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THE SOCIAL CONSTRUCTION OF REALITY

A Philosophical Analysis of the Insights and Limitations of the 'Social Constructionist' Theory of Knowledge

James Panton

SUPERVISOR: JONATHAN WOLFF

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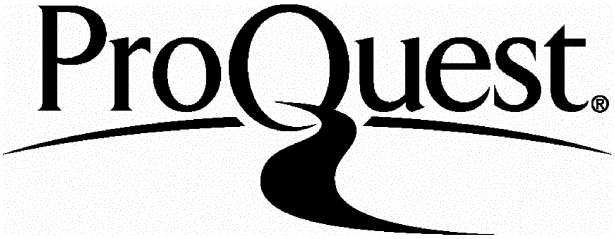

ABSTRACT

This thesis is a critique of the social constructionist theory of knowledge. PART ONE provides a definition of social constructionism in which its three fundamental premises are isolated. These premises are drawn from consideration of the historical concept of man *qua* homo faber, and a consideration of the theories of sociologist Mary McIntosh and philosopher Michel Foucualt on the construction of homosexuality. PART TWO then interrogates the ontological implications of social constructionism through a critique of Hilary Putnam's thesis of 'internal realism'. I argue that the assumption of an external world is essential if we are to 'make sense' of our social interactions. PART THREE interrogates the insights and limitations of the social constructionist theory of knowledge through its capacity to explain the historical transition from Ptolemean to Copernican astronomy. This discussion draws on the theoretical insights of Thomas Kuhn and W V O Quine. Finally, PART FOUR draws a contrast between classical empiricist and social constructionist theories of knowledge. I argue that each theory reveals a partial truth, and that such partiality is result of their equally limited understanding of the relation of the individual to the social world. Finally, I draw a sketch of what a more complete theory of knowledge would be.

CONTENTS

INTRODUCTION

This thesis is a philosophical analysis of the insights and failures of the 'social constructionist' theory of knowledge. The term 'social construction' was coined in the late 1960s by sociologists Peter Berger and Thomas Luckmann in their seminal text in the 'sociology of knowledge', *The Social Construction of Reality*.[1] Since its first appearance in the late 1960s, this awkward neologism has come to pervade many disparate disciplines throughout the humanities, the social and the natural sciences. In more recent years, social constructionism has come under the scrutiny of analytic philosophers.[2] However, the exact content of social constructionism has never been properly framed by its proponents, even though it is a thesis which is frequently discussed. PART ONE of this paper therefore provides a definition of social constructionism, and isolates its three fundamental premises: that reality is contingent, that reality is constructed by social consciousness, and that reality can only be understood from the 'inside'.

In PART TWO I interrogate the ontological implications of the latter two premises, as they have been addressed by Hilary Putnam in his theory of 'internal realism'. I argue that Putnam's theory fails to maintain the conclusion of the existence of an external world, but that the assumption of such an external world is necessary if we are to be able to 'make sense' of our experiences and interactions in the social world.

In Part Three I turn to the social constructionist theory of knowledge which is implicit within the theory itself. I consider the insights and limitations of this theory of knowledge in its capacity to explain the transition from one dominant

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[1] Peter Berger and Thomas Luckmann, *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. (London: Penguin Books, 1991) (Orig. 1966).

[2] Some recent examples are Ian Hacking, *The Social Construction of What?* ((Massachusetts: Harvard University Press, 1999) and Finn Collin, *Social Reality* (London: Routledge, 1997). John R. Searle's *The Construction of Social Reality* (London: Penguin Books, 1995) is not a philosophical analysis of social constructionist theories, but an analytic account of the construction of institutional reality. Whether this is itself a social constructionist theory is debatable. Collin reads it as such (*Social Reality*, pp194-8), while Hacking argues that it is not ('Searle, Reality and the Social', in 'Review symposium on John R. Searle', *History of the Human Sciences* Vol. 10 No. 4, 1995). On the definition of social constructionism which I supply in PART ONE, Searle's work would not be classified as such. One example of the many discussions of social constructionism from the philosophy of science is Sergio Sismondo, *Science without Myth: On Constructions, Reality and Social Knowledge* (Albany: State University of New York Press, 1996).

system of knowledge to another, taking as an empirical example Thomas Kuhn's discussion of the Copernican revolution. I argue that the social constructionist theory of knowledge presents only a partial perspective on the process of knowledge formation. This partiality is the result of its emphasis upon the perspective 'inside' of systems of knowledge. I argue that this perspective, while recognising the determination of knowledge by society, fails to recognise the relationship between society and the external world.

In PART FOUR I draw a contrast between the classical empiricist and the social constructionist theories of knowledge. I argue that each theory contains significant insights which are won only at the expense of the other. I suggest that the empiricist theory describes the relationship between the social world and the external world, while the social constructionist theory describes the phenomenal relation of the individual in the process of knowledge formation. I then argue that a more complete theory of knowledge could be drawn from synthesising the insights of these two oppositional theories. Finally, through an interrogation of each perspective, I draw a sketch of what such a more complete theory of knowledge would be.

PART ONE

ON THE *CONSTRUCTION* OF SOCIAL CONSTRUCTIONISM[3]

> Like most radical critiques facing the presumed superior numbers and longevity deployed by established older notions, [social] constructionism wages a kind of guerrilla warfare: its partisans tend to devote more of their energy to exposing the weaknesses of the 'essentialist' position than to articulating and refining their own....[This] is beneficial to scholarship in the long run, because it does reveal the fallacies in earlier writing, but it also makes difficult the task of understanding what newer truth emerges: by the time the reporters have located the 'constructionist' camp to interview its leaders, they have usually moved on to a new position.[4]

Philosopher Ian Hacking begins *The Social Construction of What?* with an A to Z list of items which are claimed to be social constructs. The list ranges from *Authorship* and *The child viewer of television*, through *Danger* and *Emotions*, *Literacy* and *The medicalized immigrant*, *Nature* and *Quarks*, to *Serial Homicide*, *Women refugees* and *Zulu nationalism*.[5] Extensive and varied as this list is, it far from exhausts the stock of books, articles and theories espousing social constructionism. One thing that stands out from a survey of such literature, is that it is not at all clear what the term in fact signifies, or indeed, whether all theorists use the term in the same way.[6] A number of theorists explicitly contest the meaning of social constructionism. Others simply present their understanding

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[3] Following Ian Hacking, I choose the term '*construct**ionism*' rather than '*construct**ivism*'. Hacking asserts that the latter is a term first used in mathematics to denote a particular research activity; the former term thus avoids confusion. See *The Social Construction of What?* Op. cit. However, many theorists use the latter term. Where I cite from such theorists, '*construct**ivism*' and '*construct**ionism*' should be read as synonyms.

[4] John Boswell, 'Categories, Experience and Sexuality' in Edward Stein (Ed) *Forms of Desire: Sexual Orientation and the Social Constructionist Controversy* (London: Routledge, 1992) pp134-135.

[5] Ibid. p1.

[6] For example, a University of London Library catalogue search of the keywords 'social construction' gives 142 results. The breadth of subjects is suggested by the breadth of titles. From the broad based *The Social Construction of Reality*, through discussion of society (e.g. *Constructing the Social* or *The construction of social order*); discussions of the construction of social phenomena (e.g. *Capitalism and the construction of old age* or *Moral Panics: the construction of deviance*); to discussions of the construction of particular identities (e.g. *The social construction of whiteness*, or *Holy Virility: the social construction of masculinity*). Even within the remit of a debate about the construction of a particular entity, it is not at all clear that 'social construction' is used in the same way by different theorists. John Boswell explains this in the debate surrounding homosexuality: 'Some constructionists argue that "homosexual identity" did not exist before a certain date...others that "homosexuality" was not found before such a date; others that although "homosexuality" was known throughout history, "gay people" did not exist until relatively recently. Some writers argue generally that "sexuality" is not constant; others posit more specifically that social constructs of sexuality are not constant. A more sweeping and profound version of this is that there is no aspect of sexu-

and definition of the term, which may or may not be compatible with that of other theorists. Certain theorists are not self-proclaimed social constructionists, and either deny the label when it is given them by their critics, or simply do not make use of the term themselves.[7]

The aim of this thesis is to present a critical analysis of the philosophical foundations and implications of the social constructionist theory of knowledge. However, the lack of determinate understanding of what 'social constructionism' means presents an obvious problem for any such analysis: if there is no clear definition of social constructionism then it will not be possible to provide a clear analysis of the insights or failures of its theory of knowledge. Some theorists, however, would challenge the very aim of this thesis, supposing as it does that there is a core of unifying principles or premises upon which social constructionism is founded. For example, according to Michael Lynch, social constructionism is not a single coherent position, but a name which bands together 'diverse and tenuously connected' movements.[8] For Lynch, if definition must be sought, social constructionism is 'a coalition of marginal, nomadic academic bands' which is 'stitched together less by adherence to a body of dogma, technical protocols, master narratives or clear-cut ideologies than by a tolerance of diverse voices' and an opposition to (amongst others), 'practical and philosophical positivists, absolutists, realists, rationalists, logocentrists and phallocentrists'.[9] Although understanding what social constructionism *is not* is a useful starting point, *pace* Lynch, I believe we can indeed provide a definition of social constructionism that will lay bare its core philosophical premises.[10] My aim in PART ONE is therefore to provide a definition that will make clear these core philosophical premises. Only then can the analysis proper begin.

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ality that is not socially constructed.' (op. cit., p136). By implication, not only is the object of the constructionist debate in question, but so too is the very meaning and significance of 'social constructionism' itself.

[7] For examples of the former see Michael Lynch, 'Towards a Constructivist Genealogy of Social Constructivism', in Velody and Williams (Eds.) *The Politics of Constructionism* (London: Sage Publications Ltd., 1988) pp13-32. A clear example of the latter is Michel Foucault, whose writings are seen as foundational to contemporary social constructionism.

[8] Op. cit., p24.

[9] Ibid. p14.

[10] From here on, where I use the terms 'constructionist' or 'constructionism', I am referring to 'social constructionists' and 'social constructionism'. This abbreviation is for brevity and stylistic neatness.

I. MAN AS HIS OWN MAKER

John Locke recognised the significance of *homo faber*, or 'man as his own maker', noting that men 'mix their labour' with the natural world.[11] Through this mixing of labour with the world men produce and reproduce themselves and their environment. However, the significance of this insight was noted long before Locke's day. The Renaissance philosopher Pico della Mirandola was the first modern thinker to conceptualise the notion of *homo faber.* In his *Oration on the Dignity of Man*, Pico asserts that our dignity depends upon our constantly shaping the world afresh.[12] Pico developed these ideas during the early Renaissance period, a time when a new image of man was emerging as historical actors, 'creatures who do not simply endure year after year but rather evolve and change.'[13] This Renaissance recognition of man *qua homo faber*, man with the capacity to create and shape himself and his environment, is an historical fulcrum to the intellectual tradition from which social constructionism emerged in the latter half of the twentieth century. However, if we are to understand what is specific to contemporary social constructionism, we need to draw a distinction between this Renaissance recognition of man as historical creator of himself and his world, and the somewhat different understanding of man as the constructor of his reality that founds contemporary social constructionism.

There are two senses in which we could say that *homo faber* is an image of man who 'constructs' himself and the reality in which he exists. Finn Collin points out that, firstly, man uses tools to transform the conditions of his existence, and this transformation is the result of his *causal* activity on nature: through exploiting the naturally given world man alters it and thus creates the environment in which he lives. This is not an activity performed by individuals in isolation from each

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[11] Cited in *Social Reality*, op cit. p2

[12] 'It is ignoble', Pico claimed, 'to give birth to nothing from ourselves.' Cited in Richard Sennett, *The Corrosion of Character* (New York: W. W. Norton and Company, 1998) p101.

[13] Ibid. Richard Rorty dates the recognition of contingency later than this, with the recognition that 'truth was made rather than found' 'about two hundred years ago'. *Contingency, Irony and Solidarity* (Cambridge: Cambridge University Press, 1989) p 3. What Rorty dates here is the more complete and self-conscious recognition of *contingency* which emerged with Romanticism, in reaction to naturalised certainties of Enlightenement thought.

other, but rather, it is through co-ordinated activity that humans learn from one another and act in unison upon the world. This first sense is what Collin calls 'causal' construction. From this first type of co-ordinated causal construction a second kind of construction occurs. Through these patterns of common causal activity upon the world a qualitatively different stratum of human reality emerges: that is, 'social reality'. However, in this latter case:

> what is generated is not the outcome of some causal process but is rather what emerges when patterns of human interaction assume a sufficiently fixed and permanent character as to acquire independent status in the form of a social framework existing over and above the concrete activities taking place within it.[14]

Social reality is 'constructed' by human beings in that it is *constituted* by their ongoing patterns of activity and interaction over time which have come to form the structures, institutions and practices of the social world. This is what Collin refers to as construction by 'constitution'.

In both of these senses, the *causal* and the *constitutive*, it makes sense to say that human beings 'construct' the environment in which they live. In the first sense, they construct the environment by acting in co-ordination upon the natural world in the service of their needs, and in so doing, over time, they radically alter that world. In the second sense, they construct their environment in such a way that their ongoing co-ordinated practical activity through time comes to *constitute* that reality. Both of these senses of construction are pointed to by the Renaissance recognition of man as *homo faber*. And since in neither case is the construction performed by individual men in isolation, but rather, by groups of men who act in co-ordination with one another, we might be justified in using the prefix 'social' in both cases. However, important as these two senses of construction is to contemporary constructionist theory, neither are specific to it. Rather, as Collin points out, they constitute a 'truism' of 'iconic significance in our culture'.[15] This truism does not get to the specific premises which set social constructionism apart from other forms of traditional and contemporary social philosophy.

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[14] *Social Reality*, op. cit.

[15] Ibid. p1.

Sergio Sismondo points out that, although the phrase 'social constructionism' is pervasive throughout many disciplines in the humanities and social sciences, it often means nothing more specific than 'of social origin'.[16] The specific premises of social constructionism that I will present in this thesis are qualitatively different from, although derivatives of, this 'truism' that the human social world and all that it contains is of human social origin. Therefore, appropriate as such use may be in a general sense, I will not use the term 'social construction' to refer to theories which depend upon *nothing more* than this insight. My definition is therefore narrower than that used by certain other theorists. For example, Ian Hacking states that in using the term 'social constructionism':

> I shall mean various sociological, historical, and philosophical projects that aim at displaying or analyzing actual, historically situated, social interactions or causal routes that led to, or were involved in, the coming into being or establishing of some present entity or fact.[17]

While it is correct that *all* social constructionist theories would fall under such a definition, so too would many theories which, in my opinion, it is not useful to define as 'social constructionist'. For example, this definition would include theories from Marx's *Capital* through Weber's *The Protestant Work Ethic* to Durkheim's *The Division of Labour in Society* (to name but three). Hacking's definition widens the cannon of 'social constructionism' to include any theory which accepts that contemporary society is the product of a process of historical change, and thus, that some degree of historical study is apposite to an understanding of contemporary reality. This tells us little about what is specific to social constructionism; or, put differently, it would allow the term 'social construction' to be used in relation to all modern social philosophy that gives recognition to history.

In order to isolate the distinct premises that set social constructionism apart from other theories which recognize the truism of man as the maker of his world through a process of historical change, we need to dig a little deeper. However,

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[16] *Science Without Myth*, op. cit., p54.

[17] Op. cit., p48.

one premise is shared both by social constructionism (as I define the term) and this truism. This premise is the 'contingency' of social forms.

II. CONTINGENCY

Peter Berger and Thomas Luckmann took from the phenomenological-sociology of Alfred Shutz the claim that 'reality is socially constructed'.[18] The claim at first sight seems radically counter-intuitive. It is suggestive of a reality that is ephemeral, somehow free-floating or 'unreal'.[19] However, the claim that 'reality is a social construct' is but a broader version of claims that we would have no difficulty acceding to. For example, erstwhile theories of biological sexual differentiation have been replaced by theories of 'gender'. The term 'gender' was coined to motivate support for the idea that sexual identity and entrenched sexual divisions are not natural givens, but have rather developed in and been conditioned by the cultural milieu in which they exist.[20] Similarly, the category of race and concomitant 'scientific' theories positing race as a significant biological entity have been replaced by the anthropological concepts of culture and ethnicity.[21] James Heartfield points out that at the beginning of this century, such categories as sex, race, nationality and social class were seen as natural or given characteristics of individuals and groups. Now, however, contemporary theorists of 'identity politics' confront those who assert 'natural' differentiation with alternative theories which assert such entities as the contingent products of social processes and ideology. The assertion of the contingency of identity which founds so-called

[18] Op. cit., p13. On Schutz see *Alfred Schutz Collected* Papers Vols. I, 'The Problem of Social Reality', Maurice Nanston (Ed) (The Hague: Martinus Nijhoff, 1973) and Vol. II, 'Studies in Social theory', Arvid Brodersen (Ed) (The Hague: Martinus Nijhoff, 1971). Schutz was greatly influenced by Edmund Husserl, whose 'phenomenology' he transposed into the sphere of social theory.

[19] Michael Lynch agrees: 'The social construction of reality suggests something amazing, even bizarre, to readers unacquainted with the theoretically generalised sense of the term "constructed".' Op. cit., p29.

[20] This idea is clearly expressed in the famous line from Simone de Beouvoir's seminal text *The Second Sex*: 'One is not born, but rather becomes, a woman." Cited by Hacking, op. cit., p7.

[21] For a detailed discussion of the historical transition from concepts of 'race' to those of 'culture' and 'ethnicity', see Kenan Malik, *The Meaning of Race: Race History and Culture in Western Society* (London: Macmillan Press Ltd., 1996).

'identity politics' is simply one version of the assertion of *contingency* that is central to the claims of social constructionism.[22]

Theories espousing the social construction of some entity are claiming that it is not a natural, universal or God-given entity, but rather, that it is the contingent product of a particular historical period or socio-cultural formation. An entity which is socially constructed is socially, culturally, and historically, contingent.[23]

The assertion of contingency is the logical extension of the truism we have already considered: if society and all that it contains is the result of an historical process through which human beings have 'constructed' themselves and their reality (in the two-fold sense of *causally* affecting reality and, through social practices, *constituting* that reality) then it is clear that contemporary reality would be different if things had been done differently in the past. However, there is no entailment from the claim that things could have been different *if* we had acted differently, to the claim that we *actually could have* acted differently.

III. The What of Social Construction

Hacking points out one reason why social constructionist theories are hard to pin down: in a phrase such as 'the social construction of X', 'the X may implicitly refer to entities of different types, and the social construction may in part involve interaction between entities of different types.'[24] We need to ask what the *object*

[22] See James Heartfield, 'Marxism and social construction' in S. Wolton (Ed.) *Marxism, Mysticism and Modern Theory* (London: Macmillan Press Ltd., 1996)

[23] Michael Lynch makes exactly this point: 'understood in familiar contexts of discussions in the natural and social sciences, "construction" suggests an unnatural order of things, and "deconstruction" is understood as a way of revealing the illusionist tricks hidden by naturalistic description or explanation.' Op. cit., p27. The assertion of the contingency of the contemporary *status quo* is not merely a theoretical claim, but is an important part of the political motivation behind much social constructionism. A number of theorists, Lynch among them, refer to the social constructionist 'movement' rather than referring to social constructionism as merely a theory or group of theories, which further emphasises the theory's ideological import. The claim of contingency is often used to suggest not merely that naturalistic explanation is invalid, but that it has played a significant role in the oppression of particular social groups. This might help to explain the very liberal use of the term 'social constructionism' which makes discovery of a determinate definition difficult: the attraction of the term is the air of radicalism it adds to any work of social theory. Thus Hacking claims that making use of the term social construction somewhere within one's theory or title has become a code such that 'if you use it favorably, you deem yourself rather radical. If you trash the phrase, you declare that you are rational, reasonable and respectable.'

[24] Op. cit., p27.

is that is said to be constructed: Is *X* an individual or group of individuals, a category, an idea? Is *X* real or imaginary? And if real, what does 'real' mean?

Since 'identity politics' is one of two areas in which social constructionism has had its most explicit effect (the other area being science in the recently created discipline of 'science studies') let us consider an example from this area. If we say that *X* represents sexual orientation (where we consider a world with only two orientations, *hetero*sexual and *homo*sexual) we need to discover whether we are discussing the social construction of, say, homosexuals and heterosexuals (individuals or types of individuals), or the construction of homosexuality and heterosexuality (properties or characteristics of individuals or groups of individuals), or the construction of *ideas* of such forms of sexual orientation (the categories or nomenclature applicable to such individuals or groups), or the interplay of some or all of these factors. Further, we need to ask what is the mechanism of construction – how is the object constructed - and once constructed, what is the relation of the constructed object to the original mechanism of construction?

In the senses of 'construction' we derived above from the Renaissance concept of *homo faber*, these questions are easily answered. In causal construction, men make material objects, and such objects then physically exist in the world and are part of the environment in which men live. By chopping down an area of forest, for example, we could say that men have 'constructed' an environment bereft of trees. The mechanism of construction here is man's physical labor in the world. In the case of construction by constitution, it is this activity of men, for example, the practice of clearing a space in the forest in which to set up their habitation, that forms the object of construction; and it is the repetition and continuation of this practice - and whatever other practices might be necessitated by it (for example, keeping wild animals away from the boundary of the clearing) - that is constituent of the social reality in which men live. In the former case, the practical activity is the *mechanism* of construction, and the *object*, once constructed, is independent of that mechanism. For example: if the practice of tree-cutting to make a habitation in the forest ceases, then there will still be that particular

clearing in the forest as the constructed object (at least for as long as it takes for nature to re-establish the trees). In the latter case, since it is the mechanism of construction itself, the ongoing continuation of a social practice, that constitutes the reality of that society, then reality will be different if that particular mechanism alters or ceases to exist. The mechanism and the object in this case cannot be separated.

In order to get at the differences between these senses of construction and the sense in which contemporary social constructionists use the term, we need to consider how we might answer these questions in relation to more explicitly social constructionist theories. Therefore, let us consider two foundational works of social constructionism in the field of sexuality and sexual orientation: sociologist Mary McIntosh's seminal article, 'The Homosexual Role', and philosopher Michel Foucault's *The History of Sexuality*.

According to McIntosh, in the ancient Greek cultures of which literature and archaeology tells us of common place same-sex sexual proclivities between, while there may have been much homosexual behavior, there were no 'homosexuals'. McIntosh's article focused upon the 'creation of a specialized, despised and punished *role* of homosexual' towards the end of the 17th century.[25] The construction of this 'homosexual role' occurred through a process of 'social labeling'. Certain individuals engaged in same-sex sexual activities were labeled 'deviant'. This labeling served two purposes: firstly, 'it helps to provide a clear-cut, publicized and recognizable threshold between permissible and impermissible behavior'; while second, it 'serves to segregate the deviant from others, and this means that the deviant practices and the self-justification for these practices are contained within a relatively narrow group.'[26] That is, labeling both marks out an area of sanctionable conduct and aims at the containment of those disposed to act in such sanctionable ways, limiting the arena for such behavior. At the same time,

[25] Mary McIntosh, 'The Homosexual Role', in Stein (Ed), op. cit., p27 (orig. 1968).
[26] Ibid.

McIntosh points out that such labeling processes become 'self-fulfilling prophecies':

> if culture defines people as falling into distinct types – black and white, criminal and non-criminal, homosexual and normal – then these types tend to become polarized, highly differentiated from each other.[27]

McIntosh's work in the sociology of labeling theory suggests the appearance of a new type of individual, 'the homosexual'. We might call the mechanism of construction 'construction-through-labeling'. An objective category is externally posited upon a certain kind of individual who engages in a particular kind of activity, and at the same time, such individuals respond by organizing their subjective identity around such categorization. Therefore, what is constructed in McIntosh's theory is a new way of conceptualizing certain individuals within the realm of social mores, and a new kind of individual whose activity comes to agree with this conceptualization. The existence of this new conceptualization, *the homosexual*, was maintained by the subjective identification of the individuals concerned with this role (and presumably, although McIntosh does not mention this, the continued sense of 'wrongness' about their activity such that others felt required to ensure their persecution, and those persecuted felt the need to organize in solidarity against such persecution). The existence of the construct, therefore, cannot be separated from the mechanism of construction, and this mechanism is the labeling of individuals for purposes of social and moral control.

As to why certain features effect a polarization while others do not, McIntosh does not tell us.[28] One is left to conclude that certain labels are, for some unspecified reasons, pertinent to a particular form of society, while others are not. In this case, the construct will exist for as long as, but for no longer than, society continues to find pertinent this particular labeling of individuals, and thus for as long as the mechanism of construction is continued.

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[27] Ibid., p28.

[28] It is worth noting that examples of features around which there has been no polarisation are hard to come by. From right-handed/left-handed to eye colour or hair colour, a careful study of cultural history will find that most features which have labels have been involved in some opposition to other features. One of the insights of social constructionism is to note that where there exists a label for a feature there exists, or has existed, some distinction with other features. The question to ask, then, is why some features are distinguished by us while others are not – for example,

Foucault was also interested in the processes of social labeling and categorization in the formation of social identities and practices. Such interest stems from his theory that the complex of 'power-knowledge' operates through the construction of particular 'discourses'. His concept of discourse is one version of a 'coherence theory of truth'. For Foucault, social facts can never be conceived of as being *true* or *false*, because the very language we use to describe the facts imposes truth or falsity upon them. The discourse, therefore, creates the 'truth' about particular social facts, and competing discourses create competing 'truths'. Truth is not uncovered in the relationship between discourse and the world, but rather, it is found in the relation of discourse and power. It is this relation that determines which truth is accepted as *the* truth at any time:

> Each society has its regime of truth, its 'general politics' of truth; that is, the types of discourse which it accepts and makes function as true; the mechanisms and instances which enable one to distinguish between 'true' and 'false' statements; the means by which each is sanctioned; and the techniques and procedures accorded value in the acquisition of truth; the status of those who are charged with saying what counts as true.[29]

Contrary to McIntosh's thesis, for Foucault 'homosexuality' cannot be traced to specific historical origins in social control: sexuality itself 'must not be thought of as a kind of natural given which power tries to hold in check,' but rather, sexuality 'is a name that can be given to a historical construct.'[30] This historical construct, 'sexuality', is constructed through discourse, both created by and maintained through a social complex of power-knowledge. These discourses - beliefs, concepts, ideas and patterns of consciousness and concomitant activity - are both our means of access *to* and the constituting factor *of* our reality. Sexuality is therefore not a *given* which prudish social mores attempted to contain, but rather, sexuality is a discourse which both represents and constructs our sexual orientation and practices.[31] Sexuality, for Foucault, has no natural or given existence, but *qua* discourse, is an ideological construct which unifies our experience of disparate 'bodies, organs, somatic localisations, functions, anatamo-

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we distinguish those whose eyes are close together from those whose eyes are far apart, but we have no such distinction between those whose eyes are close to or far from the hair-line.

[29] *Power/Knowledge* (Brighton: Harvester, 1980) p131.

[30] *The History of Sexuality* Vol. I, op. cit., p152.

[31] Jeffery Weeks explains that Foucault's philosophical treatment of the history of sexuality 'becomes, therefore, a history of our discourses about sexuality.' *Sex, Politics and Society* (London: Longman, 1981) p7.

physiological systems, sensations, and pleasures' which themselves have no inherent 'laws' or unity.[32]

As conscious human beings, our access to the world is through the complex of systems of beliefs, concepts, ideas and patterns of consciousness that allow us to organize and make sense of the world. Different ideas represent different social groups and interests, and the interplay of social interests and power networks determine the dominant discourse(s) of the day. A discourse has the two-fold characteristic of being not merely *interpretive of* the world, but also *productive of* it, because the world we inhabit, while *understood* through the framework of a discourse, has no greater truth or reality beyond that discourse (or interplay of discourses). The world simply *is* as it is in whatever is the dominant discourse.[33] A discourse is not merely a grouping of ideas or concepts, but rather, it is the relationship between the symbols (ideas and concepts) and the symbolized (objects), and also the process through which certain symbolism comes to be applied to certain objects. The object of construction in Foucauldian theory is therefore the *consciousness* which is encapsulated by the discourse. However, 'consciousness' is here used not in the standard analytic way, but rather, signifies an active relation with the world.[34] As such, this consciousness constitutes both our objective practices and activities in the world and our modes of thought about it. The mechanism of construction is the discourse itself, the way we think and act in the world. Since the mechanism and the object are essentially one and the same thing, neither can have an existence independent of the other.

What Foucault argued in *The History of Sexuality* was that in the latter part of the 19th century an entirely new and distinct kind of person came into existence as

[32] *The History of Sexuality* Vol. I, op. cit., p153. Cited by Weeks, ibid. p4.

[33] Those familiar with both sociological theory and analytic philosophy will recognise the similarity between the Foucauldian discourse, the theories of the sociologists of knowledge, and Hilary Putnam's work in analytic philosophy on 'internal realism'. It should be noted here that Foucault's interest was not to make any explicitly ontological claims, and so he never clearly broaches the question of whether reality *is* identical with discourse, or whether there is a reality beyond discourse which is simply inaccessible to us. This relation between the *ontological* and the *epistemological* realms will be taken up in PART TWO.

[34] This 'consciousness' is akin to the phenomenologists' concept, such as Heidegger's 'dasein', or Sartre's 'for-itself': consciousness as an attitude of 'being-in-the-world'.

legal and moral sanction met with psychiatric and medical categorization of deviancy and illness:

> The nineteenth century homosexual became a personage, a past, a case history, and a childhood, in addition to being a type of life, a life form, and a morphology....The sodomite had been a temporary aberration; the homosexual was now a species.[35]

This constructed object, 'the nineteenth century homosexual', was an identity applied to certain people, as well as being the people themselves who adopted that identity and who came to live their lives in accordance with it: it was a type of life, a mode of being in society, and a conceptual entity. Like McIntosh, Foucault stresses the importance of the *subjective reaction* of individuals to their new medico-legal categorization, which:

> made possible the formation of a 'reverse' discourse: homosexuality began to speak on its own behalf, to demand that its legitimacy or 'naturality' be acknowledged, often in the same vocabulary, using the same categories, by which it was radically disqualified.[36]

The categorization and labeling generated through the discourse on sexuality served not only to introduce an objective or external conceptualization, 'the homosexual', with its concomitant social stigmatization, but also to construct the individual and group as a sub-culture with its own subjective or internal identification as 'homosexual'. We will see below in PART FOUR the significance of this subjective activity of individuals and groups of individuals when we come to draw a distinction between the social constructionist and the empiricist theories of knowledge. For present purposes, however, this emphasis provides an answer to our question about the 'reality' of the constructed object.

The constructed object and the mechanism of construction cannot be separated: both are, in this case, the discourse of sexuality created at the end of the 19th century - both a mode of understanding the world, a mode by which homosexuals could be understood by the world and understand themselves, and at the same time, the constitution of this mode of understanding and being itself. As such, we would be wrong to think of this constructed reality as somehow 'imaginary' or chimerical. The 'reality' of that which is constructed through discourse is manifest in its effects upon the activities and identities (both 'subjective' and 'objec-

[35] Op. cit. p160.

tive') of agents in the social world. A real object was constructed, 'the nineteenth century homosexual', and through its construction, reality was altered – social reality now included 'homosexuals' as one of its constituents.

Although there are clear disagreements between Foucault and McIntosh, the essential tenets of constructionist theorizing are apparent in both. Before setting these out, however, it is worth flagging up a problem that comes out of Foucault's theory which, as we shall see later, is also a problem for social constructionism in general.

In his discussion of the discourse of sexuality, whilst recognizing the significance of the medicalization of sexuality in creating the category and subject of homosexuality, Foucault neglects to consider any material basis that might found and help to explain the emergence of such practices. Stephen Epstein notes that such medicalization presupposed certain socio-historical factors, such as the radical changes in family structure and organization that resulted from rapid industrial development, and the concomitant urbanization which created the very arena of life in which a homosexual subculture could develop.[37] Foucault's discussion of a 'power-knowledge' complex created and sustained through different social discourses leaves these discourses free-floating and unanchored. The concepts of power and discourse are undirected and amorphous: it is unclear exactly who wields power over whom - other than perhaps society over itself - and it is unclear, therefore, who the repressed are reacting against in adopting their own subjective identity and subversive discourse. There is something ephemeral about the Foucauldian discourse which is supposed to construct the reality of the world. The discourse is the foundation of reality, but it is unclear upon what the discourse itself is founded. For Foucault, the only possible foundation of one discourse is its relationship to, or precedence over, previous and conflictive discourses. Jeffery Weeks puts a similar criticism thus:

> [W]e need to understand that discourses and practices do not arbitrarily emerge from the flux of possibilities; nor are discourses the only contact with the real; they have their con-

[36] Ibid. p101.

[37] Steven Epstein, 'Gay Politics, Ethnic Identity: The Limits of Social Constructionism' in Stein (Ed), op. cit., p251.

ditions of existence and their effects in concrete historical, social, economic and ideological situations.[38]

For Weeks, a discourse must be somehow anchored in the world, while for Foucault, discourses are left quite arbitrarily emerging and competing for dominance, and as the only contact we have with 'the real'. Weeks is uncomfortable with the implicit notion of Foucauldian theory that there is nothing that can be discovered beyond the realm of the discourse: there is no further truth or reality against which we can assess the discourse itself. This is indeed an uncomfortable proposition, but it is a proposition which is at the foundation of social constructionist theory (we will consider this again in PART TWO).

For now, however, we have the building blocks for our definition of social constructionism.

IV. TOWARDS A DEFINITION OF SOCIAL CONSTRUCTIONISM

I suggested that the claim to socio-historical contingency in social constructionism is the logical extension of the recognition that social reality and all it contains is the product of an historical process through which human beings have constructed themselves and their reality. The claim to contingency states that the existence of entities as they are is contingent upon this process of construction, and that if the process of construction had been different, so too would the entities be different. However, in this form, the assertion of contingency takes us no further than the Renaissance concept of *homo faber* and the two-fold understanding of construction that came from it. The corollary of such claim to cultural and historical contingency is the requirement for some level of cultural and historical specificity in analysis. But exactly what is the object that social constructionists are specific about? In order to see what is specific to contemporary constructionism, we had to consider the nature of the object that was said to be constructed, and the mechanism by which such construction took place.

[38] Op. cit., pp10-11.

In McIntosh's theory, the object constructed was a concept or 'label', and its corollary, a group of people who adopted such a label. This suggests that the constructionist process begins with an idea or concept, and that this idea or concept shapes reality. In Foucault's theory the priority of the idea or concept is made even clearer. The Foucauldian discourse is both interpretive and productive of the world, and there is no truth or reality to the world beyond the discourse; thus, the structure of reality is the result of whatever discourse is dominant in a given sphere at a particular time. It is discourse which determines the structure of the world we inhabit.

Social construction is the process whereby the structure of social entities and social reality is determined through the particular discourse(s) we use to make sense of that reality. The specific area of social constructionist theory we were considering was the construction of sexual orientation. However, the basic premises of the social construction of identity informs the broader claims of the social construction of reality. Jeffrey Weeks concludes his chapter on the social construction of homosexuality thus:

> The *meanings* given to homosexual activities can vary enormously. They depend upon a variety of factors: social class, geographical location, gender differentiation. But it is vital to keep in mind when exploring homosexuality, which has always been defined in our culture as a deviant form, that what matters is not the inherent nature of the act but *the social construction of meanings around the activity,* and the individual response to that.[39]

The construction of *meaning* is the premise upon which all social constructionism is built. In this literature, 'meaning' does not have the level of exactitude that it has when analytic philosophers use the term. Rather, 'meaning' broadly implies the social thought and consciousness by which the world is made sense of and understood by individuals. If this loose use of such a contentious term is uncomfortable to the reader, then 'meaning' should be read here as synonymous with Foucault's notion of 'discourse', or, as I will discuss in PART TWO, with Hilary Putnam's notion of a 'conceptual schema'.

Weeks is insisting that it is not the structure of the act, but 'the social construction of meanings around the activity', that determine what and how the activity is

[39] Op. cit., p117. Emphasis added.

understood in society. In constructionist theories, the construction of meaning around the activity determines the reality of the activity, since there is no further reality beyond these *meanings*. For example, there is nothing 'natural' in the polarity between homosexual and heterosexual, Weeks is suggesting, but rather, the polarity is the result of the way in which certain activities are interpreted through a particular social 'schema'. Since there is no natural polarity, we could say that the homosexual-heterosexual dichotomy has no existence prior to the 'social construction of' the particular 'meanings' which construct the polarity. And since there was no polarity of sexual orientation prior to this construction, there were no homosexuals or heterosexuals either.

James Heartfield explains this premise of social constructionism as the proposition that 'all meaning is created socially and that there is no discrete world of experience that is not filtered through social interpretation.'[40] For the social constructionist, there is no 'objective' or 'God's eye' position from which to view the world, but rather, we view and experience the world from within the many layers of *meaning* (read 'discourses' or 'conceptual schemas') created in and through the social world. Because we have no access to the world except through these socially constructed meanings, our 'representations' of the world 'are ontologically prior to their associated object'.[41] We do not meet the world, but we meet *representations* of the world. This lack of direct or unmediated access to the world leads the constructionist to assert that the reality in which we exist is constituted by the ways we conceive it and describe it, by the cognitive processes by which we interpret it, and the discourses we establish which both represent it to us, and construct it for us.

This gives us the first two premises of social constructionism. Firstly, the reality in which we exist is constructed by man, and is therefore a contingent reality. Second, this reality is constructed through the process by which social consciousness comes to interpret and understand that world. The third and final

[40] Op cit. p8.
[41] Sergio Sysmondo, op. cit., p50.

premise is the claim that social reality can only be understood from 'within'. This follows because for social constructionists – and as we will see below, for analytic philosopher Hilary Putnam - there is no 'outside' vantage point that could give us an 'objective' understanding; we are all inside of conceptual schemas because we are all inside of society.

In what follows, I hold these premises up for scrutiny. We need to ask some questions of social constructionism: What is the relation between the constructed world and the reality that precedes or underpins it, or is the existence of such an 'external' or 'objective' reality ruled out of court? This is the problem I raised above in my discussion of Foucault. I will consider this question in PART TWO by drawing a distinction between ontological and epistemological claims. Related to this, if the reality of the world is a contingent construct, could we really have constructed it differently, and if so, are there any limitations upon how we could have constructed it? In PART THREE I suggest that there are indeed limitations upon the construction of our reality, and that these limitations are best explained if we understand our constructed reality to be a mediation, our means of access to, an objective or external world. My contention is that the reality constructed through discourse and conceptual schemas is both founded upon and constrained by the external world. Finally, in PART FOUR, I suggest that we need to distinguish between the construction of systems of knowledge in their relation to the *individual* and the *social* perspective. I suggest a sketch for an alternative theory which can account for this distinction. The main weakness of social constructionism, I suggest, is a failure to recognize this difference, which comes from a failure to fully conceptualize the relation of the individual to social knowledge.

PART TWO

THE REAL AND THE CONSTRUCTED

> The 'real' is nowadays what it always was, just a fantasy-projection dreamed up to compensate for the absence of anything, any adequate concept or referent, that could ever correspond to that empty rhetorical term.[42]

In general, the interests of social constructionists are not the interests of analytic philosophers. Constructionists have given little consideration to the implications of the premises which found their thesis. Understandable though this may be, it means that a significant method of analyzing the strengths and weaknesses of the constructionist position has been neglected. In the remainder of this thesis, therefore, I provide a philosophical analysis of the implications of social constructionism, in particular, with regard to its theory of knowledge, in the light of the theories' underlying premises.

To recap, these premises are: First, the reality in which we exist is constructed by man. Second, this reality is constructed through the process by which social consciousness comes to interpret and understand that world. Third, this reality can only be understood from 'within'. Since the first premise can be drawn from the Renaissance truism already discussed, I will not undertake to defend it here, and will consider only the latter two. I will show what grounds the constructionist has for asserting the third premise. I will also consider the second premise in more detail. I want to ask whether this premise ought to be read as making any ontological claims about the reality of the world. Does accepting this premise entail a denial of an external or independent realm beyond the realm of representation or meaning? I suggest that it does not. I then argue that such a denial creates unsettling results for the possibility of our understanding – our 'making sense' of – the world.

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[42] Christopher Norris on the claims of Jean Baudrillard, *Reclaiming Truth: Contribution to a critique of cultural relativism* (Durham: Duke University Press, 1996) p185.

V. REALISM AND ANTI-REALISM

Since the propositions which inform the constructionist position have also informed a significant contemporary debate in analytic philosophy on the nature of reality, it is possible for us to analyze the implications of this constructionist premise through a consideration of this philosophical position. In what follows, I approach the implications of the second and third of the constructionists' premises through consideration of Hilary Putnam's position of 'internal realism'.

I use the term 'metaphysical realism' to refer to the theory that the world has an objective or external existence independent of our representations of it.[43] For example, the metaphysical realist would claim that entities exist irrespective of our perceptions: the brute existence of the entity is not affected by our representations of it. Metaphysical realism is thus an *ontological* claim: it makes a metaphysical assertion about the nature or being of the world.

Capturing the meaning of 'anti-realism' is more complex.[44] Semantically, we might presume anti-realism to be the antonym of realism. As such, anti-realism would be an ontological claim which denied that the world had an existence independent of our representations. This presumption is correct, but it misses half the picture. Etymologically, the theories which can be grouped under the heading of anti-realism (in the broad sense in which I use the term) have arisen as attempts to deny the possibility of scepticism about the external world. Such scepticism depends upon the recognition that we cannot know the world directly, but rather, that we know the world only as it appears to us in our representations.[45]

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[43] This is the term used by Putnam in *The Many Faces of Realism* (Illinois: Open Court, 1987). Searle prefers to call this thesis 'external realism', in order to differentiate it from such concepts as moral realism, or realism referring to universals. See *The Construction of Social Reality* op cit.

[44] I use the term 'anti-realism' broadly to denote those schools of thought which have opposed 'metaphysical realism' generally. My use of the term would include such diverse theorists as Berkeley, Kant and Husserl. Thus, I use the term in a much broader sense than that which it has developed in recent analytic philosophy through the work, amongst others, Michael Dummet and Crispin Wright.

[45] When I speak here of 'representations', in the context of a discussion about social constructionism, I might as readily use the terms 'conceptual schema', 'discourse', or even the very loose sense of 'meaning' that we met in PART ONE. The point to understand is that each of these terms refers to a form of 'mediation' between us and the world, and that the world is never accessed *directly*, but only in a mediated form.

Since we access the world not directly but merely through such representations, the sceptic claims that we have no indubitable reason to believe that there is a world behind such representations.[46] The anti-realist challenges such scepticism by asserting that the world is nothing more than what we perceive or represent, and thus, our knowledge of its reality *is* indubitable by virtue of the fact that we have such perceptions and representations.

Unlike metaphysical realism, whose claims are purely ontological, anti-realism, so understood, makes both ontological and epistemological claims. From the epistemological premise, (P) *we know the world only through our representations of it*, anti-realism is led to the epistemological conclusion, (C_e) *it makes no sense to speak of a world independent of our representations*.[47] However, in his attempt to deny scepticism about the world the anti-realist is also prone to draw a further and, this time, *ontological* conclusion from (P); that is, (C_o) *there is no world independent of our representations*. In what follows, I argue that drawing the ontological conclusion (C_o) from (P) is a non-sequetour. Then, in sections IV and V, I argue that drawing the epistemological premise (C_e) from (P) presents problems for the way we understand the reality in which we live.

VI. Epistemological Premises and Ontological Conclusions

In *The Many Faces of Realism*, Hilary Putnam sets out to establish an alternative to the polar extremes of 'metaphysical realism' and 'extreme relativism'. The former is problematic, for Putnam, because it holds to notions such as 'intrinsic properties' and 'things in-themselves' irrespective of the influence of mind and language, while the latter is problematic because it entails a concept of reality in which all truths are subjective and therefore in which 'anything goes'.[48] To avoid these extremes, Putnam develops the position he calls 'internal realism', a posi-

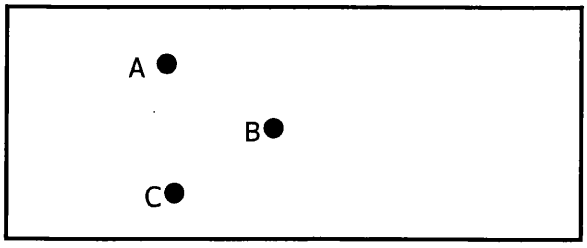
[46] Francis Bacon described the difference between his empirical realism and scepticism thus: 'The doctrine of those who have denied that certainty could be attained at all has some agreement with my own way of proceeding at the first setting out; but they end in being infinitely separated and opposed, for the holders of that doctrine assert simply that nothing can be known. I also assert that not much can be known in nature by the way which is now in use. But then they go on to destroy the authority of the senses and understanding; whereas I proceed to devise and supply helps for the same.' Aphorism XXXVII, Book One, *The New Organon* (New York: Macmillan, 1986) p47.

[47] This is what Kant meant when he claims that the thing-in-itself is an empty category.

tion that 'combines elements of "realism" with elements of "antirealism".'[49] Internal realism, Putnam claims, avoids relativism because it is able to assert the external reality of the world, while it avoids the metaphysical realist's troublesome assertion of a world-in-itself because it is not incompatible with 'conceptual relativity'.[50]

The thesis of 'conceptual relativity' suggests that any classificatory system about the world, any description or representation, involves sets of conceptualizations which are both related to the interests of those engaging in such representation, and involves discriminatory criteria which are, from the point of view of the world, arbitrary. Consider Putnam's well known example.

A world is demarcated by the boundaries of a quadrilateral. The question Putnam asks is 'How many objects are there in this world?' The answer seems obvious. By standard methods of counting - 'Carnapian' counting - we would say that in the figure below, each letter names an individual object, and thus that A = 1st object, B = 2nd object, and C = 3rd object. There are clearly *three* objects. However, Putnam points out that there are other perfectly logical methods of counting that will give different results. For example, in Polish Logician Lezniewski's 'Mereological' schema, we say that for every two particulars there is an object which is their sum. Thus, A = 1st object, B = 2nd object, C = 3rd object; then, A + B = 4th object, B + C = 5th object, A + C = 6th object, and A + B + C = 7th object. By Lezniewski's calculus of parts and wholes there are not *three* but *seven* objects.



The question that springs to mind now is 'But how many objects are there *really* - *three* or *seven*?' This is exactly the kind of response Putnam expects of the 'metaphysical realist' for whom, in his view, this conceptual relativity will be intolerable. For the metaphysical realist there can be one and only one world, and

[48] Op cit. p8.
[49] Ibid. p41.

since the world must be a certain way, Putnam thinks that the metaphysical realist will be forced to argue that one of the two answers to the question 'How many objects are there?' must be wrong. Putnam points out that metaphysical realism assumes the existence of a world which is independent of conceptual schemas but which different conceptual schemas slice up in different ways. This assumption itself can only be made, he contests, once we are already *inside* one or another conceptual schema. If we try to answer the question of how many objects there *really* are by saying, for example, '*three* objects', we have given a description that is already embedded within the Carnapian conceptual schema. Alternately, if we answer that there are '*seven* objects', we have again given a partisan description, this time from the internal perspective of Lezniewki's schema. Putnam says that the phenomenon of conceptual relativity:

> turns on the fact that the logical primitives themselves, and in particular the notions of object and existence, have a multitude of different uses rather than one absolute 'meaning'.[51]

What it is to be an 'object' which 'exists' in a world entirely depends upon the conceptual schema one uses to describe and understand that world. The Carnapian conceptual schema understands 'object' to mean 'individual particular', while the Lezniewskian conceptual schema understands 'object' to mean 'particulars plus the sum of all particulars more than one'. It is these different notions of what an *object* is that give us different answers to the question 'How many objects are there?' And since there can be no answer to the question until we have an understanding of what an object is, there can be no vantage point which is external to all conceptual schemas from which the question can be answered. The 'truth' of the answer is thus internal to the conceptual schema. Neither version can be reduced to a single 'true' version, because each version gives the true answer relative to the parameters it has set. There is no single 'true' version that does not set its own parameters of truth and thus that would be true outside of those parameters.[52]

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[50] Ibid. p17.

[51] Ibid. p19.

[52] 'To require that all of these *must* be reducible to a single version is to make the mistake of supposing that "Which objects are real?" is a question that makes sense *independently of our choice of concepts*.' Ibid. p20.

There is a striking similarity between Putnam's 'internal realism', with its focus upon the 'conceptual schema', and Foucault's theory of the construction of reality through the interplay of competing discourses. For each theorist, truth cannot be determined from any position that is outside of a discourse or conceptual schema, because truth is determined by the discourse or schema we use to conceptualize the world. This is exactly the point expressed in the third of our social constructionist premises: that social reality can only be understood from the 'inside'. Both theories hold to a 'coherence theory of truth'. If we understand social reality to be the totality of social facts, and we acknowledge that any fact can only be determined from within the framework of a conceptual schema whereby entities are defined and facts determined, then we can say or think nothing of that reality other than from within that particular conceptual schema. Any 'truth' about social reality, any description or explanation, can only exist internal to a conceptual schema. This suggests that truth (and reality) are themselves relative to the discourses or conceptual schemas we use. Although Foucault makes no explicit ontological claims, his theory is quite consistent with, and indeed suggestive of, such relativity. However, Putnam is keen to emphasize that his theory is not a form of relativism, but very much a form of 'realism'.

Although 'the method of counting' or the 'notion of what constitutes an "object"', Putnam states, depends upon our '"choice"'[53] of conceptual schema, 'the *answer* does not thereby become a matter of convention.' Putnam wants to claim that because there is a correct answer to the question of how many objects there are in the world, then it makes sense to say that 'there are external facts'. It is simply that '[w]hat we *cannot* say – because it makes no sense – is what the facts are independent of all conceptual choices.'[54] There is a reality to the world, such that it makes sense to speak of 'external facts', but this reality can only be understood from *within* our chosen conceptual schema – we cannot say what the facts

[53] Putnam rightly puts 'choice' in inverted commas. Although in his specific example, a logician deciding between two methods of counting, there is an element of 'choice', more generally, as individuals we have no real 'choice' in the conceptual schemas we use: for the vast majority of us most of the time, there is only one method of counting which has been determined socially. Further, nor could this 'social determination' be considered a mode of 'choice' in any real sense, as this would imply that there was some conscious collective decision involved, while rather, the conceptual schema simply develops in some collective but unconscious way.

are from outside of the schema. Thus, in Putnam's view, we have a theory which is both a form of 'realism' and at the same time an 'internal' theory of reality.

However, there is a leap of logic in Putnam's argument. His claim about conceptual relativity is an *epistemological* claim: it is a claim about our knowledge of the world. The claim is that all knowledge sets its own criteria of truth and falsehood, and therefore, of what constitutes a fact, through the conceptual schemas by which the world is interpreted. Putnam then goes on to make an *ontological* claim: that is, a claim about the being of the world, in which there are 'facts' that exist external to our conceptual schemas. However, since in Putnam's theory of conceptual relativity we can at no time be outside of our conceptual schemas, then nor can we have knowledge of the existence or not of such a world independent of our conceptual schemas. Putnam is saying firstly, that none of us have access to the objective world, while secondly, that he can guarantee that such a world exists. Since Putnam is, however, just as embedded in particular conceptual schemas as the rest of us, his guarantee is empty.[55]

Putnam wants to claim that there is an 'external reality' because there are 'external facts'. But in what sense are these facts 'external'? Putnam is trying to persuade us that, even though we cannot know the facts other than from within a conceptual schema, still the 'fact' that there are facts entails that there is an external reality. But there is no such necessary entailment. The facts could just as easily be considered as 'internal' to the conceptual schema. We could say that it is not simply that *we cannot know* the facts prior to adoption of a conceptual schema, but rather, that the facts *do not 'exist'* prior to the adoption of a conceptual schema.[56] For example: there is no fact about the number of extant objects in

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[54] Op. cit. p33.

[55] The merging of *ontological* and *epistemological* claims is apparent in the name Putnam gives to his theory. 'Internal' refers to our access to the world, that this access is 'internal' to a particular conceptual schema, and therefore refers to the sphere of epistemology. 'Realism', however, refers to the world as it is, the world independent of our conceptual schemas, and refers, therefore, to the sphere of ontology.

[56] According to Rorty, 'We need to make a distinction between the claim that the world is out there, and the claim that the truth is out there. To say that the world is out there, that it is not our creation, is to say, with common sense, that most things in space and time are effects of causes which do not include human mental states. To say that truth is not out there is simply to say that where there are no sentences there is no truth, that sentences are elements of languages, and that human languages are human creations.' Op cit. p5. Here, however, Rorty *assumes* the external world on the grounds of 'common sense'. Below I argue that we indeed must make this *assumption*, and that it is no more

our exemplified world until we have defined what an object is by adopting either the Carnapian or the Lezniewskian counting system. This is exactly the implication of the social constructionist thesis. However, while the constructionists have no qualms about the anti-realist implications of this claim (whether through a failure to analyze their own premises, or whether simply because they see no problems in anti-realism) Putnam is at pains to avoid anti-realism, whilst at the same time stressing conceptual relativity. The stress upon conceptual relativity is an important insight, one that is made here explicitly by Putnam, and that is also implicit in social constructionist theorizing. However, by the logic of his own argument, Putnam ought not to make any claim about the being of the world, since any such claim can only be a 'metaphysical' supposition.

As Searle points out, 'metaphysical realism' is an *ontological*, not an *epistemological*, theory. It is a theory of the metaphysical status of the world, not a theory about our knowledge of that world. Remember that Putnam's 'internal realism' was intended to suffice as a realist theory that was not incompatible with conceptual relativity. However, if 'metaphysical realism' is an ontological and *not* an epistemological claim, then nor is it inconsistent with conceptual relativity. The former states merely that there is an external or objective world. The latter states that this world can be conceived of and understood only from 'within' a number of different conceptual schemas. Inconsistency arises only if different conceptual schemas give inconsistent claims about the world.[57]

Putnam thinks there is an inconsistency between metaphysical realism and conceptual relativity, only because he wrongly takes the epistemological claim, that there is one and only one correct conceptual schema that can be used to correctly

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than an assumption. However, Putnam wants to base the existence of the external world on something stronger than mere surmise.

[57] The useful example Searle give us is a comparison between the Mercator projection of the earth's surface and the standard globe representation. The former has Greenland occupying a larger surface area than Brazil, while the latter has Brazil occupying a larger area than Greenland. Does this mean, then, that there are two worlds in two conceptual schemas which are inconsistent with each other? Well, in fact no, because 'The Mercator projection is just inaccurate about the relative sizes of Brazil and Greenland.' (op. cit. p167). In other words, realists accept that since there is a world that can be described either correctly or incorrectly. When there is an inconsistency due to different conceptual schemas giving not just different but *inconsistent* accounts of the world, then one of these accounts must be wrong. We may not know which is wrong, and indeed, as we shall see in PART THREE, inconsistent accounts may exist side by side, but ultimately, both cannot be correct about the world.

describe the world, to be a claim of metaphysical realism. But as I have been at pains to stress, metaphysical realism makes no epistemological claims at all. As Searle explains, Putnam's rejection of 'metaphysical realism' in favor of 'internal realism' is based upon his mistaken conjunction of these two logically independent theses under the banner of 'metaphysical realism'.[58] Once we note that metaphysical realism makes no epistemological claim, it becomes clear that Putnam's 'internal realism' makes no improvement upon 'metaphysical realism'.

The result of all this is that we must recognize that conceptual relativity does not do away with what Putnam sees as the troublesome assertion of realism: that is, the idea of the world-in-itself. Putnam claims:

> Internal realism says that the notion of a 'thing in itself' makes no sense; and not because 'we cannot know the things in themselves'.....Internal realism says that we don't know what we are talking about when we talk about 'things in themselves'.[59]

However, even if we accept here the claim that it makes no sense to talk about things in themselves because they would be things outside of our conceptual schema, this in no way *proves* that the world-in-itself does not exist. Whether we follow Kant in saying that 'we cannot know things in themselves', or Putnam in saying that 'we don't know what we are talking about when we talk about things in themselves', we are only making an epistemological claim about what we can or cannot know about the world; we have not proven anything about the world itself. The metaphysical assertion that the world exists independent of our representations of it is untouched by the claim that we can only know of the world that which we represent of it. Of course, nor does this latter epistemological claim *prove* the fallacy of anti-realism. We shall see below that a different tack is required if we want to argue for the claims of realism.

The epistemological claim of Putnam's argument, that there are a great number of conceptual schemas that can be used to describe the world, does not lead necessarily to either of the dichotomous ontological claims about the world, realist or anti-realist. On the strength of Putnam's arguments, the consistent ontological

[58] Ibid. p164.
[59] Op. cit. p36.

conclusion to draw would be what Nelson Goodman termed 'irrealism': that is, neither realism or antirealism, but a general indifference to such questions.[60] Since Putnam's argument rests upon the claim that it makes no sense to speak of a world beyond our *representations* of the world, then he can only be 'indifferent' about whether there is such a world.

VII. PROOFS AND PREMISES

There is a non-sequitur involved if we move from the epistemological premise, (P) *we know the world only through our representations of it*, to the ontological conclusion, (C_o) *there is no world independent of our representations*. The premise was seen to be integral to Putnam's notion of 'internal realism', as well as being one formulation of the third premise of social constructionism that we isolated in PART ONE. In fact, from this premise *irrealism* is the only legitimate position to adopt, whose import we can express as, (C_e) *it makes no sense to speak of a world independent of our representations*. However, the position of *irrealism* also presents problems for our analysis. In PART ONE I suggested that the problem with Foucault's discourse theory was that it left social reality ungrounded and seemingly ephemeral. The most obvious candidate to provide such grounding to social reality is the external world. But if we are irrealists, that is, if we can say nothing about the existence or non-existence of the objective world, then nor can we say anything about the grounded or ungrounded nature of reality. Reality simply is, as far as we can ever know it, as it is in our discourses, and we can say nothing of any further reality outside the realm of discourse.

In what follows, contrary to these implications of irrealism, I will argue that we need to make the 'assumption' of an external world which lies behind our discourses and representations if we are to be able to 'make sense' of our empirical experience. However, the problem arises that if we can do no more than *assume* the existence of this external realm, then we seem to be in no stronger a position

[60] Cited in *The Social Construction of What?*, op. cit. p61.

than the realists who leave themselves open to attack from both anti-realists and sceptics alike.

The problem here is that attempting to *prove* that an external world exists is much like attempting to *prove* that God exists. If you disagree with me, all you need to is to deny my premises. The committed anti-realist and the committed realist are as unlikely ever to agree as the committed atheist and the committed theist. Both are dealing with the same phenomenon that requires explanation, and both can provide an explanation which they feel is satisfactory. Certain things – the existence or non-existence of an external ontological realm, the existence or non-existence of God - simply cannot be *proven.* Any evidence we take to be *proof* of either side of the argument serves as proof only from our position *inside* one or other world-view. However, we can learn something by analogy with this insoluble opposition between the theist and the atheist. The theological explanation of the phenomenon of the world has become less and less necessary for us as we have increasingly been able to explain the world without recourse to God as creator. More and more of the phenomena of the world have become explicable without theology. I propose the appositeness of an analogy with this theism/atheism debate to our dilemma regarding the adequacy of realism, irrealism and anti-realism. That is, if we can explain social reality better or worse with either the posit of realism or anti-realism, then we ought to accept whichever provides us with the best explanation. My contention is that the existence of an external or objective world beyond the realm of discourse and representation provides the best explanation of the nature of social reality, and of the development of our 'knowledge' about the world. Positing such an extant external world allows us to understand *both* that reality *is* 'constructed' by man, while at the same time, that this reality *is not ad hoc*; rather, it develops through a relationship between man in society and the external world. This is what I argue in PART THREE and PART FOUR. In the meanwhile, I want to pursue a line of argument which suggests – although it does not *prove* – the necessity of positing this external realm, because it demonstrates that positing the existence of this realm is fundamental to the way in which we can make sense of the world. I do this by consid-

ering the implications of the anti-realist and the irrealist position under the heading 'meaning is everything'.

VIII. MEANING IS EVERYTHING

The implication of the anti-realist position can be expressed by the proposition that 'meaning is everything', while the implication of the irrealist position can be expressed by the proposition that 'meaning is everything we can ever know'. Such propositions seems vague and out of place in a work of analytic philosophy. However, they are exactly the kind of propositions we might expect from those philosophers who work outside the Anglo-American tradition. I showed in PART ONE that social constructionist lines of thought can be found in the 'post-structural' theories of Michel Foucault, while in section IX I pointed out that theorist working within analytic philosophy have addressed the same issues. Though the styles and approaches of these two schools of philosophy are radically different, the questions asked and the problems approached are often markedly similar. In this case, the shared problem is that since we have no direct access to the world, but rather, we live in a world of signs and symbols, conceptual schemas, language, representations and (again, this ambiguous use of the term) 'meanings', then we seem to have no legitimate claim to speak about 'the External world', about 'Reality', or about 'the Truth'?[61]

[61] Compare, for example, the claims of Putnam about conceptual relativity that we considered in section IX with the (less lucid) claims of the post-structuralist theorist Jean-François Lyotard: 'The names which are those of "our history" oppose counterexamples to' the claims of emancipatory or enlightenment reason: 'Everything real is rational, everything rational is real: "Auschwitz" refutes speculative doctrine. This crime at least, which is real, is not rational. – Everything proletarian is communist, everything communist is proletarian: "Berlin 1953, Budapest 1956, Czechoslovakia 1968, Poland 1980" (I could mention others) refute the doctrine of historical materialism: the workers rose up against the Party. – Everything democratic is by and for the people, and vice versa: "May 1968" refutes the doctrine of parliamentary liberalism.' (Cited in Christopher Norris, *Reclaiming Truth*, op cit. pp197-8). My claim in footnote 24 above that social constructionism has been as much a political movement as a theoretical project is born-out in this. Lyotard is claiming that it is not just in theory that our claims to 'know' the 'truth' of the world are false, but more importantly, that history has proved such claims false in practice. Consider also Jean Baudrillard's claims in the citation with which I began PART TWO: that the notion of the 'real' is but an empty and 'rhetorical' notion which has no referent (above, p25). Baudrillard is more prepared than Putnam to give up upon all claims to 'the real', but the import of his claim is no different to Putnam's claim that 'Internal realism says that we don't know what we are talking about when we talk about "things in themselves".' While Putnam tries but, as I showed in section IX, fails, to hold onto 'external truths' and 'realism', the continental philosophers, Baudrillard, Lyotard (and those we could generally include under the heading of 'postmodernists') explicitly reject such claims.

When social constructionist and 'post-modernist' theorists make use of the term 'meanings', they refuse to make the analytic distinction between the 'content' and the 'vehicle' of meaning. For them, no such distinction can be drawn. In social constructionist theories, both the vehicle and the content are the same: they are the various spheres of social consciousness by which the world is interpreted and constructed - conceptual schemas, discourses, representations which both interpret and reveal the reality of the world. 'Meaning' itself, for social constructionists, is one of these spheres, and 'meaning' here refers both to the *vehicles* - those conceptual schemas, discourses and representations - and to the *objects* constructed from these - 'reality', 'the world', 'social identities', etc. It is because the *object* constructed and the *mechanism* of construction cannot be separated in social constructionist theory that neither can the 'content' and the 'vehicle' of meaning be separated.

The title of this section, 'meaning is everything', expresses in (in social constructionist style language) the fundamental problem that we have no direct access to the world, but only to conceptual schemas and discourses. Asserting the analytic distinction, we could express this as: we have no access to the referent or content of meanings, but only to the *vehicles*, in which such content is *implied.* From this is concluded that there is no sense in which we can talk about or make any claims to know that which (allegedly) underlies these vehicles – as Putnam expresses it, 'we don't know what we are talking about' when we speak of the external world. It is in this sense that we can understand the claim that 'reality is a social construct': the only reality we have any access to is that reality *inside* of social interpretations. Therefore, the only ontological position we can legitimately draw is that of *ir*realism: we may as well talk and act as if there is nothing more than discourses and conceptual schemas, as if there is no reality to which such schemas refer beyond themselves, as if there is no external world which our 'representations' *represent*, because we can have no coherent discussion about such an external ontological realm. There is nothing beyond layers of socially

constructed 'meanings' which we can claim to have any knowledge of.[62] It becomes clear, however, that once the analytic distinction between the 'content' and the 'vehicle' of meaning is destroyed, so too is the problem – the distinction between conceptual schema or representation and world conceived or represented.

I want to urge against this. I have already suggested that no ontological conclusions can legitimately be drawn from epistemological premises – that is, that epistemological premises *prove* neither realism or anti-realism, and so the only legitimate position to draw is that of ontological agnosticism (*ir*realism). I now want to suggest that, although we cannot *prove* realism, still we need the assumption of an external ontological realm in order to make sense of our experience and activities in the world. This is because all of our possible discussion, all of our thoughts, and all of the methods by which we make sense of our experiences, implicitly assume the truth of this ontological assertion.[63] If we accept the proposition that 'meaning is everything', I suggest, then we are left in a position in which 'everything is meaningless'.

IX. 'EVERYTHING IS MEANINGLESS'

At least in the scientific ideal, the process by which we gain knowledge and understanding is a process of rational investigation. This rational investigation is of a movement from ignorance to understanding. Investigation begins in ignorance of x, an absence of knowledge. This absence is replaced by knowledge as the process of investigation proceeds. On the simplest level of experiential engagement in the world, it is through sensory experience that one comes to have a certain awareness of x, for example, a visual image. For the realist, 'knowledge' of x is derived from an external and extant x itself. However, even if the realist is cor-

[62] For those readers who remain unhappy with this ambiguous use of the term 'meaning', they should read 'conceptual schemas' or 'representation': i.e. 'there is nothing beyond our conceptual schemas which we can claim to have any knowledge of.'

[63] Searle makes a similar argument for realism. See 'Does the Real World Exist? Part II: Could There Be a Proof of External Realism?' op. cit., pp177-197. My argument has been greatly influenced by Searle's discussion.

rect to think that sensory experience of x is a *necessary* condition for knowledge of x, it cannot be a *sufficient* condition. The senses can provide only multifarious representations which must be synthesized into some more complex representations understood to be *what x is*. A further process of thought or consciousness is required, in other words, in order that an 'understanding' of sensory experiences can be had. The problem for the realist appears to be that the content of the idea of x, the meaning given to the sensory experiences such that one can be said to have knowledge of x, does not derive from x at all. Rather, the content of the idea of x is but a collection of further ideas imposed upon the original representation.[64]

Consider an example where x is my thesis supervisor.

While writing this thesis I meet my supervisor for one hour every week on a Thursday morning, and (for the sake of argument) this is the only experience I have of him. During this hour, he makes comments about my work, draws out problems in my arguments and suggests further reading that may be apposite to my project. I take his comments and suggestions seriously because I know him to be a philosopher of quite some reputation and experience, and I know that he has written and read far more philosophy than I. But actually, upon what is this *knowledge* of my supervisor based?

My only *experience* of him has been during one hour every Thursday morning for the last six months. I have no experience of him before I enter his office for that hour or after I leave it. I have no direct experiential basis, in other words, for

[64] G. W. F. Hegel in his *Logic* put the relation between thought and sensory experience thus: '[T]he reality in object, circumstance, or event, the intrinsic worth or essence, the thing on which everything depends, is not the self-evident datum of consciousness, or coincident with the first appearance and impression of the object....on the contrary, Reflection is required in order to discover the real constitution of the object.' (Oxford: OUP, 1975) §21. In Marx's hands, this Hegelian dialectic of essence and appearance was transformed into a theory of ideology and mystification. 'All science,' Marx claimed, by which he meant all scientific or rational investigation, 'would be superfluous if the outward appearance and essence of things directly coincided.' *Capital III* (Moscow: Progress Publishers, 1971) p817. The point is borne out if one considers, for example, that air does not present itself to us in its essential or constitutive form, as a compound of gasses. It is only through science that the underlying constitution of air can be discovered, and it is only with such an understanding of this underlying constitution that we could claim to have 'knowledge' of *what air is*. But the underlying point that the world does not present its totality to us *directly*, but that rather, the world is known only through a process of conscious *mediation*, was already noted long before Hegel and Marx by the Greek philosopher Herakleitos: 'nature loves to hide' : 'The Lord who professes at Delphi neither speaks clearly nor hides his meaning completely; he gives one symbols instead.' *Herakleitos and Diogenes* (San Francisco: Grey Fox Press, 1976) §17, §18.

my idea of him as a person who does not cease to exist whenever I leave his office. Rather, it can be nothing more than an *assumption* that he is indeed a person like me who has an existence beyond my experience of him. This assumption, the assumption that there is something more than mere representations, is the assumption of the truth of realism, the very ontological assertion which is currently in doubt. Being purely on the level of epistemology, direct empirical experience gives no evidence which *proves* the existence of an independent ontological realm. The assertion of an ontological realm can in no way be *proven* by our experiential engagement with the world. However, though we cannot *prove* the realist's assumption, can we do without it and still make sense of our experiences? I want to suggest that the assumption of realism, the assumption that my supervisor has a reality beyond my representations and direct experiences of him, is necessary if we are to be able to make sense of our experiences in the world.

We should note that an assumption of the truth of realism is contained in our use of words. For example, the first three definitions of the verb *to represent* in *The Concise Oxford Dictionary* are 1. stand for or correspond to, 2. be a specimen or example of; exemplify, 3. act as an embodiment of.[65] Each definition implies that 'to represent' is to represent *something*. By definition, if we consider something to be a representation, then we consider that it stands in place of something else that has an existence beyond the representation itself. In our common understanding of the word, a 'representation' would be the conceptual mediation between the individual and the (represented) object.

There is, of course, no reason to presume that what is implied about the world in the language we use is correct. In language we express our thoughts, and our thoughts about the world can be wrong. However, what we can discover from the implications of that language we use about the world is how we conceive of and understand that world. My assertion is that the assumption of the world as an ontologically extant realm cannot easily be done away with unless we are also prepared to throw out all our standard intuitions, and our mental process of rea-

[65] *The Concise Oxford Dictionary*, 9th Edition (Oxford: OUP, 1995).

son and reflection, by which we (believe, rightly or wrongly, that we) come to understand our sensory experiences.

We have no direct access to the world, but rather, we have access only to our ideas about the world – immediate representations of sensory experience, and meanings which give content and sense to these representations. These meanings which, as realists, we would suppose to be derived from the object, are in fact nothing but an organisational structure imposed upon our experiences. This is the point we made about Foucault's concept of the discourse in PART ONE. I said: for Foucault, 'Sexuality....*qua* discourse, is an ideological construct which unifies our experience of disparate "bodies, organs, somatic localisations, functions, anatamo-physiological systems, sensations, and pleasures" which themselves have no inherent "laws" or unity.' That is, 'sexuality' is a discourse, a socially constructed conceptual framework which imposes a structure and order upon disparate sensory experiences through which we come to understand these experiences as meaningful in the world. The social constructionists are making an important epistemological point here. We do not have direct access to the world, but rather, all access is mediated through socially constructed 'meanings' ('discourses' or 'conceptual schemas'). And it does not seem an overstatement to suggest that our sensory experience is 'constructed', where by this we understand that it is the structure of the discourse which determines *how* we interpret these experiences, and thus, what these experiences are to us.

However, implicit in the way I have made this point is the assumption that there is something beyond the framework and meaning, an actual experience of a reality which requires interpretation. The organisational framework allows us to understand our experiences and representations, which are internal to us, in terms of what they represent about a reality outside of us. Unless the representations I have of my supervisor – representations of a figure sat opposite me in an office for one hour every Thursday morning – are understood as representations *of* my supervisor, representations of an individual who exists independently of my representations of him, then I could make no sense of them. The very possibility of

the relationship I have to him of supervisor-supervisee entails that he has an objective existence beyond my representations of him. Even when I am sat before him, every time I blink, every time I take my eyes off him to look at my notes, I have to *assume* that he is still there. However, it is not merely that I could not take his advice seriously if I believed him to be nothing more than a creation of my consciousness. More than this, I could not properly make sense of the relationship of intellectual engagement I have with him if he is but a construct of collective consciousness. Without a content that exists beyond my immediate representations and experiences, the representations and experiences themselves become meaningless, because they refer to nothing but themselves. My supervisor therefore becomes nothing more than what I directly experience him to be – a man sat in an office full of books with a copy of my chapter on his lap. As such, he loses the very factors which give him the status of being a supervisor – that he is a learned philosopher who has read and studied and written and taught over a period of years and in situations beyond my immediate experiences of him. And while it is the case that his previous life, his study and the philosophy he has written have all existed within the confines of a socially determined framework of meaning and understanding, still, unless this framework refers to something beyond itself, unless it is a structure imposed upon, in order to make sense of, an ontological realm that exists beyond itself, then the very structure of the reality in which we exist is entirely ungrounded, somehow an *ad hoc* determination of social discourse.

The social constructionist can respond to this. For example, this organisational structure is in no sense *ad hoc* from the perspective of the individual. The organisational structure - the discourse or conceptual schema – is *given* by society. This is true, but it does not placate the nagging idea that there is something 'real' about the way in which we organise our experiences – that somehow, the way in which we interpret our experiences relates to the world as it is. Without the idea of a determinate foundation which we endeavour to approach through our investigative processes, the very understanding we have of investigation as a rational progression from ignorance to knowledge (that is, *knowledge of x*) is blocked. In-

stead of investigation and its resultant knowledge being a process whereby reality is transformed into thought, all reality, not just in terms of the frameworks through which we can understand it as individuals, but in terms of the structure of that reality itself, is given already in thought *a priori*. Reality is constructed only in the realm of ideas and there is no external world, no foundation or grounding that intervenes at any point in the process. There can be no understanding or explanation of the world that goes beyond the explanation that things are the way they are because that is how they have been determined through our discourses and conceptual schemas. The problem here is not that reality could not logically or possibly be like this. Rather, the problem is that, if we accept this to be the true nature of reality, the possibility of meaningfully understanding that reality is fundamentally challenged.

The issue here is not only an issue for social constructionism, but for any form of idealist understanding of reality, in which thought determines reality (in an ontological, not merely epistemological sense). However, we should note that the original subjective idealist, Bishop Berkeley, was aware of and could deal with this potential challenge. Berkeley's idealism allows of no mind-independent world on which rational explanations could be based. However, rational explanation, or at least, a determinate foundation to reality, could be found in the transcendent being of God, the ultimate mind in which all reality is based. The desire of the conscious human mind to find the world meaningful and rationally comprehensible could be fulfilled in Berkelian idealism through a faith in God as ultimate thinker, and thus foundation, of reality.[66] However, faith in God as that which makes the world comprehensible is a far less tenable position for us at the beginning of the twenty-first century than it was for Berkeley in the first half of the eighteenth.[67] Further, God as an ultimate cause of the world's reality, cannot

[66] Cf. George Berkeley, *Principles of Human Knowledge* (Oxford: OUP, 1996).

[67] Interestingly, Richard Holloway, Bishop of Edinburgh and Primus of the Scottish Episcopal Church, combines these apparently incompatible positions of social constructionism and faith in God. Echoing my claim earlier about the proofs and premises, he states: 'You can't prove or disprove the God thing. You can't prove the "nothingness" to me any more than I can prove the "thingness" to you. I've just committed myself *to the existence of meaning* as opposed to ultimate unmeaning.' The God Holloway does not believe in is the Berkelean God, a metaphysical entity somehow 'out-there'. Holloway can see no option but to accept the thesis of social constructionism, because the history of our thought about the world and our structures of social organization demonstrate to him its validity, but at the

be the recourse of the social constructionists, as God, conceived of as the foundation of all being, cannot be part of a socially constructed reality. Rather, this God is prior to all society and prior to the objective world. Without God, however, there can be no foundation to our knowledge about or interpretation of the world that is not already determined by our conceptual schemas and discourses.

A solution is always open to the social constructionist: to deny that social reality can be ever be rationally or meaningfully understood. It can be asserted that rationality (as well as 'meaning', 'truth', and 'reality' itself) does not uncover an extant order in the world, but is itself a construct of discourse and conceptual schemas. The discovery that the world cannot be rationally understood is not, therefore, a discovery about the world, but merely a discovery about the nature of rationality – rationality too is a social construct, a contingent product of social discourse which has no further grounding than the discourse through which it is constructed.

None of the forgoing *proves* the falsity of social constructionism. I have attempted to set out what I take to be the implications of fully embracing the theory of social constructionism. Social constructionism suggests that 'reality' is a product of social discourses, patterns of thought, conceptual schemas. However, it leaves these mechanisms of construction ungrounded and unconstrained. I want to argue against this. My contention is that there is a constraint upon how our theory and knowledge of the world develops, and that this constraint is the grounding of our discourses and conceptual schemas in the external world. While reality is understood and made meaningful to us through discourse and conceptual schemas, these frameworks of understanding correspond, I suggest, to a world beyond themselves. This is what I undertake in PART THREE.

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same time he is unprepared to accept the ultimate implication of the constructionist position that the world becomes unintelligible. His recourse is to the idea that the world is ultimately meaningful because God exists. Faith in God, for Holloway, is quite explicitly understood to be a faith in the ultimate meaningfulness of the world. See *Godless Morality: Keeping Religion out of Ethics* (Edinburgh: Canongate Books Ltd, 1999).

PART THREE

ON THE RELATION OF THEORY TO THE WORLD

> [T]hough the achievements of Copernicus and Newton are permanent, the concepts that made those achievements possible are not. Only the list of explicable phenomena grows; there is no similar cumulative process for the explanations themselves. As science progresses, its concepts are repeatedly destroyed and replaced, and today Newtonian concepts seem no exception. Like Aristotleanism before it, Newtonianism at last evolved – this time within physics – problems and research techniques which could not be reconciled with the world-view that produced them.[68]

> Each man is given a scientific heritage plus a continuing baggage of sensory stimulation; and the considerations which guide him in warping his scientific heritage to fit his continuing sensory promptings are, where rational, pragmatic.[69]

The first of these quotations on changes in scientific theory is from the philosopher and historian of science, Thomas S. Kuhn, whose inclusion in a discussion of social constructionism requires little justification. The second is from the empiricist philosopher of logic and epistemology, Willard Van Orman Quine. Like Kuhn, the work of Quine represents a shift in theorising about the relation of knowledge to the world which emphasises the social aspect of knowledge formation. Although by no means the first theorists to advance a social theory of knowledge, the significance of these theorists is as representatives of a movement away from the certainties of empirical knowledge which came from within the schools of the natural sciences and positivist philosophy themselves. This movement dethroned nature in favour of 'society' - or in particular, the 'scientific community'[70] - as a source of scientific verification, after which, the proposition that the work of science could operate without reference to an already extant and socially determined body of theory came to be seen as unworkably naïve. This

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[68] Thomas S. Kuhn, *The Copernican Revolution* (Massachusetts: Harvard University Press, 1957) pp264-265.

[69] Willard van Orman Quine, 'Two Dogmas of Empiricism', *From a Logical Point of View* (2nd ed.) (Massachusetts: Harvard University Press, 1980) p46.

[70] Kuhn's notion of a 'scientific community' is quite specific: 'A scientific community consists....of the practitioners of a scientific speciality. To an extent unparalleled in most other fields, they have undergone similar educations and professional initiations; in the process they have absorbed the same technical literature and drawn many of the same lessons from it.' Op cit., p176.

movement from nature to society as the foundation and source of our knowledge about the world is the theoretical fulcrum of social constructionism.

In what follows I will consider the discussion of the relation of knowledge formation to the world given by Quine in his seminal article, 'Two Dogmas of Empiricism'.[71] As historical example, I will discuss the shift that occurred in astronomical theory between the fifteenth and the seventeenth centuries that goes by the name of the 'Copernican Revolution', referring in particular to the theoretical discussion of this revolution given by Kuhn in his 1957 work of that name.

X. Quine on Knowledge, Verification and Change

In 'Two Dogmas of Empiricism', Quine urges against the traditional empiricist notion that *individual statements* refer directly to empirical experience and are capable of confirmation or infirmation by reference to that world of experience. 'In taking the statement as unit', he argues, 'we have drawn our grid too finely. The unit of empirical significance is the whole of science.'[72] This 'science' is, for Quine, the totality of our knowledge and beliefs, 'from the most casual matters of geography and history to the profoundest laws of atomic physics and even pure mathematics and logic'. And this totality, 'is a man-made fabric which impinges upon experience only around the edges':

> Or, to change the figure, total science is like a field of force whose boundary conditions are experience. A conflict with experience at the periphery occasions redistributions in the interior of the field. Truth values have to be redistributed over some of our statements. Reëvaluations of some statements entails reëvaluations of others, because of their logical interconnections – the logical laws being in turn simply further statements of the system, certain further elements of the field. Having reëvaluated one statement we must reëvaluate some others, which may be statements logically connected with the first, or may be the statements of logical connections themselves. But the total field is so underdetermined by its boundary conditions, experience, that there is much latitude of choice as to what statements to reëvaluate in the light of any single contrary experience. No particular experiences are linked with any particular statements in the interior of the field, except indirectly through considerations of equilibrium affecting the field as a whole.[73]

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[71] My discussion centres around the second part of Quine's 'Two Dogmas'. I agree with Hilary Putnam that Quine's discussion here is in fact about the notion of *a prioricity*, not *analyticity*. See '"Two Dogmas" Revisited', *Realism and Reason: Philosophical Papers Vol. 3* (Cambridge: Cambridge University Press, 1983) pp87-97.

[72] Op. cit. p42.

[73] Ibid. pp42-3.

Quine is pointing out that knowledge is 'man-made'. Science is, as it were, a complex of knowledge and belief about the world which is a product of human society. This complex of knowledge and belief meets the world as a corporate body of experiences and inter-relations. Knowledge is a totality of statements and sentences by which we make sense of the world we inhabit, and this knowledge cannot be broken down into individual components with particular empirical content. This knowledge, taken as a totality or complex, is *prior to* any particular experience: it is that system of mediation by which particular experiences can be interpreted and understood.[74] The image is of something like a spider's web, each tiny thread representing a statement or sentence of knowledge which is inter-locked with other statements and sentences of the (knowledge)-thread. The web is self-sustaining: individual threads (statements) are implied by the complex of other threads. While the whole web is attached to the concrete world, it is only the extremities which are attached directly, and as we move from the exterior to the interior, each thread is progressively more and more distant from these external connections. In similar vein, it is only the extremities of Quine's knowledge-web which meet directly with empirical experience in the world. And just as if we alter the position of one or any number of the external hooks to which the spider's web is fastened, the spider will be forced to make internal changes within the web that will alter its structure to a greater or lesser extent, so too for Quine, what he calls 'recalcitrant experiences' at the empirical boundary of the knowledge-web - experiences which disobey the laws, statements and beliefs which structure our knowledge - force us to make changes within the internal structure of the knowledge-web. However, here the analogy to the spider's web breaks down. The alterations at the boundaries of the spider's web determine the internal alterations which must occur: the changes it makes cannot be *ad hoc* adjustments, but rather, must be adjustments which re-stabilise the internal structure of the web in accordance with, say, the laws of physics and geometry. Significantly however, for Quine, the totality of the knowledge-web is *underdeter-*

[74] Quine, at least in the article under consideration, does not question the idea that this complex of knowledge relates to the *world*.

mined by its empirical boundary conditions - any number of different theories, statements or beliefs can be adjusted to re-structure the web: any number of different theories can be used to explain our experiential data, and the data itself do not determine which theory we use or take to be a correct explanation. Quine argues:

> Any statement can be held true come what may if we make drastic enough adjustments elsewhere in the system. Even a statement very close to the periphery can be held true in the face of recalcitrant experience by pleading hallucination or by amending certain statements of the kind called logical laws. Conversely, by the same token, no statement is immune to revision. Revision even of the logical law of the excluded middle has been proposed as a means of simplifying quantum mechanics; and what difference is there in principle between such a shift and the shift whereby Kepler superseded Ptolemy, or Einstein Newton, or Darwin Aristotle?[75]

The history of science, Quine urges, demonstrates a continual revision of theories and concepts, even those laws which were once considered absolute.

XI. 'PARADIGMS', 'DISCOURSES' AND 'CONCEPTUAL SCHEMAS'

Kuhn is often seen as the father of social constructionism, both within the natural sciences and within the disciplines of social theory more generally.[76] Before considering one of the particular issues Quine mentions, that shift whereby 'Kepler superseded Ptolemy' as it is discussed by Kuhn in *The Copernican Revolution*,[77] we ought to briefly consider the Kuhnian thesis in its most developed and explicit form, as it appears in his *The Structure of Scientific Revolutions*, in order to

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[75] 'Two Dogmas of Empiricism' op. cit. p43. Put more succinctly: 'When an observation shows that a system of beliefs must be overhauled, it leaves us to choose which of these interlocking beliefs to revise.' W. V. Quine and J. S. Ullian, *The Web of Belief* (New York: Random House, 1970) p13

[76] Although Kuhn in later life rejected a large number of the relativistic and constructionist implications of his work, my discussion focuses upon his seminal theories, and I consider those theories as they were interpreted by and have been of significance to social constructionist theorists. The 'paradigm' theory , which Kuhn developed in relation to science was mirrored by developments in sociological theory which similarly replaced nature with society as a source of truth and verification. While the notion of the 'paradigm' was exported into sociology and political philosophy, its essential content was already in existence in these fields. Consider, for example, the development of 'sociology of knowledge' by Karl Mannheim and Max Scheler et al, in which world-views and value systems were seen as arising from particular social positions, and which replaced a *correspondence* with a social theory of *knowledge*. (See for example Mannheim's *Ideology and Utopia*.) On the relationship of Kuhn to social theories of knowledge in the social sciences, James Heartfield suggests that 'many sociologists took [Kuhn's] "paradigm" for an original concept that would be re-exported to sociology. In practice, ideas that had been generated within sociology found themselves reflected, and thereby confirmed, in the natural sciences.'

[77] Thomas S Kuhn, *The Copernican Revolution* (Massachusetts: Harvard University Press, 1957) I also refer to A Pannekoek's classic work, *A History of Astronomy* (London: George Allen & Unwin Ltd., 1961). Pannekoek, an astro-physicist by profession, usefully details the development of astronomical thought over the centuries and relates this development to the changing nature of society as it affected and was affected by such scientific developments. Far from being a work of social constructionism, Pannekoek's historical discussion is useful, however, in lending empirical credence to elements of Kuhn's more theoretical discussion.

highlight those elements of the theory which have been particularly influential upon the development of social constructionism.

In *The Structure*, Kuhn studies the shifts from one coherent body of scientific theory to another. The term he uses for this whole system of mutually supporting scientific theory is a 'paradigm'. He writes,

> As in political revolution, so in paradigm choice – there is no standard higher than the assent of the relevant community. To discover how scientific revolutions are effected, we shall have to examine not only the impact of nature and logic, but also the techniques of persuasive argument within the quite special groups that constitute the community of scientists.[78]

A paradigm is a set of conventions among a 'scientific community' that informs their research to the extent that it shapes their world, as becomes clear when, further demoting the evidence of nature in favour of social determination, Kuhn continues:

> Paradigm changes do cause scientists to see the world of their research-engagement differently. In so far as their only recourse to that world is through what they see and do, we may want to say that after a revolution scientists are responding to a different world.[79]

'Scientists are responding to a different world' because the paradigm is their only means of access to that world and governs both what they *see* and what they *do* in the world; thus, a new paradigm implies a new world.

The idea expressed by the concept of a 'paradigm' is therefore similar to that expressed by the 'conceptual schemas' and 'discourses' previously discussed, and to Quine's notion of the 'knowledge-web'. Each of these concepts presents the notion of a conceptual grid or framework which comes *prior to* and *imposes order upon* the evidence of the senses, conditioning both the interpretation and the resultant modes of activity which we undertake in the world. Kuhn is quite explicit in seeing this conceptual framework as created through the interaction of the scientific community;[80] and like the 'paradigm', the 'conceptual schema', 'discourse' and 'knowledge web' are conceptual frameworks which are generated communally. Each can be interpreted narrowly, to mean something spe-

[78] Op cit. p94.

[79] Ibid. p111.

[80] 'A paradigm is what the members of a scientific community share, *and*, conversely, a scientific community consists of men who share a paradigm.' Ibid. p176.

cific to a particular community – for example: scientists engaged in a particular problem; logicians and mathematicians involved in the study of ontology; homosexuals engaged in self-identification and the creation of a counter-culture – and also more broadly, to mean a conceptual framework used by society at large – for example: a general scientific understanding of causal relations, as in Newtonian mechanics; a general understanding of how to count based upon a generally accepted understanding of what constitutes an object; or a general categorisation of significant social groups based upon sexual preference.[81] What is of relevance here is that in each case, the conceptual framework is *prior to* any individual experience and *determines* how the particular community – whether broadly or narrowly conceived - interprets the empirical facts of nature. It is in this sense that Kuhn's 'paradigm' and Foucault's 'discourse' have been taken on by social constructionism, and it is in this sense also that I have suggested Putnam's analytic notion of a 'conceptual schema' has similar implications. Each suggests that reality can only be made sense of *a posteriori* to the process by which social consciousness comes to interpret the world. And since there is no possibility of ever being 'outside' of these conceptual frameworks, reality simply *is* as it is interpreted through them, and thus, the reality in which human beings exist is said to be *constructed* through these conceptual frameworks. Recall that these are the essential elements of the second two premises of social constructionism which I isolated in PART ONE.

From the foregoing we can see the stark contrast between the constructionist *social theory of knowledge* based upon paradigms, discourses and conceptual schemas, and the positivist-empiricist tradition's *correspondence theory of knowledge* against which these developed as a reaction. Knowledge in the former is seen as a collective product that is generated socially through particular frameworks of conceptualisation and understanding, modes of activity and inter-

[81] Again, Kuhn is the most explicit on this, pointing out that there are (at least) two senses in which 'paradigm' is used in *Structure*. 'On the one hand, it stands for the entire constellation of beliefs, values, techniques, and so on shared by the members of a given community. On the other, it denotes one sort of element in that constellation, the concrete puzzle-solutions which, employed as models or examples, can replace explicit rules as a basis for the solution of the remaining puzzles of normal science.' Postscript to the 3rd edition, ibid., p175. The first is a broader defi-

ests, of particular social groups. By contrast, the latter, the empiricist model, is of an individual observer for whom the objective world is accessible much like a biologist's specimen under a microscope. While the former assumes the standpoint of the social, the latter assumes the standpoint of the individual. In the light of Kuhn's paradigm-based theory of knowledge, the empiricists' convenient fiction of individual scientist working alone upon virgin nature became increasingly untenable.

The classical theories of knowledge, empiricism and positivism, idealised a *direct* relationship between man and the world, failing to recognise society as a determining factor in that relationship. In rejection of these classical theories, social constructionism's theory of knowledge emphasises the social to the point of excluding the material world from that relationship all together. I present an alternative to this dichotomy between the classical and the constructionist theories of knowledge in PART FOUR. Meanwhile, let us consider the social constructionist theory as implied by Kuhn's discussion of the historical shift from Ptolemean to Copernican world view.

XII. ON THE COPERNICAN REVOLUTION

If I stand and look up at the sky for a period of time, it appears as if the sun is moving across the sky. This *appearance* was taken as totality by philosophers of antiquity, and the idea of a stationary earth around which the sun and other planets moved was first presented theoretically in AD 150 in the *Almagest* by the Alexandrine philosopher Claudius Ptolemy. Ptolemy's was the first systematic attempt to convert observational data into a mathematical model which could account for the movements of the planets.[82] We now 'know', however, that Ptolemy's system was 'wrong'. In what follows, I consider the process by which Ptolemean cosmology was overturned through what has come to be called the

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nition, what Kuhn calls 'sociological', while the second is more specific to the particular scientific community and their research at hand, or 'paradigms as exemplary past achievements.'

[82] Cf. Owen Gingerich, *The Great Copernicus Chase and other adventures in astronomical history* (Massachusetts: Cambridge University Press, 1992) p31.

'Copernican Revolution'. From this historical example I want to present both the insights *and* the inadequacies of social constructionism in its capacity to theoretically explain such a conceptual shift.

i) ON THE POSSIBILITY OF CONCEPTUAL CHANGE

The first systematic rejection of the Ptolemean system was presented by the Renaissance philosopher Nicholas Copernicus whose *De Revolutionibus* appeared in 1543 – fourteen centuries after the *Almagest.* By the end of the 15th century there was a recognised failure of the Ptolemean system to correctly predict the movements of the planets (what were then called the 'celestial motions').[83] In the preface to *De Revolutionibus*, Copernicus complains that uncertainty about the movements of the sun and moon meant that the mathematicians of his day could not even 'observe or explain the constant length of the seasonal year.'[84] The intervening fourteen centuries of observational data available in Copernicus' day had necessarily magnified the inherent errors of the Ptolemean schema.[85]

On these grounds we might suppose that rejection of the Ptolemean system was based upon its recognised predictive and explanatory inadequacies. However, such 'scientific' factors cannot adequately explain the motivation for the eventual overturning of an astronomical theory which had held for the previous 1400 years. To suggest they can is to leave far too many variables unaccounted for. Simply claiming that the magnification of predictive errors had become striking does not explain why the revolution occurred when it did, as errors which were striking after 15 centuries would have been equally notable after 14, 13 or even 12 centuries. Further, we must find a way of understanding why, since the theoretical tools necessary to overturn the Ptolemean system had been in existence since Plato (the idea that the sun, not the earth, was the centre of the universe)

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[83] *The Copernican Revolution*, op cit. p126; 127.

[84] Cit. in *The Copernican Revolution,* ibid. p126. A. Pannekoek observes that 'high among the 'strong social needs' which 'put astronomy to the foreground of public interest' at this period 'were the demands of chronology': 'The calendar was in disorder; the ancient intercalation rules had not been sufficiently accurate, and the discrepancies had become unduly large.' Op. cit., 184.

[85] Kuhn makes this point by analogy: 'The motions of the epicycles and deferents [in the Ptolomeic system] are not unlike those of the hands of a clock, and the apparent error of a clock increases with the passage of time. If a clock loses, say, 1 second per decade, its error may not be apparent at the end of a year nor at the end of ten. But the error can scarcely be evaded after a millennium, when it will have increased to almost 2 minutes.' op cit., p140.

still this superior conceptual apparatus was neglected for so long. If we look only to internal factors within the Ptolemean system, we leave both unanswered and unanswerable the question of why this revolution occurred at the particular point in history when it did. Kuhn notes:

> Innovations in science need not be responses to novelties within that science at all. No fundamental astronomical discovery, no new sort of astronomical observation, persuaded Copernicus of ancient astronomy's inadequacy or of the necessity for change. Until half a century after Copernicus' death no potentially revolutionary changes occurred in the data available to astronomers. Any possible understanding of the Revolution's timing and of the factors that called it forth must, therefore, be sought principally outside of astronomy, within the larger intellectual milieu inhabited by astronomy's practitioners.[86]

We need to consider this 'larger intellectual milieu', the period of the European Renaissance, if we are to understand the conditions which underlay the Copernican revolution.

ii) RENAISSANCE AND SOCIAL UPHEAVAL

It was during the early years of this 'Renaissance' period in European history that the emergence of extensive wealth and trade founded upon 'mercantile capital' first led Western powers to seek out sources and routes for trade through systematic explorations of the globe.[87] These extensive explorations planted the first seeds of doubt about the classical picture of the world. In particular, they motivated the possibility of doubting Ptolemy, who, as Kuhn points out, had not only been the greatest astronomer of antiquity, but also its greatest geographer:

> Men rapidly learned how wrong ancient descriptions of the earth could be....Successful voyages demanded improved maps and navigational techniques, and these depended in part upon increased knowledge of the heavens.....Exploration therefore helped to create a demand for expert European astronomers, and having done so, it partly changed their attitude towards their field....The astronomer's awareness.....that Renaissance man could at last correct Ptolemy's geography prepared him for changes in his own closely related field.[88]

Since Ptolemy's geography was being proven inaccurate, the potential recognition that he had also been wrong in his astronomy was planted.

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[86] Ibid.

[87] Kuhn notes that 'the Portuguese had successfully navigated the coast of Africa only 50 years before Copernicus' day, and it was during his childhood that Columbus had first discovered the Americas. Ibid. p125.

[88] Ibid., p125.

Ian Hacking, in his *Representing and Intervening*, points out that 'the idea of a revolution in the scientific sphere is almost coeval with that of political revolution':

> Both became entrenched with the French Revolution (1789) and the revolution in chemistry (1785, say). That was not the beginning, of course. The English had their 'glorious revolution' (a bloodless one) in 1688 just as it became realized that the scientific revolution was also occurring in the minds of men and women.[89]

These 'political revolutions' mark historical moments in the passage from old to new forms of social organisation. The changes in the structure and organisation of society which they gradually[90] brought about created the potential space for the development of new means of conceptualising the relation of man to man, of man to the world, and of the world itself. The Renaissance period in Europe was the beginning of that social upheaval which led, eventually, to the supersission of the feudal order by capitalist market relations.

Hacking's point draws our attention to the fact that such changes at the level of social organisation cannot be separated from changes at the level of how society organises its thoughts about itself and its relation to the world - including those areas of conceptualisation and thought we would group under the heading of 'scientific theory'. The social, the moral, the philosophical and the scientific are not discrete arenas of thought; rather, each affects and is affected by the other. The possibility of challenging classical Ptolemeic geocentricism arose during a period of social upheaval that effected changes in the relationship of man to the objective world, and in so doing, presented bold challenges to this classical world view. Conversely, conceptual shifts at the level of scientific 'discourse' have reciprocal repercussions in the moral realm. As Kuhn points out, the ascendancy of Copernicanism 'required a transformation in man's view of his relation to God and of the basis of his morality.'[91] This transformation which the Copernican revolution ultimately entailed is well captured in Kuhn's concept of a 'paradigm

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[89] Ian Hacking, *Representing and Intervening* (Massachusetts: Press Syndicate of the University of Cambridge, 1983) p9.

[90] To call them 'revolutions' and to suggest that they 'gradually' brought change seems oxymoronic. However, my point is that these revolutions were merely the most explicitly conflictive moments of gradual social changes which had been occurring over a period of some centuries.

[91] Op cit. p193.

shift' (where we understand 'paradigm' in its broadest - 'sociological' - sense). It does not seem an overstatement to claim that man lived in different worlds before and after this radical change in astronomical theory. It is no overstatement because this theoretical-conceptual shift cannot easily be separated from the equally radical changes in man's relation to the world, with which it was 'coeval': a change which was brought about by the gradual development of trade and eventually market relations, through which the hegemony of the Catholic Church was overthrown in the transition from Medieval theism through the periods of Renaissance to Reformation and Enlightenment; a complete alteration of man's mode of being, of which the 'Copernican revolution' in scientific theory represents one, if highly significant, example.

This foregoing suggests that social constructionism is correct to emphasise society – what Kuhn called factors 'outside of astronomy' within 'the larger intellectual milieu inhabited by astronomers and practitioners' – as a highly significant determining factor in changes to our systems of knowledge. Ought we to conclude from this, however, that changes in our systems of knowledge are not determined by the external world, but are merely manifestations of *ad hoc* changes in our conceptual schemas, discourses, knowledge-webs or theoretical paradigms? From the foregoing there is no reason to draw such conclusions. Indeed, just the opposite: changes in systems of social knowledge do correspond to changes in the relationship between man in society and the external world. The 'objectivity' of scientific progress – where this phrase is used as a shorthand for the claim that scientific progress is a progression towards a theoretical and practical understanding of the objective world – is not denied by this recognition of society as a determinant. However, nor is it vindicated. That changes in scientific knowledge are coeval with changes in the structure, organisation and interaction of society with the external world does not entail that the content of such theoretical changes is a progression towards the reality of that external world. I have suggested an explanation of why a challenge to the classical Ptolemean world-view arose when it did, but I have not established that its replacement, the Copernican system, represented a 'progression' in scientific theory.

Surely, however, such philosophical pedantry is unnecessary: Is it not the case that we 'know' Copernicus to have been right and Ptolemy wrong? Is there any doubt, or any possibility of doubting, that the sun is the stationary and central point of the solar-system in which the earth is a satellite? It hardly seems so.[92] However, social constructionism need not inculcate scepticism of this form about our contemporary world view in order to persuade us of its 'contingency', or of the fact that it could have been otherwise were history to have developed otherwise. If the constructionist implications which are drawn from Kuhn's 'paradigm' theory are correct it would be quite consistent with the claim that all our accepted contemporary evidence points towards the correctness of our contemporary world view, and that there is no possibility, within the bounds of this world-view, of seriously doubting heliocentrism and giving credence to Ptolemean geocentricism. This is because all of our empirical data, all of our experiences in and of the world, can be meaningfully interpreted and understood only through the order and structure imposed upon them by our post-Copernican 'paradigm'.

According to Kuhn, 'science advances' as 'each new conceptual scheme embraces the phenomena explained by its predecessors and adds to them.'[93] But is this advance really a progression towards a better and more accurate knowledge of the external world - as we generally take it to be - or is it no more than a 'pragmatic' 'warping' of scientific theory in order to fit 'recalcitrant' empirical data into our conceptual schema, whose truth condition is no more 'objective' or 'external' than coherence with the extant system?

iii) A HISTORY OF THE HELIOCENTRIC WORLD-VIEW

The Copernican revolution replaced the geocentric epicycle theory – in which the planets were assumed to describe a circle or 'epicycle', the centre of which described a larger circle around the earth, which occupied the centre of the universe – with a heliocentric theory in which the sun was the centre of the universe,

[92] In saying 'we know Copernicus to have been right', I speak not of the details of his theory, which will not be covered in this thesis, and of which a large number have been rejected in the years since Copernicus proposed them - for example, contemporary astronomy does not hold that the Sun is stationary, as the universe is said to be expanding - but rather of the more general implications of 'Copernican*ism*', of the overturning of Ptolemean geocentricism with Copernican heliocentrism.

around which all other planets and stars moved.[94] Copernicus wrote his *De Revolutionibus* in an attempt to solve the problems of understanding the motion of the planets which the classical system could not. Explanation of the observational phenomenon of 'retrogression' - irregularities in planetary motion whereby for a few weeks planets seemed to reverse their normal eastward motion and to move westward against the background of the stars – was one of the great achievements of the Ptolemean system. However, this explanation was procured only at the cost of great complexity through the addition of more and more 'epicycles', and the more observation showed inaccuracies in the system, the greater the number and complexity of these additional epicylic motions that had to be added in order to square theory with observation.

Although we noted above that the empirical inadequacies of the Ptolemean system had become striking by the 15th century, the surprising reality is that the system developed by Copernicus as a replacement had no greater empirical accuracy.[95] This raises the question of how we should explain its adoption, if it was not for reasons of greater accuracy or empirical adequacy. Both Kuhn and Pannekoek argue that Copernicus' motivation to challenge the Ptolemean system had at least as much to do with his philosophical and religious conceits, which laid great emphasis upon the simplicity and harmony of 'God's creation', as it had to do with the belief that greater accuracy could be achieved by overturning the classical theory. For example, Pannekoek notes:

> The new theory was not the result of experience or observation; it did not contain any new empirical facts that would compel man to relinquish the old concepts.....What gave strength to the new system was its simplicity and harmony.[96]

We can see the same sentiments in the challenge to the Ptolemean theory made by Maria de Novora, Copernicus' teacher at Bologna: 'no system so complex and cumbersome could represent the true mathematical order of nature.'[97] The em-

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[93] *The Copernican Revolution*, op. cit., pp264-265.

[94] Not until much later did the sun at the centre of the universe become merely *a* sun at the centre of *a* solar system in an apparently infinite universe.

[95] *The Copernican Revolution*, op cit., p188.

[96] *A History of Astronomy*, op cit. p193. The same point is made by Kuhn, ibid. p139.

[97] Cited ibid.

phasis upon theoretical simplicity can be understood as manifestation of a growing trend during the Renaissance period towards Neoplatonic philosophy, which sought the simple numerical relations with which the universe could be explained and understood. However, even on these motivational premises of simplicity and neatness, the Copernican system was not an uncontestable improvement upon the Ptolemean. Although in *form*, it was both neater and simpler, in *content*, it too could make sense of planetary retrogression only by severe complexification through the addition of 'complicated circular motions'.[98]

This is not to say that on no criterion did Copernicus produce an advance on Ptolemy. His system gained a number of admirers in the years immediately following his death in 1543 on the grounds that its method could be used to compute improved numerical values of the planetary relations. But though there were those who considered it an ingenious and, on certain criteria, superior tool for computational calculation, this does not mean that such adherents accepted the theory as a 'true' representation of reality:

> The adherents to the heliocentric system in the sixteenth century were insignificant in number. To be sure, immediately after its publication in 1543, Copernicus' book was diligently studied by the scholars, who used its numerical data for computation of almanacs and tables, often praising them for their accordance with observations. But this did not involve acceptance of the new world system.[99]

In light of the fact that the Copernican system was not a clear improvement upon the Ptolemean, it is no surprise that it was not immediately adopted by all. We need to note, however, that there were yet more profound reasons behind the great opposition which the Copernican system engendered. First of all, there were 'physical' reasons: for example, in everyday phenomenal experience the earth is not experienced to be in motion, and the sun does appear to be moving across the sky throughout the day. These physical reasons were supported by what was perhaps a quite natural but conservative impulse: acceptance of Copernicanism meant a rejection of Aristotle's doctrines, whose authority had been accepted for millennia. Second, however, and far more serious, were the 'theological' objections. The heliocentrism at the heart of the Copernican system was a

[98] Op cit. p198.

radical challenge to the religious and moral mores of the day. Further, these religious and moral mores were grounded in the authority of the Roman church, whose power and authority throughout the world were in turn grounded in the centrality of Christ's position at the centre of the universe and the mediating role played by the church between man and God. The implications of Copernicanism, as Kuhn notes, were 'potentially destructive to an entire fabric of thought':

> If, for example, the earth were merely one of six planets, how were the stories of the Fall and of the Salvation, with their immense bearing on Christian life, to be preserved?....If the earth is a planet and therefore a celestial body located away from the centre of the universe, what becomes of man's intermediate but focal position between the devils and the angels?.....Worst of all, if the universe is infinite, where can God's throne be located? In an infinite universe, how is man to find God or God man?[100]

Challenging Ptolemean astronomy meant, ultimately, challenging the most powerful institution of the day: the embodiment of God on earth. The success of such a challenge could not happen overnight, and nor could it happen without reasons which were as powerful, respectively, as the diminishing power of the church which such reasons brought about.

Above I cited Kuhn saying that potentially revolutionary changes in data which supported the Copernican system did not occur until at least half a century after Copernicus' death. These revolutionary changes in data resulted from the work of Johannes Kepler. But even here, though the changed data were the result of empirical study, the motivation which led to such study was not. Kepler, like his intellectual forebears, 'was an ardent Neoplatonist':

> He believed that mathematically simple laws are the basis of all natural phenomena and that the sun is the physical cause of all celestial motions. Both his most lasting and his most evanescent contributions to astronomy display these two aspects of his frequently mystical Neoplatonic faith.[101]

However, though they shared a spiritual motivation, Kepler was as dissatisfied with the empirical failings of the Copernican system as Copernicus had been with the Ptolemean, and he went on first to modify and later to produce a distinctly new mathematical theory, replacing Copernicus' circular planetary orbits with a geometric curve. Kepler's Rudolphine Tables, astronomical computa-

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[99] Ibid. p224.

[100] *The Copernican Revolution*, op cit. p193.

[101] Ibid. p214.

tions of the relations of the planets which resulted from his theoretical differences with Copernicus, were 'clearly superior to all astronomical tables in use before' in squaring theoretical calculation with observational data.[102] Kuhn notes that with Kepler's theory:

> All needs for eccentrics, epicycles, equants, and other ad hoc devices vanishes. For the first time a single uncompounded geometric curve and a single speed law are sufficient for predictions of planetary positions, and for the first time the predictions are as accurate as the observations.[103]

Yet more propagandistic evidence was being produced around the same time through the work of Galileo Galilei and his use of the recently invented telescope to discover, among other things, the moons of Jupiter. This final episode of the story yet again warns us, if warning is still needed, against assuming that the development, adoption and rejection of scientific theory can be disengaged from the social, moral and intellectual currents of the society in which scientific theory is developed. In what has been called 'the most fatal mistake that has ever been made by the Church authorities against science',[104] Galileo's telescopic 'evidence', far from demonstrating beyond doubt the validity of the heliocentric system, was denied by the Catholic Church in Rome. The essential contestation over the structure of the universe - between the powers of the Church based in the doctrines of medieval theology, and the ascendancy of a new astronomy with its concomitant new world-view – which had begun in the 1540s with Copernicus, was yet unresolved a century later when Galileo was charged with heresy and compelled by the Church to abjure the heliocentric doctrine.

Kuhn points out that the greater accuracy of Kepler's calculations and the observational support provided by Galileo's telescope could not deter those who wished to maintain the classical theories:

> Either the Ptolemeic or the Tychonic universe contains enough space for the newly discovered stars; either can be modified to allow for imperfections in the heavens and for satellites attached to celestial bodies; the Tychonic system, at least, provides as good an explanation as the Copernican for the observed phases of and distance to Venus.[105]

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[102] Ibid. p219.

[103] Ibid. p212.

[104] Joseph Plassmann, (1898). Cit. in Pannekoek, op. cit., p234.

[105] *The Copernican Revolution* op. cit., p224. Tycho Brahe was an astronomer who denied the heliocentric implications of Copernicanism.

But if it did not provide conclusive evidence to those determined to resist, it did at least provide useful propaganda. Although 'the Ptolemic system required extensive revisions to adjust to the results of telescopic observation'; and even though 'it was very nearly as easy to make the full transition to Copernicanism as to adjust to the requisite new version of Ptolemy': still into the middle of the 17th century, 'a number of eminent European astronomers can be found trying to show that Kepler's accuracy can be duplicated with mathematically less radical systems.'[106] Not until the end of that century were 'Kepler's laws' of planetary motion accepted by all the best practising astronomers of the day.

iv) 'PROOF' OF THE NEW WORLD VIEW

The foregoing suggests that an answer to the question 'When did the Copernican system overturn the Ptolemean system?' cannot easily be determined. Generally speaking, we can say that following Copernicus' death during the middle of the sixteenth century, his system was adopted by only the tiniest minority of people, while by contrast, at the end of the seventeenth century - even though the theologians still had objections - the vast majority of practising astronomers worked within the heliocentric system to which Copernicus' theory had led. It is difficult to be more precise than this. I have pointed to a number of factors which encouraged the transition towards this new world view – the recognisable empirical inadequacies of the classical model; the increasing draw of Neoplatanic philosophy and its religious implications; the greater accuracy and simplicity achieved by Kepler's new model; the discoveries of Galileo and his telescope – but none of these factors were decisive in overturning Ptolemy's system. Taken together they presented an increasingly strong *polemical* argument for the new system, but none of them provided incontrovertible 'proof' of the Copernican word-view. In reality, there was no definite year or decade, no conclusive or incontrovertible piece of evidence, throughout the 150 year period under discussion, which decisively and incontrovertibly *proved* the validity of the Copernican heliocentric world view over erstwhile Ptolemean geocentricism. Rather, this shift from one

[106] Ibid.

theory to another occurred over a period of many years during which society was undergoing a gradual process of upheaval in its own internal organization, and of changing relationship between itself and the external world.

The surprising fact is that we discover nothing which could be called incontrovertible *proof* for the heliocentric world view until the middle of the 19th century - proof of heliocentrism comes a century and a half *after* the majority of astronomers had already adopted the theory. Even more of a surprise is that this 'proof of heliocentrism' comes in the form of a *correction* to Kepler's laws of planetary motion

Kepler theorised that the planets moved at a constant speed and described a single uncompounded geometric curve. The development of Newtonian mechanics in the 17th century would allow this motion to be explained in terms of the sun's force of attraction upon the planets. However, during this same period, improvements in telescopic technology had demonstrated that the planets do not quite obey this law. Instead, they go through periods of deviation from their generally elliptical orbits. This could be understood within Newtonian theory if the planets also had a force of attraction for one another - insignificant in relation to that of the sun, but significant enough to create such deviations. Kuhn states:

> It was the power of explanation and prediction of these deviations that Newtonian mechanics created in the 17th century that led to Levvier in France and Adams in England, independently in 1846, to predict the existence of a new planet, Neptune, which explained the irregularities in the orbit of Uranus.[107]

The superiority of Kepler's calculations over Ptolemy's were proven only once they were corrected. Kepler's new theories and the calculations which they made possible were produced through a process of refining Copernicus' calculations within the heliocentric world view. Once combined with the mechanistic physics of Newton, these theories first allowed the theoretical positing of a new planet, and then, combined with technological advances, allowed the existence of this new planet to be practically demonstrated:

[107] Ibid. pp261-262.

> The telescope was turned to the heavens, the new planet, Neptune, was discovered, dimly visible, within a degree of the position predicted by Newtonian theory.[108]

The completion of the conceptual revolution to which Copernicus' theory had given birth was not completed for a century and a half,[109] because, only with this development in physics did the Copernican model of the universe become 'physically and cosmically possible'. Only through acceptance of the Newtonian conceptual framework did Copernicanism at last become credible, and did 'the last significant opposition to the conceptions of a planetary earth disappear.'[110]

This final point in our story again leads us to note that the Copernican revolution was far more than a revolution in astronomic theory. Rather, it was a total revolution in world-view: 'a new way of looking at nature, man, and God.'[111]

XIII. CONCLUSIONS ON THE REVOLUTION

Having discussed in some detail this historical shift in world-views, I now want to consider what illumination this historical example can provide in terms of the adequacies and inadequacies of the social constructionist theory of knowledge.

i) ACCOUNTING FOR CHANGES IN THEORY

The changes which occurred in the Copernican revolution cannot be understood in terms of changes and developments which were internal to scientific theory or which depended upon a direct correspondence between the theory and the empirical world. For this reason, the social constructionist perspective represents a significant advance upon the empiricist theory of knowledge in its capacity to account for the *fact* of theory change. We can see this if we briefly consider the empiricist model of knowledge formation.

Since in empiricist theory our ideas of the world correspond directly to how the world is, then we could give no explanation for changes in these ideas other than that we have turned our attention to previously unconsidered areas and aspects of

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[108] Ibid. p262.

[109] Newton's 'corpuscular world machine' came into being in 1685.

[110] Ibid.

the world. Yet we know both that changes in theory occur, and that they can occur in such a way that old and new theories are used to explain precisely the same phenomena. A 'naïve' correspondence theory, such as that implied by empiricism, is too static to accommodate changing theory. A static theory fixes knowledge, the relations between people, and the relations between people and the world, as unchanging, as if they were entirely natural phenomena fixed for all time. One of the things that can be drawn out of the forgoing discussion, however, is that neither 'knowledge' (by which we understand 'conceptual schemas', 'paradigms', etc.) or the relations of man to man and of man to the world, are static. A great insight of social constructionism is its recognition that rather than being static givens, these relationships are the *contingent* products of man's social and historical activities in the world. This emphasis upon *contingency* was the first premise of social constructionism which I isolated in PART ONE. We now need to consider how, from this starting point, social constructionism *can* explain changes in theory.

ii) SOCIAL CONSTRUCTIONISM ACCOUNTING FOR CHANGE

The idea of the construction of 'meaning' is the foundation of social constructionism. In this theory, the reality in which we exist is constructed by the way in which social consciousness comes to define, understand and delineate the world. The world *is* as it is in our conceptual schemas, because only by virtue of the structure given by these conceptual schemas can we approach the world. However, I said that in social constructionism these conceptual schemas are both our *means of access to* and the *constituting factor of* reality: they do not merely *interpret* the world, they also *construct* it. And because we cannot be in the social world without being *inside* of a conceptual schema, there is no outside or 'objective' vantage point from which truth can be determined: what is 'true', therefore, is what is true within the conceptual schema. These were the second and third premises of social constructionism which I isolated in PART ONE, and which al-

[111] Ibid.

low social constructionism to cope with significant factors in our story of the Copernican revolution which a more static theory could not.

Social constructionism posits society itself as the determinant of social thought. The arena for investigating shifts in theory is understood to be the struggle between competing conceptual schemas. This is the import of the second premise. The idea of conflict between conceptual schemas and the 'external world' is not considered, and nor can it be, in social constructionism. This is because there can be no idea of the 'world itself' in the absence of conceptual schemas. This is the import of the third premise. Let us now consider the insights made by social constructionism to our understanding of the Copernican revolution which the combination of these three premises allow.

iii) LESSONS FROM THE REVOLUTION: EVIDENCE FOR SOCIAL CONSTRUCTIONISM

A number of factors flagged up in our discussion of the Copernican revolution seem to mitlitate against the external world, and in favour of society, as determinant upon changes in our conceptual schemas.

Firstly, the major motivation which drove Copernicus, his teacher de Novora, and Kepler, as well as those who initially accepted their model as 'true', was the 'mystical' notion that the laws governing the structure of God's creation could not possibly be as complex and apparently random as the 'epicycles, equants, and other ad hoc devices' which the Ptolemean system had to make use of. This motivation is one which was 'external' to the Ptolemean conceptual schema, the result of a 'mystical' Neoplatonic faith which posited the sun as the causal power that governed all celestial motions. The attraction of Neoplatonic philosophy during this period manifests the development of an alternative conceptual schema in opposition to that of classical geocentricism.

We saw in PART TWO that once we adopt a coherence theory of truth, contradictory claims to truth can only arise from our position *inside* contradictory conceptual schemas. This means that only by first adopting an oppositional framework was it possible for theorists to present a challenge to the Ptolemean worldview. However, the foundation of this new schema cannot be found in the phe-

nomenal experience of its followers in the world: whichever system is adopted, the earth *is not* experienced to be in motion, and the sun *is* observed to be moving across the heavens.

Second, the new theory had to explain exactly the same phenomenon as the old – that is, the empirical observation of celestial motions within the confines of available data and observational techniques - and it did so at first without any significant improvements in either empirical accuracy or mathematical simplicity. By its own criteria, the Copernican schema failed. It provided no new evidence to persuade either Copernicus himself or his followers of its 'truth'. Only those who were, for reasons of mystical conceit, predisposed to accept the simplicity and harmony of astronomical explanation, would be disposed to believe in the superiority of heliocentrism over geocentricism. Reasons for the adoption of the Copernican system cannot be discovered in the tempting but fallacious claim that it was from the first empirically more accurate than the Ptolemean.

Third, we noted that even *after* Kepler's changes to the new theory and calculations, and even after Galileo had turned his telescope to the heavens and discovered new stars, the classical Ptolemean system could still be used to explain these factors with only minor modification.[112] Neither the original Ptolemean nor the original Copernican system could adequately account for these things, but after adjustments were made, both could equally be used to account for these new observational phenomenon and theoretical computations.

This supports Quine's assertion that 'total science, mathematical, natural and human' is 'underdetermined by experience':[113]

> No particular experiences are linked with any particular statements in the interior of the field, except indirectly through considerations of equilibrium affecting the field as a whole.[114]

Slight adjustments in each theory were necessary in order to regain 'equilibrium affecting the field as a whole', but once adjusted, the empirical experience did

[112] The Tychonic system - a modification of the Copernican which maintained the earth in its central position – 'provides as good an explanation as the Copernican for the observed phases of and distance to Venus', Kuhn tells us.
[113] 'Two Dogmas of Empiricism', op cit. p45.
[114] Ibid. pp42-3.

not reveal one theory as superior to the other. Again this supports our drawing the conclusion that the determination of which theory was adopted depended upon neither scientific nor experiential-empirical phenomena, but upon which theory's 'truth' had already been accepted as an explanation of the structure of the heavens.

Fourth, we saw that acceptance of one or other opposing theory had decisive implications for morality generally and for the church in particular. The Ptolemean schema conceptualised the relation of man to God mediated through the Catholic Church – damnation was 'below', God was 'above', and man was 'in-between' with the church dictating how to go 'up' rather than 'down'. The Copernican conceptual schema necessarily destroyed this three-tiered structure. God could no longer be conceived as having determinate position in the structure of the universe; and since the earth was no longer the main focus and central object of Creation, erstwhile literal interpretations of the story of Creation and the Fall became impossible. Competition between old and new astronomy necessarily entailed competition between old and new forms of theocracy. Little wonder the Pope felt required to force Galileo's retraction, for his direct line to God and his power and authority on earth would be destroyed if Copernicanism were accepted.

Each of these points supports the social constructionist claim that the arena for the investigation of theoretical shifts is the struggle between competing conceptual schemas. The first three support Kuhn's assertion that to discover 'how scientific revolutions are effected' we must examine 'the techniques of persuasive argument within the quite special groups that constitute the community of scientists.' However, the final point above suggests that Kuhn does not go far enough here: Whichever theory was accepted would have social and moral implications far beyond the remit of scientific theory. Therefore, we need to consider not just the special groups constituting communities of scientists, but argument within the broader structure of society, its ethical mores, and its relations of power and authority.

When we consider the story in this way, direct correspondence to the 'external world' seems to have no part to play in the constitution and adoption of conceptual schemas. Rather, the struggle between, and the persuasive powers of, competing conceptual schemas, seem entirely decisive as determinant of how reality comes to be conceived.

However, the foregoing 'evidence for social constructionism' has left unconsidered a number of issues which our story of the Copernican revolution flagged up. It is to these issues we now turn.

iii) LESSONS FROM THE REVOLUTION: THE LIMITS OF SOCIAL CONSTRUCTIONISM

In opposition to social constructionism, I want to suggest that through an emphasis upon the individual and groups of social actors and their relationship to given conceptual schemas - which can only be considered from the 'inside' - social constructionism fails to acknowledge a further relationship which both affects and constrains the determination of our given conceptual frameworks, the opposition which arises to them, and their acceptance or rejection. This is a relationship between society and the external world.

In our story thus far we have accepted as *given* the existence of two opposing conceptual frameworks, and concluded that there can be no 'evidence' for accepting one over the other whose 'truth' does not depend upon having already accepted the basic premises of one or other schema. At first sight this seems odd, but, taking heed of our previous discussion in section V, its explanation is straightforward.

As conscious individuals and groups of individuals in the social world, we cannot but be *inside* of the conceptual schemas through which the reality of that world is constructed. We could only be outside of such conceptual schemas if we ceased to be part of that social world; or, put the other way around, we would cease to be part of that social world if we were not inside any of its conceptual schemas. The conceptual schemas we are inside of are no more *chosen* by us than is the society or the historical period we are born into. The vast majority of us accept the reality

of the world as it is *given to us* and *determined for* us by the framework of social and cultural consciousness into which we are born. And even if we are one of the historic individuals, or one of a collection of such individuals, who play a role in the rejection of one schema in favour of another - a Copernicus or a Kepler, for example, a Newton or an Einstein – the notion of 'choice' is still not appropriate to describe the determination of our new conceptual framework. 'Evidence' in favour of one schema over another cannot be ascertained outside of whatever conceptual schema we are already inside of, and whatever new schema we might adopt can develop only in *relation to*, *reaction*, or *rejection of*, a previous theory.[115]

But this is only to describe the situation, as it were, from the 'inside' - from its *epistemological* rather than its *ontological* perspective, to use the terminology of PART TWO. From this perspective, while we can describe *that* theories and conceptual frameworks shift, we cannot explain *how* this is so.

In social constructionism, 'reality' is understood to be 'constructed' through the conflict and interplay of discourses, and the stability and objectivity of reality is determined by whatever is the dominant discourse in a particular sphere of reality at a particular time.[116] This means that the experiential phenomena of the constructed reality will be explicable through the internal structures of that reality. We could explain the motivation to make internal adjustments to a conceptual schema on the basis of inconsistencies internal to the schema which, once apparent, must be rectified for reasons of 'equilibrium'. However, such internal inconsistencies could not be used as explanation of the motivation to abandon a theory completely – it seems likely that alterations will be made in order to re-balance

[115] The combination of this lack of choice with the recognition of the role man plays through history in constructing the reality in which he lives is what Marx meant when he stated: 'men make their own history, but they do not make it as they please: they do not make it under circumstances chosen by themselves but under circumstances encountered, given, transmitted from the past.' *The Eighteenth Brumaire of Louis Bonaparte* in David McLellan (Ed) *Karl Marx: Selected Writings* (Oxford: Oxford University Press) p300.

[116] A perfect example of this understanding of the relation of conceptual schema to the stability of the 'objective world' is found in Berger and Luckmann: 'Neither the Voudun gods nor the libidinal energy may exist outside the world defined in the respective social contexts. But in these contexts they do exist by virtue of social definition and are internalised as realities in the course of socialisation. Rural Haitians *are* possessed and New York intellectuals *are* neurotic. Possession and neurosis are thus constituents of both objective and subjective reality *in these contexts*. This reality is empirically available in everyday life.' Op cit., pp197-8.

theory with phenomena (as Quine implies) but most unlikely that mere internal inconsistency would lead to an outright rejection of the whole system. In order to *explain* the fact of a conceptual shift, therefore, the social constructionists needs to look for a dynamic of change which is *external* to the original schema. But since there can be no possibility of considering the 'external world' in constructionist theory, because there can be no such world in the absence of some other conceptual framework, then such a dynamic of change can only be found by looking towards the new conceptual schema which has developed in opposition to the old, and to the conflict between these different schemas. However, this result begs the question of what motivates the development of this oppositional schema. Again, since we cannot turn to factors in the 'external world', we must instead turn to factors which are either internal to a further schema, or which result from the conflictive relation of schema to schema.[117]

If we again turn our attention to the story of the Copernican revolution, we discover that there is indeed a significant relationship which is both outside of conceptual schemas and outside of the conflictive relation of schema to schema. This is the relationship between *society* and the *external world*, a relationship which social constructionism has ruled out of court. Consider again our discussion of the conditions which underlay the Copernican revolution.

I noted Kuhn's assertion that 'any possible understanding of the Revolution's timing' must be sought 'outside of astronomy, within the larger intellectual milieu inhabited by astronomy's practitioners' – a recognition to which the four factors we noted above as evidence of the social constructionist perspective give credence. We then made note of Hacking's recognition of the coevality of scientific with political and social upheaval. This historical fact led to the assertion that changes at the level of how society organises its thoughts about itself and its relation to the world cannot be separated from changes at the level of social organisation. Changes in the structure and organisation of society created the necessary conceptual space from which new means of understanding the relation of

[117] The fact that reality is determined through discourse and conflicts between discourses in this way was implied al-

man to man and man to the world could emerge. Asking the question why the Copernican revolution began only in the 16th century, though both the empirical inadequacies of the Ptolemean system, and the requisite premise to oppose Ptolemey - a sun centred universe - had been in existence since Plato, I suggested that an answer could only be sought through an understanding of the specific conditions and changes in the structure of society which characterised the 16th century. Extensive exploration of the globe had resulted from the burgeoning development of trade and the first development of market relations. In themselves, these factors signify a change to the structure of social organisation – a transitional period between feudal and capitalist relations. Further, such extensive global exploration itself could not but alter the structure of society and the organisation of men's thoughts about the world, because that which had, until recently, been considered the totality of the earth was discovered to be but one small section of an ocean covered globe. Men *really* were living in a different world, and their ideas and conceptual schemas had to change accordingly. Added to this, as Pannekoek observes, pressure was brought to bare upon astronomical theory by the new and increased demands of successful navigation which 'on wide oceans made more severe demands than did ancient Mediterranean traffic. The stars, sun and moon were now needed to find the position of a ship by the determination of geographical latitude and longitude.'[118] The Ptolemean world-view, which had been quite adequate to explain the world of late classical antiquity, and which had been little pressured by the social changes of Dark and Middle Ages, and of Early medieval Europe, was suddenly brought into conflict with a world to which man was relating - physically, spiritually and conceptually - in a radically new way. The world in which men lived was a different place – it was far larger and contained many more possibilities. The internal structure and organization of society was undergoing a process of significant alteration. The relationship between society and the external world, therefore, could not but be altered.

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ready in our citation from Foucault's *Power/Knowledge* (p17, above).

[118] Op cit., p184

While social constructionism can be used to explain the fact of shifts in world views and of changes in theories, it cannot be used to explain why the need for such changes comes about in the first place. Only by asserting that *there is* a relationship between the social world and the external world, through which the conceptual frameworks of the former at certain points meet with and, for reasons of empirical explanation, are forced to adapt to the latter, can we understand why fundamental shifts in our theoretical paradigms occur. This is why I argued in section IX that we need this *assumption* of an external world in order to make sense of our activities and experiences in the social world.

However, simply noting this relationship between changes in systems of knowledge and changes in the relationship between man in society and the external world, does not entail that the content of these changing conceptual frameworks are more accurate conceptualisations of that world. This is a problem we have already raised. We have so far found no vindication of the progression of scientific theory closer towards a more accurate and complete understanding of the world. The changes which occur in scientific theory could simply be *ad hoc* adjustments which bear no relationship to, or which have no greater or lesser understanding of, the reality of the external world. This is Quine's recognition of the underdetermination of theory by data. Any number of theories can be used to explain particular empirical phenomena, and these phenomena themselves do not determine one theory to be more correct than the other.

It is an attempt to propose a solution to this problem to which we now turn.

PART FOUR

BEYOND EMPIRICIST AND SOCIAL CONSTRUCTIONIST THEORIES OF KNOWLEDGE

> All human knowledge in so far as man is a 'member' of a society....is not empirical but '*a priori*' knowledge. The genesis of such knowledge shows that it precedes levels of self-consciousness and consciousness of one's self-value. There is no 'I' without a 'We'. The 'We' is filled with contents prior to the 'I'.[119]

In this final part, I suggest that combining the insights of the empiricist model with the insights of the social constructionist model allows us to recognize the relationship between both the social determination of knowledge *and* the correspondence of knowledge to the external world. Empiricism posits a (naïve) direct relation between knowledge and the external world, but its insight is to recognize that this relation *is* based upon the experiential engagement of man in the world. Social constructionism recognizes the fundamental role played by society in the determination of knowledge at any particular time, but it then fails to leave space in its analysis for a relation between knowledge and the external world. The insights of each theory are won only at the expense of the other. We need to find a way to combine and maintain the insights of both models without succumbing to the limitations of either. This is the task of sections XIV and XV.

[119] Max Scheler, *Problems of a Sociology of Knowledge* (London: Routledge and Kegan Paul, 1980).

XIV. *CORRESPONDENCE* WITH THE WORLD AND *COHERENCE* WITH IDEOLOGY

We cannot adequately *explain* changes in social knowledge if we restrict our analysis to the level of conscious interaction between individuals and groups of individuals in society – that is, if we restrict ourselves to the level of conceptual schemas, paradigms, discourses and knowledge-webs. This is the limitation of the social constructionist theory of knowledge, which is restricted to an internalist perspective upon the formation and functioning of systems of knowledge. On that level of analysis, shifts from one system of knowledge to another seem entirely *ad hoc* and unrelated to the world. Changes in our system of knowledge do not seem motivated by improved *correspondence* with the world, but rather, they seem determined by the needs of internal harmony and *coherence* with ideology. For example, we saw that Copernicanism was motivated by spiritualism and faith, the desire to understand the motions of the heavens within the pre-given framework of Neoplatonic simplicity and harmony.

What I call in the title of this section 'ideology' is the background to what we have previously been calling world-views, conceptual schemas, paradigms and discourses. Edward Craig has given this the more general name of 'a philosophy', which is a 'dominant philosophy' 'if it becomes sufficiently wide spread and firmly held to be a major force in the intellectual climate of a society.[120] Craig's general use of the term 'a philosophy' and my use of the term 'ideology' denote both the consciously held systems of thought and the underlying beliefs and convictions which explain the attitudes and patterns of behaviour of individuals and groups in the social world. One of the great insights of social constructionism is its recognition that a significant determinant of the conceptual schemas and world-views held by individuals and groups of individuals is the coherence of those world views and conceptual schemas with a pre-given underlying ideology.

[120] Edward Craig, *The Mind of God and the Works of Man* (Oxford: Clarendon Press, 1987) pp132-3.

However, the internalist perspective of social constructionism is restrictive for two reasons. Firstly, it is a perspective in which the evidence of one schema can only be validated by its own internal truth conditions, and the evidence of any schema will necessarily be invalidated by the truth conditions of an opposing framework. Second, it is restrictive because it keeps its analysis to the level of *immediate* activity in the world. We saw that in the development and acceptance of the Copernican world-view, if our analysis considered the transition over a limited and discrete period of time, there were neither determinant empirical motivations for its adoption, and nor, once it was adopted, was there indubitable empirical evidence for its superiority. However, viewed over a longer period of time – between the appearance of *De Revolutionibus* and the development of Newton's 'corpuscular world machine', for example – we saw that evidence for the greater empirical adequacy of the Copernican over the Ptolemean system was steadily growing.

The idea that we need to engage a wider perspective upon society than the particular relations of conceptual schemas to empirical phenomena at any particular time, is motivated by the idea that we need to understand the transition from one dominant conceptual framework to another not in terms of the competing claims to truth within the opposing systems, but rather, in terms of wider shifts at the level of social organisation, which occur over a longer period of time. When we view the social development and shifts in social knowledge in this wider perspective – as entities which are affected by factors outside of the level of conscious interactivity, and as entities which are affected over a process of history rather than in a discrete period of time – we can come to recognise society not merely as an *object* for our investigation, but as a *subject* which is itself an agent in the world. This broader perspective can allow us to see changes in theory as the result of society's changing relationship *to* and increasing engagement *with*, the 'external' or 'objective' world.

When the perspective of the conscious activity of individuals and groups of individuals is prioritised, what is most striking is the heterogeneity of the social

world: diverse conceptual schemas with competing claims to truth compete for dominance, and the process by which social reality is constructed is the process by which these diverse conceptual schemas do battle with one another. However, when we take a broader perspective, what becomes striking is the opposite – not the heterogeneity of competing world-views, but the homogeneity of outlook which results from all of society being engaged in the same process of change, being challenged by the same problems, and collectively seeking solutions. Although the adherents of Copernicanism and Ptolemeanism were, so to speak, enemies doing battle, still both sides were engaged in an attempt to square empirical observation and data with the internal coherence of their systems; and each system sought to understand a world in which the same changes were occurring – the discovery of new lands, the discovery of new moons and planets, the development of new techniques for computation which were more accurate.

Quine makes an important point when he rejects the traditional empiricist notion of the individual statement as the unit of empirical significance, and instead suggests the whole of science. This complex totality of knowledge and belief which Quine calls 'science' meets the external world as a corporate body of experiences and interrelations. But these experiences and interrelations must be understood not as they are manifest in phenomenal experience from the perspective of the individual, but rather, from a more external perspective, as they manifest changes in the modes of thought of society as a whole.

The greater empirical adequacy of one theory over another is borne out not in the direct relationship of external world to specific theory at a particular point in time, but rather, in the relationship of the world to the totality of social knowledge, and in the engagement of society with that world over a period of time. Any particular theory at a particular period is but a partial manifestation of this broader relation between society and the external world. The progress of theory towards a better understanding of the world, where such progress takes place, is borne out not on the level of pure theory, nor on the level of conscious activity, but through the successes and failures of social engagement over a period of

time. The conclusive 'evidence' for Copernicanism came, I suggested, in the form of a correction to Kepler's theories. The specific evidence I cited was the discovery of a new planet in 1846. But this discovery was not the result of theoretical progress within astronomy alone, as if astronomy can be isolated from broader movements within science, and broader movements within the society in which science develops, operates, is challenged and overturned. Rather, the discovery of this new planet was the result of changes in physics, changes in the complexity of technical sophistication, which occurred against the backdrop of changing social organization and increased (and increasingly successful) voyaging and exploration of the globe.

History suggests that it is not the case that a superseding world view is necessarily more accurate than that which preceded it. For example, the dark ages mythology which replaced Greek philosophy could hardly be seen as a step forward. However, advances over a long period of time demonstrate themselves to be superior to what precedes them by increasing our capacity to intervene in the world. By so intervening, we both validate the superiority of the latter world-view over the former, and at the same time, begin the process by which the latter world-view is itself pushed to its limits and, ultimately, transcended.

At any particular time, the determining force on any particular conceptual schema is that it can be accommodated to the total system. We noted that the concept of geocentricism had been around for a long time before it was theoretically developed as a scientific proposition in the wake of the Copernican theory. The scientific theory of geocentricism did not develop in isolation, but developed rather as part of the broader developments which we have noted as the back-drop to the Copernican revolution. The total system relates to the world through each of its particular constituent areas, and then has the task of cohering each of these areas with one another. Both Quinean pragmatism and a drive towards greater simplicity are important factors in the transition from one theory to another. However, both pragmatism and simplicity can be understood as elements involved in the formation of a fully coherent world view, and such a world-view is

demonstrated to be better than that preceding it only by the test of time, through its adequacy in generating increased engagement with the world.

The relationship between the content of our systems of knowledge and the external world is not direct, but rather, it is *mediated* through the individual and particular conscious activities and conceptual schemas of individuals and groups of individuals in society engaged in particular areas of activity and research. By concentrating attention upon this mediate realm, as social constructionism does, the broader relationship is obscured.

The empirical inadequacy of a theory can seldom be recognised if the theory is considered only within a short or discrete period of history. Social knowledge cannot be properly analysed in any of its particular or discrete incarnations – say, as a theory held by a particular individual or in response to a particular discovery or counter-discovery. Rather, a society's knowledge must be considered as a process, or as an active relation to the world. At any one moment in time there are a series of factors which may, on different occasions, suggest, allow, or entail, the supremacy of one theory over another. Such factors can be internal to the scientific theory itself, or external but equally scientific; they may also be psychological or sociological. Social constructionism points us to the recognition of the significance of social position in the formation and motivation for one's world-view – for example, we saw that the Catholic Church could not accept Copernican geocentricism because such a theory challenged the power and authority of the church on earth. These factors however, despite their significance at any one time with regard to an event understood in discrete form, may or may not be significant determinants upon why the theory is ultimately accepted or rejected. Only the test of time can demonstrate the significance of these factors upon the development of knowledge in the long run.

The understanding I have presented of the notion of 'scientific progress' suggests that our 'knowledge' of the world is always partial. We never achieve knowledge which is 'objective', in the sense that it is the complete or final Truth about the world. Rather, scientific progress, where such progress occurs, manifests an ad-

vance in our knowledge which brings it closer towards the reality of the world. The contingency of our knowledge upon modes of social organization, the significance of which has come out strongly in the foregoing, demonstrates that our knowledge can only ever be partial. However, the correspondence between the content of knowledge and the reality of the world can move closer as we discover new truths about particular areas of our engagement with the world, given the limits of our knowledge systems at any particular time.

XV. Beyond Empiricist and Social Cosntructionist Theories of Knowledge

Empiricism rests upon the assumption of a direct causal relation between the objective world and the individual's empirical experience from which his knowledge is drawn. This theory asserts the primacy of experience over knowledge. Its model of the process of knowledge formation is that of the individual who directly observes and learns from virgin nature. The objective world is seen as directly accessible through observation.

'Social constructionism', by contrast, views all knowledge as determined not by the external world but by the particularities of social relationships which manifest particular conceptual schemas. In reaction to the empiricist model, social constructionism holds sociology, rather than the natural sciences, to be the model for a theory of knowledge. For constructionists, our access to the world is not direct, but is *mediated* through layers of socially generated 'conceptual schemas', 'discourses', or 'paradigms'. Truth is held to be a social convention whose criterion is coherence with the extant theories we use to understand and interpret the world. In this way, social constructionism demotes the evidence of nature or the external world in favor of society itself as the determinant of our knowledge, and as determinant of the conception of 'reality' to which these systems of knowledge give birth. This knowledge – conventional or paradigmatic - is created

through the interaction of the community and determines their interpretation of empirical experience and their activity in the world.

Empiricism and social constructionism *appear* to be embedded in the perspectives of the 'individual' and the 'social' respectively. Each perspective reveals a partial picture. We have seen that the insight of empiricism is its recognition of the relation between systems of knowledge and the external world, while the insight of social constructionism is its recognition that systems of knowledge are socially determined. By interrogating these oppositional perspectives, it is possible to elaborate a sketch for a more complete theory of knowledge based upon a more developed conception of the relationship between the individual and the social.

Empiricism *appears* to side-step the social altogether with an assumption of an individual standpoint. Its assumption is of an individual observer and his observed object, the empirically given world. Knowledge in this theory is the impact of the objective world upon the subjective observer. Empiricism therefore presents a *passive* theory of knowledge in which ideas are *a posteriori* – they come after experience.

By contrast, social constructionism *appears* to assume the standpoint of the social. However, I have attempted to make clear that social constructionism is in fact restricted in its analysis to an internal perspective upon systems of knowledge. Its concept of the social is therefore restricted to the interplay of competing discourses and conceptual schemas. My suggestion was that, in fact, this realm of investigation is the sphere of mediating consciousness which relates society to the external world. Such an emphasis has a profound consequence for the social constructionist theory of knowledge. The world is accessible only through a system of received concepts - 'conceptual schemas', 'discourses' or 'paradigms' - to the extent that we can say that the objective world, at least in so far as we can ever know it, is a social construct. One of the significant features which came out of our consideration of McIntosh and Foucault's discussion of the constructions of homosexuality in PART ONE was their emphasis upon the subjective

agency of individuals and groups of individuals in the construction of the reality in which they exist. We saw, for example, that the labeling activity of individuals in society constituted the construction of the discourse on sexuality, and, at the same time, the activity of those labeled constituted what Foucault called a 'reverse-discourse'. It is only through the agency of individuals and groups of individuals that reality is constructed.[121] It is interesting to note now, however, that while social constructionism emphasizes this subjective agency on one level, it also presents a passive theory of knowledge on another level, though for different reasons than empiricism. While the empiricists' theory of knowledge is passive in the face of the empirically given world, the social constructionist theory of knowledge is passive in the face of concepts or social conventions. Ideas in empiricist theory are *a posteriori*, while in social constructionist theory they are *a priori*. That is, our concepts and ideas, understood as social conventions, are prior to experience. What is revealed in both is the passivity of individuals and groups of individuals in the face of greater forces – the force of the world on the one hand, and the force of received convention and knowledge on the other.

Because each perspective is partially true, both theories, despite their opposition to one another, are attractive to us.

The empiricist image of the individual subject observing an objective world captures a real aspect of the process of scientific observation; however, it does so in an abstract or idealized form which is drawn from our phenomenological experience as individuals. We (naively) assume our ideas to be drawn directly from the world. However, when as student or scientist one sits back to reflect upon one's relationship to the process of knowledge formation, what is discovered is that direct and unmediated observation of the world plays no part at all. Much time is spent learning and studying an extant body of theory and knowledge. Only a tiny percentage of time is spent in observation and experimentation, and even this practical activity is not direct, but is mediated through received scientific concepts, extant techniques and socially given systems of knowledge. Even

[121] See above p19.

if, as a practising scientist one turns to one's practical research, the parameters of activity are tightly circumscribed by the given research project. Looked at in this way, even in the activity of research, it really is the case that preconceptions precede experience. The social constructionist theory of knowledge, at least in this respect, is entirely correct. But what it correctly describes is the process of knowledge formation and engagement with the empirical world as it is phenomenoligically experienced by an individual *within* that process. This correct description is the result of social constructionism's internalist perspective upon systems of knowledge. As a single human being participating in the work of the academy or scientific research, the experience really is an experience of concepts preceding experience.

So what of the truth revealed by the empiricist theory of knowledge? The model of the single observer of an empirically given world has real descriptive power. However, it does not describe the experience of the singular person *within* the research community. Rather, what it describes is the singularity of that community when considered as a whole. The singular point of view comes from the common endeavor of society as a whole which faces the same external world, which seeks explanation of what are fundamentally the same phenomena, and which develops and changes along fundamentally the same lines. This commonality is obscured if we consider only the internal perspective upon systems of knowledge, or the transition from one system of knowledge to another over a short period of time.[122] The empiricists' abstract notion of an individual observing nature in fact describes the encounter between the whole of the scientific community, with all

[122] The importance of the broad social and historical perspective is most apparent here. It is not too contentious a point to suggest that society as a whole faces the same external world. It is clearly the case that different soci*eties* can be at different stages of practical, social, intellectual and scientific development, and thus the claim that they seek an explanation of what are fundamentally the same phenomena may seem untrue. However, what history demonstrates is a continual process of universalization of dominant cultures, and an increasing uniformity of world views from one society to another. This is why I claim that societies develop and change along what are fundamentally the same lines. For example, although the gradual development of market relations during the Renaissance period which formed the back-drop to our explanation of the timing of the Copernican revolution (see above, XIII, ii)) was a developmental phenomenon of Western Europe, its impact was not restricted to this geographical area for long. The same process of exploration and trade which pushed the development of market relations within Western Europe also brought these market relations to other areas of the world. And we would now have great difficulty finding an area of the world or a community of people who were not integrated into this system - Even where economic development restricts practical scientific development, still the theoretical development of science is available as received wisdom.

of its past achievements and its common theoretical frameworks, with the external world.

An obvious objection arises here. I have suggested that the empiricist theory of knowledge describes the relation of society as a totality to the external world, while the social constructionist theory of knowledge describes the relationship of the individual to social determined systems of knowledge. But it will be objected that if social constructionism is true in this sense for the individual, such that the individual meets a totality of knowledge which is given *a priori*, then how can it not be true also for the large collection of individuals which is society as a whole?

We can answer this by drawing a qualitative distinction between the perspective of the individual and the perspective of the social. From the perspective of the individual the external world itself makes no direct claim upon his knowledge. The claims the world makes on the individual, what Quine called 'recalcitrant experience' (experience which contradicts the laws and theories which govern our knowledge of the world) are nullified by the far greater claims made upon the individual by extant conceptual schemas and knowledge. The individual develops an awareness of, and the possibility for engagement with, the world, only in and through the culture he is born into. Social constructionism correctly points out that it is only through the received framework of understanding of that socio-cultural formation that the individual can make sense of his experience in the world. This is pointed to quite explicitly by Foucault. Meaning is given to the disparate collection of particular bodily and sensual experience only through the dominant discourse of sexuality of the day.[123] The influence of culture, of its discourses, conceptual frameworks, paradigms and webs of belief, as we have varyingly called them, is so strong that only through these mediate forms can the individual relate to the world. For the individual, the reality in which he exists really is a social construct.

[123] See above, p17.

However, when we consider society as a whole, the totality of individual humans collected together, each engaging in different activities and modes of engagement with the world, the claims made by the world cannot be silenced in this way. Just as I suggested in XII i), that the empirical inadequacies of the Ptolemean conceptual schema could go unnoticed over a period of many hundreds of years, but that over the period of a millenium and a half they had become magnified to such an extent that they were glaring, similarly we can say that the recalcitrant experiences of disparate individuals can be easily accommodated by minor adjustments to a system of knowledge, but that the magnification of such recalcitrant experience when these individuals are considered as the social collectivity cannot be so accommodated. The impact of the external world upon the individual is slight, because the individual's experience of that external world is partial and minimal, while the impact of the external world upon society as a whole is great, because society as a whole is related to the external world in a mediated way through the collection of individual subjectivities and experience, which, taken together, manifest the totality of that world.[124]

When we look at the empiricist and the social constructionist theories of knowledge in this way the result is surprising: we have reversed the appearance of these theories, in which they were embedded in the perspectives of the individual and the social respectively. The social constructionist theory of knowledge, which takes as its premise the claim that knowledge is constructed in and through the social world, ends up describing not the perspective of the social, but the phenomenological relationship of individual to received wisdom. While the empiricist theory of knowledge, which starts from the premise of the singular observer viewing the empirically given world, ends up describing not that individual perspective at all, but the relationship between the whole of society and the objective world. In the first case ideas really are *prior to* experience: no individual could

[124] Clearly this distinction between the individual and the social entails a denial of the classical theory of 'possessive individualism' in which society is conceived as no more than the quantitative agglomeration of individuals. It comes as no surprise to discover that 'possessive individualism' was the dominant theory of social formation and relations held by the same theorists who expounded the empiricist theory of knowledge formation. Both theories conceive of the individual in an idealised form, abstracted from his concrete existence in the social world. For discussion of this,

have access to the objective world except through the ideas, concepts and theoretical frameworks handed down to him from society. In the second case, however, ideas really are the outcome of experience, where this is understood not as the phenomenal experience of the individual, but as the collective experience of society engaging with the world as a whole.

The empiricist theory of knowledge succeeds in forcibly bracketing the whole of society into the metaphor of a single observer. In order to do this it abstracts the individual from society and assumes that in place of these collective endeavors stands the individual observer. This individual is in effect a metaphor for the whole of society, a metaphor which, if taken at face value, obscures the heterogeneity of perspectives that presents itself on the surface of society.

The social constructionist theory of knowledge, by contrast, understands the mediate relations and conscious interactions of many disparate individuals for society *en total*. Unlike empiricism, it is all too aware of the heterogeneity that presents itself on the surface of society. But in its recognition of this heterogeneity, it is blind to the common endeavor, the commonality of outlook, which such heterogeneity obscures. Consequently, the social constructionist perspective cannot see beyond the inter-subjective relations of individuals and groups of individuals to the broader relation between society as a whole and the objective world of nature which society acts upon. By failing to recognize the relation between knowledge and the objective world, social constructionism, however much it aspires to emphasize the social, remains implicated in the perspective of the isolated individual.

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see C. B. Macpherson, *The Political Theory of Possessive Individualism: Hobbes to Locke* (Oxford : Oxford University Press, 1964).

CONCLUSION

We began with a definition of social constructionism drawn from the work of sociologist Mary McIntosh and post-structuralist philosopher Michel Foucault in their independent work around homosexual identity in the 1960s and '70s. I isolated three premises which underlay this definition: first, the contingency of social reality; second, that this contingent reality is constructed through the ways in which social consciousness comes to interpret the world; and third, that this reality can only be understood from the 'inside'. We saw from this discussion that social constructionism emphasizes the subjective agency of human beings in the construction of the social reality in which they live.

We then went on to consider the ontological implications of the latter two premises through a critique of Hilary Putnam's thesis of 'internal realism', in which these two premises play a significant role. I argued that Putnam illegitimately moves from epistemological premises to draw ontological conclusions in his attempt to demonstrate the external world. I then argued that although we cannot *prove* the existence of such a world, we need to *assume* its existence in order to make sense of our experiences and interactions in the world. We can now see why such a *proof* could not be forthcoming. As individuals, we are necessarily *inside* of particular conceptual schemas, and so we have no *direct* or *unmediated* access to this external world. However, once we take the step of assuming this extant external realm, we can broaden our analysis to consider the process of knowledge formation not only from the inside, but from an external perspective. I suggested that we could justify this *assumption* if it allowed us to more adequately explain the processes of production and transitions in social knowledge than could the internalist perspective of social constructionism. In Part Three I undertook to demonstrate that a more adequate explanation was possible if such an assumption was made.

In PART THREE we interrogated the theoretical insights of the social constructionist theory, as developed by Kuhn, and as in certain areas of Quine's theory,

against the historical example of the Copernican revolution. I showed that, while the social constructionist theory of knowledge made significant advances upon the empiricist theory of knowledge, it ultimately could only *describe* the process of theoretical shifts, but could not adequately *explain* them. Social constructionism's inadequacy of explanation stems from its internalist perspective on systems of knowledge. The assumption of the external world allowed us to move beyond these limitations, understanding systems of knowledge as not only constructed by society, but as corresponding to the reality of the external world. The relation of society to the external world is *mediated* through social consciousness. This fact cannot be recognized if analysis is restricted to the internal or subjective level. Once analysis is broadened to include the external world, we also gain a broader perspective upon the nature of society. The homogeneity of social consciousness and agency is manifest through this relation. Kuhn's constructionist theory comes close to recognizing the commonality of endeavor of society as a whole in his broad notion of a 'paradigm' as 'what members of a scientific community share.' On the broadest 'sociological' understanding of paradigm we can recognize this scientific community to be the totality of scientists who work within a particular world view at a particular time, and whose world-view thus determines the common view of science held by non-scientists. Similarly, Quine's recognition of the totality of scientific knowledge, rather than the individual statement, as the unit of empirical significance, is significant in its implication of this commonality of outlook. However, I added a methodological condition, that social reality must be considered over a broad period of time in order that the relation of society to the external world becomes apparent.

Finally, in PART FOUR, having interrogated the social constructionist and the empiricist theories of knowledge, in order to clarifiy their opposition, I presented a brief sketch for a theory of knowledge that could go beyond the limitations of social constructionism. My contention is that a more complete theory of knowledge would have to recognize the truth of social constructionism – its analysis of the relationship between the individual and the received wisdom of social convention – while at the same time moving beyond it, recognizing also that society engages

with the objective world in a way which governs the generation of its thought. Historically, we could say that this engagement between society and the external ('natural') world was through the development and use of technology that allowed human beings to develop a greater understanding of, and with such understanding to more effectively intervene in, that world. Later, however, in the development of social theory, society turns its investigation inwards, engaging with itself, considered as the object of investigation. This engagement is an active process, whereby knowledge is come by not through empirical observation, but through intervention in the world of nature through science and technology, and, to a more limited degree, through intervention in society itself through public policy.

This alternative theory of knowledge that I propose, it must be stressed, is no more than a sketch. However, it is a sketch that allows us to accommodate the two apparently incommensurable perspectives of empiricism and social constructionism. The significance of accommodating both perspectives is that both are theoretically tempting positions to adopt. And I have suggested that both are tempting because they each reveal a partial aspect of the process of knowledge formation. However, both theories have serious limitations. The empiricist model allows us to accept that knowledge is not an *ad hoc* construction of society which bears no relation to the world. Rather, we can recognize that it is the world which founds our knowledge: our knowledge is knowledge about the world. The social constructionist model allows us to recognize that this knowledge is not gained by passive or direct observation, but rather, through the processes of social interaction and social organization by which we engage with the world. My proposed synthesis of these two antithetical theories of knowledge allows us to theorize more completely the relation of the individual to the social. It also allows us to see more clearly the active engagement of man with the world, which social constructionism *implies* but cannot fully realize. This active engagement is the engagement of society as a whole with a world which is given, but which at the same time is altered through that engagement of man with it.

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