This conception, Putnam argues, does not warrant a metaphysical realist notion of absolute correspondence. Our pre-philosophical notion of truth requires truth to be a regulative principle. Putnam retains this pre-philosophical notion, as truth remains a regulative ideal in his internal realist framework. This precisely outlines Putnam's difference from Dummett's anti-realist position. Dummett maintains that as the realist theory of truth along with realist semantics fails to provide an acceptable account of our language understanding, the realist theory should be ruled out completely. This is due to Dummett's conviction that a verificationist semantics can never be fully absorbed in a realist explanatory model. Here Putnam's disagreement with Dummett can be construed under two heads. One refers to their views about verificationist semantics and the other refers to their conception of an explanatory scheme.

Putnam in "Realism and Reason", (1978b, 129) observes

that a theory of understanding in terms of a verificationist concept of 'use' does not exhaust his entire semantic theory (i.e. the theory of meaning). In this regard, he makes his ingenious distinction that the theory of language understanding is different from the theory of language functioning (1978a). Thus, though verificationist theory (in terms of 'use') serves very well as a theory of language understanding, it cannot, by itself, function as a theory of language functioning. For this purpose, in addition to a verificationist theory of language understanding, Putnam's semantic theory has a theory of reference, which is given in terms of the causal theory of reference. This theory of reference refers to a correspondence ('causal chain') relation between our words and the world outside, though not of the absolute nature envisaged in the metaphysical realist framework. The availability of this correspondence imparts the realist force to Putnam's theory as opposed to Dummett's which rules out correspondence of any kind. This correspondence, in turn, plays a crucial role in Putnam's idea of realism as an empirical hypothesis to explain the success of human behaviour, or of human interaction with their environment. It also explains the concept of language functioning in Putnam's semantic framework. The entire idea of explanation will be defeated if some kind of correspondence is not accepted. As Putnam observes, **anti-realism** due to its lack of any such concept of truth **makes** the success of science 'a

miracle' (Putnam, 1978, 18). Putnam's entire framework can be represented as consisting of two tiers, viz, the outer tier of the theory of understanding and the inner tier of the realist theory of explanation. While the outer one makes room for a verificationist theory of understanding as consisting in the concept of use, the inner one retains the mechanism of correspondence (in the form of 'causal theory of reference') which is considered to be one of the basic tenets of the realist hypothesis. In this regard, we may note that Dummett also accepts "two notions of truth in the philosophy of language" (Putnam, 1983b, 83) viz., the internal and the external notions. The internal view is typically exemplified by the metalinguistic sentence, "'P' is true if and only if P", where true-in-L is defined in the corresponding metalanguage ML. However, this does not tell us how to understand 'P' or 'P is true'. For such understanding we need, what Dummett calls, the external notion of truth. This external notion is explained by the notion of justification. "A statement is true if its assertion would be justified" (Putnam, 1983b, 83). If truth has to play any explanatory role in our understanding of language then the external notion of truth should be taken into account. It is

Even Dummett concedes that an anti-realist does not feel comfortable with the question of explanatory scheme (See Dummett's "Comments" on Putnam's article "Reference and understanding" (1979a).

This idea, as we have already mentioned, is discussed in detail in "Reference and Understanding" (Putnam, 1978a).

thus not the truth-conditions of a sentence but its justifiability-conditions that constitute our theory of language understanding.

The equivalences stated in the metalanguage provided at the 'internal' level of Dummett thus play no role whatsoever in his explanatory notion of truth. But, for Putnam, 'the external notion of truth', to use Dummett's phrase, does not consist of mere justification; in addition, it includes *idealization* of justification. "A statement is true, ... if it would be justified under epistemically ideal conditions for many sorts of statements, ...; we cannot really attain epistemically ideal conditions for many sorts of statement, ..." (Putnam, 1983b, 84) 'Epistemically ideal conditions' thus help Putnam's notion of truth to surpass the temporality implied by mere justifiability. If truth is defined in terms of justifiability, in the fashion of Dummett's external notion of truth, then a sentence which is justifiable here and now becomes true forever • There is no possibility for it to turn out to be false at any other time or place. But history of human civilization and that of the development of science is flooded with examples where statements, once taken to be justified (and therefore true) are later rejected as false. The statement, 'The earth is flat' is one

Mere justifiability also makes truth relative to a particular culture, ideology etc. As that forms the principal argument of the next section of this chapter, I am not going into a detailed discussion of this point here.

common example of this feature of our history of the progress of science. So truth loses much of its regulative force, if identified with mere justifiability. Putnam, by asserting that truth can be explained in terms of idealization of justification, retains the pre-philosophical concept of truth as regulative ideal. This pre-philosophical concept also includes the realist intuition about truth. One aspect of this ideal points to the fact that truth does not depend solely on human mind. To use C. Wright's metaphor, this "... spirit requires that there be a mountain that is a genuine obstacle to be overcome..." (Anderson, 1992, 77) and not an imagination of human fancy. This spirit is totally retained in Putnam. This aspect is dealt with by Putnam, as we have already observed before, during his discussion of the objectivity of truth. Objectivity of truth maintains that 'our' knowledge (and truth) depends on external reality also. In so maintaining, Putnam surpasses the arbitrary nature of conventionalism, that is implied by Dummett's anti-realism.

The other aspect of this ideal of objectivity is that as observed by Anderson, it is 'not necessarily achievable' (77). "To say that an epistemically ideal theory could not be false (which

Putnam in his Representation and Reality (1988, 115) clarifies that truth is not reduced to "idealized rational **acceptability**". It is rather understood in terms of the latter. This, I think, can be taken as a hint of Putnam's desire to retain the pre-philosophical notion of truth and not to reduce it to some epistemic notion.

Putnam does say) is not to say that *in every conceivable area of inquiry* it is possible for human beings to achieve an ideal theory. Not only is 'truth' not a name for 'the best that a culture can accomplish', it is not even a name for 'the best that human beings can accomplish'" (Anderson, 1992, 77).

We accept that mere verifiability cannot entertain a realist spirit of any sort. But, our argument consists of the fact that Putnam's notion of verification differs from that of Dummett's on a very crucial point, that is, it involves the idealization of this concept. It is this notion of idealization that makes room for objectivity and thereby for the realist spirit. It is, therefore, not hard to see how this idealization of justification makes room for the coherence of **scepticism**. But, before going into a detailed discussion of this point, we need to focus on another important distinction between Putnam and Dummett. This distinction is derivable from their conceptions of meaning and justification.

Putnam's theory of meaning can be successfully expressed with the help of his characteristic slogan '**meanings are just not in the head**'. He accepts, through his causal theory of reference, external **determinants** of reference and **meaning**. Dummett, on the other hand, in the fashion of **Frege**, maintains that the meaning of a sentence can be given in terms of a set of necessary and sufficient conditions. **Dummett's** idea of

justification thus resembles the idea of justification accepted within the scope of the traditional theory of meaning, which borrows its principal argument from Frege's theory. According to Dummett, as Putnam observes, "the justification conditions for sentences are fixed once and for all by a recursive definition" (Putnam, 1983b, 85). This feature, when coupled with 'non-realist' semantics, in the fashion of Dummett, leaves no room for objectivity. The world outside thus is denied any role to play in our theory of meaning and justification. Moreover, such anti-realism has no scope for any sceptic doubt. The world is a creation of human ideas or perceptions (as maintained by idealism) or at best the way in which we see it. It, therefore, does not make any sense in this anti-realist framework to wonder whether a particular sample, which we have taken as of water, is really water. As we are the sole arbiters, any sceptic worry, even in its empirical form, cannot be **entertained**. Putnam does not accept such a world-view. His realist model accepts the 'contribution of the environment' and its realism is contained in this very fact. As Putnam observes, "[J]ust as the objective nature of the environment contributes to fixing the reference of terms, so it also contributes to fixing the objective truth conditions for sentences, although not in the **mataphysical** realist way\* (Putnam, 1983b, 86)•

To deny that meaning does not consist of absolute truth-conditions is not, by any **means**, to concede **that** our

sentences have no truth-conditions whatsoever. The sentences of our theory are made true or false by the world in the internal realist framework and therefore the sceptic worry [e.g., 'we (or our present theory) might go wrong'] also assumes meaning here. Putnam's internal realism thus remains a realism in spite of its inclusion of the verificationist theory of understanding. The charge of shifting to anti-realism levelled against the later Putnam is thus a misconceived one.

#### 4.2 Internal Realism and Cultural Relativism: A Source of Controversy

The standard interpretation of internal realism, as has already been mentioned in the introduction of this chapter, takes it as providing a defense for relativism. This interpretation, though widely prevalent, is a misconceived one. Why it is misconceived becomes clear once we contrast Putnam's internal realism with relativism.

Before going into a detailed discussion of this contrast, we should clarify that **relativism** is considered here as a trend. We thus will not enter into an elaborate study of

By relativism we mainly refer to cultural **relativism**, a view that maintains that our concepts, knowledge **etc.**, are relative to our given culture or the social context. There is no special reason for choosing cultural relativism but for the fact that Putnam considers its proponents as his **main** opponent in his discussion of relativism.

relativism which includes different forms of relativism. We accept that it is not fair to club all the different relativists, along with their different views, under one umbrella. But given the nature and scope of our work, it is neither possible nor desirable for us to suggest different classifications of relativism and to discuss them separately here. Our purpose is to identify relativism as a general trend. To do this we propose to identify a few major premises of relativism. These premises have been shared differently by almost all the relativist thinkers.

Relativism in general stands for a view which rejects objectivity (and also absolutism) of any sort. It scorns the idea of objectivity as it maintains, against the realists, that "there is no objective knowledge of realities independent of the knower" (ed. Flew, 1984, 303.). This also expresses the anti-absolutism implied by this theory, as the absence of objective standards points to the absence of absolute standards. Relativists thus accept the conceptual relativity of their world-views. It is this acceptance of the phenomenon of conceptual relativity, that brings internal realism and relativism closer<sup>o</sup>. The standard interpretation of internal

<sup>o</sup> "One can be both a realist and a conceptual relativist" (Putnam, 1987, 17). This relativity which is at the conceptual level should not be identified with cultural relativism. The reason is that for cultural relativism, "there is no truth to be found... 'true' is just a name for what a bunch of people can agree on" (Putnam, 1987, 17-8). This, however, is not the case

realism referred to in our above discussion, can be attributed to this shared acceptance of conceptual relativity. But it is a misconceived interpretation as it suffers from the fallacy of omission. It fails to see that, while internal realism can still offer a notion of objectivity and therefore can talk about the possibility of knowledge (taken in the traditional sense), relativism fails to surpass the limitations of conceptual relativity.

Following Putnam, the reasons for relativism's failure can be construed under two different heads. Firstly, relativism, due to the peculiar nature of its claims, leads to self-refutation. Secondly, cultural relativism, when construed as a theory of scientific rationality, accepts incommensurability of concepts. Radical incommensurability makes our talk,-- ordinary, scientific or philosophical - 'irrational'. It reduces cultural relativism to an incoherent and inconsistent view and thereby makes it self-refuting.

for internal realism where objectivity is coupled with conceptual relativity.

To say that cultural relativism is incoherent, inconsistent and irrational is not to make three different **claims**. The fact is that ultimately they all make the same **claim**, that is, to show the self-refuting nature of relativism. However, this **claim** is based on three overlapping **arguments** which may be **termed** as arguments from incoherence, inconsistency and irrationality. In other words, they may be taken as three routes leading us to the same conclusion.

The first criticism points to the basic premise of any sort of relativism. It says that if everything is relative, the credibility of relativism is also relative. A relativist cannot consistently maintain that relativism is the best theory. But as the claim of relativism is precisely this, since any theory construction depends on the implicit assumption that the concerned theory is the best in the field, relativism results in self-refutation. A version of this argument can be found in Plato's criticism of Protagoras, who maintained that man is the measure of all things. To put it in the jargon of a famous cultural relativist, 'paradigm is the measure of all things'. Plato showed that relativism can be defeated with the help of its own premise. If, as maintained in relativism, everything is relative, relativism itself becomes relative to our choice, and cannot compel us to accept its views. The self-refutation of relativism, at this level, thus consists in its denial of its own force.

Apart from this intuitive argument against relativism in general, the self-refutation of cultural relativism can be derived from its incoherent, inconsistent and irrational nature. The main argument here is directed against the cultural relativist's concept of incommensurability. Incommensurability maintains that the terms of one theory/paradigm/culture do not

In *Reason, Truth and History* (1981), Putnam attributes this oft quoted criticism of relativism to A. Garfinkel.

have the same reference (and also meaning) in another **theory/paradigm/culture**. Radical incommensurability says that our terms, when they feature in different **theories**, involve a ' **conversion**' or 'gestalt **switch**'. This is how Kuhn and **Feyerabend**, two most vigorous proponents of incommensurability thesis, define the concept of **incommensurability**. The offshoot of incommensurability, then, is that we are all confined to **our** own world/world-views with our own set of concepts like the monads of Leibnitz. No communication of any kind is possible between these different theories. So every culture or theory has its own paradigms, norms and standards and can never get beyond them.

Putnam argues that incommensurability is **"totally incoherent"** (1983d, 193; also in **1981**, 115). This becomes evident if we draw explicitly the implications of incommensurability. In the first place, it makes translation (of any kind, viz., translating one language to another, translating the '**past** stages of one's own language' in case we **are using** different concepts) and interpretation **impossible**. This **impossibility** thus prevents us **from regarding people from** other culture as 'thinkers' or '**speakers**' or even as '**persons**'. The whole of scientific discourse thus **becomes impossible and meaningless**. **From** this the incoherence of cultural **relativism** follows. As Putnam writes, **"[T]o tell us that Galileo had 'incommensurable' notions and then go on to describe them at**

*length* is totally incoherent" (Putnam, 1983d, 193). Moreover, even for maintaining that theories differ, we should be able to compare them. No such comparison is possible without the possibility of translating one theory into other. Thus Putnam says, "... we could not say that conceptions differ and how they differ if we couldn't translate" (Putnam, 1981, 117).

This impossibility of translation and the resultant incoherence is due to the fact that the cultural relativists 'confuse or conflate' (Putnam, 1981, 116) concept with conception. Different theories can use the same concept while differing in attaching their own conceptions (the set of beliefs, i.e., their own theory about the functioning and nature of the concept) to them. We can maintain that across different theories a sameness of concepts (though not of conceptions) can be identified<sup>11</sup>.

This criticism of Putnam can be identified even in his first phase, when he was arguing against incommensurability in his article "How not to Talk About Meaning?" (1975d). He distinguishes between customary (linguistic) meaning and the theory attached to a term and maintains that though the attached theory (the conception) may undergo change, the **customary** (linguistic) meaning remains the same. It is in this continuation of the sameness of concept that we should look for convergence. The only difference between Putnam's early **stage** and later stage consists of the fact that he uses '**concept**' instead of customary (linguistic) meaning. The reason is, in his later phase, he comes to realize that even the customary (linguistic) meaning has interest-relative and **context-dependent** features. This realization might have **prompted him** to talk about more general notion of concept and not of **customary** (linguistic) meaning.

Thus, if we conflate the notions of concepts and conceptions in the manner of cultural relativists, then it results in this incoherent incommensurability. Its incoherence consists in the fact that it robs us even of our power to say that different theories have different conceptions by making translation impossible. It thus fails to attach meaning to what others speak. This incoherence thus results in **self-refutation**.

This aspect of relativism, namely, its failure to attach meaning to what others say, is severely criticized by Putnam in his argument from inconsistency against the cultural relativists. This inconsistency is drawn at two levels: one at the level of the cultural relativist's relation to others and the other at the level of the cultural relativist's relation to himself. This argument, when drawn at these two levels, shows that a consistent relativist fails to make sense of what he as well as others say.

We begin with a discussion on **how** cultural relativists render others as mere 'noise makers'. Cultural relativists ask us to have two stances at the **same time** . When I say something is true, it is in accordance with the norms of **my** culture. A consistent cultural relativist goes on to **argue**, 'when you say

This argument is developed by **comparing** the fate of a consistent cultural relativist with that of a **methodological solipsist** in Putnam's "Why Reason can't be Naturalized?" (1983f)

something is true, you say it in accordance with the norms of your culture'. But can he really talk about 'your culture'? Isn't 'your culture' is equal to 'your culture as seen from my culture' in his framework? If every utterance of mine is tied up with my culture, then my utterances about other cultures are also tied up with the 'norms of my culture'<sup>13</sup>. Thus Putnam concludes, "other cultures become, so to speak, logical constructions out of the procedures and practices" (Putnam, 1983f, 237-8) of one's own culture.

Now a thorough relativism expects the relativist to maintain 'your utterances are true in conformity with the norms of your culture'. But this "transcendental claim of a symmetrical situation cannot be understood if the relativist doctrine is right" (Putnam, 1983f, 238). The reason is, from our

Putnam draws the full implication of this argument with the help of the following reasoning:

To spell this out, suppose R.R., a cultural relativist, says: When Karl says 'schnee ist weiss', what Karl means (whether he knows it or not) is that snow is white as determined by the norms of Karl's culture (Putnam, 1983f, 237).

which is a German culture. But in R.R. statement, the truth gets defined in relation to his own cultural norms, namely, that of American culture. So we get Putnam's restatement of R.R.'s statement:

When Karl says 'Schnee ist weiss', what he means (whether he knows it or not) is that it is true as determined by the norms of American culture that it is true as determined by the norms of German culture that snow is white (Putnam, 1983f, 237).

above mentioned argument it becomes clear that a consistent cultural relativist cannot say, 'the status of a person's (other than himself) statement is relative to that person's **culture**' because by uttering this what he ultimately means is that any statement uttered by anybody (belonging to any culture) is made true by the norms of his culture. From this inconsistency of cultural relativism we can derive the conclusion of our previous argument from incoherence, that others cease to be 'thinkers' or 'speakers' for a consistent relativist.

We have already seen that for a consistent relativist all other cultures become constructions of his own cultural norms. But can he consistently maintain that he can make sense of what he says? Putnam says, 'No, he can't'. **Thus**, when a relativist says, 'X is true', what he means is that 'X is true in relation to his culture'. But even to maintain this consistently, a cultural relativist should be able to say that the statement 'X is true for person P' or for himself has a strict, definite and absolute meaning. To utter this a relativist has to accept an absolute notion of **truth**. A consistent relativist cannot do this.

In the absence of such definite or absolute standard, a relativist's language will fail to make any **sense** since such a relativist will be left with no distinction between 'being right' and 'thinking he is right'. This point, which **Putnam** thinks has

its germ in Plato's criticism of Protagoras, was 'brilliantly extended' by Wittgenstein in his Private Language Argument. This argument maintains that a person who cannot go beyond his own sensations, will not have any standard to differentiate between 'being right' and 'thinking to be right'. To maintain this distinction meaningfully, the relativist should accept an "intelligible notion of *objective 'fit'*"<sup>14</sup> (Putnam, 1981, 123) or as Wittgenstein maintains, the concept of 'criteria'. As a relativist cannot have this notion of *objective fit*, he fails to avail himself of this distinction. A consistent relativist will therefore be left with no distinction between 'asserting' or 'thinking' and 'making noise' (or 'producing mental images') (Putnam, 1981, 122). This reduces a relativist to a mere animal and accepting this reduction is to 'commit mental suicide'.

Thus this charge of inconsistency against cultural relativism when drawn at both these levels, shows its self-refuting nature. At the level of the relativist's relation to others, the inconsistency of relativism consists in the fact that a consistent relativist cannot treat others as speakers or thinkers at all. The inconsistency of relativism at the level of the relativist's relation to himself consists of the fact that a consistent relativist cannot treat **himself** as a speaker or thinker (Putnam, 1981, 124).

This idea of 'objective fit' is endorsed in Geurts et al (1988, 38).

From this inconsistency of relativism, drawn at the levels of the relativist's relation to others as well as to himself, follows the argument of 'irrationalism' of cultural relativism. This 'irrationalism' of cultural relativists consists of his 'denial' of conceiving others and himself as *thinkers*. This irrationalism of a cultural relativist denies the possibility of thought. In this way, he reduces himself to a mere animal. This irrationalism argument is explicitly made in Davidson's criticism of relativism also. It is also derivable from the cultural relativist's denial of the possibility of translation or interpretation. The whole rational exercise comes to a halt and thus results in irrationalism.

These incoherence, inconsistency and irrationalism of cultural relativism can be attributed to a deeper cause: viz., the cause which forces a relativist to embrace incommensurability. In his article, "The Craving for Objectivity" (1990b), Putnam tries to identify the possible reasons for the cultural relativist's acceptance of the idea of incommensurability. The first route to cultural relativism is a 'romantic' one where incommensurability is reached through a modified sceptic **worry**, when applied to interpretation. To **speak** in general terms, the worry is: while stating a **statement** we cannot state everything that should be **stated**. Hence, the argument of **relativism** goes, every **statement** of ours is bound to

be false. The same is true of interpretation. We cannot succeed in our act of interpretation, since we are unable to have all the set of conditions fulfilled. This is how incommensurability becomes a reality for the relativists. Apart from this, Putnam argues that there is one more source for the idea of incommensurability.

This source of incommensurability lies in the relativist's craving for objectivity. Putnam explains it as the craving for absoluteness. Both realism and relativism start with the implicit presupposition that a knowledge, to be knowledge proper, should be absolute in nature. In this attempt, both of them try to give a theory from 'nowhere'. In the context of the realist, this attempt to gain absolute knowledge results in his doctrine that our theories should correspond to the mind-independent reality. But the possibility of this correspondence, as we have seen in our previous chapter, depends on the possibility of a determinate reference relation. Similarly, the relativists, start with the absolute criterion of knowledge whose possibility depends on the determinateness of reference. However, they subsequently realize the failure of such a conception of reference because they find that reference is indeterminate, and that we cannot compare our words with the 'unconceptualized reality' outside except by the mediation of our 'discourse'. This leads them to hold a position that there exists no such object called **unconceptualized** reality. This

becomes the basis for the cultural relativist to deny the possibility of any inter theory interpretation. This is how the cultural relativists embrace incommensurability (Putnam, 1990b, 121-22) . Putnam accepts the failure of realism and also accepts the fact that reference is indeterminate. But, according to him, this does not compel one to accept incommensurability which ultimately becomes the basis of relativism. The failure of realism should not lead to relativism. This is where Putnam introduces his own solution through his theory of internal realism.

This conclusion of relativists is due to the misconception that we have only one conception of interpretation and that consists of our ability to relate our words or thought-signs to 'neutral', 'unconceptualized', independent reality. This reflects our craving for objectivity where we look for 'real' standards for translation/interpretation (Putnam, 1983d, 194). Putnam maintains that the unattainability of these 'real' standards of translation, by no means, denies the possibility of translation and interpretation completely. Translation and interpretation are facts of our rational practice. Given our context and our interests, we can successfully translate a foreign language or interpret a different theory. Thus our translation and interpretation are context-relative and also interest-relative. But to say this is not to maintain that 'anything goes\*. On the contrary, it is

Austin's maxim that seems to be more appropriate in this context: "Enough is enough, enough is not everything" (Putnam, 1990b, 122).

In this respect we may observe that human reason is both immanent and transcendent as Putnam observes (1983f, 234-5). Our craving for objectivity makes us lose sight of the immanence of reason, i.e., "of the fact that reason is always relative to context and institution" (234). We thus ask for absolute standards for rationality, truth, etc., which can be given once and for all with the help of an algorithm. Philosophers, for example, cultural relativists, after becoming conscious of the immanence of our reason lose sight of its transcendence\* Incommensurability is a sign of the relativist's acceptance of the immanence of our reason. What is needed, as Putnam observes, is a combination of immanence with transcendence, i.e., of contextuality with objectivity. Relativists fail to accept the objectivity of knowledge. This is because objectivity for them is represented only in the form of a view from 'nowhere'. But, as Putnam maintains, there can be objectivity which is coupled with contextuality. Thus concepts like 'reasonableness', and 'relevance' are to be taken care of while defining truth, reference, etc. This, however, is not to eliminate objectivity completely. On the other hand, cultural relativists, (Rorty, for example), in their desperate attempt to define truth, maintain that anything is true if it is accepted by the 'cultural peers'

of the maker of the statement. However, relativist's own practice shows that he is not convinced of his definition of truth. The majority of a relativist's cultural peers do not agree with the relativist. But the relativist carries on with his own relativist ideas by maintaining that, as Putnam observes, "... that is *irrelevant* to the question of the truth (and to the question of the warrant) of those views" (1988, 110). The relativists reduce truth to warranted assertibility in the fashion of anti-realism and make truth relative to a culture. Truth thus loses much of its regulative force. As Rorty rightly accepts, ideals of truth, justification, etc., thus cease to exist for the relativists. He writes "The word 'Truth', in this context, is just the reification of an approbative and indefinable adjective" (Rorty, 1993, 453). Rorty's main objection against putnam's notion of truth is that his idea of idealized rational justification remains unexplained. This objection can also be found in Geurts and *et al* (1988). Putnam accepts that this idea of idealization is not a very clear one. But as he maintains, this notion has 'cash value' and thus helps truth to work as a regulative ideal<sup>15</sup>.

In reducing truth to warranted assertibility, cultural relativists fail to explain certain facts. The incommensurability and the rejection of the ideal of truth

Given the focus of this thesis, we cannot go into the details of the ongoing debate between Rorty and Putnam.

violates the principle of charity (PBD) and denies the convergent nature of scientific knowledge. Consequently, it fails to explain growth of scientific knowledge. This rejection also makes all rational exercise impossible by denying a chance to translation and interpretation. The failure of cultural relativism thus consists of its denial of objectivity of all kinds. It thus makes convergence of knowledge, a fact about human knowledge, impossible.

#### 4.3 Conclusion

As a reason for this prevalent 'mis'conception regarding the nature of internal realism i.e., that it is a variant of anti-realism or cultural relativism, we can refer to the fallacy of omission. The critics, while taking note of the aspect of conceptual relativity of Putnam's internal realism, lose sight of the objectivity aspect of it. But both are integral parts of internal realism. As C. Gupta (1993) writes, "Putnam accepts conceptual relativity, but would not endorse Kuhn's 'different worlds' thesis, as premised wrongly on conceptual relativity" (Gupta, 1993, 329). For **anti-realists** (also for cultural relativists), 'different worlds' follow from conceptual relativity as they do not have any other notion in addition to this relativity. They, (Kuhn, for example), **make** observation purely a subjective phenomenon by **maintaining** that it is totally "parasitic upon theoretical **assumptions**", i.e., **the**

#### Internal Realism

canons of the concerned conceptual scheme. This, as we have already noted, does not explain the success of human interaction with the environment. The failure of relativists or anti-realists lies in this. Putnam, on the other hand, accepts this success as a fact and proposes internal realism as an explanation of this fact.

## CHAPTER V

### UNITY IN PUTNAM THROUGH REFERENCE

#### 5.0 Introduction

This thesis has two principle **objectives, viz.,** to show how reference **remains** central in all the different **phases** of Putnam's writings, and to show **that there does exist a continuity** between the allegedly discontinuous phases of **Putnam**. A little reflection will make explicit **that these two objectives are** intimately related. The reason **is: the centrality of reference** throughout the different phases of **Putnam speaks for a continuity** running through the different stages of **his philosophy**.

Before embarking on a detailed discussion of the centrality of reference and the resultant continuity, it should be conceded at the outset that there does exist an apparent **discontinuity in the different phases of Putnam**. Putnam himself has confessed that he has **'changed his mind'** on a few **occasions, in the course of the development of his entire system**. From our point of view the crucial question is, what does Putnam mean when he **says that he has changed his mind on a few occasions**. Following Putnam, **we may suggest soae clarification of his talk**

of 'changing his mind'. In Putnam's case, 'changing of mind' does not indicate a total 'conversion' from one view to another. Rather, as Putnam maintains, it points to the fact of "...being torn between opposing views of the nature of philosophy itself" (Putnam, 1988, xii). As he explains, "when I was a 'scientific realist', I felt deeply troubled by the difficulties with scientific realism; having given up scientific realism, I am still tremendously aware of what is appealing about the scientific realist conception of philosophy" (Putnam, 1988, xii). This fact 'of being torn' signifies that Putnam was always aware of two contrasting possibilities in philosophy in all the phases of his writings. As evident from his above quoted remark, he became aware of the difficulties of scientific realism (or of metaphysical realism) even in his first phase where he was developing a metaphysical realist picture of the world • This awareness of the difficulties, as already mentioned in our previous chapters, has its germ in his reflection on the epistemological implications of his strong realist position. This awareness prompts him to look into the other contrasting possibility (viz., anti-realism in general) for the solution. As a result, this helps him to arrive at the third way, i.e., the way towards internal or pragmatic realism. His turning to internal realism can, by no means, be taken as an instance of

However, in our next chapter we will discuss whether Putnam can be taken as a hard core metaphysical realist even in this phase of his philosophical writings.

### Unity in Putnam

conversion. In conversion, a person moves from one view to a radically new one by repudiating the earlier view in its entirety and thus cannot retain any feature belonging to the earlier view. In this context, a distinction may be drawn between what may be called a radically new view (a view which is independent of the earlier view) and the third view (which is the product of the earlier view as well as the emerging view). In the case of **Putnam**, the third view is an **amalgamation** of **two** contrasting views – realism and anti-realism.

There is a widespread failure among the critics of Putnam to recognize the above point. They often take Putnam's change of mind as a case of conversion – a conceptual shift from realism to anti-realism. As a result, they fail to appreciate the fact that Putnam's internal realism stands for a third view based on the intuitions of both realism and anti-realism.

Against the backdrop of this discussion of 'change of mind', we should search for continuity in Putnam's different phases. As has already been mentioned, the continuity emerges from the centrality of reference throughout the different phases of Putnam. This continuity will be discussed at two levels: at the first level, we will provide justification for **considering** reference as central in all the phases of **Putnam**, and **at** the second level, we will enumerate a few principles that are presupposed throughout Putnam's writings. These presuppositions

imply our justification of Putnam's ascription of centrality to reference. Moreover, they show how the contrasting views of Putnam get enmeshed in his 'third view' — the view of internal realism.

### 5.1 Justification of the Centrality of Reference

To begin with the most impending question: what is meant by centrality of reference? How is centrality defined? Our attempt here is not to define centrality by enumerating its essential features. Any such attempt will defeat the most basic intuition of Putnam that absolutism of any kind (including essentialism) should make way for a 'human' world-view. Centrality, as the name suggests, points to the pivotal role ascribed to a concept around which all other related concepts revolve in a philosophical framework. All other related notions are viewed in the light of this central notion. In all the different phases of Putnam's writings, reference is ascribed the pivotal role; it is around the notion of reference that his total framework revolves. This centrality of reference can be justified at two levels: viz., the level of external justification of the centrality of reference and the level of notional justification of it. External **justification** consists of a reply to the question of why reference is taken as central in the three philosophical **persuasions** of **Putnam**. Notional justification, on the other hand, concerns itself **with Putnam's**

conception of reference. This justification consists in **showing** that the notion of reference that Putnam holds has never been drastically changed. A detailed discussion of both these justifications is given below.

There is widespread doubt regarding the claim of continuity which results from the centrality of reference in the different phases of Putnam. The reasons for this disbelief are twofold. First, to say that reference is central to a framework does not amount to a significant claim. It is only a general claim and by saying it we do not bring out any unique feature of that particular framework. Hence, from the fact that reference is central, nothing very significant can be derived. Now coming to Putnam, the claim that there is a continuity in his philosophy based on the fact that reference is central throughout may not **be** taken to be a tenable claim. On the same **ground**, continuity in his philosophy is not achieved just because there is centrality of reference. Second, there is a much more serious problem: it may be argued that a philosophical position can take the notion of reference as central in many different ways and the notion of reference may assume centrality in diverse ways. As a result it is difficult to put forward any claim regarding continuity. In the following, the external justification of the centrality of reference will provide an answer to the first **problem** and notional justification will provide an answer to **the** second problem.

### 5.1.1 External Justification

External justification shows that the question, of why reference is taken as **central**, is not really a trivial question in **the** context of Putnam. The triviality of this problem disappears once we take note of the implicit principle that regulates Putnam's acceptance of **reference as central** in all his different phases. His faith in this **principle**, namely, PBD has strongly influenced Putnam to take reference **as central**, irrespective of the changes in his philosophical stand on realism. Note that this implicit **principle** is not a reason. On the other hand, it may be said to act as a presupposition of **Putnam's** philosophy. We are thus led to a methodological distinction between presupposition and reason where it may be shown that reasons are guided by this single and central presupposition. In view of this, we will now enumerate the various reasons that prompt Putnam to take reference as central in all the three phases of his writings. Later, in the next section, we will show how these various reasons have their source in this presupposition. As mentioned earlier, this justification is called external, as it does not include any discussion of the nature of reference and also of the notion of **centrality**.

In his first phase, Putnam's concern is to develop an adequate semantic **framework**, where centrality has been ascribed

to reference. His reasons for ascribing centrality to reference can be listed as twofold. The first reason is a widely-recognized one – his dissatisfaction with the semantic **framework** presented by the traditional theory of **meaning** which places centrality on sense, the other component of a semantic **scheme**. The second reason can be expressed as his desire to defeat **the** notion of meaning-incommensurability at any **cost**. We will now discuss the first of the two above mentioned reasons, **namely**, his dissatisfaction with the centrality of sense as ascribed in the traditional theory.

Since we have discussed at length the various shortcomings of the centrality as ascribed to sense by **the** traditional theory in our first chapter, only a brief review of them will be presented here. The traditional theorists (**e.g.** Frege, to name the most dominant among them) maintain that the meaning of a word/term is totally determined by the sense, i.e., the idea associated with it. To grasp the meaning of a **term** is to grasp this sense. The concept of sense is thus ascribed a centrality in the framework of the traditional theory. Putnaa, in his reformulation of the traditional theory shows that this sense centrality of the traditional theory **implies mentalism** and **individualism**. The failure of the sense centrality of the traditional theory can be attributed to two reasons. **First**, the mentalistic thesis of this theory, which follows **from** sense centrality, makes the description of the **meaning** of a term

synonymous with the meaning of that term. This is because the sense centrality of the traditional theory renders any statement of meaning analytical in this framework. So the synonymity follows. But the acceptance of this synonymity between the meaning of a term and the associated description invites a host of problems. As a result, the traditional theory fails to accommodate the facts of scientific change and the existence of an abnormal member in a class. This synonymity also makes the traditional theorist's talk about counterfactual situations unintelligible. Second, the individualistic thesis of the traditional theory, which is also an offshoot of its sense centrality, ignores the social or collective nature of language. As Putnam's concept of 'division of linguistic labor' argues, a person cannot master a language in the privacy of his own thoughts or mental representations. He has to depend on social cooperation – on others for acquiring the meaning (i.e., on the competent speakers of his language, from whom he can learn the 'use') and also for recognizing the proper extension (i.e., on the scientific experts)•

Against these two features of the traditional theory, Putnam maintains that there can only be a contingent relation between the meaning of a term and the associated description and that one essential fact about our language is its social nature. Putnam's account of both these features of languages, which he accepts as facts about our language use, can be shown to depend

on his faith in PBD. We will postpone a detailed discussion of the functioning of PBD until the next section of **this chapter**. We now move on to the second reason that **motivates** Putnam to ascribe centrality to reference in his first phase.

This draws our attention to **Putnam's** desire to counter the meaning-incommensurability thesis of Kuhn and Feyerabend. Incommensurability, as we have already seen in our previous chapter, says that successive and competing theories, within the same domain 'speak different languages'. Thus, rival theories can neither be compared with one another nor be **translated**. Putnam, due to his adherence to scientific realism, tries to attack this incommensurability thesis. This desire of Putnam again can be attributed to his strong adherence to PBD. Meaning-incommensurability can be taken as a result of the sense centrality that these philosophers (especially Feyerabend) accept. In his "How not to Talk About Meaning?", Putnam (1975d) attributes this incommensurability of Kuhn and Feyerabend to their failure to appreciate the distinction between the customary (linguistic) meaning of a term and the scientific theory attached to that term. The **incommensurability** thesis can be taken as a special case of the synonymy between the **meaning** of a term and the associated description as accepted by the traditional theory. To avoid this synonymy and the ensuing **incommensurability**, Putnam places centrality on reference at this **phase** of his writing.

The second phase of Putnam witnesses, as already mentioned, a change in Putnam's focus. His approach to reference here can be termed as an indirect one, i.e., through its contribution to the realist explanation of the success of science. Success of science, Putnam observes, implies a convergence in our scientific knowledge. As Putnam writes,

That scientists try to do this --e.g., preserve conservation of energy, if they can, rather than postulate violations -- is a fact, and that this strategy has led to important discoveries (from the discovery of Neptune to the discovery of the positron) is also a fact. (Putnam, 1978, 20)

We have seen in our second chapter that Putnam, following Boyd, enumerates the two following principles as providing an explanation of these facts of convergence as well as the success of science.

"(1) Terms in a mature science typically refer,

(2) The laws of a theory belonging to a mature science are typically approximately true." (Putnam, 1978, 20)

Reference is thus taken here as forming a pillar of the realist hypothesis which is called the **empirical** realist hypothesis for its explanatory **nature**. Reference is considered central here in this phase due to the fact that it provides the explanatory power to the realist **hypothesis**. Putnam then goes on to qualify this nature of the centrality of reference as interest-relative. This is the most crucial feature of this phase as it explicitly **demonstrates Putnam's rejection of the**

physicalistic view of explanatory reference and also as it paves the way for his internal realism of the next phase. His acceptance of interest-relativity can be shown to be motivated by his faith in PBD or the principle of charity. We will postpone a detailed discussion of this till our next section.

The third phase of Putnam consists of his proposal of the 'third way' – the way towards internal or pragmatic realism. Here Putnam's principal concern is to provide a philosophical standpoint that lends transcendental defense to different 'phenomena' or facts. Among other things, different aspects of his theory of reference, namely, 'the division of linguistic labor', 'the contribution of the environment', and 'meaning holism' are enumerated as such 'phenomena' (Putnam, 1988, 109). Internal realism is called in for providing the transcendental defense for these phenomena. But it should be accepted that the centrality that is ascribed to reference in the first two phases is considerably weakened here. Putnam's wider focus may be cited as a reason for it. However, centrality of reference is not denied. The reason for this centrality can be derived from Putnam's observation regarding the **indispensability** of interpretation and translation to rational exercise. Any rational discourse – philosophical or scientific -- **involves** our attempts at interpreting others. Putnam therefore accepts interpretation and translation as basic 'phenomena'. Interpretation and translation are nothing **but our attempts** to

ascribe reference to others' utterances. Convergence **is** also accepted as one of the 'phenomena' to be explained. Convergence loses much of its significance if interpretation is not **allowed**. The centrality of reference therefore lies here in its being indispensable for the phenomena of interpretation and translation. In this connection, **we** should note that all these phenomena that Putnam mentions have their origin in the principle of charity. In our later **discussion**, we will show the connection between these phenomena and the principle of charity.

#### 5.1.2 Notional Justification

External justification gives the reasons why Putnam accepts reference as central to all of his different phases. However, the external justification of the centrality of reference does not by itself ensure a continuity of the **same** conception of reference. It is, for example, possible that one may regard reference as central but hold very different conceptions of reference (e.g. **physicalists**). **Moreover**, in the context of Putnam it is allegedly said that he has changed his conception of reference. In fact, the charge of discontinuity levelled against Putnam's philosophy has **come** due to the alleged change in **Putnam's** conception of **reference**. **However**, **Z** do not agree to this **charge**. It is true that there **is a** change in his conception of reference. In the following **discussion**, I will **try** to show that there is a continuity **amidst** all these **changes** in

Putnam's notion of reference.

The strategy to be adopted will be to show that Putnam's notion of reference has a common core **which** remains throughout the different phases. This common core may be identified as invariance of **reference**. While discussing external justification, we have given external reasons for **Putnam's** ascription of centrality to reference in all the **phases**. These reasons explain why the conceptual framework of **Putnam**, in all these phases, is taken to revolve around the notion of reference. From the point of view of notional justification -- the invariance of reference -- this centrality can be given an internal defense. This will consist in showing that the three most important concepts of the three different **phases**, viz., conditions of semantic applicability of a **term**, causal-explanation pertaining to the success of science and interpretation as rational exercise, are all understood and assume significance in relation to the common core that the notion of reference assumes -- the invariance of **reference**. In the following, I shall discuss the invariance of reference in relation to these three phases.

The first phase, Putnam explains the notion of reference as applied in a semantic **framework**, with the help of the concept of the criterion or condition of **semantic** applicability of a **term/word**. A semantic **framework**, as **has**

already been discussed at length in the first **chapter**, tries to explain the criterion of applicability of a **name/term** to an object or a class of objects. The traditional theory of Meaning, due to its sense invariance takes sense as the supplier of these conditions of applicability. But the failure of sense centrality to provide adequate conditions of applicability of a term in all **situations**, forces Putnam to take reference as supplying these conditions of applicability. Reference functions as the ultimate arbiter in the case of any dispute regarding **applicability**. A body of liquid is called 'water' on our **Earth**, only if it shares the chemical composition of H<sub>2</sub>O of Earth **water**, which constitutes the referent of the term 'water'. For two **terms** to have the same meaning (as understood in the wider sense), it is not enough that they have identical associated senses (mental representations) as claimed by the traditional theory. In **addition**, the **associated** referents should also be the same. Centrality of reference is thus defined here in terms of **its invariance**, that provides stability to a semantic framework. Put in a **nutshell**, centrality of the notion of reference in this phase of **Putnam**, is explained in terms of semantic invariance.

In the second phase, reference is presented in the wider perspective of its relation to **realism**. **From** our discussion of the external justification of the centrality of reference in this phase, we can say that **Putnam's** notion of reference here is **intimately** related to the concept, of

causal-explanation. The reason is: reference is **taken, here**, to provide the causal-explanatory force to the empirical **realist hypothesis**. The notion of reference, thus, assumes a causal-explanatory nature. It also retains its nature of invariance. This is made possible by the fact that any explanatory notion, by its very nature, is **invariant** in the framework where it operates. This invariance of reference at this phase can be called explanatory invariance. Mere explanatory invariance, however, fails to capture the full implication of Putnam's notion of reference in this **phase**. The uniqueness of Putnam's notion of reference here lies in the fact that he explains it as **interest-relative** in nature. The explanatory invariance of reference is thus qualified as interest-relative in nature.

The notion of reference in the final phase of Putnam is explicated with the help of a negative and a positive argument. The negative argument shows what cannot be taken as an intelligible notion of reference. It consists of Putnam's model-theoretic arguments against the metaphysical realist

Here one clarification is needed. In our second chapter we have seen that Putnam, in addition to reference, **also** accepts truth as providing the **causal-explanatory** force to the **empirical** realist hypothesis. In view of this, one **may** object to my above made claim that the invariance of reference follows here **from** its explanatory force. As truth is also given an explanatory role, it should also be considered as invariant\* **My reply here is** that the realist correspondence theory of **truth** presupposes **the** existence of reference relation. So reference **ultimately assumes** centrality.

conception of reference. Putnam's entire critique of metaphysical realism centres around its notion of reference relation which he takes as the basis of the total **metaphysical** realist picture. The metaphysical realist conception of truth, as we have already seen in our third chapter, depends on the existence of a 'unique' reference relation between the words and the suitable objects outside. This relation is taken as eternally determined – determined from the **God's-Eye** view. The metaphysical realist conception of reference, thus, **assumes** an absolute nature. Putnam's **model-theoretic** arguments are his crusade against this absolutist notion of reference of metaphysical realism. These **arguments** also imply Putnam's criticism of the absolute invariance that a metaphysical realist (in the fashion of a physicalist) attaches to his notion of reference. It reiterates his conclusion of the **second** phase, that the invariance attached to reference, in a philosophical framework, is interest-relative.

Putnam's positive argument for reference shows how the invariance of reference should be interpreted in a philosophical framework. This positive argument accepts the fact that reference has an '**open texture**' which cannot be captured by any absolutist theory. We have seen in our discussion of the external justification of reference, that interpretation, translation **etc.**, the most **important** '**phenomena**' of **rational** exercise, depend on the possibility of ascribing the **same**

reference. The sameness of reference, however, does not function as an absolute concept operating in a vacuum. The 'open texture' of reference leaves much to the context, that is to say to our 'referential intentions', our theory of the world and our purposes, our environment etc. Thus, this positive argument for reference consists of providing a theory of empirical reference. Here, the invariance of reference along with its interest-relativity is placed within the scope of a particular conceptual scheme. This empirical notion of reference presents a fallible explication of it. This explication accepts reference as having an 'open texture'<sup>7</sup> which cannot be captured by any unique absolute eternal relation. This, by no means, rejects the possibility of a conception of reference that explains it as a relation between a word and an object outside, that is not created by any mind • Putnam in his internal realism has this sort of conception of reference. It is taken to be specified by the causal chain that connects our use of a word/term to the initial dubbing ceremony. This does make room for a kind of correspondence. Putnam also accepts that the best semantic theory is the causal theory of reference. This empirical explication, thus, does ascribe an invariance to reference. The only difference from the invariance ascribed to reference in a

This availability of reference, within the scope of internal realism, outlines the major difference between Putnam, on the one hand, and Davidson and Quine on the other. The reason is, both the latter philosophers reject the concept of reference as inscrutable.

metaphysical realist picture lies in the fact that there is no **absolutism** involved here. The significance of this **empirical** explication of reference is reflected in the fact that this phenomenon of reference gets related to another most important but often overlooked phenomenon – that of conceptual **relativity**. The invariance of **reference**, when coupled with this conceptual **relativity**, places itself within the **framework** of a conceptual scheme.

One common rejoinder to **Putnam's** inclusion of conceptual relativity and his acceptance of nonabsolute invariance of reference can be expressed in the form of the following question: Does reference really remain invariant in such a relative framework? A little reflection makes explicit that this question presents the old worry regarding the relation between internal realism and relativism in a **different manner**. In our fourth chapter, while discussing the relation between relativism and internal realism, we have seen that the standard interpretation of internal realism takes it as a form of **relativism**. We attributed this standard **'mis'interpretation** of **Putnam** to the **critics'** failure to take note of the other important aspect of internal realism -- its notion of objectivity. As we have mentioned, for **Putnam**, conceptual relativity comes at the **methodological level**. So it does not **imply** an all out **conventionalism**. Putnam accepts that **there is some** "fact to be **discovered**". For **him**, there exists \*

factual-conventional-continuum. This continuum **makes room** for objectivity and in turn for invariance. **Moreover, the** model-theoretic arguments of Putnam show in explicit terms the unintelligibility of absolute invariance. In the absence of any such absolutism, it is this empirical invariance, as **implied** by internal realism, that can serve the realist purpose. Putnam's invariance of reference has never been as absolute as that of a physicalist, not even in his first phase of strong **realism**. This point will be made elaborate in our discussion of the second presupposition of Putnam, namely, the human perspective. We will now turn our attention to the two presuppositions of Putnam's philosophy, namely, the PBD or the principle of charity and the presupposition of human perspective.

## 5.2 Presuppositions

What binds all the three different phases of Putnam is the common core of the invariance of reference that runs through all of them. This common core explains the centrality of reference in all the **phases**. This invariance of reference in the different phases is regulated by a few principles which govern the entire framework of Putnam in varying degrees. **An** explicit formulation of two such principles, which can be **termed** as presuppositions due to their regulative nature, **will** help us **see** the continuity between the different phases of Putnam in a clear fashion.

### 5.2.1 PBD or the Principle of Charity

The first presupposition is the PBD or **what** is commonly known as the principle of **charity**. This principle, as already pointed out in our first chapter, is first explicated in **Putnam's** article "Language and Reality" (1975a), where it is taken as the regulative principle of any viable philosophy of language. **PBD** maintains that we should grant the introducer of a term or the scientist who determines the nature of the referent of a **term**, the possibility of "reasonable modification of his description" (Putnam, 1975a, 275). An explication is given below of how a strong faith in this principle makes possible **Putnam's** ascription of centrality to reference, in his first phase.

In our discussion of the external **justification** for centrality of reference in the first phase, we enumerated two principal reasons that motivated Putnam to ascribe centrality to reference. The first reason points to his dissatisfaction with the traditional theory of **meaning**. This dissatisfaction is caused by the failure of the **sense** invariance of traditional theory to account for the contingent relation between the meaning of a term and its associated description and also the social nature of language\* Putnam, as we have already **mentioned**, takes these two features as facts about our **language use**. In developing his positive theory of **language**, he accounts for these two facts with the help of his concepts of 'division of

linguistic labor', and the causal theory of reference. 'Division of linguistic labor' draws our attention to the aspect of social cooperation in a semantic framework. Causal theory, on the other hand, points to the fact that meaning depends on social as well as external factors and not purely on linguistic factors. So the meaning of a term is never synonymous with any description. The relation between the meaning of a term and a description (set of beliefs, or theory) associated with that term is only a contingent one. What makes these two notions available to Putnam is his faith in PBD. The definition of PBD suggests that the description that a user of a term uses in order to identify the referent of that term or to talk about the referent of that term is never synonymous with the meaning of the term. It thus leaves room for 'reasonable modification' of the description which may result from the availability of better scientific information about the term. Secondly, this PBD, by allowing a user of a term to attach a wrong description to that term, refutes the individualistic conception of language. PBD, in this manner, helps Putnam to accommodate the social and external determinants of reference and thus ascribes the centrality of a viable semantic framework to reference.

The second reason for his ascription of centrality to reference, as we have already seen, is his desire to defeat the incommensurability thesis. Invariance of reference as understood in a semantic framework points to the fact that the sameness in

that framework is explained in terms of the sameness of reference. PBD, on the other hand, shows how we can take different theorists as talking about the **same thing (referent)**, inspite of the slight differences in their associated theories. Putnam's faith in PBD thus helps him to extend this invariance of reference to the intertheoretic framework. Such an extension makes trans-theoretic reference possible. It gives Putnam, the ammunition needed to defeat the incommensurability thesis which fails to account for trans-theoretic reference. The notion of trans-theoretic reference maintains that a **term** can have the same reference in different theories. It, thus, defeats the incommensurability thesis of Kuhn and Feyerabend. This concept of trans-theoretic reference gets a transcendental defense in the final phase of Putnam where it is accepted as a fact. It is argued that without it the whole of our rational practice will be in jeopardy.

The principle of charity plays a crucial role **even in** Putnam's second phase, where he develops the **causal-explanatory** notion of reference. The causal-explanatory notion of **reference**, as already noted, can easily lead to a physicalistic notion of reference, where the notion of reference is **ultimately** reduced to some physical relation. In **fact**, this was precisely the **proposal** of Field and Devitt who explained **causal-explanatory** reference with the help of physical properties. Putnam, **however**, does not accept **physicalism** of any sort. His **argument against**

physicalism, as presented in the second chapter, can be reconstructed in the following form: any theory that ascribes the role of causal-explanation to reference should also accept the invariance or centrality of **reference**. Otherwise, reference will fail to play the crucial role of explaining other factors of that framework. Again, as our above discussion of the first phase of Putnam shows, the invariance or centrality of reference is intimately related to PBD. A physicalist cannot avail this principle of charity or PBD. This principle calls for a 'reasonable reformulation' (Putnam, 1978, 57-8) of the description given by the forerunner scientists (*viz.*, Bohr of 1900). This notion of reasonableness **assumes** utmost **importance** as it differentiates this charity from "**unreasonable charity**". This factor explains why we do not extend the charity to 'phlogiston' theorists, while extending it to Bohr's '**electron**' theory of 1900. The notion of '**reasonableness**', however, due to its inherent human component, denies any precise analysis of itself in terms of a list of criteria. A consistent physicalist, thus cannot avail himself of the concept of '**reasonableness**' as he tries to do away with any possible human **component**. This aspect of 'reasonable reformulation' of PBD points to the interest-relativity of all our **explanation**. It thus, helps Putnam in drawing his conclusion of this **phase** that **the** invariance of explanatory reference is **interest-relative** in nature.

This principle of charity forms an important part of Putnam's transcendental defense of internal realism in his final phase. The objective of Putnam's transcendental argument is, as he writes, "... to find a picture that enables us to make sense of the phenomena from within our world and our practice, rather than to seek a God's-Eye View" (Putnam, 1988, 109). By phenomena, Putnam, here, refers to our success in our interaction with our environment. Such explanation involves our ability to interpret or translate sets of beliefs of people, scientists or non-scientists, of a different time and place. Such concepts of interpretation or translation, as we have already seen, form an integral part of our basic rational practice. This interpretation is essentially related to the principle of charity. As Putnam writes, "[A]ll interpretation depends on charity, because we always have to discount at least some differences in belief when we interpret" (Putnam, 1988, 13). The 'reasonableness' of reformulation which is pointed out in the second phase is here rephrased as "having a nose for the 'right' trade-off" (Putnam, 1988, 11). Putnam borrows Fodor's concept of 'general intelligence' in explaining the use of charity. This phase thus witnesses the widest use of PBO in Putnam.

In this respect, we may note one criticism advanced against the PBO. This criticism goes as follows: it "is only applicable in hindsight" (Geurts et al, 1988, 37). Authors 'observe that while the reference of 'electron' remains the same

through different theory changes, that of terms like 'fish', 'star', etc., have undergone considerable change. But "only in hindsight (it) can be seen whether the principle of charity is applicable to a particular situation" (Geurts et al, 1988, 40). We can never predict whether PBD will be applicable to further situations or not.

This criticism can be attributed to the authors' failure to appreciate two points about Putnam's idea of PBD. Firstly, the authors do not seem to have paid serious attention to the 'reasonable' aspect of the definition of PBD. If a description can be reasonably reconstructed in the light of our present theory, then PBD expects us to apply the same term to that description in spite of the slight differences in the two descriptions. This concept of 'reasonableness' also shows as we have already pointed out, that PBD does not function in a vacuum. Rather, it operates with the whole system of our referential intentions, our interests and purpose etc. Thus, even for Putnam, "...charity is... not merely an intersubjectively accepted guide for research and reasoning, demanding that the notions someone uses be understood as conforming to the meaning and reference they commonly have" (Geurts et al, 1988, 43). Secondly, the nature of PBD should be understood carefully. It is a methodological principle with an explanatory function. It is applied to explain certain facts. So, it is not surprising that it should be applicable more appropriately in 'hindsight'.

The success of its application in 'hindsight' explains the convergence of our knowledge. Thus, it plays its role in helping Putnam to explain the fact of convergence. From **this**, its success in future applications can be transcendently derived.

The major usefulness of PBD lies in the fact that it makes available the notion of convergence to Putnam's framework throughout these three phases. Putnam accepts the convergence of scientific knowledge as a fact. What makes convergence possible for Putnam, as we have already noted, is this principle of charity. Charity makes room for **trans-theoretic** reference and thus for convergence. It underscores the strongest realist **tenet** of Putnam's philosophy. The principle of charity points to a unity in Putnam's writing, as it spreads itself throughout the different phases of Putnam, as their regulative principle. In the first place, it regulates the invariance that **is** attached to reference in the different phases of **Putnam**. In the second place, it makes available the realist tenet of convergence in all the phases of Putnam. Moreover, PBO is realist in nature. Thus the existence of PBD in all the phases of **Putnam** speaks for a continuity of realist intuition in all these **phases**.

### 5.2.2 Human Perspective

The second presupposition of **the entire framework** of **Putnam** can be expressed as the **presupposition** of **human**

*perspective.* This presupposition, though related to Putnam's principle of charity, warrants separate discussion for the crucial role that it plays in all the different phases of Putnam. This feature assumes significance in view of the criticism that the absolute invariance of the first phase of Putnam cannot be continuous with the nonabsolute invariance of the later phases. The humanistic perspective confronts this question at two points. On the one hand, it shows that the invariance that is ascribed to reference, in the first phase, is not absolute in the **physicalist** sense. On the other hand, it is argued that the invariance of the later phases, inspite of their humanistic nature, does make room for objectivity and thus for proper reference **centrality**. Finally, it will be argued that this humanistic invariance **is** the only reference that can serve the purpose of explanatory **realism**. In the following, we give a brief exposition of how this feature of human perspective is presupposed in all the different phases of Putnam.

In the first phase this humanistic perspective represents itself in Putnam's acceptance of the social nature of meaning and **language**. This social nature is also implied **by** his faith in **PBD**. This collective nature of language does represent a humanistic perspective. A **speaker** cannot learn a language **in** the privacy of his own **mental** representations. **Meaning has** external as well as social **factors**. This external factor or the contribution of the **environment**, again reflects **another feature**

of the humanistic perspective. It points to the fact that the ultimate arbiter is 'our environment'. As in the case of the Twin Earth argument, our term 'water' will be applied to the samples that bear the sameness relation with liquids that are found on our earth and are called 'water'.

In the second phase, this humanistic perspective of Putnam is expressed in Putnam's observation that all explanation, by its very nature, is interest-relative. This feature shows that any explanation on any rational practice, cannot take place within a vacuum. This reflects Putnam's realization of the problems that arise from the epistemological implications of metaphysical realism. He becomes aware of the fact that the humanistic perspective should be added to the explanatory realist world-view. As Putnam comments in the second of his *John Locke Lectures*, "I think that in actual translation we start out with assumptions as to what the speaker *wants* or *intends*, at least in many situations<sup>19</sup> (Putnam, 1978, 40). This is because all attempts at a physicalistic world picture with the help of the physicalist notion of reference **become unintelligible**. Putnam clarifies the realist project as explaining the success of our behaviour and that of **science**. In so doing we **keep** our interest, our purposes, in our mind. An explanation will be accepted **as** reasonable only if it is in accordance with our **purpose**. In \* like way, the invariance of reference **also becomes** interest-relative. We use the **same** terms for a substance, if it

bears the sameness relation to our local paradigm and also if it is in conformity with our purpose. As has already been pointed out in the discussion of our first chapter, the assignment of reference (both in terms of introduction and also in terms of identification) is regulated by individual and social interest. In our second chapter, we have further noted that interests which promote a better understanding of success in our interaction with the world are given importance. Acceptance of this interest-relativity, however, does not mean that our term fails to 'get any grip on reality'. It only means that human beings with their different interests and purposes are allowed to play their roles in the explanatory world picture. The success to be explained is that of the human race and the story should also be told from the human perspective and not from **some God's-Eye View**. This acceptance of interest-relativity, as we have seen in our second chapter, helps Putnam in finding a middle way between the hopelessness of Quine, which proposes to eliminate interpretation of any kind, and the unintelligibility of the **physicalist** absoluteness. This ultimately results in Putnam's internal realism which finds a path **"between the swamps** of metaphysics [absolutist view] and the quick sands of cultural relativism and **historicism"** (Putnam, 1983e, 226).

The most **pronounced formulation of this humanistic** perspective can be found in **Putnam's internal realism**. Internal realism is proposed as a reaction to **metaphysical realism which**

presents an alienated world picture as it tries to portray the world from a God's-Eye View which ultimately becomes a '[V]iew from nowhere'. The internality of internal realism refers to the speakers. The problem of the unique reference of metaphysical realism, as implied by Putnam's model-theoretic arguments can be avoided if we take reference as an empirical concept in relation to the speakers' 'referential intentions'. Given our 'referential intentions' "... that a liquid should count as 'water' only if it has the same composition as the paradigm examples of water (or as the majority of them)" (Putnam, 1983e, 221), we can accept its essential properties. But this essentialism (if there is any such thing) is the product of our use of the word. "... [T]his sort of essence is not 'built into the world' in the way required by an essentialist theory of reference itself to get off the ground" (Putnam, 1983e, 221). This is reflected in Putnam's observation, in this phase, that 'meanings have an identity through time but no essence' (Putnam, 1988, 11).

These two presuppositions, viz., the PBO and the humanistic perspective, together point to the fallibility nature of Putnam's attitude throughout his phases of philosophizing. This is reflected in the fact that realism has always been an empirical (and therefore fallible) enterprise for Putnam. The explicit insertion of the humanistic perspective in the two later phases of Putnam clearly shows how fallibilism is accommodated.

But as Putnam observes in "Why is a Philosopher?" (1990a), the two major factors of his theory of reference of the early days, viz., 'the division of linguistic labor' and the contribution of the environment' clearly signify "a (more) fallibilistic spirit in philosophy" (Putnam, 1990a, 110). This is because by Baking the meanings of a term dependent "on other people and on the way the entire society is embedded in its environment" (Putnam, 1990a, 110), Putnam, even in his phase of strong realism, leaves room for incorporating further scientific discoveries. This fallibilistic spirit in the later phase makes room for the empirical hypothesis of realism and finally for internal realism. So there is no conversion involved here. But a gradual 'change of mind' showing a continuity among the different phases.

## CONCLUSION: THE REALISM OF INTERNAL REALISM

This thesis tries to establish that there is an interplay between reference and realism in the different phases of Putnam's philosophy the consequence of which is to see the traditional problem of realism from a new **perspective**. The possibility of this interplay, however, has been seriously questioned by the critics who hold that **Putnam** has shifted from realism to anti-realism in his philosophical positions. They argue against Putnam on two grounds: firstly that there cannot be any continuity or uniformity in the different phases of Putnam and secondly that no such interplay between reference and realism can be available at the final phase of internal realism. Our reply to these critics also consists of two **steps**. In the first step, this thesis attempts to establish the unity in the allegedly intermittent stages of Putnam. In the second step, it tries to establish the interplay between reference and realism throughout all the stages in **Putnam's** philosophy including the final phase of internal realism. This **unity**, as we have **already** noted in our previous chapter, is worked out through the concept of centrality of reference, a feature that is shared by all the different phases of Putnam. The centrality of reference is explained here in **terms** of **its** invariant nature. By invariance, in short, we mean constancy of reference. **This constancy - as we** have already observed, plays an **important** role in **making room** for the notion of trans-theoretic reference. By **the idea** of

**invariant** reference, we also mean **that** reference is ascribed a pivotal role around which all the other notions, including that of realism, revolve. It has been argued that the three most significant notions of the three phases - **viz.**, the criteria of applicability of a **term/name** in the first phase, the notion of causal-explanation in the second and the availability of interpretation as rational exercise in the third - have been made intelligible in the light of this **invariant reference**. This notion of invariant reference, due to its centrality, assumes relevance in the determination of the nature of the associated realism. This notion further shapes the course of the interplay between reference and realism.

In the course of our discussion of the different chapters of this **thesis**, we have noted that while the semantic invariance of the first phase assumes an absolute nature, the invariances involved in the later phases of Putnaa are non absolute in nature. A critic may argue that this shift from the apparent absolute invariance of the first phase to the non absolute one in the later phases justifies the charge of conversion from realism to anti-realism against **Putnam**. This charge of the critics when taken in its full **force**, **maintains** that the realism of internal **realism** is only a **nonesake one**, since it does not have any realistic **components**. **This is** because the invariance of reference at the phase of internal **realism** does not have an absolute nature and thereby as **the argument goes**, it fails to give **rise** to any **realism**. A reply to **this charge**

consists of explicating the precise nature of Putnam's realism and the nature of its interplay with reference . In the following section an attempt has been made to show how realistic internal realism is.

#### Some Questions on Realism

An explication of the nature of Putnam's realism consists of comprehending, as has been mentioned already, two of its unique features. The first feature points to the fact that realism has always been conceived here as an empirical hypothesis for providing explanation of some facts. The second feature reiterates the fact that in the frameworks of Putnam the notion of realism is the product of the interplay between reference and realism. His notion of reference therefore shapes the nature of his realism to a great extent.

It is a fact that Putnam has changed his notion of realism while giving up the metaphysical realist picture of his early days. Putnam confesses in his "Realism and Reason" (1978b) that he was 'wedded to' (129) this metaphysical realist picture. In his later phase, he gives up this picture and replaces it with the internal realist or pragmatic realist world-view. But as we have already pointed out, 'changing of mind' should not be understood as a conversion from realism to anti-realism in the case of Putnam. It involves, as Putnam says, 'being torn' between the contrasting views of philosophy itself\* In the light

of this discussion we should try to explicate the nature of Putnam's realism. It should be clarified that the attraction of scientific realism for Putnam was not solely for its world-view. This is because realism has never been a purely metaphysical thesis for Putnam. As it has been reiterated a number of times in this thesis, realism has always had an empirical nature here; that is, the nature of a hypothesis in order to explain some phenomena. What Putnam found 'seductive' about metaphysical realism was its "... idea that *the way to solve philosophical problems is to construct a better scientific picture of the world*" (1988, 108). Metaphysical realism is taken to offer a better scientific theory about the world. Its excellence lies in the fact that this scientific theory could explain 'the phenomena we observe'. In this way, this theory, Putnam contends, is able to solve the philosophical problems. Thus Putnam came to the conclusion that science should be taken 'at the face value', i.e., 'without philosophical reinterpretation' (1978, 37). Science taken at face value implies a strong form of realism. It implies the acceptance of independence, uniqueness, bivalence and correspondence, -- the principles of the metaphysical realist notion of truth, as the regulative principles of science. Together with these, the metaphysical realist ideal that science must achieve the resolution of all philosophical problems is further added. This picture thus assumes an absolute nature, since science, with all its ideals, is expected to achieve the One True theory of the world. This scientific picture as provided by metaphysical realism implies faith in the

extra-theoretic notions of truth and reference. The notion of invariance, that explains the nature of reference at this level, also assumes an absolute nature. In the same manner, the other realist principle, viz., the principle of convergence also becomes unqualified in this phase.

The next phase of Putnam depicts his growing awareness of the problems of this scientific picture provided by metaphysical realism. This utopianism of metaphysical realism, Putnam comes to realize, is not reflected even in the practice of science. Similarly, his reflections on the epistemological bearings of the metaphysical realist premises makes him more and more doubtful about the tenability of metaphysical realism. In our third chapter we have noted that as a result of this he realizes the inconsistency (in the sense of unintelligibility) of the metaphysical realist ideals as well as of the scientific picture provided by it.

There are a few other philosophers who also do not take science at its face value. They provide reinterpretation of the practice of science. The incommensurability thesis, in this respect, presented by Kuhn and Feyerabend is notable. This thesis maintains that different theories cannot be compared or translated into one another. This reinterpretation of the practice of science in terms of this incommensurability thesis

Putnam comments that his mastery of "a certain amount of mathematics and physics" (1988, 108) made him realize the actual picture of the practice of science.

tries to abandon the idea of convergence in science. **Thus** it comes in conflict with the practice of science since convergence is a well accepted practice of **science**.

The notion of **invariance** of reference and the notion of convergence of the first phase, when accepted '**at the face value**' (without philosophical reinterpretation) give rise to the absolute picture which takes the **aim** of **realism** as to produce the *One True* description of the furniture of the world. We have already noted Putnam's growing discomfort with such an absolute world-view. Putnam, however, does not accept the reinterpretation of the practice of science in terms of the incommensurability thesis **either**. Putnam, in his later **phase**, provides a middle way. He accepts the need for reinterpretation of the practice of **science**. He thus gives up the absolute picture of metaphysical **realism**. This however is not to embrace an all out relativism or even **anti-realism**. This **is** due to his acceptance of the realist principle of convergence. This **ideal** of convergence which maintains that the earlier theories can act as the limiting case for the later **theories**, is present in all the phases of Putnam. In the second **phase**, he takes convergence as a realist premise and in the third, he takes it as a fact for realism to explain. So, convergence can be regarded **as the** realist ideal that is retained in all the **phases** of Putnam. **What** Putnam gives up is the absolute picture of **metaphysical realism**. But as this is not the only realist principle of **Putnam**, till's rejection should not be taken as a rejection of **realism**

altogether.

As a result of this rejection of metaphysical realism, the nature of convergence also becomes qualified in the later phases of Putnam. In the second and third phases, this principle of convergence is added with normative concepts -- viz., with interest-relativity in the second and with conceptual relativity in the third. The critics' objection is precisely to this feature of the later phases of Putnam. They maintain that by shifting from an absolute picture to a non absolute picture Putnam loses his realism. But Putnam considers convergence as the strongest realist principle. And this convergence is present at all the stages. Moreover, convergence by itself never implies any absolute picture. It only points to an 'interactive' world picture where the world is also allowed to play its contributory role. It does not warrant a belief in mind-independent reality. Furthermore, as Geurts et al (1988) argue, such mind-independent reality amounts to an unintelligible component since it is impossible to conceive of its nature. In the light of this argument Putnam claims that internal realism is more realistic than even metaphysical realism.

This realist principle of convergence ultimately depends on the assignment of the same referents to different theories. It is thus made available by the invariance of reference. This also explains how the notion of realism is dependent on the nature of associated reference in the framework

#### Conclusion

of Putnam. At the first level, this invariance in semantic in nature, at the second it is **causal-explanatory** and at the final it is empirical in nature. It is the semantic invariance of the first phase that gives rise to the ideal of convergence. So the availability of realism in internal **realism** would depend largely on the availability of this semantic invariance of reference in the model of internal **realism**. It should be noted here that semantic invariance of reference by itself does not **imply** an absolute picture. The semantic invariance of reference **maintains** that reference supplies the criterion of applicability of a term. A term, for example, 'water' will be applied to a sample when it bears the appropriate sameness relation to the 'local' referents of 'water'. Moreover, our descriptions of these terms are only 'contingently' related to those terms. Given the **sameness** of referents, different theories (i.e., different descriptions) can be taken to 'talk about the same thing'. Thus what is directly implied by the semantic invariance of reference is the existence of trans-theoretic reference and the associated **idea** of convergence of scientific knowledge.

In this regard, we can compare the realist **model** underlying Putnam's semantic theory of the early days **and** the model of the internal realism of his later **phase**. The **main** differentiating factor between these two can be called epistemological. The modifications that are **made** in the **strong** realism of Putnam's early days are **prompted** by **his** reflections on the epistemological **implications** of **this** view, viz., **science**

taken 'at the face value'. The concept of **internality**, which reflects the conceptual **relativity**, is a product of this deliberation. But it remains to be seen **how** it affects the availability of the semantic invariance of reference of his early days within the scheme of internal **realism**. In *Representation and Reality* (1988), while criticizing the **mentalism** of Chomsky and Fodor, Putnam retains his entire semantics of natural kind terms along with the two realistic regulative principles of PBD and PRI. What is exactly given up is the idea of the *One True* description of the furniture of the **world**. Consequently, the idea that the essential nature of reference is constituted by a unique correspondence to the world outside is also **eliminated**. Our question is **therefore**, how much of the strong **realism** of early days can be retained in the internal realist **scheme**. Two aspects of the strong **realism**, viz., the extra-theoretic notions of truth and reference, as mentioned **already**, are also rejected as a consequence of the rejection of unique correspondence. The point here is that, this rejection does not amount to the total rejection of realism of the early days. **This** is due to the explanatory nature of **Putnam's realism**. This is the reason why PBD and PRI serve as the regulative principles in the **realism** of his early phase and also of his later phase. But there is nothing in these principles **themselves** which warrant the **presence** of an unique correspondence between the words and **the world**. The idea of unique correspondence and the resultant **extra-theoretic** notion of reference enter as a **presupposition**, that is **to say**, as the essential nature of reference. **This idea is an offshoot of**

#### Conclusion

Putnam's attraction for scientific realism. In internal realism this presupposition regarding the essential nature of reference has been given up. Internal realism makes it clear that talking about reference does not specify what reference is or that it is a determinate (unique) relation. Concepts of reference, meaning, truth, etc., it is argued, have an 'open texture' which may have different uses in different conceptual schemes. But there is no incompatibility between realism and conceptual relativity. The apparent incompatibility arises if we take realism as a metaphysical view. But when construed as an explanatory hypothesis minus the acceptance of one 'Real' world of which we are giving the *One True* or different descriptions, realism can easily accommodate 'conceptual relativity'.

Regarding the semantics of his early days, we can further note that in internal realism, Putnam retains the 'linguistic division of labor' and 'the contribution of environment'. They contribute to his theory of meaning which is regarded as 'interactive' (1988, 18). 'The contribution of the environment' need not depend, contrary to the prevalent idea, on the acceptance of mind-independent entities. It may form the essential part of an 'interactive' semantic model which precisely says that meanings are not entirely 'in the head'. In fact, the causal theory of reference is also retained without the presupposition of reference as unique correspondence. This aspect suggests that a speaker's intentions to refer and his relation to his environment ultimately determine the meaning of a

#### Conclusion

term. For the environment to play a contributory role, it is not necessary that such environment should be totally mind-independent. It only points to the fact that mere conventionalism cannot serve the realist purpose fully. To use a terminology that we have used in our third chapter, 'coherence of scepticism' is needed. But this 'coherence of scepticism' does not warrant any absolutism, and as we have seen, can very well be retained in an empirical (fallible) framework. Thus by retaining these two notions of 'linguistic division of labor' and 'the contribution of environment', the 'interactive' theory of meaning of internal realism preserves the regulative principles of PBD and PRI. These two principles make room for trans-theoretic terms and the associated 'convergent' or 'cumulative' nature of scientific knowledge. The empirical invariance thus accommodates the realist ideal of convergence.

The seeming absoluteness of the semantic invariance of reference is therefore not due to the nature of this invariance. It is, on the other hand, a reflection of Putnam's attraction for the scientific theory as provided by the metaphysical realist picture. But in his second phase, Putnam becomes aware of the problems of such scientism (viz., physicalism). Quine's arguments for the indeterminacy of translation and the inscrutability of reference also reiterate this conclusion of Putnam. But Putnam accepts convergence and interpretation as facts and therefore cannot share the despair of Quine. He thus incorporates interest-relativity in the invariance of semantic

reference. This later paves the way for the conceptual relativity of internal realism.

Conceptual relativity, **however**, does not come in isolation. It is coupled **with** objectivity. This objectivity is made available by the availability of the **semantic** invariance of reference in the framework of internal **realism**. The semantic invariance of the first phase, when placed within a conceptual **scheme**, gives rise to the **possibility** of objectivity within the bounds of conceptual **relativity**. The presence of the semantic invariance of reference, though it assumes an empirical outfit, speaks for the presence of **realism** in the later phase of Putnam\*. So the charge of shifting from **realism** to anti-realism levelled **against** later Putnam is a short-sighted argument. Realism and its interdependence on **reference** can thus be established in all the phases of Putnam.

## BIBLIOGRAPHY

- Anderson, D. L. "What is Realistic About Putnam's Internal Realism?" *Philosophical Topics*. 20:1, 1992. 49-83.
- \_\_\_\_\_. "What is the Model -Theoretic Argument?" *The Journal of Philosophy*. XC: 6, 1993. 311-322.
- Appiah, A. "Representations and Realism." *Philosophical Studies*. 61, 1991. 65-74.
- Ayres, M. R. "Locke Versus Aristotle on Natural Kinds." *The Journal of Philosophy*. LXXXVIII: 5, 1981. 247-272.
- Beattie, J. "Is Putnam Inconsistent and Parochial?" *Australasian Journal of Philosophy*. 71:3, 1993. 316-324.
- Bertolet, R. "Realism Without Truth." *Analysis*. 48, 1988. 195-198.
- Blackburn, S. *Spreading The Word: Groundings in the Philosophy of Language*. Oxford: Clarendon Press, 1984.
- Block, N. "Can the Mind Change the World?" *Meaning and Method*. (Essays in honour of Hilary Putnam), ed. George Boolos. New York: Cambridge University Press, 1990. 137-170.
- Boer, s. "Substance and Kind: Reflections on the New Theory of Reference." *Analytical Philosophy in Comparative Perspective*. ed. B. K. Matilal and J. L. Shah. Dordrecht: Reidel publishing Co., 1985. 103-150.
- Boyd, R. N. "Realism, Underdetermination and a Causal Theory of Evidence." *Sous* 7:1, 1973. 1-12.
- Realism and Scientific Epistemology*. Cambridge: Cambridge University Press, 1978.
- "The Current Status of Scientific Realism." *Scientific Realism*. 41-82.
- Realism, Conventionality and 'Realism About'." *Meaning and Method*. 171-195.
- "Realism, Anti-Foundationalism and the Enthusiasm for Natural Kinds." *Philosophical Studies*. 61, 1991. 127-148.
- Brueckner, A. L. "Putnam's Model-Theoretic Argument Against Metaphysical Realism." *Analysis*. 44:3, 1984. 134-140.

- \_\_\_\_\_. "Brains in a Vat." *The Journal of Philosophy*. 43:3, 1986. 148-167.
- Burge, C. T. "Sinning Against Frege." *The Philosophical Review*. 88, 1979. 398-32.
- Carnap, R. *Meaning and Necessity: A Study in Semantics and Modal Logic*. Chicago: The University of Chicago Press, 1947.
- Collier, J. D. "Could I Conceive Being a Brain in a Vat?" *Australasian Journal of Philosophy*. 68:4, 1990. 413-419.
- Cook, M. "If 'cat' is a Rigid Designator, What Does it Designate?" *Philosophical Studies*. 37, 1980. 61-64.
- David, M. "Neither Mentioning 'Brains in a Vat' Nor Mentioning Brains in a Vat will Prove that we are not Brains in a vat." *Philosophy and Phenomenological Research*. LI: 4, 1991. 891-896.
- Davidson, D. "The Myth of the Subjective." *Relativism: Interpretation and Confrontation*. ed. M. Krausz. Notre Dame: Notre Dame University Press, 1989.
- Devitt, M. "Critical Notice" on *Meaning and the Moral Sciences* by H. Putnam. *Australasian Journal of Philosophy*. 58:4, 1980. 395-404.
- \_\_\_\_\_. *Designation*. New York: Columbia University Press, 1981.
- \_\_\_\_\_. Rev. of *Reason, Truth and History* by H. Putnam. *The Philosophical Review*. XCIII:2, 1984. 274-277.
- \_\_\_\_\_. *Realism and Truth*. Princeton: Princeton University Press, 1984.
- \_\_\_\_\_. "Realism Without Truth: A Response to Bertololet." *Analysis*. 48, 1988. 198-203.
- \_\_\_\_\_. "Meaning just ain't in the head." *Meaning and Method*. 79-104.
- \_\_\_\_\_. "Aberrations of The Realism Debate." *Philosophical Studies*. 61, 1991. 43-63.
- Devitt, M. and K. Sterelny. *Language and Reality: An Introduction to the Philosophy of Language*. Cambridge, Massachusetts: MIT Press, 1987.
- Donnellan, K. "Substances as Individuals." *The Journal of Philosophy*. 70, 1973. 711-12.

- "Reference and Definite Description." *Naming, Necessity and Natural Kinds*. 42-65**
- \_\_\_\_\_. **"Kripke and Putnam on Natural Kind Terms." *Knowledge and Mind: Philosophical Essays*. ed. C. Ginet and S. Shoemaker. New York: Oxford University Press, 1983. 84-104.**
- Dummett, M. *Frege: Philosophy of Language\** London: Duckworth, 1973.
- \_\_\_\_\_. **"What Does the Appeal to Use Do for the Theory of Understanding." *Meaning and Use*. ed. A. Margalit. Dordrecht: Reidel Publishing Co, 1979, 123-135.**
- \_\_\_\_\_. "Comment" on Putnam's **"Reference and Understanding."** *Meaning and Use*. 1979a. 218-225.
- Dupre, J. **"Natural Kinds and Biological Taxa." *The Philosophical Review*. 90, 1980. 66-90.**
- Enc, B. **"Reference of Theoretical Terms." *Nous*. 10, 1976. 261-82.**
- Enfield, p. **"Realism, Empiricism and Scientific Revolution." *Philosophy of Science*. 58, 1991. 468-485.**
- Evans, G. *The Varieties of Reference*. Oxford: Clarendon Press, 1982.
- Feyerabend, P. **"Against Method: Outline of an Anarchist Theory of Knowledge." *Analyses of Theories and Methods of Physics and Psychology*. eds. M. Radner and S. Winokur. Minneapolis: University of Minnesota Press, 1970. 17-130.**
- \_\_\_\_\_. ***Problems of Empiricism: Philosophical Papers. Vol 2*. Cambridge: Cambridge University Press, 1981.**
- Field, H. **"Tarski's Theory of Truth." *The Journal of Philosophy*. 69:13, 1972. 347-75.**
- \_\_\_\_\_. **"Realism and Relativism." *The Journal of Philosophy*. 79:10, 1982. 553-567.**
- Fine, A. **"How to Compare Theories: Reference and Change." *Nous*. 9, 1975. 17-32.**
- **"Piecemeal Realism." *Philosophical Studies*. 61\* 1991. 79-96.**
- "Einstein's Realism." *Science and Reality: Recent Work in the Philosophy of Science*. 106-133.**

- Flew, A. ed. "Relativism." *A Dictionary of Philosophy*. 1979. London: Pan Books Ltd, 1984. 303
- Forster, P. D. "What is at Stake Between Putnam and Rorty?" *Philosophy and Phenomenological Research*. LII: 3, 1992. 585-603.
- Frege, G. "The Thought: A Logical Inquiry." *Philosophical Logic*. ed. P. F. Strawson. Oxford: Cambridge University Press, 1967. 17-38.
- \_\_\_\_\_. "On sense and Reference." *Translations From the Philosophical Writings of Gottlob Frege*. ed. P. Geach and M. Black. Oxford: Basil Blackwell, 1970. 56-78.
- Gallons, A. N. "Putnam, Brains in Vats, and Arguments for Scepticism." *Mind*. 101: 402, 1992. 273-286.
- Garfinkel, A. *Forms of Explanation*. Yale: Yale University Press, 1981.
- \_\_\_\_\_. *Explanation and Individuals*. Yale: Yale University Press.
- Geach, P.T. *Reference and Generality*. Ithaca: Cornell University Press, 1962.
- Geurts, J. P. M. and J. Van Brakel. "Internal Realism, Truth and Charity." *Dialectica*. 42:1, 1988. 37-43.
- Grover, D. "Truth and Language-World Connections." *The Journal of Philosophy*. LXXXVII: 12, 1990. 671-687.
- Gupta, C. "Putnam's Resolution of the Popper-Kuhn Controversy." *The Philosophical Quarterly*. 43: 172, 1993. 319-334.
- . "Comment" on "What it is to be a Brain in a Vat: Consideration of an Anti-Sceptical Argument." by R.C. Pradhan. Unpublished.
- . "Sceptical Realists." Unpublished.
- Haack, S. "Realism." *Synthese*. 73:2, 1987. 275-299.
- Hacking, I. *Representing and Intervening*. Cambridge, London: Cambridge University Press, 1983.
- \_\_\_\_\_. "Experimentation and Scientific Realism." *Scientific Realism*. 154-172.
- \_\_\_\_\_. "A Tradition of Natural Kinds." *Philosophical Studies*. fil, 1991. 109-126.
- Hanna, R. "How Ideas Became Meanings: Locke and the Foundations

Bibliography

- of Semantic Theory." *Review of Metaphysics*. 44, 1991. 775-805.
- Hansen, C. "Putnam's Indeterminary Argument: The Skolemization of Absolutely Everything." *Philosophical Studies*. 51, 1987. 77-99.
- Harman, G. "Metaphysical Realism and Moral Relativism: Reflections on Hilary Putnam's Reason, Truth and History." *The Journal of Philosophy*. 79:10, 1982. 568-575.
- Harrison, J. "Professor Putnam on Brains." *Erkenntnis*. 23, 1985. 55-58.
- Heil, J. "Are We Brains in a Vat? Top Philosophers say 'NO'." *Canadian Journal of Philosophy*. 17:2, 1987. 427-436.
- \_\_\_\_\_. "The Epistemic Route to Anti-Realism." *Australasian Journal of Philosophy*. 66:2, 1988. 161-173.
- Hempel, C. G. *Philosophy of Natural Science*. Englewood cliffs: Prentice-Hall, 1966.
- Hetherington, S. C. "On Being Epistemically Internal." *Philosophy and Phenomenological Research*. LI:4, 1991. 855-871.
- Hodes, H. "Ontological Commitment: Thick and Thin." *Meaning and Method*. 235-260.
- Horwich, P. "Three Forms of Realism." *Synthese*. 51:2, 1982. 181-201.
- Iseminger, G. "Putnam's Miraculous Argument." *Analysis*. 48, 1988. 190-195.
- Jones, R. "Realism About What?" *Philosophy of Science*. 58, 1991. 185-202.
- Katz, J. J. "A Proper Theory of Names." *Philosophical Studies*. 1977. 1-80.
- \_\_\_\_\_. "The Neoclassical Theory of Reference." *Contemporary Perspective in the Philosophy of Language*. eds. P. A. French, T. Uehling and H. K. Wettstein. Minneapolis: University of Minnesota Press, 1979. 103-124.
- \_\_\_\_\_. "Has the Description Theory of Names Been Refuted?" *Meaning and Method*. 31-61.
- Kornblith, H. "Referring to Artifacts." *The Philosophical Review*. 89, X980. 109-14.
- \_\_\_\_\_. "How Internal can You Get?" *Synthese*. 74:3, 1988.

313-327.

- Kripke, S. "Speaker's Reference and Semantic **Reference.**" *Midwest Studies in Philosophy*. 2, 1977, 255-76.
- \_\_\_\_\_. *Naming and Necessity*. Cambridge, Massachusetts: Harvard University Press, 1980.
- Kuhn, T. S. *The Structure of **Scientific Revolutions.*** Chicago: University of Chicago Press, (2nd Ed) • 1970.
- Laudan, L. "**A** Confutation of Convergent **Realism.**" *Philosophy of science*. 48, 1981. 19-49.
- \_\_\_\_\_. "**Explaining** The Success of Science: Beyond **Epistemic** Realism and Relativism." *Science and Reality: Recent work in The Philosophy of **Science.*** ed. **J.T. Cushing,** C.F. Delancy, G.M. Gutting. Notre **Dame:** University of Notre Dame Press, 1984. 83-105.
- Leplin, J. ed. ***Scientific** Realism*. Berkeley: University of California Press, 1984.
- Levin, M. E. "**On** the Theory-Change and Meaning-Change." *Philosophy of Science*. 46:3, 1979. 407-424.
- \_\_\_\_\_. "**What** Kind of Explanation is '**Truth**'?" *Scientific Realism*. 124-139.
- .. "Realisms." *Synthese*. **85:1**, 1990. 115-138.
- Lewis, D. "**Putnam's Paradox.**" *Australasian Journal of Philosophy*. 62:3, 1984. 221-236.
- Linsky, L. *Names and Descriptions*. Chicago: The University of Chicago Press, 1977.
- \_\_\_\_\_. "**Putnam** on The Meaning of Natural Kind **Terms.**" *Canadian Journal of Philosophy*. 7, 1977. **819-28.**
- Loar, B. "**Names** and Descriptions: A Reply to Michael **Devitt.**" *Philosophical Studies*. **38**, 1980. **85-89.**
- Mind and Meaning*. Cambridge, London: **Cambridge** University Press, **1981.**
- Locke, J. *An Essay Concerning Human **Understanding.*** **III**, ii:2. London: Dent and sons Limited. 1947.
- McIntyre, J. "**Putnam's Brains.**" *Analysis*. **44:2**, 1984. **59-61.**
- McMullin, E. "**Comment:** Selective **Anti-Real** **ism.**" *Philosophical Studies*. 61, 1991. **97-108.**

- McGinn, C. "An Apriori Argument for Realism." *The Journal of Philosophy*. LXXVI: 3, 1979- 113-133.
- . "A Note on the Essence of Natural Kinds." *Analysis*. 35, 1981. 177-83.
- Moravcsik, J. "How do Words Get Their Meanings?" *The Journal of Philosophy*. 78, 1981. 5-24.
- Myhill, J. R. "On the Ontological Significance of the Löwenheim-Skolem Theorem." *Contemporary readings in Logical theory*. ed. I. M. Copi and J. A. Gould. Macmillan Co, 1967. 40-51.
- Pols, E. "Realism Vs Antirealism: The Venue of the Linguistic Consensus." *Review of Metaphysics*. 43, 1990. 717-749.
- Popper, K. R. *The Logic of Scientific Discovery*. London: Hutchison, 1959.
- Putnam, H. "Explanation and Reference." *Conceptual Change*. eds. G. Pears and P. Maynarel. Dordrecht: Reidel Publishing Co, 1973. 199-221.
- . "The Meaning of 'Meaning'." *Mind Language and Reality: Philosophical Papers*. Vol.2. Cambridge: Cambridge University Press, 1975. 215-71.
- . "Language and Reality." *Mind, Language and Reality*. 1975a. 272-90.
- . "Is Semantics Possible?" *Mind, Language and Reality*. 1975b. 139-52.
- "Language and Philosophy." *Mind, Language and Reality*. 1975c. 1-32.
- . "How Not to Talk About Meaning." *Mind, Language and Reality*. 1975d. 117-131.
- . *Meaning and the Moral Sciences*. London: Routledge and Kegan Paul, 1978.
- . "Reference and Understanding." *Meaning and the Moral Sciences*. 1978a. 97-119.
- "Realism and Reason." *Meaning and the Moral Sciences*. 1978b. 123-140.
- Reason, Truth and History*. Cambridge, London: Cambridge University Press, 1981.
- "Three Kinds of Scientific Realism." *The Philosophical Quarterly* 32: 128, 1982. 195-200.

Bibliography

- . "Reply to Two Realists." *The Journal of Philosophy*. 79:10, 1982. 575-577.
- . "On Truth." *How Many Questions?, Essays in Honour of Sidney Morgenbesser*. eds. L. S. Caiman, C. D. Levi, Parsons and Schwartz. Indianapolis: Hackett, 1983. 35-56.
- Realism and Reason: Philosophical Papers. Vol.3.* Cambridge, London: Cambridge University Press, 1983.
- . "Equivalence." *Realism and Reason*. 1983a. 26-45.
- . "Reference and Truth." *Realism and Reason*. 1983b. 69-86.
- "Models and Reality." *Realism and Reason*, 1983c. 1-25.
- . "Philosophers and Human Understanding." *Realism and Reason*. 1983d. 184-204.
- . "Why There isn't a Ready-Made World?" *Realism and Reason*. 1983e. 205-228.
- "Why Reason can't be Naturalized?" *Realism and Reason*. 1983f. 229-247.
- . "What is Realism?" *Scientific Realism*. 140-153.
- . "Meaning Holism." *The Philosophy of W. V. O. Quine*. eds. L. F. Hahn and P. A. Schilpp. La Salle, Illinois: Open Court, 1986. 405-431.
- . *The Many Faces of Realism*. La Salle, Illinois: Open Court, 1987.
- . *Representation and Reality*. Cambridge, Massachusetts: Bradford Books, 1988.
- . "Model Theory and the 'Factuality' of Semantics." *Reflections on Chomsky*. ed. A. George. Oxford: Blackwell, 1989. 213-232.
- . "Is Water Necessarily H<sub>2</sub>O?" *Realism With a Human Face*. ed. J. Conant. Cambridge: Harvard University Press, 1990. 54-79.
- . "Why is A Philosopher?" *Realism With a Human Face*. 1990a. 105-119.
- . "The Craving for Objectivity" *Realism With A Human Face*

- Face. 1990b. 120-131.
- Quine, W. V. O. "Two Dogmas of Empiricism." 1951. Reprinted in *From a Logical Point of View*. 20-46.
- \_\_\_\_\_. *From a Logical Point of View*. New York: Harpar and Row, 1953.
- \_\_\_\_\_. *Word and Object*, Cambridge, Massachusetts: The MIT Press, 1960.
- \_\_\_\_\_. *Ontological Relativity and Other Essays*. New York: Columbia University Press, 1969.
- \_\_\_\_\_. *Method of Logic*. London: Routledge and Kegan Paul, 1974.
- Rorty, R. *The Philosophy and the Mirror of Nature*. Oxford: Basil Blackwell, 1980.
- \_\_\_\_\_. "Putnam and the Relativist Menace." *The Journal of Philosophy*. XC: 9, 1993. 443-461.
- Salmon, N. U. *Reference and Essence*. Oxford: Basil Blackwell, 1982.
- Sankey, H. "In Defence of Untranslatability." *Australasian Journal of Philosophy*. 68: 1, 1990. 1-21.
- Schwartz, S. P. ed. *Naming, Necessity and Natural Kinds*. Ithaca: Cornell University Press, 1977.
- \_\_\_\_\_. "Putnam on Artifacts." *Philosophical Review*. 87, 1978. 566-74.
- \_\_\_\_\_. "Natural Kind Terms." *Cognition*. 7, 1979. 301-15.
- \_\_\_\_\_. "Natural Kinds and Nominal Kinds." *Kind*. 89, 1980. 182-195.
- \_\_\_\_\_. "Formal Semantics and Natural Kind Terms." *Philosophical Studies*. 38, 1980. 189-198.
- Sen, P. K. "Truths Without Facts." *Journal of Indian Council of Philosophical Research*. 3, 1988. 43-53.
- Smith, P. "Could We be Brains in a Vat?" *Canadian Journal of Philosophy*. XIV:1, 1984. 115-123.
- Sober, E. "Realism and Independence." *Nous*. XVI:3, 1982. 369-385.
- Stephens, J. and Lilly-Marlene Russow. "Brains in Vats and the Internalist Perspective." *Australasian Journal of Philosophy*. 63:2, 1985. 205-212.

- Tarski, A. "The Semantic Conception of truth and the Foundations of Semantics." *Philosophy and Phenomenological Research*. IV: 3, 1944. Reprinted in *Readings in Philosophical Analysis*. ed. H. Feigl and W. Sellars. 52-84.
- Taylor, B. "The Truth in Realism." *Revue Internationale De Philosophie*. 41e annee: 160, 1987. 45-63.
- Thompson, E. "Is Internal Realism a Philosophy of Scheme and Content?" *Metaphilosophy*. 22:3, 1991. 212-230.
- Toumela, R. "The Myth of the Given and Realism." *Erkenntnis*. 29, 1988. 181-200.
- Tymoczko, T. "In Defense of Putnam's Brains." *Philosophical Studies*. 57, 1989. 281-197.
- Van Brakel, J. "Natural Kinds and Manifest Forms of Life." *Dialectica*. 46, 1992. 243-261.
- Van Cleave, J. "Semantic Supervenience and Referential Indeterminacy." *The Journal of Philosophy*. LXXXIX:7, 1992. 344-361.
- Van Inwagen, P. "On Always Being Wrong." *Midwest studies in Philosophy*. XII *Realism and Anti Realism*. 95-111.
- Wilkerson, T. E. "Species, Essences and the Names of Natural Kinds." *The Philosophical Quarterly*. 43:170, 1993. 1-19.
- Wittgenstein, L. *Philosophical Investigations*. 2nd. ed(revised). Oxford: Basil Blackwell, 1958.
- Wright, C. "Realism, Antirealism, Irrealism, Quasi-Realism." *Midwest studies in Philosophy*, Vol 12: *Realism and Antirealism*.
- Zemach, E. "Putnam's Theory on The Reference of Substance Terms." *The Journal of Philosophy*. 73, 1976. 116-127.