

# **Vygotsky and his Critics: Philosophy and Rationality**

Janice Derry

Institute of Education  
University of London

Thesis submitted to the University of London

for the degree of PhD

2003



## **Vygotsky and his critics: philosophy and rationality**

### **Abstract**

This thesis is concerned with the philosophic background of Vygotsky's work. Vygotsky himself made clear that it was not only Marx who influenced him, but also Spinoza and Hegel. Most commentaries on Vygotsky have failed to consider the influence of Spinoza and Hegel on his work.

Recent commentators interpret aspects of Vygotsky's work as being based upon Enlightenment philosophy and attribute to him a position of abstract rationality. In taking issue with these interpretations the thesis not only reacts to the criticism made of Vygotsky but also suggests that much of value in his education theory is lost if it is taken out of its original philosophic context and set in an alien framework. Vygotsky was absolutely steeped in the philosophy of Spinoza and Hegel and it was this which allowed him to develop original ideas on thought, language and mind.

Vygotsky's turn to Spinoza and to Hegel would seem to put him outside the mainstream of modern Anglo-American thought, yet it is precisely this field of thought which in the last few years has raised questions that are bringing Hegel back into the mainstream. A study of Vygotsky's philosophy helps bring to light and to question the philosophic presuppositions of much contemporary work on educational theory and policy.

This thesis addresses critical questions in Vygotsky theory and post-Vygotskian research. Its starting point is the question of sociogenesis of mind and chapters 2 and 3 consider recent writings on this issue and the related questions of constructivism and situated cognition. Chapter 4 reconsiders the opposition between Vygotsky and Piaget to carry the question of constructivism a step forward and to introduce the philosophic influences on Vygotsky's work which are then considered more fully in chapters 5, 6 and 7.

## **Acknowledgements**

My thanks and gratitude are due to Hamid Amini, Tony Burgess, Bob Cowen, Anne Edwards, David Guile, Dave Middleton, Michael Young, and particularly to Harry Daniels.

Thanks also to Jane Miller who initiated my interest in Vygotsky.

I was fortunate to be a member of the sociocultural theory seminar series, funded by the Economic and Social Research Council, during the writing of this thesis; thanks are due to its members and speakers for the lively intellectual community it provided.

I also owe gratitude to Rene Van der Veer and Jacques Carpay who arranged for me to have access to the manuscript of Volume 3 of the Collected Works of Vygotsky, prior to publication.

Finally, my special thanks are due to Geoff Kay, for his unrelenting engagement with the topic of this thesis. Though my field of study was distant from his own work on Labour Theory, his continual support helped bring this thesis to fruition.

## Table of Contents

Abstract .....	2
Acknowledgements .....	3
Chapter 1 .....	6
Introduction .....	6
Chapter 2 .....	11
Situated cognition and contextualism .....	11
2.1 Decontextualisation .....	11
2.2 Theorising the institutional .....	15
2.3 The historical background .....	18
2.4 Situated cognition .....	23
2.5 Transfer problem and policy implication .....	26
2.6 Determination, conditioning or shaping? .....	33
Chapter 3 .....	41
Constructivism and Schooling .....	41
3.1 Representation as a paradigm .....	42
3.2 Robert Brandom .....	50
3.3 Theorising mediational means within a representationalist paradigm .....	55
3.4 Constructivism .....	63
3.5 Schooling, constructivism and knowledge .....	69
3.6 Conclusion .....	82
Chapter 4 .....	90
Vygotsky-Piaget – a case of different philosophies .....	90
4.1 Introduction to philosophical background .....	90
4.2 Vygotsky-Piaget .....	94
4.3 Scientific/everyday concepts .....	95
4.4 Consciousness .....	104
4.5 The sociogenetic constitution of mind .....	108
4.6 Sociogenesis .....	110
4.7 Conclusion .....	113

Chapter 5 .....	115
Spinoza and free will.....	115
5.1 Freedom.....	115
5.2 Free will.....	118
5.3 Spinoza and truth.....	126
5.4 Determinism and development.....	131
5.5 Conclusion.....	134
Chapter 6 .....	138
Vygotsky and Hegel I.....	138
6.1 Kant and dualism.....	138
6.2 Hegel .....	146
6.3 Vygotsky and Hegel.....	149
Chapter 7 .....	165
Vygotsky and Hegel II .....	165
7.1 Foundationalism and anti-foundationalism.....	165
7.2 The conception of science.....	174
7.3 The idea of Development.....	179
7.4 The ideal and the real .....	182
7.5 What is practice? .....	186
Bibliography and References .....	189

## Chapter 1

### Introduction

This thesis is a response to the claim that Vygotsky holds abstract rationality as the pinnacle of thought. The claim is based on the belief that Vygotsky subscribed to what is called the 'enlightenment project' and the thesis aims to show that Vygotsky had a far more sophisticated appreciation both of reason and of its remit than this fashionable characterisation. Its argument is developed through an exploration of some aspects of the philosophy of Hegel and Spinoza, to both of whom Vygotsky avows a debt. At first sight the philosophical underpinnings of Vygotsky's work may appear a minor point, but the issue is contested here, and the argument is carried a stage further to claim that the limitations critics see in Vygotsky's work are based on misapprehensions of his understanding of reason. In support of this claim it is argued that Hegel's investigation of the presuppositions of claims to knowledge already contains a critique of the frame of reference used by these commentators, who accuse Vygotsky of an 'old fashioned' conception of reason that cannot do justice to diversity.

Further it is argued that the criticisms of what are seen as gaps in Vygotsky's work such as his lack of interest in institutional mechanisms and mediating tools believed necessary for an explanation of the sociogenesis of mind, are inappropriate since they entail philosophic presuppositions of a mind-world dualism that are quite alien to Vygotsky's philosophy. It is true that although he was explicit about the importance of philosophy for theory, Vygotsky did not actually spell out the philosophy which informed his argument. Yet this omission, even if this is how it is judged, does not detract from the subtlety and sophistication of his approach.

The dualism of the ideal and real, of mind and world, which has underpinned criticism of Vygotsky both in his own time and in the current period, was taken up not only by his follower Ilyenkov, but also by

contemporary analytical philosophers. David Bakhurst has written on this area directly: in claiming normativity to be a necessary element of the sociogenesis of mind, he has brought to our attention links between the philosophy of McDowell and Ilyenkov. For modern philosophy the questions requiring careful analysis concern empiricism and knowing. The two philosophers whose work is most important in this thesis have both taken a Hegelian approach to make explicit points, which, though unexpressed, are necessarily assumed in the forms of argument that they analyse. In *Mind and World* McDowell addresses the problem of how a separate mind can connect with a world by working through a number of highly developed arguments about how we come to know. His enquires lead to the unusual conclusion that rather than possessing the means of thought in our head we operate with means of thought which are external to ourselves in the world: following Wilfred Sellars he refers to this external sphere as 'The Space of Reasons'.

For McDowell and also Brandom, the other contemporary philosopher whose work is important for this thesis, this concept plays a crucial role. Simply summarised the gist of the argument is that in order to make a claim of knowing we are not, as commonly thought, giving a description of an event but placing our claims about it in a space of reasons – that is to say making claims on the basis of knowing what follows from them and what it is necessary to assume in order to make them in the first place. Where a word is used in a seemingly non-conceptual way, where the user has no conscious awareness of the reasons involved, the reasons are still present. For the implication of Brandom's argument is that it is the context not simply conscious intention that imparts reason. This approach which results from bringing a Kantian argument to bear upon a Humean hangover in the conception of empiricism, posits human knowing as fundamentally different from the 'knowing' of machines. For example, a human shout of 'fire!' is fundamentally different as far as general awareness is concerned from the *differential response* of a fire alarm, though both are an alert to the same danger. For Brandom what is distinctive about human beings is the ability to operate in the light of reasons rather than to respond simply to causes. McDowell refers to this as our second nature

emphasising that what it is to be human as something completely apart from matter, yet still part of nature.

When the distinction between the human and the natural is drawn by dualism as a distinction of mind and world, a clear boundary exists between the conceptual (mind) and the non-conceptual (nature). Such a distinction exists for Kant, but for McDowell who adopts a Hegelian standpoint and speaks of the 'unboundedness of the conceptual', it is fundamentally misconceived. McDowell rejects the separation of mind and world underlying so much philosophy in favour of a frame of thought in which reasons exist in the world as humans have developed. In adopting this frame of thought McDowell adopts a position essentially the same as Vygotsky. For both mind is social and, to give an account of mindedness and intellect, it is necessary to look beyond the individual and attend to external mediation in the formation of higher mental functions.

The arguments of McDowell, Brandom, Sellars, Bakhurst and with them Vygotsky cast a distinctive light on rationality and reason. In their hands the concepts are quite different from what they are in the mainstream of philosophic thought which comes through Descartes, Locke, Hume and Kant down to modern analytical philosophy. In the barest outline this orthodox position presents rationality as abstract and decontextualised: it relies on the idea that reason is separated from the world and then has greater or lesser degrees of adequacy in its application to the world. When applied to education this position can lead to the most extreme forms of formalised teaching, or it cautions against theory as a practice of value in its own right and, in its place, emphasises only the individual meaning-making of learners.

It is beyond the remit of the thesis to begin to spell out the practical implications of the philosophic issues it considers. However, one matter which confirms there are such implications and that these are crucially important, must be mentioned here. It is the way reason has been made the culprit for the poverty of educational practice in mass schooling. McDowell's claim that receptivity is already 'conceptual' involves a conception of 'reason' quite



different to that with which Wertsch quite correctly takes issue – the extreme of a decontextualised schooled knowledge, presented without regard to its genetic development or any sense that learning involves actualising concepts.

This matter of decontextualisation is taken up in chapter 2, which presents the criticisms of Vygotsky for abstract rationalism and considers the theory of situated cognition which has been proposed in its place.

Chapter 3 turns to ‘constructivism’ which plays a central role in much post-Vygotskian thought. Criticism here is directed against what is argued to be the ‘representationalist paradigm’ implicit in conceptions of the active construction of meaning into a bare ‘Given’. It is argued that constructivism leads to particular pedagogic strategies which, though not part of the authors’ more sophisticated analysis, are influential in the rhetoric of classroom practice, specifically the undermining of the authority of the teacher, of knowledge (in texts) and the belief that knowledge is a matter of plurality.

Chapter 4 uses the debate between Vygotsky and Piaget on conscious awareness, egocentrism and development, to illustrate the different philosophical frame informing both authors. The purpose of this chapter is to show how the different philosophical presuppositions of each author lead to different theoretical positions.

Chapter 5 turns to elements of Spinoza’s philosophy that influenced Vygotsky. In particular it is concerned with Spinoza’s formulation of knowing in terms of a holism of one substance of which everything is a part, as opposed to a dualism that assumes fundamental separations. Spinoza’s approach leads to a conception of truth not as an attribute but as an actualisation of a process understood as many-sided. From this standpoint, freedom appears quite differently from the Cartesian conception of wilful agency. It is understood as self-determination: to be free is to be cause of oneself rather than subject to external causes, and this depends upon adequate ideas.

Chapter 6 turns to Hegel who follows a similar approach to Spinoza, working through (exorcising) claims to know to reach a distinctive conception of knowing. This conception, rather than being based on secure foundations, sees new knowledge arising out of a working through of the existing to show that more is implicated than appears initially to be the case.

Chapter 7 considers this anti-foundationalist character of the philosophy of Spinoza, Hegel and Vygotsky to argue that the conception of reason central to Vygotsky's work bears no relation to the caricature of abstract rationality criticised by contemporary post-Vygotskian researchers.

The order here is not a linear sequence as the criticisms levelled against situated cognition and constructivism in chapters two and three presuppose philosophic ideas which are not discussed until chapters five and six. On the other hand, these ideas would not make sense in the context of this thesis without an examination of post-Vygotskian research. Furthermore, it must be stressed that the later chapters are intended only to indicate those parts of Spinoza and Hegel which are relevant for understanding Vygotsky's work. The aims of this thesis are first to show that Vygotsky was influenced by a different tradition of philosophy than that which has influenced post-Vygotskian research; and second, to demonstrate that this difference is significant.

Apart from the complexities of the differences between the philosophic traditions, there is the additional difficulty that neither Vygotsky nor post-Vygotskian researchers spell out their philosophic presuppositions in detail. Vygotsky, it is true, acknowledged the philosophic influence on his thinking and it is often only a matter of following the leads he gave to find his sources. With his commentators, however, things are much less clear and the scope for attributing them positions they do not hold is necessarily that much greater. But what must be stressed in particular here is that the criticisms made of various works of commentary on Vygotsky, for a failure to appreciate the significance of the philosophic traditions in which he was working, stop far short of denying the value of their contribution to the understanding of an important but difficult subject.

## Chapter 2

### Situated cognition and contextualism

This chapter and the next examine three areas - situated cognition, contextualism, and constructivism. But first some consideration of what has been termed 'decontextualised knowledge' is necessary to align these issues to the main theme of the thesis; that is the importance of setting Vygotsky's work in its proper philosophical context and overcoming the foreclosure of important areas of investigation by commentators who have not paid it due regard.

A number of concepts discussed in this thesis may not be familiar; 'decontextualised knowledge' is one example. The aim is for these concepts to become clear in the course of this discussion. As Aristotle (and Vygotsky in a similar vein) argued definition was the end rather than the beginning of a process of understanding, no attempt is made to specify these concepts in advance, the hope being that they will become clear in the course of the discussion.

#### *2.1 Decontextualisation*

A recurring theme in critical interpretations of Vygotsky is decontextualised rationality; Vygotsky, it is argued, participated in what is called the Enlightenment project and took abstract rationality as the epitome of knowing.<sup>1</sup> As it happens, the notion of abstract and decontextualised rationality which has informed a wide range of contemporary educational debate, was the subject of earlier controversy in the Soviet Union in the 1930s which stemmed directly from Vygotsky's work and its reception.

---

<sup>1</sup> Wertsch views Vygotsky's discussion of 'scientific concepts' as indication of the belief that a universal human rationality was the *telos* of human development. For Wertsch the fact that Vygotsky recognises 'other' forms of mental functioning, suggests inconsistency. Wertsch sees this inconsistency as due to 'a struggle between basic philosophical commitments [Enlightenment philosophy] on the one hand, and the results of analysing the complexities of human speech on the other' (Wertsch, 1996, p.26).

In the Soviet debate the issue was out in the open, in the contemporary debate it is unspecified and not treated as a matter of explicit importance yet despite these differences the similar underlying issues are common to both periods (ideal to real). Vygotsky therefore has the misfortune to be doubly misunderstood; first by Soviet commentators condemned by Stalinism to a crude materialism, and later by American commentators under the influence of liberal theoretical constructs and relations. In stark contrast to Vygotsky both adopt a dualist approach and presuppose an unbridgeable divide between the ideal and the real. The argument developed here is complicated by the fact that American commentators such as Wertsch and Wells are not only well aware of Ilyenkov and his rejection of dualism but also reject dualism themselves. However, it will be argued, their rejection is incomplete and its full implications unexplored - for instance, its implications for the concept of freedom.

Contemporary discussion of Vygotsky's work is influenced by postmodernist theory, which, in attempting to supersede the problems of abstract rationality, has often failed to give thought and reason proper consideration. The tradition it has caricatured as the Enlightenment, has more to say than has been recognised in some texts on Vygotsky. Within the post-Vygotskian research field a theory of situated cognition has been extremely influential. However, the attempt to theorise knowledge solely by its genesis in definite concrete conditions leaves out of consideration the question of knowledge as such. Situated cognition rejects the idea of decontextualised knowledge and puts in its place the idea that all knowing is contextualised. This chapter addresses the way in which Vygotsky has been criticised for his commitment to decontextualised knowledge and then examines some of the literature in the post-Vygotskian research field which treats this matter.

A common theme in the literature on Vygotsky is discussion of the extent to which his work is premised on an abstract universal reason which can ultimately be achieved via a hierarchy of development. Vygotsky's short life and unfinished writings allow a variety of readings (Burgess, 1993). Although it is agreed that he revealed the socio-genesis of thought, the question of how far

he limited the variety and multiplicity of modes of thought by his commitment to absolute reason appears in recent commentaries. Is Vygotsky's commitment to universal reason simply an expression of the context in which he worked – the unenlightened understanding of colonialist perceptions of the primitive versus the modern that prevailed in his day or the instrumental Marxism of Soviet practice concerned with the possibility of the creation of socialist man? Or does it play a fundamental role in his thought, rooted in the philosophic tradition within which he operated? If so, does it stand in simple contradiction to his concept of socio-genesis or are these aspects of his thought reconciled?

Jay Lemke, who interprets Vygotsky from an explicitly post modern standpoint,<sup>2</sup> adopts the former alternative: 'Despite the optimism that Lev Vygotsky undoubtedly shared with his times, I hope that he did not believe that abstract symbolic formulations were the highest goal of meaning-making' (Lemke, J. 1999, p. 91).

Like Lemke, Wertsch is concerned with what he sees as ambivalence in Vygotsky's writings. He presents Vygotsky as an Enlightenment Rationalist who 'embraced human rationality as the *telos* of human development (Wertsch, 1996, p.25) adding that 'as a Marxist he also viewed rationality as an essential *tool* for constructing a centrally planned economy and state'.<sup>3</sup> [*Italic added*] But he believes that Vygotsky's theory of sociogenesis can be detached from what he construes as the instrumental aspect of Vygotsky's ideas. One of the main objects of criticism in this thesis is the idea of reason as a tool. The thesis develops this criticism by exploring the meaning of rationality for Vygotsky; arguing that his work forms a coherent unity; exposing the influences on Vygotsky's work of German idealist philosophy; and showing that Vygotsky's

---

<sup>2</sup> '...post-modern theorists are mostly united by what we...reject from modernism, and unanimously by our rejection of arguments for universally valid 'master narratives', meta-theories or discourses of any sort that aspire to set the terms of the conversation for anyone else' (Lemke, 1999, p. 91).

<sup>3</sup> It is revealing that Wertsch views Vygotsky's use of rationality as a tool. This immediately sets up the discussion about Vygotsky's emphasis on abstract rationality in a way which supports Wertsch's reading. To see rationality as a tool is to separate it off from the world and then suggest its artificial application. This is at odds with the reading of Vygotsky that this thesis develops.

understanding of rationality was far more sophisticated than the instrumental and decontextualised concept of reason attributed to him.

The claim that Vygotsky's work is coloured by its period can of course be turned against those who make it, and the argument that his embrace of universal reason is simply an expression of modernism can be met with the rejoinder that its rejection is an equally simple expression of post-modernism. Certainly the impetus to disengage from universalising reason emerged in the context of research conducted in the milieu of multiculturalism as a concern to do justice to the variety and legitimacy of human response and creativity, particularly in the case of American schooling. It also drew inspiration from anthropological critiques of colonialism. But what is more important than historical name-calling is the point that the validation of the multiple ways in which individuals make meaning through their activities, leads to exactly the same sort of determinism believed inherent in the idea of universal reason.<sup>4</sup> The idea that an individual's thought processes are directly and causally the result of the context that provides their genesis, is a mirror image of the determinism in Stalinist practice which Wertsch, for example, opposes so strongly. In contrast to Wertsch's conflation of Marxism and Soviet practice, Joravsky argues that Vygotsky looked to Marx rather than Stalinist reductionism for inspiration. Contrasting the difference between, for example, Marx's aesthetic theory which saw 'young Marx... ask[ing] the same question about the persistent appeal of Greek classics that he [Vygotsky] was asking about *Hamlet* [- h]ow could it be that beautiful works of a slave owning society are still beautiful in a capitalist society and will be under socialism' (Joravsky, 1989, pp 256-257), and the crude base-superstructure metaphors which were adopted as orthodox Marxism by the Third International, Joravsky challenges the ground on which Wertsch levels his charges of instrumentalism against Vygotsky. Universalising rationality comes under attack by those for whom the most critical dimension of the constitution of thought is context.

---

<sup>4</sup> This is due to the unproblematic use in explanation of the same relation critiqued in the case of abstract reason and the assumption of the causal character of local explanations.

This chapter examines the notion of context as it is counterposed to *decontextualised* rationality. It is important to note that much of the literature on Vygotsky has developed in relation to issues raised by schooling and inevitably, where what is uppermost in recruiting ideas from Vygotsky is change and intentional development in schooling, this has affected the way in which arguments and research projects have been constructed. Once the idea that intellect is developed rather than inherited is applied to educational systems, the failures of schooling cannot be blamed on the quality of students; and responsibility falls on those involved in curriculum construction, pedagogical design, the practice of educating and resourcing. The fact that much of the work which makes use of Vygotsky addresses the failures of schooling means that many of the arguments it develops cannot be separated from the current poverty of practice of mass schooling. Schooling of course is a major item of State and welfare expenditure and as such is inextricably linked to the political agenda of the State, complicating matters further.

## ***2.2 Theorising the institutional***

The different agendas within which particular questions are raised has encouraged the variety of readings of Vygotsky. In their effort to understand the work of Vygotsky in its complexity and cultural-historical context, Jaan Valsiner and Rene van der Veer note the ‘various myths circulating among the fascinated followers of that interesting scholar’ (Valsiner, and Van der Veer, 2000, p. ix). My concern here is the claim that for Vygotsky rationality was decontextualised, but first it is necessary to understand the background against which decontextualisation is construed in various commentaries, firstly in the work on situated cognition, and secondly in the theorisation of context.

The Vygotskian field of research raises crucial questions about aspects of cognition which are not covered in cognitivist approaches. The idea that mind is generated and sustained externally opens up a whole area of enquiry about the ways in which cognitive achievement is made collaboratively and through the

medium of external artifacts. The quest to specify causes and effects within this field is compelling since one of its driving forces is the pressure to operationalise theory for development and change<sup>5</sup>.

A key demand of contemporary Vygotskian research has been to fill what is considered a gap in Vygotsky's original project; namely, the specific mechanisms and relation to context through which the sociogenesis of mind takes place:

A complete account of the organization of human cognitive activity, manifested in a task carried out on either the individual or the social level, must go beyond narrowly defined psychological phenomena and consider the forces that create the context in which human cognition is defined and required to operate at the level of societal and cultural organisation.

(Wertsch, Minick and Arns, 1984, p. 171)

The fact that Vygotsky saw language as a 'generalised semiotic system' rather than 'a multitude of speech genres and semiotic devices that are tightly linked with particular institutions and...social practices' (Forman, Minick, and Stone, 1993, p. 6) is viewed as a limitation of his work. According to Cole 'One cannot develop a viable sociocultural conception of human development without looking carefully at the way...institutions develop, the way they are linked with one another, and the way human social life is organized within them' (Cole, 1996, p.6).

Wertsch, Tulviste and Hagstrom criticise Vygotsky for limiting his analysis of the relationship between inter- and intra-mental functioning to small groups, arguing that 'he did relatively little to specify how intermental functioning and mediational means fit into a broader framework of sociocultural processes' (Wertsch, Tulviste and Hagstrom, 1993, p.343). For them the absence of an approach that accounts for the causal role of contextual

---

<sup>5</sup> The relationship between policy and developmental change is not transparent as it is often assumed. The relationship between the intention to develop something and its own momentum of development is not isomorphic. See Cowen and Shenton (1996).



elements in the development of specific modes of mind is evidence of universalism, and this is viewed in a negative light:

...we think it is essential to recognise that, in isolation, a concern with this level of social process suggests a kind of universalism that is antithetical to the argument for social situatedness that Vygotsky himself was pursuing. This is because it fails to specify any reason to expect semiotically mediated intermental functioning to vary as a function of cultural, historical, and institutional setting

(Wertsch *et al*, 1993, p. 343)

Wertsch *et al.* go beyond theorising the institutional to demanding the theorisation of some concrete mechanism: 'In order to avoid this shortcoming [i.e. a lack of such mechanism] a sociocultural approach must posit some concrete mechanism for connecting cultural, historical, and institutional processes with mediated intermental and intramental processes' (Wertsch *et al*, 1993, p. 343).

In a more recent article Hatano and Wertsch note the alternative to 'some form of simple, mechanistic transmission' (Hatano and Wertsch, 2001, p. 79). Nevertheless they run into the difficulty of finding explanation of the means laid down by human activity in facilitating and sustaining mental processes, which resist a reductive image of mind that cannot be distinguished from a simply mechanical response. There are grounds for believing that the concept of representation implicit in their analysis of cultural tools leads to precisely the type of 'mechanist transmission' from which they seek to distance themselves. Take the following sentence: 'This knowledge or system of representation can be regarded as a form of culture in mind, something constituted through participation in practice' (Hatano and Wertsch, 2001, p. 79). The sentence is revealing in two closely connected ways. The first involves the equation of knowledge with a system of representation; the second, the idea that this knowledge or system of representation or a form of culture in mind is constituted through participation in practice. Both these themes are discussed in Chapter 3 later. For the moment our immediate concern is with anticipations of these lines of argument in the history of Vygotskian dispute and research. Before developing this idea it is necessary to be clear about different

interpretations of Vygotsky's work and the different assessments of what it most profitably leads to, being careful to note that the same terms have different meanings for different branches of Vygotskian research. For instance, to contemporary American scholars the institutional framework does not mean what it meant to one of body thought in the 1930s, namely historical and class background (Van der Veer, 2000). At the same time, there were scholars in the 1920s who under the rubric of Marxism would have accepted the arguments put forward by contemporary scholars as non-or even anti-Marxist claims. The pattern is confused and confusing. Hence it is often necessary when using a term, to qualify its meaning even when it appears self-evident.

As noted already, Vygotsky has been accused of neglecting the institutional framework in favour of the semiotic system. This focus on semiotic system as opposed to a more specific account of the relationships between institutions, social practices and mind has a deep history. It is not by chance that two expressions, 'cultural-historical' and 'socio-cultural' characterise Vygotskian research.<sup>6</sup> The differences between these expressions indicate different traditions; the former stressing the importance of the historical whereas the latter is 'contextual' in its approach.

### ***2.3 The historical background***

Wertsch sketches the rationale for using distinct expressions to characterise post-Vygotskian research. It is important to appreciate the different traditions in which the distinct expressions arose and the extent to which the interpretation of the cultural historical tradition has been influenced by the experience of Stalinism. It is telling that Wertsch suggests that the tradition of sociocultural research derives from Boas, his students Sapir and Whorf,<sup>7</sup> and

---

<sup>6</sup> The distinction between the two phrases has been considered sufficiently important to warrant two separate international research organisations which have only recently merged (<http://www.iscar.org/history/>).

<sup>7</sup> The influence of Whorf is significant due to his emphasis on the *shaping* power of language and the relativism it entails: 'human minds are profoundly shaped and altered by the public

from anthropology<sup>8</sup>. It is this tradition which proved so influential for the criticism of “evolutionism” and the assumptions of ‘psychic unity’ human kind made in anthropology. It is this characterisation of “evolutionism”, that is a view of history as universal human progress, which Wertsch claims to find in Vygotsky’s work and which he discounts as the outcome of his philosophic commitment to the Enlightenment. Of the tradition stemming from Vygotsky’s Russian followers, if not Vygotsky himself, Wertsch writes:

[it] assumed a notion of culture that is clearly in line with universalistic assumptions about the psychic unity of human kind and evolutionist claims associated with these assumptions. ...the evolutionist assumptions indexed by the term ‘sociohistorical’ and ‘cultural-historical’ are one place where most authors in this volume part ways with Vygotsky’s followers, if not Vygotsky himself. It is for this reason that we prefer the term ‘sociocultural’.

(Wertsch, del Rio, and Alvarez, 1995, p. 10).

This passage illustrates two reasons why Wertsch wishes to keep the terms ‘socio-cultural’ and ‘cultural-historical’ distinct - a rejection of what he and other contemporary commentators perceive of as ‘evolutionism’ and, associated with it, a rejection of the ‘psychic unity of mankind’. Associated with the reaction against any suggestion of ‘psychic unity’ is a distancing of mind from a universal notion. However, there are problems with understanding exactly what ‘universal’ means here. The issue of what ‘psychic unity’ might refer to in a Vygotskian frame is addressed in Chapters 5 and 6 later where it is argued that the distinctive feature of human beings is their particular way of ‘experiencing’ the world via second nature. It is to that (experiencing the world via second nature) that the claim of universalism is attached.

Within the field of research under consideration, much of the terminology is under specified and carries the historical baggage of political events, particularly the history of Marxism and the various practices it was used

---

languages we come to speak’. Clark notes the relativism implicated in adopting Whorf’s position (Clark, *Magic Words*, web page accessed 10/11/2002).

<sup>8</sup> Anthropological literature has been important for debates about the nature of rationality as an influential strand in anthropology has argued for a relativist approach to culture. Wertsch recognizes that Vygotsky would be at odds with such relativist positions.

to justify. In addition to the term ‘universal’, others such as ‘evolutionism’ inform consideration of Vygotsky’s work and the negative connotations associated with them are illustrated by the ambivalence of Wertsch’s attempt to position Vygotsky. The issue of development and history is one such area where politically positioned conceptions and terminology inform analysis. Despite noting Scribner’s argument against a crude caricature of Vygotsky’s understanding of history as recapitulationist, Wertsch *et al* claim that Vygotsky’s work with Luria on ‘primitive thinking ...[made] strong assumptions about universal rationality and progress’ (Wertsch, del Rio and Alvarez, 1995, p. 8). Although Wertsch et al. acknowledge that ‘Vygotsky seemed to recognise historical processes other than those that fall under the heading of universal human progress’ (Wertsch, del Rio and Alvarez, 1995, p. 8). Scribner argues that Vygotsky’s conception of history was sophisticated and that Vygotsky argued ‘only “sloth”...would assimilate his theory to recapitulationist or parallelist positions’ (Scribner, 1985, p.138). Wertsch *et al* also recognise that for Vygotsky in some respects as far as the view that ‘primitive languages were viewed as simpler or less adequate in all ways...precisely the opposite was being argued’ (Wertsch, del Rio and Alvarez, 1995, p. 9).

Vygotsky’s comment that only a form of intellectual sloth could lead a commentator to reduce his approach to a simplistic notion of development indicates that he was working towards a more complex view than the caricature that align his work with what became Soviet practice. This more complex view put him at odds with his colleagues and followers who split to form the Kharkov school. In relation to Vygotsky’s followers Kozulin notes that:

The Kharkovites solved the problem of the relation between consciousness and activity in the following way: ‘The development of the consciousness of a child occurs as a result of the development of the system of psychological operations, which, in their turn, are determined by the actual relations between a child and reality.’ This insistence on “the actual relations of reality” became a major point of disagreement between the Kharkovites and Vygotsky.

(Kozulin, 1986, p. xlv-xlv)<sup>9</sup>

---

<sup>9</sup> The quoted passage in the extract from Kozulin is from Leontiev (A.N. Leontiev, 1935).

Kozulin understands that the split of the Kharkov school which comprised most of Vygotsky's followers, necessarily in the context of the Soviet Union, has specific consequences. As he put it: 'the thesis of "actual relations with reality" fitted the Soviet dialectical materialist credo of the 1930s much better than Vygotsky's more complex cultural-historical model'<sup>10</sup> (Kozulin, 1986, p. xlv). The members of the Kharkov school of Soviet colleagues and followers of Vygotsky (Leontiev, Luria, and Zaporozhets) argued that 'activity' should be used as the basic analytic unit in psychology and there was debate in the Soviet Union over whether this extended or distorted Vygotsky's basic ideas (Wertsch, Minick and Arns, 1984, p. 154).

Kozulin alerts us to the possibility that there might be something more in what Vygotsky was working towards than what was developed in the work of his followers who were compromised by the difficult political conditions of Stalinism. Significantly, the attempt to work out the *mechanics* of the relationship between the historical, social and cultural determinations of mind took place against the background of a split in Vygotskian research conditioned by political events in the Soviet Union. In the early 1930s Leont'ev and many others loosened their connection with Vygotsky and moved from Moscow to Karkhov to create a scientific school and to develop the 'activity approach'. This change of focus from the consciousness of the cultural-historical school of Vygotsky towards a more 'materialist' approach occurred in a climate of terror that had become life-threatening (Zinchenko, 1995, p.39). The issue which more than any other divided these schools was between the problem of consciousness and the problem of 'object-orientedness, in both internal and external mental activity' (Zinchenko, 1995, p.41). The Kharkov school moved from a focus on the problem of consciousness to activity. The split occurred during a period of intense political pressure and when some of Vygotsky's work had already been banned.

---

<sup>10</sup> However, Kozulin notes that the ideological benefits of Leontiev's revisionism did have serious scientific underpinnings, but that 'Ideological cautiousness, honest scientific agreement, and also a misunderstanding of Vygotsky's ideas – all were intricately interwoven in the phenomenon that later became known as Leontiev's theory of activity' (Kozulin, 1986, p. xlv).

A sharp distinction was drawn between what was thought of as *materialism* and *idealism*. According to Zinchenko:

The psychological theory of activity was concerned with the problem of real (i.e. concrete) tools and objects that humans, also in accordance with Marxism, place between themselves and nature. In other words what makes a human human? Symbol or thing? The crucifix or the hammer and sickle? If it is the symbol, then this is idealism. If it is the thing, then this is materialism or perhaps dialectical materialism.

(Zinchenko, 1995 p. 44)

This stark separation of material and ideal played a central role in the failure to appreciate aspects of Vygotsky's work in the Soviet Union. But of particular relevance here is Zinchenko's awareness of the reductive and dehumanising implication of accounting for mind solely in terms of object-orientated activity. He illustrates the implication of viewing what it is to be human as the outcome of a solely mechanical and material process by referring to the way in which research 'analogous to the theory of activity' was carried out by German and Italian totalitarian regimes. Intrinsic to the research was an aim to develop the kind of conformist personality which would acquiesce in the push to collectivisation by such regimes. The idea of activity was reduced to the notion that the 'human being was nothing more than a ... functional organ that served as a means for carrying out activity that had been ordered (Zinchenko, 1995, p. 51). Zinchenko emphasises the extent to which communist ideology pushed towards the removal of the subject from the understanding of activity. He quotes Marx to show that such an ideology was alien to Marx's own view: 'We have fallen into a difficult position owing to the fact that we examined persons only as personified categories and not as individuals' (Marx cited by Zinchenko, 1995 p. 51). Zinchenko's appreciation of the potential determinism presented by a mechanical 'materialist' account of mind is still at issue today though in the different area of research concerned with bringing the situated nature of cognition to our attention and contesting the idea of abstract rationality.

## 2.4 Situated cognition

Abstraction and decontextualised knowledge have been brought to the fore by work on the situated character of cognition. It is possible, with the focus on cognition as situated, for the issue of abstraction to be dissolved away and for all knowledge to be understood solely as situated. Lave notes that:

Usually contextualised learning is not discussed alone, but as part of a duality of which decontextualised learning forms the other half. But the theories discussed in the previous section [and in this Lave includes activity theory] are intended to apply broadly to *all* social practices. They claim that there is no decontextualised social practice. Such a claim commits us to explaining what has often been taken to be 'decontextualised knowledge' or 'decontextualised learning as contextualised social practices.

(Lave, 1996, p. 22)

Situated cognitivists address a significant issue raised by Vygotskian research, namely that mind cannot be conceived as an attribute of an individual in isolation from the world. In opposition to the view of mind as the attribute of isolated individuals, situated cognitivists argue that thinking is conceived of differently once the sociality of thought is taken properly into account. Their aim is to decentre cognition. This would resolve the learning paradox of explaining how we can come to know anything that we don't already know, by removing the dualism of thought acting on world and replacing it with 'activity in context'. The work of Lave and Wenger counts as an important attempt to change the focus of learning from a cognitivist type towards a focus on *communities of practice* which emphasises the situated character of knowledge production and reproduction. They see their move to decentre the analysis of learning as one which 'open[s] an alternative approach to the dichotomy, ...between learning by doing and learning by abstraction' (Lave and Wenger, 1991 p. 105). For Lave and Wenger, this is a part of 'a folk epistemology of dichotomies, for instance between "abstract" and "concrete" knowledge' (Lave and Wenger, 1991 p. 104). They aim to dissociate learning from pedagogical intention and to understand situated learning activity as 'legitimate peripheral

participation' in communities of practice. From this standpoint learning can be viewed as a less conscious or artificial process constructed via a specific pedagogical form and, as such, more naturalistically as an event arising via changes in activity within a specific domain of practice. Lave argues it is difficult:

to avoid the conclusion that learning is ubiquitous in ongoing activity though often unrecognised as such. Situated activity always involves changes in knowledge and action...and 'changes in knowledge and action' are central to what we mean by 'learning'. ...We have come to the conclusion, ...that there is no such thing as 'learning' sui generis, but only changing participation in the culturally designed settings of everyday life.

(Lave, J. 1996, p.6)

Two points follow from Lave's view: what has previously been seen as decontextualised is considered as just another form of contextualised knowledge; and learning is viewed as a more naturalised less artificial process: 'Conventional theories of learning and schooling appeal to the decontextualised character of some knowledge ...whereas in a theory of situated activity, "decontextualised learning activity" is a contradiction in terms' (Lave, J. 1996, p.6).

The view that takes all learning to be contextualised attempts to eradicate the dualism of a mind acting on a world by putting in place of the dualism, a reconceptualisation of knowledge. The resulting view of knowledge as the outcome of situated practice lends itself to an anti-realist stance even in the conception of science:

The idea of learning as cognitive acquisition – whether of facts, knowledge, problem-solving strategies, or metacognitive skills – seems to dissolve when learning is conceived of as the construction of present versions of past experience for several persons acting together. ... And when scientific practice is viewed as just another everyday practice ...it is clear that theories of 'situated activity' provide different perspectives on 'learning' and its 'contexts.'

(Lave, 1996, p. 8)



Although the view of scientific practice as ‘just another everyday practice’ implicates scientific knowledge in the constructive activity of individuals in contexts, the relativisation of scientific knowledge does not automatically follow. Attention to the way in which cognition is situated and formed by a context allows different stances towards realism. In clarifying different viewpoints on context as situated activity, Lave indicates two different positions found in contextual approaches. She paints one approach as holding to a world out there, independent of human activity; and the second, ‘social constructionist’ approach, as a far more limited conception of the context in which humans engage in activity. In the first case world history is the context in which human activity takes place but in the second case, activity creates its own context since inter-subjectivity serves as the basis of what the world means to humans:

One argues that the central theoretical relation is historically constituted between persons engaged in socioculturally constructed activity and the world in which they are engaged. Activity theory is a representative of such a theoretical position. The other focuses on the construction of the world in social interaction; this leads to the view that activity is its own context. Here the central theoretical relation is the intersubjective relation among co-participants in social interaction. This derives from a tradition of phenomenological social theory.<sup>11</sup>

(Lave, 1996, p.17)

Lave is well aware that the view of context developed within the phenomenological tradition can lead to the ‘eras[ing] of historical processes, both large and small’ (Lave, 1996, p. 20). She explains:

The major difficulty of phenomenological and activity theory in the eyes of others will be plain: Those who start with the views that social activity is its own context dispute claims that objective social structures exist other than in social- interactional construction in situ. Activity theorists argue, on the other hand, that the concrete connectedness and meaning of activity cannot be accounted for by analysis of the immediate situation.

(Lave, 1996, p. 20)

---

<sup>11</sup> These viewpoints replicate the classic polarisation in sociology between agency and structure.

What is clear is that the impetus in this field to move from abstract knowledge towards a 'distributed form of knowledge production' raises key questions. The latter examines knowledge as distributed and sustained across a variety of artefacts, discourses and social practices in context. Of particular importance is the attempt to account for the mechanics of such a relation of different elements involved in the production of knowledge. This attempt involves questions concerning representation, affordance and cause and effect, all of which are under theorised at present. But more importantly it involves human freedom and agency to the extent that these should play a critical role in any proper consideration of these questions.

As the historical background to the field of Vygotskian studies illustrates, the question of freedom has been at issue in both the cultural-historical and activity theory traditions. The question of agency has remained particularly pertinent given the claims made for artificial intelligence. AI (Artificial Intelligence) researchers have also adopted a conception of cognition as emergent in an environment rather than programmable in advance. Wertsch, Tulviste and Hagstrom (1993) remark on how the use of computers to take over tasks formerly carried out by humans poses questions of whether computers are agents which can have consciousness. At the same time that commentators entertain the idea of an artificial intelligence on a par with human intelligence, the role of theory in facilitating thought and action is diminished in favour of *participation in a community of practice* as the way of learning. There is also a questionable disregard of the counter intuitive character of scientific knowledge and the value of the formal character of instruction. A further problem concerns the importance attached to consensus in the idea of truth/consensus warranted by a community/collective.

### ***2.5 Transfer problem and policy implication***

The issue of decontextualisation is posed most sharply by what is known as the transfer problem. In effect, once knowledge is understood as contextualised then the issue of application in different domains becomes critical. Once the

conception of mind and world has been radically rethought, first, in the way in which intellect is developed and has a sociogenetic origin; and second, through an approach to knowledge conceived as existing only in a process of human construction/intervention, a number of policy implications follow.<sup>12</sup> What is contested by writers concerned with the transfer problem is a view of knowledge delivered by an expert, to be acquired by the learner in a general form and then applied in a variety of specific circumstances. The idea of a universally applicable knowledge capable of being *transferred* across domains is rejected.

Kirshner and Whitson equate what is termed *decontextualised* knowledge with the idea that knowledge can be transferred across contexts i.e. with the idea that knowledge is not locally bound, but rather is tied to a specific form of pedagogic practice, i.e. a passive transmission mode of learning:

If abstract decontextualised knowledge is theorised to be the means by which people transfer learning from context to context, then schools will set their goal to provide as much of it as possible with the greatest possible efficiency. Thus, teaching becomes telling and learning becomes listening and memorizing.

(Kirshner and Whitson, 1997 p. viii)

The complications that surround the issue of decontextualisation can be seen by debates about how knowledge can be transferred from one domain and applied in another. Attempts have been made to overcome the polarised character of the discussion that has emerged around the transfer problem. An influential discussion in the literature was conducted between Anderson and Greeno. It relates to concerns over the value of what is described as propositional and abstract knowledge and the claim that this mode of representation (dressed up as universal knowledge) is the result of elite interests which fails to respond to the diversity of learners (Anderson, 1996).

---

<sup>12</sup> However, the coincidence between theories of situated cognition and education positions policy may be fortuitous, arising for example, from the need of welfare states to reduce the funding of mass schooling.

Greeno has argued that the polarisation of arguments about situativity results from the different usage of the same terms and from confusion over levels of analysis. Anderson, although not expressly rejecting the argument for situativity out of hand, offers examples of boundary crossing and successful applications of generic learning. Greeno responds that Anderson's argument sets up a straw man on the grounds that he (Anderson) is employing a cognitivist model. But this response of Greeno's neglects important issues. Namely by shifting attention to the communicative dimension of knowledge, the situative approach finds it difficult if not impossible to avoid a model which restricts understanding to cognitive states as the outcome of situated contexts.

Anderson remarks on the frequently cited example of Carraher, Carraher and Schliemann's (1985) account of Brazilian street children who can perform mathematics when making sales in the street but are unable to answer similar problems presented in a school context. The example is famously used by Lave for the more familiar purpose of criticising the failures of schools to offer learning that is of use to the learner (Lave, 1988, p. 149). The extent to which discussions of decontextualised knowledge are implicated in key education policy decisions is indicated by Anderson's critique of what he sees as Lave's value-laden interpretation:

The literature on situation-specificity of learning often comes with a value judgment about the merits of knowledge tied to a non-school context relative to school taught knowledge and an implied or expressed claim that school knowledge is not legitimate. Lave (1986, 1988, p.195) goes so far as to suggest that school-taught mathematics serves only to justify an arbitrary and unfair class structure.

(Anderson, 1996, p. 6)

Greeno takes issue with the way in which a cognitivist framework is used to support an argument which he suggests could equally well be read within a framework of situativity. So where Anderson cites evidence that 'it is not the case that learning is wholly tied to a specific context' (Greeno, 1997, p. 7), Greeno turns the point around to argue that on the contrary the findings can be read as 'supporting the view that activities in some situations include aspects of

practices that have been learned in different types of situations' (Greeno, 1997, p.7). The most important question here is whether the phenomenon which Greeno views as a case of discourse and Anderson a case of abstraction, is really one and the same.<sup>13</sup>

Greeno attempts to reconcile what appear to be contradictory positions by arguing that generality is conceptualised differently in the two perspectives. However, the situative understanding which he claims is capable of moving beyond context, presupposes common physical/empirical grounds between context – it is this common ground that makes possible a transfer from one context to another. As a result, Greeno ends up in a position close to Lave's and actually quotes her results that reasoning activities can reach mathematically correct conclusions without making significant use of the algorithms typically taught in school. And to underline the point he goes on to argue that 'if a goal of education is for students to reason successfully in their everyday activities outside of school, school mathematics programs that are limited to teaching algorithmic skills do not reach important aspects of those reasoning activities' (Greeno, 1997, p.7).

Greeno sees a problem with the terminology used in this area when he takes up what he terms a 'cognitivist position' on 'knowledge'. He argues that from within a situative framework the term 'knowing' is a better way of evoking a process than 'knowledge', and 'generality of knowing' is a better term than 'transfer of knowledge': "knowing" refers more appropriately to regular patterns in someone's participation in interactions with other people and with material and representational systems, and "generality of knowing" is a more accurate phrase than "transfer of knowledge" (Greeno 1997, p. 11). What is missing here is any sense of a transformative or creative role for the knower in transferring 'patterns of participation with people and objects' - what Greeno calls adaptive. The knower is able to appear knowledgeable in the new context by replicating patterns of activity as though the repeating of the shout 'Fire' is sufficient to be read as a *knowledge* of combustion on the part of the shouter.

---

<sup>13</sup> Walkerdine (1990) in her work on the learning of mathematics, goes as far as to suggest that what are understood as highly abstract cognitive activities may be seen a matter of discourse.

It may be the case that when the inadequacy of schooling is identified as failing to prepare learners for jobs, then the replication of 'patterns of participation' would be appropriate. However, from this point of view of schooling, learning is a reductive process that attempts to meet certain ends but not go beyond them. Such an instrumental view of schooling is evident in Greeno's argument; 'we need to take into account the kinds of activities in which we want students to learn to be successful, and develop learning environments in which they can develop their abilities to participate in certain kinds of practices that are important to them' (Greeno, 1997, p. 13).

Greeno takes issue over the significance to be attributed to the terms *specific* and *abstract*. For instance, when he refers to the transfer of knowledge between domains, the emphasis is not upon a concept of abstract knowledge that can be applied in different specific conditions but upon the generalisability of patterns of experience. As he puts it: 'It seems more likely that knowing how to use abstract representations can be a significant part of general knowing, but that knowing abstractions is neither sufficient nor necessary for generality' (Greeno, 1997, p. 13). The problem here centres on what is meant by 'knowing abstractions' or 'knowing how to use abstract representations'. Chapter 3 takes up the work of Brandom, who, building on Sellars, argues that knowing is never merely a matter of knowing a representation but always involves knowing the reasons that follow and the reasons that support a particular representation. A significant point to note here is Greeno's effectual identification of abstract knowledge and abstract *representation*<sup>14</sup> - as though the ability to understand and apply quadratic equations is the same as the capacity to reproduce them mechanically as a purely formal exercise, or, to use a recurring example, that the understanding of the significance of the shout of 'fire' by an adult is the same as the same cry made by an infant.<sup>15</sup>

---

<sup>14</sup> The question remains whether scientific theorems are 'representations' in this sense, or *generators* which are transferable.

<sup>15</sup> The identification of abstract knowledge with abstract representation or decontextualised knowledge in Greeno's account is in tune with the contemporary practice of mass schooling which he would of course criticise.

Greeno uses Searle's parable (1980) of the Chinese room to illustrate the poverty of mass education. However, although Greeno uses the parable to attack abstract knowledge, the purpose of Searle's parable is a different one of distinguishing between human and machine activity. The parable illustrates that a process of transmitting instructions does not require human understanding and that human activity is not reducible to that of a machine. For Greeno this parable is an illustration of the shortcoming of abstract knowledge, that is - in the case of mathematics - of the apprehension of formal rules and procedures without the pupil having understood their meaning. But what Greeno calls abstract knowledge is really only abstract representation, and his failure to distinguish the one from the other calls into question his general criticism of abstract knowledge. His case against abstract representation may be valid but this is not sufficient to justify its use as a critique of abstraction as a general practice.<sup>16</sup>

Within the field of Vygotskian research<sup>17</sup> there are other conceptions of knowledge than that of Greeno; there are those who do not believe that knowledge is inert merely because it is decontextualised and universal. For instance, the cultural-historical tradition emerging from the Soviet Union (particularly the work of Davydov and Hedegaard) stresses conscious instruction rather than tacit apprenticing. Teaching, according to this tradition, is not simply a matter of telling, but requires expertise and deep knowledge of

---

<sup>16</sup> Greeno compares the poverty of an approach to mathematics education which teaches formal rules and procedure without pupils understanding their meaning to Searle's (1980) parable of the Chinese Room (Greeno 1997, p.14). The example is used to criticise the view advanced by advocates of artificial intelligence, that by following rules, machines can transform strings of characters to produce a response that could have the same form as the answer that a human being could make. Searle, however, intended his example to be used to illustrate that meaning cannot exist for a machine.

<sup>17</sup> The debate between Greeno and Anderson shows how terminology is used in a variety of ways. The conflation of representation to abstractions makes them meaningless in application. The same understanding of abstraction as representation is present in Kirshner and Whitson leads to their claiming that an assumption about knowledge as decontextualised leads to a transmission approach to teaching, involving telling and memorizing (Kirshner and Whitson, 1997, p.12).

the subject.<sup>18</sup> This ‘deep knowledge’ is necessary for the teacher to be in a position to unpack and open up the genetic development of ideas and to provoke students into acquiring scientific concepts through a process that recapitulates that of their development. An appreciation of the depth of knowledge of the subject on the part of the teacher is necessary for pupils to acquire scientific concepts.

When Vygotsky talked of scientific concepts (as part of the content of school curricula), he did not believe that abstraction entailed decontextualised rationality in the sense of being totally separate from context. At stake here is the meaning to be attached to the term *context*. Even Lave and Wenger who refute any form of decontextualisation concede that what constitutes a community of practice need not be specifically geographical or temporal. For Vygotsky, however, concepts are only meaningful and hence concepts, when they comprise elements of a system of connections that is historically constituted. This is totally different from the shallow notion of concepts as representations criticised as part of the transmission mode of pedagogy found in formal schooling. Vygotsky was clear about the need to challenge the version of knowledge based on our senses (empiricist) where knowledge is inert and learnt passively. His conception of theory and concepts was certainly not one of correspondence or signification, in the sense of standing for something. Instead concepts are tools:

...with the help of the concept, we are able to penetrate through the external appearance of phenomena to penetrate into their essence, just as with the aid of a microscope, we disclose in a drop of water a complex and rich life, or the complex structure of the cell hidden from our eyes.

(Vygotsky, 1998, p. 54)

---

<sup>18</sup> The reference here to ‘knowledge of the subject’ does not equate with the conception of ‘subject knowledge’ currently laid down in British government prescriptions for teacher education. It is more akin to the concept of *Bildung* where a teacher works around a subject area in a number of ways that allow a deep and developmental grasp of issues and concepts. It certainly cannot be assumed to be present by the current criteria of a ‘good degree’, as research has indicated how passing examinations at degree level does not necessitate a proper grasp of a subject.



Vygotsky often cites Marx's claim that science would be unnecessary 'if the form of a manifestation and the essence of things coincided directly.' (Vygotsky, 1998, p. 54) He makes the anti-positivist claims that things cannot be understood independently of one another and that concepts do similar work to technologies such as microscopes:

For this reason thinking in concepts is the most adequate method of knowing reality because it penetrates into the internal essence of things, for the nature of things is disclosed not in direct contemplation of one single object or another, but in connections and relations that are manifested in movement and development of the object, and these connect it to the rest of reality. The internal connection of things is disclosed with the help of thinking in concepts, for to develop a concept of some object means to disclose a series of connections and relations of the object with the rest of reality, to include it in a complex system of phenomenon

(Vygotsky, 1998, p. 54)

Given this point of view, it would be difficult to believe that scientific concepts could be taught without the disclosing of their relationship to one another – what Brandom calls their inferential form (*see below*). Kirshner and Whitson may be correct in characterising the dominant form of pedagogy as 'transmission', however, it does not follow that this mode of pedagogic practice is the result of the particular type of (decontextualised) knowledge that they are criticising. A far more likely cause is the quantity and form of resources.

## ***2.6 Determination, conditioning or shaping?***

The advocates of situated cognition are not free of the dualism they oppose so strongly. As Kirshner and Whitson point out, many issues remain unresolved. One of these is the overly determinist conception of what it is to be human that arises from the attempt of post-Vygotskian researchers to work out the mechanics of cognition arising in activity. Kirshner and Whitson use Bourdieu's work as example of what they criticise, namely the discursive as ultimately reducible to something else such as class conditions or capital composition. They also claim that the same reductionism can be found in

Vygotsky's work, citing the often quoted passage in which he argues that functions in the child's development appear twice, first between people and then within the child: 'Social relations or relations among people genetically underlie all higher [mental] functions and their relationships' (Vygotsky, cited by Kirshner and Whitson, 1997, p. 8). Kirshner and Whitson's criticism of Vygotsky may or may not be well-grounded but the matter to note here is that it follows almost automatically from the suppositions of their own work. The logic of this claim centres on the replacement of the Cartesian ego with social conditions as an explanation for the development of thought, in other words a rejection of Cartesianism which actually retains its fundamental dualist structure.

The problems of determinism which were already present in classical sociological theory become far more serious with explanations of human activity in terms of enculturation through a community of practice. In sociology, where enculturation is explained in terms of socialisation rather than activity, criticisms were levelled against what were taken to be overly determinist characterisations of how humans become fully human. Denis Wrong's commentary *The Oversocialised Conception of Man in Modern Sociology* offers a particularly clear example of how sociology, by virtue of its attempt to explain socialisation as a causal and constitutive process, was forced into a highly deterministic conception of what it is to be human. Wrong challenged the view developed by Parsons who, drawing on Durkheim, argued in *The Structure of Social Action* that social rules are constituted by the actors' ends and do not arise externally. Wrong discussed the variety of ways in which internalisation has been equated by sociologists to 'learning' or 'habit formation'. He argued that although Freud became influential for sociology (and Parsons) for the explanation of the internalization of social norms, none of these ways has any real sense of a Freudian notion of inner conflict and tension between powerful impulses (Wrong, D. 1969, p. 125). For Freud, Wrong notes, internalisation means a norm has been introjected to become part of the superego, so that a person suffers guilt-feelings if he fails to live up to it. Internalisation does not of course mean that a person will actually live up to the norm. Wrong's methodological claim is that the psychoanalytic approach which

admits tensions and repression and sees 'inner life as a battle field of conflicting motives' (Wrong, D. 1969, p.125), is less determinist than the sociological approach.

Now, this determinism which Wrong criticises in sociology is carried further by writers such as Lave who take as their brief not simply the explanation of behaviour but also the apprehension at least by implication of the nature of mind. Enculturation for Lave entails the development of mind as being in context. For Lave 'Understanding-in-practice looks like a more powerful source of enculturation than [socialisation through] the pedagogical efforts of caregivers and teachers' (Lave, 1997, p. 32). Citing, Ortner's (1984) argument, Lave believes that the concept of socialisation has been replaced by the claim that everyday practices 'embody within themselves, the fundamental notions of temporal, spatial and social ordering that underlie and organise the social system as a whole (Ortner cited by Lave, 1997, p. 32). However, with the incorporation of psychology in the work of Lave and Wenger, there is potentially an even deeper level of 'oversocialisation' since *learning-in-practice* builds higher mental functions and modes of identity and is not limited to one aspect of a person's activity. Activity in a social context is a form of apprenticeship, albeit one involving conflict though this is not theorised. However, in so far as Wrong's criticism deals with methodology it covers Lave's position as well.<sup>19</sup>

Nardi<sup>20</sup> shows similar concern about the potentially determinate nature of explanation implicit in activity theory when she raises questions about the limitations of activity theory, with its emphasis on object-orientated action, and the reduction of activity to three levels. According to Nardi: '[a]ctivity theory excels at describing object-related activity but says little about how we are

---

<sup>19</sup> 'If our assumptions are left implicit, we will inevitably presuppose a view of man that is tailor made to our special needs' (Wrong, D., 1969, p.131). The underlying argument informing this thesis is that by not making underlying assumptions explicit, theoretical positions do not deal with their own internal contradictions.

<sup>20</sup> Nardi works within the activity theory field and utilizes activity theory to address issues of design and pedagogy in the application of new technologies.

diverted, distracted, interrupted, seduced away from our objects, subject to serendipity and surprise' (Nardi, B. 1997, p. 377). It is not by chance that she draws on a passage from *Middlemarch* by George Eliot to illustrate the complexity of consciousness. Eliot was greatly influenced by Spinoza and was the first to translate his *Ethics* into English. In the passage Nardi selects, the protagonist is thinking of three totally different things at the same time as well as experiencing 'a powerful emotional response that reverberates through his body to his very fingertips. Indeed Eliot avers that "every molecule in his body" is affected, thereby asserting the primacy of the body in our activity, our responses to events' (Nardi, B. 1997, p. 377). Nardi seeks to emphasise the ambivalence and contradictory variables that the protagonist is facing at a decisive moment.

For Wertsch *et al* the issue of determinism comes up in the role played by artefacts within sociocultural explanations. For example, they write:

While the cultural tools or artifacts involved in mediation, certainly play a central role in *shaping* they do not *determine* or *cause* action in some kind of static, mechanistic way. ...such cultural tools are powerless to do anything. They can have their impact only when individuals *use* them.

(Wertsch, del Rio and Alvarez, 1995, p. 22)

But at the same time as they resist determinist explanation, Wertsch *et al* seek to credit cultural tools with the capacity to constrain our actions; 'We can never "speak from nowhere" given that we speak (or more broadly act) only by invoking mediational means that are available in the "cultural tool kit" provided by the sociocultural setting in which we operate (Wertsch, 1991)' (Wertsch, del Rio and Alvarez, 1995, p.25). For Wertsch the social character of mind requires a conception of agency extending beyond the individual. This agency can only be understood if the mediational means that are party to it are seen as both products and sources of social/cultural contexts.

Wertsch, Tulviste and Hagstrom argue in favour of the sociocultural situatedness of agency: 'The line of argument we pursue is that the mediational means that shape human mental functioning reflect and are fundamentally

involved in creating and maintaining cultural, historical and institutional contexts'<sup>21</sup> (Wertsch, Tulviste and Hagstrom, 1993, p. 344). They present this claim as the alternative to the poverty of a:

typically modern notion of freedom, as the ability to act on one's own, without outside interference or subordination to outside authority (Taylor, 1985, p.5) which underlies psychology and limits the possibility of dealing adequately with how sociocultural forces shape or constitute individuals.

(Wertsch, Tulviste and Hagstrom, 1993, p. 338)

As we shall see in Chapter 5, the crucial issue here, is that Wertsch *et al.* are responding to the conception of human freedom as acting without 'subordination to outside authority'. In rejecting such a view of free will, it is not unexpected that, in an effort to recognise that human will does not work in conditions free of constraint, they turn to crediting cultural tools with a form of agency. However, as we see below, Spinoza, who was particularly important for Vygotsky, was able to acknowledge constraint on human activity yet see freedom as an altered position within this restraint. Thus the attempt theoretically to credit mediational means with the capacity to shape may press its case too far if it overlooks the distinctive feature of free human beings. Wertsch *et al.* are fully aware that there is a problem of implicit assumptions in psychology and they cite Joravsky approvingly for lamenting the neglect of fundamental questions: 'Sophisticated people have learned to evade questions that seemed urgent a century ago' (Wertsch, *et al.* 1993, p. 336). But while they recognise the need to reject the Cartesian conception of the individual, their theorisation of agency implicitly retains Taylor's formulation of an individual with will. But instead of exploring the concept of freedom they restrict themselves to examining instances where freedom appears to be curtailed by mediational means. In a sense it can be said that, using Batesonian language, they embrace a position that 'extends it [will] beyond the skin' to include

---

<sup>21</sup> In a footnote Wertsch *et al.* attempt to clarify their conception of the power of agency attributable to mediating tools which is inextricable from utilisation by individuals: 'In our view, the psychological tools that mediate thinking, memory, and other mental functions are typically shaped strongly by forces distinct from the dictates of mental functioning and for this reason import "foreign" structures and processes into this functioning' (Wertsch, Tulviste, & Hagstrom, 1993, p. 353).

mediational means. The argument of Wertsch *et al.* is that the boundary of agency must be extended to include an 'irreducible aggregate of individual (or individuals in intermental functioning) together with mediational means' (Wertsch, Tulviste and Hagstrom, 1993, p. 341).<sup>22</sup> Wertsch and his co-authors argue that the boundary of agency 'extends beyond the skin'. For this argument they find further support in Bakhtin's notion of speech genres.

Wertsch *et al.* recruit Bakhtin's notion of speech genres, which they liken to Bernstein's notion of code, to support their claim of a determinate relation between particular social forms and specific genres. Citing Holquist and Emerson, (Holquist and Emerson, 1981, p. 431) they claim that social languages<sup>23</sup> are 'peculiar to a specific substratum of society... within a given social system at a given time' (Wertsch *et al.* 1993, p. 346). Drawing first on Bakhtin's distinction between a social language and a national language and secondly, upon Bakhtin's view that when a word is used it is neither neutral nor impersonal, but 'rather exists in other people's mouths, in other people's concrete contexts, serving other people's intentions' (Wertsch, *et al.* 1993, p. 345) they claim for words a determining effect on the intramental. Bakhtin called this 'ventriloquism' and Wertsch *et al.* see it as a special kind of dialogicality, which they term 'double voicedness'.

---

<sup>22</sup> '...the irreducible unit of analysis for agency is "individual(s) operating with mediational means"' and for convenience Wertsch *et al.* shorten this to 'mediated agency' (Wertsch, Tulviste and Hagstrom, 1993, p. 342).

<sup>23</sup> Wertsch *et al.* view a language as a mediational means: 'The notion of social language is useful because it is a mediational means that is inherently tied to a sociocultural setting' (Wertsch, Tulviste, and Hagstrom, 1993, p. 346).

The importance of mediational means in forming and shaping the means of thought is carried further in Tulviste's work. Wertsch and his co-authors cite Tulviste in support of their argument about the cultural domain as the context of activity and as a factor of crucial importance for specific modes of thinking:

Tulviste (1975, 1987, 1988) has argued that various modes of thinking correspond functionally to an array of "cultural activities" and are created by them. Each cultural activity (e.g. science, arts, everyday life, religion) poses specific tasks that can be solved only by using the corresponding modes of thinking. For instance, practical thinking or common sense is not sufficient to solve scientific tasks, whereas scientific thinking is of little use when writing a poem or a sermon or when solving most everyday problems.'

(Wertsch, Tulviste and Hagstrom, 1993, p. 351)

This degree of specialism in the modes of thought is viewed by the authors as antithetical to universal rationality since 'mental functioning and the mediational means it employs are viewed as being domain-specific' (Wertsch, Tulviste and Hagstrom, 1993, p. 351). The point is put most strongly when they write 'In an important sense, individuals can be no more intelligent than the psychological tools they employ' (Wertsch, Tulviste and Hagstrom, 1993, p. 352). This statement is particularly significant for the degree of determination and power it attributes to mediational means – sufficient to affect potential intelligence. Great weight is placed on the mediational means while consideration of the implicit assumption about the nature of agency and freedom is neglected.<sup>24</sup> The impetus to explore the extent of the contribution of mediational means is a powerful one. As Wertsch points out, the approach used in post-Vygotskian research is quite distinct from mainstream cognitive psychology and opens up a completely new way of thinking about mind. But it is the implicit assumptions that Joravsky comments upon which are the key to development in this field.

---

<sup>24</sup> Wertsch *et al.* argue that it is not the individual but 'individuals-operating with-mediational means, who define the basic unit of agency' (Wertsch, Tulviste and Hagstrom, 1993, p. 352).

The next chapter begins to examine these implicit assumptions by exploring the dualism implicit in the representational paradigm underlying post-Vygotskian and other areas of research. This is presented within the broader frame of constructivism and schooling since it is in relation to these that reason and universal rationality are brought into question.



## Chapter 3

### Constructivism and Schooling

To put the argument about constructivism, schooling and reason which follows in context it is necessary to recall that the central theme of this thesis is the importance for Vygotsky of the tradition of philosophy which is associated with Spinoza, Hegel and Marx. Neglect of this tradition not only ignores critical elements in the genesis and development of Vygotsky's thought, but even more importantly it subtracts from the contemporary relevance of this thought and diminishes the contribution it can make to current educational questions. It is, of course, possible to abstract certain themes from Vygotsky and assimilate them into a frame of reference which is not his own, and this approach is not to be dismissed out of hand. At the same time the gains that this approach makes available do not compensate for the losses. The most important of these losses all derive directly, or at one remove, from the understanding of reason.

In connection with the question of reason, difficulties multiply and they come from all sides. It would be convenient if reason in the philosophic tradition from which Vygotsky drew his inspiration could be characterised as abstract reason and the position which contemporary commentators adopt could in turn be characterised as rejection of this conception of reason. But as Vygotsky never entertained an idea of abstract reason and his modern commentators do not reject reason out of hand, such a clear demarcation is wrong on both sides. It is implications, fine distinctions and variations of emphasis that count here. Moreover, the complications are compounded by the fact that the issue with which this thesis is concerned is not one that directly concerns the authors considered here. These authors touch upon the question of reason, but only in connection with other questions and the argument here has to rely upon implications and deductions. Clearly the authors referred to are more aware of the complex issues than the schematization used here suggests. Referring to Gadamer, Joseph Dunne (1993) stressed the merits of 'conversation' and it is this approach, rather than one of critique, that is attempted here.

What then is the topic of conversation? What exactly is the issue and why is it important?

### ***3.1 Representation as a paradigm***

The theme explored here is representation as a paradigm<sup>25</sup> and the consequences of this paradigm for the theorization of sociogenesis. The term representation<sup>26</sup> conveys too many meanings to be self-evidently clear. My point is that much of the post-Vygotskian research field inhabits this representationalist paradigm and that this has theoretical consequences for treatment of underlying issues including freedom and agency. The problem of attempting to use the idea of a paradigm of representationalism to frame an argument about how sociogenetic explanations might develop and to sound a note of caution about forms of explanation, is not straightforward. At first sight it would seem that such a paradigm is completely at odds with the position taken by the authors discussed here. Whereas much post-Vygotskian research implicitly takes what Brandom defines as the representationalist paradigm to be a correspondence view of truth - that is mirror view of nature or an idea that representations reflect the external world - which they reject out of hand, my argument is concerned with a different aspect of the paradigm, namely its implicit dualism.

What are the most important aspects of the 'representationalist paradigm'? To put the matter simply it refers to a particular epistemological position involving assumptions about the human condition and the relation of mind to world. The criticism of this paradigm is that it forecloses certain possibilities and that when it is adopted without a consideration of philosophical presuppositions, the danger is that closure becomes unconscious and appears self-evident.

---

<sup>25</sup> I am making use of the work of Brandom when I refer to a 'representationalist paradigm'. Brandom takes care to distinguish the concept of representation from a representationalist paradigm but for the purposes of this thesis I will refer to the terms synonymously.

<sup>26</sup> The discussion of this area in philosophy is extensive and beyond the remit of this thesis.

The representationalist paradigm poses the relation of mind to world as one in which knowledge caused by sense experience is made meaningful by the constructions that are put upon it. The mind is understood to create meaning (as there is an implicit distinction drawn between fact and value) in a disenchanted world of brute nature or in circumstances where whatever ‘reality’ there might be is unknowable. This position corresponds to what has been called by Wilfred Sellars *The Myth of the Given*<sup>27</sup> in which experience is understood as something that cannot be a tribunal and yet must also somehow stand in judgment over our thinking. This idea, at the heart of the representational paradigm of the world as independent of mind and made meaningful by the constructions placed on it by mind, is made explicit by Hegel to show that what we take to be the means by which we acquire our knowledge (*the Understanding*), falls far short of explaining how knowledge actually arises. Although it may be thought that an epistemology simply describes how knowledge arises, much more is in fact involved than appears to be the case. This becomes clear once we make explicit the additional weight of what has to be carried by the very delimitations that we assume in order to explain how knowledge is possible.

Working in the spirit of Hegel’s critique of the Understanding, Robert Brandom and John McDowell develop a different ontology in which mindedness and world are not separated as they are in conventional epistemology. Their concerns and the arguments now current in philosophy are far removed from the concerns of post-Vygotskian research.<sup>28</sup> However in connection to my claim that the philosophical background of Vygotsky is

---

<sup>27</sup> See below

<sup>28</sup> However, this is not as far removed from post-Vygotskian research as it appears, as David Bakhurst has written on the links between McDowell’s work and that of Ilyenkov, a philosopher working in the Vygotskian tradition. It is interesting to note that McDowell supervised Bakhurst’s thesis on Soviet philosophy at a time that he was preparing work resulting in his own book *Mind and World*. McDowell and Brandom’s work are also connected. McDowell credits Brandom’s writings and conversations with shaping his own thinking and singles out a seminar on Hegel’s *Phenomenology of Spirit* that he attended in 1990 relating that ‘the effect is pervasive; so much so that I would like to conceive ... [*Mind and World*] as a prolegomenon to a reading of the *Phenomenology* much as Brandom’s forthcoming *Making It Explicit: Reasoning, Representing, and Discursive Commitment*’ (McDowell, 1996, p. ix).

significant for his work, I also want to indicate how a lack of familiarity with these arguments has consequences for contemporary post-Vygotskian research.

Of particular relevance to the thesis is the recent work of Robert Brandom, introduced in Chapter 1, and specifically the argument he develops to examine what is distinctive about human knowing, as opposed to a mechanical form of 'knowing'. Since his argument also approaches the matter from a Hegelian direction and it is the aim of this thesis to expose some of the Hegelian dimensions of the work of Vygotsky, Brandom's arguments are doubly pertinent.

The previous chapter considered the critique of abstract rationality levelled at Vygotsky. At the heart of this critique is a tension between the notion of 'universal abstractions' unable to give due credit to local *meaning-making* on the one side and the attention to the mediational means which are understood to play a role in the genesis of mind, on the other. To consider this it is useful first of all to note the compelling case of Vygotsky for conceiving the mind as social. Put briefly Vygotsky stresses that:

1. what becomes *intramental* is initially *intermental*;
2. human beings possess the unique ability to *mediate* their existence and to create stimuli in order to determine their own behaviour;
3. when tools/signs/words are used, the development of their meaning has only just begun; and
4. higher mental functions cannot be understood as originating in lower ones.

The first point above implies a strong position on the sociogenesis of mind because it claims external activity is internalized not just as a form of knowledge but as a means by which higher mental functions, such as conscious attention and voluntary memory, are formed and come into play. The

sociogenetic approach to mind raises a number of problems because so little about the social dimension of mind is settled as theory. Although Vygotsky brought together and studied important ideas bearing upon a sociogenetic approach, the formulation of sociogenesis remains unsettled.

One aspect of the problem of explanation in a sociogenetic account of mind is illustrated by an example relating to the role of mediation in a child's learning given by Valsiner and Van der Veer. They comment: 'It is an interesting question whether mediated processes need to be social in the sense of having an interpersonal origin. Likewise, one might ask whether all cultural transmission requires mediation in the Vygotskian sense' (Valsiner and Van der Veer, 2000, p. 371). They discuss two ways in which a child's external relations with other people can later be used to control its behaviour internally. There is a difference in the examples they use. The first is the well-known example of a baby gesturing inanely. The child's movements are made meaningful by the interaction of the adult who by treating the movement as significant (even though it bears no significance or meaning) responds to it differentially. This is the common example given to illustrate the first development of language for a child. The second example is that of a child crossing the road, whereby the instructions 'look right then look left' are repeated by the children to themselves, once alone. Though an apparently trivial comparison, Van der Veer and Valsiner's point is that in the former case the mediation of meaning is interpersonal in the sense that the baby's actions are made meaningful externally via intermental activity, whereas in the latter the child simply adopts the same pattern of action as the adult and may have no mediational interpersonal dimension. The actual way in which the intramental becomes intermental is not understood and various authors have attempted to address 'the internalisation problem' and limited empirical examples are available. This thesis does not deal specifically with the problem of providing an account of sociogenesis but is concerned with the implicit assumptions of a philosophical character, of attempts to supply it.

A major component of any account of the sociogenesis of mind (whether of higher mental functions or language) is the explanation of meaning. The

concept 'representation' plays a key role in accounts of how meaning arises. An initial response is to think of meaning as in some way located within an artefact, sign or mediating tool, which variously stand in place of something in the world and 're-presents' it. Through re-presentation, the same effect occurs as would result from interaction directly with 'natural' objects or phenomena in the world.<sup>29</sup> Of course any process of representation is generally understood to be far more complex than one of simply standing in place of, or reproducing, an object already in existence. But it is not clear exactly what this complexity actually entails.<sup>30</sup> Brandom remarks that a representationalist paradigm reigns supreme in much contemporary thought and this, he maintains, delimits the way we think about certain questions.

A central argument of this chapter is that the representationalist paradigm referred to by Brandom underpins much of the discussion of Vygotsky with consequences for the way in which sociogenesis is theorised. It plays a decisive if undeclared role in the conceptualisation of pedagogy in contemporary schooling. It has consequences for the way that constructivist positions are taken in relation to the active participation of learners, both in their learning and also more radically in the constitution of knowledge. This is considered in the latter part of this chapter. The excursion that this thesis takes into Hegel's philosophy in Chapter 5 provides a basis for comprehending the different philosophical frame, which unlike the one considered here, did actually influence Vygotsky.

The issue of immediate concern here is the influence on schooling and pedagogy that is exercised by the underlying representationalist paradigm. This paradigm, it must be stressed from the start, retains a dualism at odds with the standpoint that Vygotsky developed under the influence of German idealism. Without a due regard to the philosophical background of Vygotsky's work and the particular light it sheds on the potential of his contribution, it is

---

<sup>29</sup> Or, in the case of Saussurian linguistics, between signifier and signified.

<sup>30</sup> A tradition of semiotics and linguistic analysis has been influential in maintaining a representationalist paradigm concerned with this matter.

understandable that readings arise which are at odds with the position he took on such crucial issues as reason and instruction.

Wertsch's prolific writings since the 1970s which have brought the ideas of Vygotsky to a wider audience (during the period that Vygotsky's work was introduced to a wider Western audience) are one example of a reading that finds Vygotsky's use of reason, at certain points, highly problematic. As pointed out in Chapter 2, Wertsch presents Vygotsky as an ambivalent rationalist, oscillating between a caricature of Enlightenment abstract and decontextualised reason on the one hand and a more personal, contextually based construction of sense and meaning on the other.

Two arguments of Wertsch illustrate how his working within a representationalist paradigm colour the criticisms he makes of Vygotsky. At first sight the suggestion that Wertsch's criticisms inhabit such a paradigm appear unwarranted, for the very point of his criticism of Vygotsky is to take issue with the claim that language *represents* an objective world. My argument is that Wertsch retains elements of dualism that belong to a representationalist paradigm and as such retains the position he criticises in Vygotsky. To make the point in a different way: once a foundational project of knowledge is found untenable and with it, the idea that the concepts, words and sentences we use can represent or capture an independent world objectively, the common response has been to withdraw to a modest position, which restricts knowledge to the individual local and contextual *meaning-making* of participants. Attention to local *meaning-making* and withdrawal from an interest in knowledge and meaning transcending the 'context' of production,<sup>31</sup> pervades much post-Vygotskian research. My argument is that Vygotsky's understanding of reason was not the one ascribed to him by Wertsch, who fails to appreciate its Hegelian provenance. Hegel was as fully aware of the limitations of a foundational project as any contemporary thinker, moreover, and here he differed from contemporary research; he was aware that this foundational project went hand in hand with the representational paradigm I am taking up here. As a result, he

---

<sup>31</sup> The discussion of the transfer problem in the previous chapter deals with this issue of whether or not knowledge can be understood as transcending the contexts of its production.

avoided the conclusion to which so much contemporary thought appears drawn, namely that knowledge itself has no secure basis or, what is to say that same thing, that it can only ever have local standing. Contemporary thought has avoided the difficulty and because of this has ended up in a position in which the difficulties involved in the establishment of knowledge are avoided rather than confronted, with the result that the possibility of knowledge is called into question. Although Hegel offers a quite different appreciation of 'abstract rationality' this is lost to much contemporary work due in part to the alignment of Hegel with Marxism and specifically the failures of Soviet practice. Chapter 5 and 6 consider this issue in more detail. In completing Kant's project to comprehend the conditions of our knowing, Hegel took a different approach from the one that retained representationalism as a default position.<sup>32</sup> Hegel's work is generative in that it works through the assumptions of our claims to know to show that each claim holds more than what is immediately apparent within it.<sup>33</sup> It is significant that while a critique of universal (abstract or decontextualised) rationality is made (by Wertsch and others), the common underpinnings of what is being attacked, is actually supposed by those making the attack (i.e. an implicit dualism retaining a form of the myth of the Given).

Central to Wertsch's position that Vygotsky was an ambivalent rationalist is the claim that Vygotsky operates with 'an assumption that language and meaning are basically concerned with referential relationships between signs and objects' (Wertsch, 2000, p. 20). This characterisation of Vygotsky's understanding of meaning and Wertsch's supposed lack of regard for Vygotsky's concern with 'the problem of consciousness' is at odds with the philosophical underpinning of Vygotsky's work. There is sufficient evidence in Vygotsky's published works to show that he conceived meaning in a more

---

<sup>32</sup> Evidence of this paradigm is present even in Kant's work where the presupposition of a distinction between the world as we know it and the world in itself sets up problems involving representation. According to Bernstein when he dealt with 'spontaneity and receptivity, phenomena and noumena' it appears that 'Kant at times, seems to reify these distinctions, to make them into rigid dichotomies that leave us with all sort of aporiai' (Bernstein, R.J. 2002, p.10).

<sup>33</sup> In McDowell's sense, Hegel exorcises the questions rather than answering them but in exorcising them provides what can stand as an answer (McDowell, 1996, p. xxiii).



complex way than arising from a word (sign) in reference to an object.<sup>34</sup> In part Wertsch recognises this, but only to present Vygotsky's position as ambivalent. The philosophical underpinnings of Vygotsky's work can be found implicitly in specific arguments and explicitly in his stated debt to Spinoza and Hegel. Although I am taking issue with the characterisation of Vygotsky by Wertsch *et al.* my argument is less concerned with the position these commentators take up,<sup>35</sup> than the way that the dualism implicit within it, leads to an under-theorisation of human freedom. It is important to stress the extent to which Wertsch aims to avoid the limitations of Cartesianism in formulating his account of the sociogenesis of mind. But in his attempt to avoid 'methodological individualism'<sup>36</sup> he attributes *agency* to mediational means (including language) and by doing so remains within a 'representationalist paradigm'. Wertsch draws attention to the dangers of oscillating on the one hand between a position that emphasises the tool or the other hand the individual, as the progenitor of meaning (Wertsch, 1999). However, even though Wertsch and others are predisposed to seeing the formation of knowledge as an organic process, their treatment of mediating means as external objects with causal efficacy introduces an element of Cartesian mechanics into the argument. Or to be more precise, it leaves in their argument, an element of Cartesian mechanics, which due to a lack of attention to the distinction between causes and reasons, is untransformed. One area of work particularly notorious for its failure to make a distinction between causes and reasons is that of Artificial Intelligence research, where agency is as easily attributed to a machine as to a human, and it is surely not coincidental that Wertsch concedes that the formulation of mediational means as carrier of agency, lends itself to the possibility that machines might properly be conceived as intelligent (Wertsch *et al.*, 1993).

---

<sup>34</sup> In fact, Rene Van der Veer writing in *Understanding Vygotsky* suggests that Vygotsky emphasised meaning over the sign and that the claim that 'Vygotsky developed from a period in which he concentrated exclusively on the sign to a more mature understanding of the relevance of word meaning' does not do justice to Vygotsky's position (Van der Veer and Valsiner 1993, p. 65).

<sup>35</sup> This position is reasonable given the 'representationalist frame' in which the issue of abstract rationality is considered.

<sup>36</sup> Wertsch quotes Lukes for a definition of methodological individualism: 'explanations....couched wholly in terms of facts about individuals' (Wertsch, 1998, p.19).



### 3.2 Robert Brandom

We may now turn to Robert Brandom as his work is especially relevant to the distinction between causes and reasons. By a cause I mean a relationship in which no conscious purpose on the part of the agent is involved. The agent causes the result without conceptualising what it is – whether this is a bee building a hive, rain causing corn to grow or an alarm alerting us to a fire. To take this latter example, an alarm may be far more effective in *perceiving* the dangers of a fire and sounding the alert than any human being. But when a human being shouts ‘fire!’ he or she is always doing more than simply making a warning noise. When a child of five (as opposed to a much younger child whose uttered sounds are only just beginning to operate as language) shouts ‘fire!’ he or she knows its implications. He or she appreciates the consequences of the exclamation ‘fire!’ and what follows from such an utterance. Brandom uses this example to illustrate his claim that human beings act and communicate *inferentially*. His point is that what distinguishes the human form of knowing from the type of knowing we might ascribe to a machine is the Sellarsian point that knowing for a human being, consists not merely in expressing a response but in knowing what follows from it – knowing the implications, or what Brandom calls the ‘giving and asking of reasons’ (Brandom, 2000, p. 163). As he puts it ‘even non-inferential reports must be inferentially articulated’ and this point is crucial to any understanding of human intellect:

One of the most important lessons we learn from Sellars's masterwork, ‘Empiricism and Philosophy of Mind’ (as from the ‘Sense Certainty’ section of Hege's *Phenomenology*), is the inferentialist one that even noninferential reports must be inferentially articulated. Without that requirement we cannot tell the difference between noninferential reporters and automatic machinery such as thermostats and photocells, which also have reliable dispositions to respond differentially to stimuli.

(Brandom, 2000, p. 48)

I have just mentioned an alarm *perceiving* a fire. This is already an anthropomorphism which Brandom takes care to avoid. He talks of machines

‘responding differentially to stimulus’ by which he means they respond mechanically to a stimulus. The use of the phrase ‘responding differentially’ in place of ‘perceiving’ or ‘knowing’, is of crucial importance for it introduces a distinction that is hidden by our anthropomorphic use of language. The stimulus in this case – the fire - is a cause of their response; in the case of the human being who sounds the alarm the fire is the reason for their response. *The human perceives the fire as fire; that is to say that unlike a machine it has a concept of fire as part of a system of concepts.* For Brandom making a report as a human being is not merely to ‘respond differentially’ it is inferring rather than merely representing, since ‘even non inferential reports must be inferentially articulated’ (Brandom, 2000, p. 47). This emphasis on inference is drawn from Hegel’s analysis of what Sense Certainty entails, and in keeping with Hegel, Brandom argues that ‘in order to master *any* concept, one must master *many* concepts’ (Brandom, 2000, p.49). For Brandom, the responses that humans make involve an understanding of significance that is only possible by already appreciating other concepts. Where this is not the case, i.e. in the response of a parrot or machine, even though the response still may be the same, i.e. ‘fire’, then the human is not behaving as human. This position might seem to leave us with a ‘chicken and egg’ conundrum, i.e. how can you know something before knowing the means of knowing it (i.e. to know one concept you must know many concepts)? Vygotsky has an answer to this question when he considers the question of method and this will be considered in chapter 5 on Spinoza. But at this stage it suffices to say that it depends on a holism that rejects dualism. Brandom deals with this by explaining that grasping concept-use arises from the know-how gained by involvement in social practices. In this he shares with Vygotsky an emphasis on the sociogenesis of meaning. The argument here is the same as that of Vygotsky: ‘we must seek the psychological equivalent of the concept not in general representations...we must seek it in the system<sup>37</sup> of judgements in which the concept is disclosed’ (Vygotsky, 1998, p. 55). Brandom contrasts holism about concepts with the atomism that results when concepts are understood in terms of ‘differential responses’, by which he means non-human responses.

---

<sup>37</sup> This use of the word ‘system’ has led to the accusation of abstract rationality, i.e. the idea that meaning of scientific concepts is determined within a system.

Wertsch's claim that Vygotsky believed meaning to result from the referential relationship of word to object is coupled to a further claim that for Vygotsky 'the development of meaning is a matter of increasing generalisation and abstraction' (Wertsch, 2000, p. 20). Wertsch finds evidence for both these claims in a reading of Vygotsky's work in Chapters 5 and 6 of *Thinking and Speech* - for example in relation to Vygotsky's discussion of the role of the sign in the child's development of both spontaneous and scientific concepts. Two aspects concern Wertsch: one is the emphasis that Vygotsky places on the relationship of word to object; the second is on what Wertsch describes as decontextualisation.<sup>38</sup> These aspects of Vygotsky's discussion are judged by Wertsch as an extension of Enlightenment traditions of abstract rationality and a commitment to universal reason. Wertsch has a specific understanding of reference and abstraction in relation to Vygotsky. In support of his argument and to illustrate the one-sidedness of Vygotsky's view, Wertsch draws on Taylor's distinction between *designative* and *expressivist* approaches to meaning. Wertsch presents the former as characteristic of the Enlightenment and the latter of Romanticism. He reiterates his representationalist understanding of language when he writes that: 'This view of meaning is grounded on the assumption that language functions primarily to *represent* an independent reality' [my italics] and quotes Taylor to the effect that '[W]e could explain a sign or word having meaning by pointing to what it designates, in a broad sense, that is, what it can be used to refer to in the world, and what it can be used to say about that thing. ...we give the meaning of a sign or a word by pointing to the thing or relations that they can be used to talk about' (Wertsch, 2000 p. 26 ). Wertsch argues that the relationship between word and object in the designative approach is quite consistent with Vygotsky's account of meaning in relation to scientific concepts. The argument here is that Vygotsky shared this view of the relation of word to world even though the explanation of reference is antithetical to the Hegelianism evident in Vygotsky's writings. The point that Vygotsky stresses when he speaks of 'a

---

<sup>38</sup> The reference here is to schooled knowledge as decontextualised knowledge.

system of judgments' is that the idea of 'general representations' is inadequate to express what a concept is in thinking:

According to our hypothesis, we must seek the psychological equivalent of the concept not in general representations, not in absolute perceptions and orthoscopic diagrams, not even in concrete verbal images that replace the general representations – we must seek it in a system of judgements in which the concept is disclosed.

(Vygotsky, 1998, p. 55)

Brandom is concerned to develop a theory of meaning that does not take 'representation as its fundamental concept' and he, like Taylor,<sup>39</sup> explains 'the notion of representational content is most often unpacked in terms of what objects, events or states of affairs actually causally elicited the representation' (Brandom, 2000, p. 25). In common with post-Vygotskian researchers, Brandom argues against a mentalist order of explanation which privileges mind as an original locus. This anti-Cartesianism is common in work that attempts to use Vygotsky's ideas. However, Brandom adds a further dimension by approaching the 'contents of conceptually *explicit* propositions or principles from the direction of what is *implicit* in practices of using expression and acquiring or deploying beliefs' (Brandom 2000, p. 4). This represents a step towards overcoming the dualism which any retention of the representational paradigm retains. The prioritising of what is implicit in the practice of making explicit, is at odds with the characterisations by Wertsch of Vygotsky's use of word as referring to objects and coincident with the idea of development in Vygotsky's examination of the development of concepts in children. Where Wertsch sees the movement in the development of concepts as evidence of

---

<sup>39</sup> Wertsch relies on Charles Taylor's philosophical work in his characterisation of Vygotsky as an Enlightenment abstract rationalist. My argument is that this characterisation of Vygotsky depends upon implicit dualist presuppositions which inform the way that the philosophical tradition is read. It is interesting to note that Taylor's critical reading of McDowell's *Mind and World* retains a form of dualism in that he is concerned that by taking issue with the idea that the content of experience is non-conceptual, McDowell denies the idea of a Heideggerian 'undelimited background'. Taylor wants to recognise the pre-conceptual or non-conceptual as a form of 'knowing' (Taylor, 2002, p.111). However McDowell fields Taylor's criticism by pointing out that: 'Taylor works with a notion of conceptual capacities according to which they are in play only when things come into focus. ... Taylor does not emphasise my insistence that actualisations of conceptual capacities must be seen as manifestations of life as opposed to operations of a pure intellect' (McDowell, 2002, p. 283).

Vygotsky's hierarchical idea of knowledge and reason, Vygotsky's emphasis is on the alterations of practices which allow the child to move from operating with concepts as complexes, then as pseudo concepts and finally as scientific concepts. At each point a concept's character (everyday/scientific) is due to the form of its use. Paralleling Taylor's contrast of designative and expressive, Brandom characterises two traditions. He counter poses mind as mirror (enlightenment) and mind as lamp (romanticism) to get across the different ways in which mind and epistemology are understood. He juxtaposes representation and inference and in criticising representation (and the baggage carried with it) he argues that in human practices, representation is always inferential even though we may not be aware of it. The point that representation cannot be separated from inference is crucial since it is key to Brandom's concern to distinguish human knowing from any other types of 'knowing' and the point clarifies the distinction.

The conflation of machine and human intelligence is a crucially important problem facing post-Vygotskian research. The attempts to develop a mechanics of mind with causal explanations of its production fail to distinguish human activity from the behaviour of machines. Representation and inference are not polar opposites but implicated in each other. Wertsch makes use of Taylor's distinction between designative and expressive for a different purpose than the one intended by Taylor and this is more than a trivial point. Taylor gives an account of modern philosophy as a precursor to an account of Hegel's synthesis of the tensions between the designative and expressive, while Wertsch implies a contrast between the authoritarianism of the designative and the greater sensitivity of the expressive to individuality.<sup>40</sup>

---

<sup>40</sup> To some extent the way in which Wertsch presents the problem is the reaction against a correspondence view of truth. Curiously, although Hegel's critique of epistemology exposes the inadequacy of both correspondence and empiricist view of knowledge, it happens that ultimately Hegel's philosophy subsumes these positions. Within Hegel's philosophy they are quite different from the way they are commonly conceived.

### ***3.3 Theorising mediational means within a representationalist paradigm***

At first sight, it appears counter intuitive to argue that much contemporary Vygotskian research particularly North American research<sup>41</sup> works within a representationalist paradigm. Most researchers in a Vygotskian field would refute what they see as a representational approach, namely one which seeks meaning in the relationship between our representations and the world. However, although a correspondence view of truth, or a mirror view of nature has been widely rejected by researchers, the rejection of the representationalist paradigm supporting these views is incomplete. The rejection of (universal) scheme and (empirical) content (Davidson, 1984) does not lead to a rejection of the relationship itself and the relation is retained even if the poles are transformed. The argument here is that exactly the same relations pervade explanations which draw on Vygotsky's ideas, as those relations that pervade the classical designatory approach they oppose. That is, explanations in terms of the causative power of tool, signs, discourses (or the power of constructivism in creating knowledge) ignore the essential element of any account of sociogenesis and that is human agency, understood not merely as another cause in the equation but as inhabiting and acting in a quite different space – that is – a space of reasons.<sup>42</sup>

To illustrate this point here are some examples of the notion of causation that I am describing. I should first caution, that in all of the attempts to account for meaning used, there is a clear recognition of the contribution of human 'agency'. However, this agency is insufficiently theorised due to the representational paradigm in which the ideas are presented. Many post-Vygotskian researchers consciously avoid either cognitivist or 'rationalist' accounts of human agency and this position is particularly driven by the way in which the 'discovery' of sociogenesis would seem to lend itself to a more

---

<sup>41</sup> It should be noted that while much of the research discussed here it is not exclusively North American, equally within North America there is research that does not fit this pattern.

<sup>42</sup> Aside from the issue of human freedom, the other major element missing from explanations is history. For Hegel freedom and history were inextricably interconnected.

egalitarian and humane approach to human ability and intelligence. Hence both cognition and reason are sidelined and the emphasis is shifted to the sociogenetic means or mechanisms. It can be noted that the Russian/cultural-historical appropriation is somewhat different.

It is important to point out that researchers concerned with theorising mediational means do not openly embrace the representational paradigm I am attributing to them. On the contrary they reject it, as they do not subscribe to the idea that representations stand for external objects/the world. Instead the wish is to deny what may be termed *foundational*<sup>43</sup> claims to knowledge and to concentrate instead on the multiplicity (and even relativity) of meaning-making. But as I have argued – this position still retains the relation characteristic of a representational paradigm.

The focus of research for commentators rejecting the idea of universal knowledge has shifted to the 'making of meaning' via resources, tools, language and artefacts. And once meaning is understood as something that is made rather than already present waiting to be revealed or read off from the real, then the 'means' of meaning construction come to the fore and are formulated as the key to understanding how meaning arises. The crucial recognition that thinking, intellectual activity and learning are not simply the outcome of cognitive process but rather are: (1) supported by various material means, or (2) developed as well as being sustained by such means, has crucial implications for education policy at a number of levels.<sup>44</sup>

---

<sup>43</sup> The term *foundational* has different meanings. Here as an object of criticism of those theorising mediational means it signifies claims to knowledge derived from given and certain starting points. For other aspects of this idea see below.

<sup>44</sup> The implications are particularly important when research funding is directed specifically to achieving outcomes intended to inform policy. Moreover such funding is commonly aimed at short-term outcomes to respond to election cycles. Systems of education have been constructed on the basis of the expectations of the learner's potential and knowledge of appropriateness of conditions of learning and teaching. The history of education in England can be presented as a narrative of successive conceptions of suitability according to the reigning conception of both ability and possibility within the remits of education funding. Thus the attempt to design contexts for learning which take into account information which will allow the enhancement of educational opportunity and efficiency, is important for research concerns, particularly where research funding is determined by policy and the pressure on researchers to deliver amenable accounts is difficult to resist.



A number of attempts within education research have been made to account for meaning in different contexts and thereby inform policy with the aim of making classrooms, or what have more broadly been called 'learning environments', more effective. An influential body of work is devoted to the theorisation of meaning through modes other than language. Until recently attention to meaning outside text-based language has been limited and interest in the various modes through which communication occurs has become an area of interest to many researchers concerned with accounting for meaning by examining the means of its construction. For example Jewitt and Kress build on Halliday's social semiotic approach to communication, to analyse multi-modal representation. The aim is to extend the application of Halliday's social semiotics of written language to all 'modes'<sup>45</sup> of communication including gesture, visual, bodily movement etc. They explain Halliday's social semiotic theory as follows:

He argues that in verbal interactions we have at our disposal networks of options (sets of semiotic alternatives) of the meaning potential of the culture, which are realised in sets of options of formal/material means, the *modes* of our multimodal approach. For him, the semantic system of language (his approach focuses on language) reflects the social function of the utterance as representation, as interaction, and as message, which are realised by the lexico-grammar of the language. The principal assumption is that language is as it is because of the social functions it has evolved to serve: it is organised to serve the interests of those who use it in their social lives. In other words (our 'other words') language can be understood to be the result of constant social/cultural working on or 'shaping' of a *material medium* (sound in the case of language-as-speech) into a resource for representation, which displays regularities as *mode*, the (material yet socially/culturally shaped) resource (as signifier-material) for meaning in the constant new making of signs.

(Jewitt and Kress, 2002, p. 279)

This passage has been selected because of its concern with *representation* and the shaping of a 'material medium' into a 'resource for representation'. According to a social semiotic approach, it is in representations that we can discern meaning. To appreciate the power of representation as a concept for dealing with meaning, it is only necessary to consider the design of advertisements. However, I want to take issue with the use of the concept of representation in this way. Although the value of examining the way in which

---

<sup>45</sup> Mode in this context has a technical meaning developed by Halliday and Kress.

artefacts convey meaning cannot be denied I want to caution that a dimension of analysis is under-theorised in accounts, which start with representation and the dimension is crucial to an understanding of human freedom and how knowledge is conceived. Kress adds, to Halliday's account of language as a material mode for communicating meaning, a concern with the *motivated* use of signs where the relation between the form chosen to represent and the meaning intended for communication is not arbitrary. Motivated users of signs choose plausible representational resources to communicate their intent. In this view there is due recognition of the agency or free action of the user but it is in relation to *choosing* an appropriate representational resource. Agency is assumed. Thus the (Cartesian) individual chooses the *material* sign and meaning resides in the mode chosen (visual, gestural) or is carried by the mode (Kress *et al* 2001, pp. 1-6).

The difficulty of accounting for agency in research whose aim is to theorise meaning, is the location of meaning. The previous example shows how Jewitt, Kress and Halliday deal with representational resources as carriers of meaning (i.e. meaning is attached to the representational resource) and credit users with exercising agency in their choice of means. Agency is exercised by the way in which the user chooses and the purposes to which (s)he applies the representational resource and this in turn transforms its meaning.

Writing, from a sociocultural perspective, Wertsch is concerned to formulate an account of meaning which arises from 'agent-acting-with-mediational-means' (Wertsch, 1998) such as artefacts, tools or language. An account of how artefacts/tools/language contribute to thinking is still at an early stage of research. Wertsch schematises the different ways in which the mediation of mind with tools contributes to thinking:

1. by allowing an activity to be achieved which could not be achieved without the use of a tool (e.g. a technique for multiplication, a map allowing navigation);

2. by enabling a group to perform an activity together which could not be performed by its members acting individually, through offloaded cognitive effort into shared mediating devices (e.g. Hutchins' work on the navigation of ships into port as an illustration of a 'sociotechnical system');
3. by developing particular ways of functioning mentally.

Again the direction of research is to comprehend meaning as *representation*.<sup>46</sup> Attempts to theorise the way that mind is sustained and developed by cultural artefacts, whether words or tools, concentrate attention on the *representational* aspect of the tool or word. This involves an attempt to designate its contribution to the development of meaning. The meaning of the tool and the role that it can play is ascribed to the tool itself. Wertsch sets down some basic claims about 'mediated action and cultural tools'. One claim is that 'mediated means are associated with power and authority' (Wertsch, 1998, p. 25). 'Mediated means' carry particular 'affordances' of meaning which have consequences for their use. In addition, they express the power of particular interest groups. His claims are an attempt to pin down the way in which tools themselves act. However, one difficulty of an account of how the use of tools realises meaning, is that an understanding of human agency is necessary in order to make a judgement about the contribution that tools make in fashioning any outcome. In the absence of an appreciation of the distinctive character of human agency in the creation of meaning, agency can be ascribed to anything that appears to exert effect. Although Wertsch intends to account for meaning in a more complex way than a mere ascription to tools and uses the phrase 'individuals-operating-with-mediational-means' to recognise human engagement in meaning-making,

---

<sup>46</sup> Both dictionary definitions of the word 'mean' and the study of meaning (semantics) refer to *signification, signify, significance or sign*. This indicates the presence of one thing that stands for another. These dictionary definitions do not indicate the more sophisticated sense that can be derived from Kant's philosophy and which necessarily involves human activity. Of course, we can talk of a sign meaning something, independently of any *judgment* (i.e. the 'giving and asking for reasons' in Brandom's sense). But then the term 'meaning' is being used to express something quite different. An example from nature is of an insect or plant without sting or poison, imitating those with sting or poison. The markings act as a sign/signal to predators and have the same result as that of the markings of the genuinely dangerous species. One stands in place of another. In this instance the use of sign is coincident with the stimulus/response of the 'differential response' of a fire alarm referred to by Brandom.

he is in danger of falling prey to the methodological individualism that he claims his approach overcomes. No matter how much he alerts us to the error of explanations that concentrate either on the tool alone or the agent (arguing that such explanations are faced with either methodological individualism or reductionism) (Wertsch, 1999) he still theorises 'mediational means' as having agency in their own right - to carry and constrain meaning. His particular conception of meaning and its relationship to representation is crucial to his analysis of Vygotsky in so far as he sees Vygotsky's conception of meaning as an issue of ambivalence or 'two minds' (Wertsch, 2000).

Where Wertsch tends towards an idea of 'containment' (e.g. affordances which privilege certain activities over others or ventriloquate specific interests) for explaining how tools carry meaning, Wells takes issue with the idea of an artefact representing or *containing* knowledge. 'At first sight, it might appear that knowledge is to be found in the artefacts that are the outcome of representational activity. ...[e.g.] texts and other visuographic artifacts, ...manuals, charts and diagrams, theoretical papers...' (Wells, 1999, p. 72). But he continues by arguing that this view of knowledge is untenable on the grounds for instance that a text does not 'contain knowledge' unless one can distinguish its script from markings of ink. But more than this, an interpretive framework is necessary to make sense of a script. He argues that knowledge is not in the texts 'but in what writers or readers construct as they use texts as external tools to mediate their own mental activity of representing and knowing' (Wells, 1999, p. 73). Having rejected accounts which place weight on tools as carriers of meaning, Wells responds to the dualism underlying attempts to explain meaning, by denying the existence of any knowledge beyond that arising from particular readings. Wells adopts a position on knowledge that emphasises constructivism and rejects the idea of the existence of knowledge beyond individual/local construction.

He expresses what is involved in specifying the ontological status of knowledge as follows:

Insofar as the import of talking about knowledge being distributed is to emphasize that the key unit of analysis is not the particular individuals engaged in the activity, still less the representations said to be 'contained' in their minds, but rather multifaceted networks of practices that constitute activity, in which the nonhuman 'actors' are as integral as the human ones, this move constitutes an important corrective to the Cartesian view of knowledge as being located in disembodied individuals (Wertsch, 1998). However, I find it confusing to be told that knowledge is *in* artefacts as, for example, when Cole and Engestrom write: 'the cultural environment in which children are born contains the accumulated knowledge of prior generations' (1993, p.9) – though perhaps 'contains' here is intended to be taken metaphorically. However this is not Pea's intention when he claims that 'tools literally carry intelligence *in* them' and 'knowledge is often carried in artefacts as diverse as tools and notational systems' (1993, pp. 53-4). This seems to me to be hyperbole.

(Wells, 1999, p. 75)

While he is comfortable with the idea of 'nonhuman actors', Wells rejects the containment of knowledge or intelligence in artefacts. However, there is an element of contradiction in Wells' argument. On the one hand he wishes to maintain that meaning only arises in the 'constitutive activity' of actors and therefore cannot be said to reside in a text, yet on the other hand he credits 'non-human actors' with an equally integral role in the constitution of knowledge.

Sloman, writing from the background of computer science, offers a definition that would not be at odds with the 'containment' argument that Wells rejects but which Wertsch's account of artefacts/tools suggests. Sloman looks for 'a label to cover all the various kinds of information stores, irrespective of what their structures are, or how they are created, or whether we are aware of using them or not' (Sloman, 1996, p. 119). He finds the word 'representation' comes closest to meeting these requirements. Working in the field of Artificial Intelligence, his aim is to broaden the notion of information beyond one involving conscious use. He suggests as an all-encompassing definition 'that there is a more general notion of representation, which covers all states or

structures that store or contain information used to control internal or external behaviour, whether in humans or in other natural or artificial behaving systems' (Sloman, 1996, p. 118). He analyses representations as 'information bearing control states' (Sloman, 1996, p. 118). However, by theorising information in this way it is difficult to distinguish human and machine action. Sloman's use of the phrase 'information bearing control states'<sup>47</sup> to explain representation, succinctly expresses an idea central to artificial intelligence research (and more specifically to programming), i.e. that a certain set of conditions will elicit or cause a predictable set of outcomes. Two points follow by conceiving representations in this way: first, there is an idea of containment - the storing/bearing of information by the representation - implying that meaning is *contained* by the representation and second, agency is accorded to representations. Even though the power of a representation as 'information control state' is influenced by the context of use, the possibility of an overly determinist explanation of human action arises. The possibility of considering the distinctive nature of human utilisation of information (as knowledge) and the necessary involvement of freedom is lost.

The difficulty of providing a mechanics of mind for post-Vygotskian research is that it involves fundamental questions concerning the nature of meaning, knowing and agency for which there are no settled answers. But the vacuum this leaves at the heart of research has not prevented it from formulating arguments which have direct consequences. The urgency to assume answers to these questions is posed by the key role that schooling is perceived to play in social mobility/justice and the recognition that there is a far greater possibility of *developing* intellect than had been appreciated. The idea implicit to a sociogenetic approach - that mind is not just developed but *created* by social activity - places far greater responsibility on educationalists to understand factors key to the development of intellect, than a view of mind consisting of innate potential only able to be developed within limited parameters. Yet even though major questions of meaning, knowing and agency

---

<sup>47</sup> Sloman includes in his catch-all use of the term 'representation' 'information states of simple homeostatic devices, like thermostats' and 'more complex representations...involved in the control of internal or external behaviour in a human brain ...such as those encoding information about the grammar of our language' (Sloman, 1996, p. 118).

are unresolved, theoretical positions are adopted which have direct consequences for the practice of schooling, in particular positions adopted on knowledge and the role of the teacher.

Both Wertsch and Wells are troubled by a school curriculum based on 'decontextualised rationality' which does not involve the learner in making her/his own meaning but prioritises a particular way of making meaning. Wertsch views the 'privileging' of particular mediational means (ways of solving problems), found in traditional schooling, as indicative of an extraordinary authority accorded to abstract rationality since the Middle Ages. He attempts to establish a direct link between his criticism of pedagogical practices that privilege abstract or decontextualised rationality and Toulmin's argument about the received view of Modernity developed in his volume *Cosmopolis: The Hidden Agenda of Modernity*. Toulmin refers to Descartes' teachings that the 'demands of rationality impose on philosophy a need to seek out abstract, general ideas and principles, by which particulars can be connected together' (Toulmin, 1992, p. 33) and Wertsch restates Toulmin's summary of the received view that '*abstract axioms were in, concrete diversity was out*' (Wertsch, 1998, p. 67). Wertsch argues that: 'the received view is routinely appropriated by people in our sociocultural setting and...results in viewing certain utterances and arguments as convincing despite the many critiques of this tendency' (Wertsch, 1998, p. 67). Wertsch is interested in the way that individuals make sense of problems which leads them, as he sees it, to privilege abstract rationality over the variety of ways of meaning-making available.

### **3.4 Constructivism**

The attention to the process of meaning-making itself rather than to the outcome of such a process is often expressed in terms of Constructivist

theory.<sup>48</sup> Since Piaget and the ‘cognitive turn’, Constructivism has been a major force in educational research. What it succeeds in doing is: designating learning as an active process where meaning is acquired through a process of meaning-making rather than through simple transmission of knowledge or a behaviourist conditioning of response. Given its emphasis on *genetic epistemology*, constructivism seems ideally suited to a Vygotskian approach to education. Leslie Smith has written authoritatively on the similarities between Vygotsky and Piaget. However Smith does not explore the philosophical differences which distinguish each author so that although it is possible to find statements suggesting that each agree, their different understandings are not revealed. Given this seeming similarity between the two authors it is not unexpected that constructivism drawn from Piaget should inform readings of Vygotsky’s work. The influence of constructivism and its conception of mind and world are pervasive in both popular expositions as well as Vygotskian interpretations. For this reason it is helpful to present two versions to expose the underlying philosophical assumptions. Constructivism/constructionism and their implicit assumptions have implications for the way that Vygotsky is read.

Some of the extreme polarisations of constructivist positions can be viewed as an outcome of the problem of understanding what ‘objective world’ entails within a foundationalist<sup>49</sup> tradition of epistemology. The response to this tradition has consequences for interpretations of Vygotsky. Constructivism as

---

<sup>48</sup> Although there are important differences between the terms *Constructivism* and *Constructionism* they are used interchangeably here as both terms appear in this thesis only in so far as they represent the dualism under consideration. Gergen comments on their interchangeable usage: ‘[Constructivism] is a tradition ...represented in recent psychology by such figures as Jean Piaget, George Kelly, and Ernst von Glasersfeld. Constructivists propose that each individual mentally constructs the world of experience. In this sense the mind is not a mirror of the world as it is, but functions to create the world as we know it. From this perspective there could be as many realities as there are minds to conceptualise or construe. ...the constructivist perspective is similar to the constructionist in the emphasis it places on human construction of what we take to be “the real”. It is largely for this reason that many scholars will use the words “constructivism” and “constructionism,” interchangeably. ...for constructivists the process of world construction is psychological; it takes place “in the head”. In contrast, for social constructionists what we take to be real is the outcome of social relationships’ (Gergen, 1999, pp. 236-237).

<sup>49</sup> By using the shorthand ‘foundationalist tradition’ here I mean to capture the tradition that Hegel criticises in the *Phenomenology* – both dualism and representationalism are necessary elements in a foundational approach to knowledge.



well as Constructionism are often counterposed with realism (Parker, I., 1998, Gergen, K., 1999). Hence the realism evident in Vygotsky's use of the phrase 'scientific concepts' is seen as evidence of a lack of appreciation on his part of multiple avenues of meaning-making in favour of didactic methods. In summarising Wertsch's account of Vygotsky's description of the development of concepts, Confrey is led to write critically: 'This [Vygotsky's] is a strikingly nonconstructive description and an example of the realist commitment that seems to underlie Vygotskian psychology' (Confrey, 1995, p. 191). The statement of Wertsch's he refers to claims that 'Complexes are "no longer related on the basis of the child's subjective ties or impressions, but on the basis of *objective* [my italics] connections that actually exist among the objects"' (Wertsch, 1985b, p.101)' (Confrey, 1995, p. 191). At issue here is the distinction between the constructive power of human beings and the idea of an objective world. A lack of appreciation of the philosophical argument behind these characterisations leads to a limited view of how Vygotsky might have conceived of the relation of mind to world.<sup>50</sup> The fact that levels of construction and embeddedness are not parallel has not received adequate attention in the development of situated cognition theory. The possibility that a material history was 'constructed' at some previous point<sup>51</sup> may, at a current point, mediate (i.e. constrain), is excluded from many applications of situated cognition theory.<sup>52</sup>

The Constructivism that frames discussions of Vygotsky is infused with a Cartesianism that contains *meaning*<sup>53</sup> within observable human activity. The illustration given earlier of the difficulty of accounting for the location of meaning and knowledge, operates with undisclosed philosophical assumptions.

---

<sup>50</sup> For example, Ilyenkov's work on the question of the ideal sheds different light on the question of subjective and objective and ideal and real.

<sup>51</sup> For example, the technologies developed through long periods of history framing certain questions, problems and results (Hutchins, 1999).

<sup>52</sup> The dualist frame of human activity and the Kantian 'thing-in-itself' looms over any working through of these questions.

<sup>53</sup> The problem of meaning is to locate how meaning arises, where it is located, what process provides meaning. A simple realist solution is the correspondence theory of truth i.e. that our representations reflect an independent world that is real. Once this position is undermined the question of meaning comes to the fore. A postmodern position on this issue is to maintain that there are an infinite variety of ways of 'making meaning' with no one taking precedence over another.

Implicit assumptions, which are party to a Cartesian position on world and mind, remain despite the apparent rejection of Cartesianism. One such assumption is the characterisation of world that accompanies an emphasis on constructivism. Namely a world devoid of meaning without the contextually sustained activities of participants. For this argument to hold an assumption is necessary of the world as a *given* outside of and separate from human construction. Of course this seems the very opposite of the position adopted by many constructivist, i.e. everything is socially constructed. But the argument here is that party to this position, of the 'social construction of everything', is agnosticism in relation to the knowability of such a world or even, in the extreme, its existence. The attempt to be agnostic about any idea of world outside of human construction does not remove specific assumptions remaining implicit in and key to any argument developed. Two examples from Kenneth Gergen and Robert Reich are provided to illustrate the type of agnostic positions held. In the first case Gergen takes an explicit epistemological position, in the second Reich unthinkingly describes an externality in popular imagery: First, Gergen takes up critically the same approach to representation and the relation of word to world, as that of Wertsch, considered earlier in this chapter. However Gergen emphasises perspectivism, i.e. that there is no position from which truth is available. He deals specifically with the concept of representation insofar as he attacks the relation of signifier to signified, of word to world. However the position he develops, as a result of his rejection of a representationalist approach, does not take issue with the idea of representation as such (as Hegel does) but argues instead for an infinite variety of relations (representations). As a result he remains within the very representationalist paradigm he criticises:

As we found, however there is no privileged relationship between world and word. For any situation multiple descriptions are usually possible, and in principle there is no upper limit on our forms of descriptions. Nor did we find any ultimate means for ruling among competing descriptions, of declaring one as corresponding more 'truly' to the nature of reality than another.

(Gergen, 1999, p. 34)

This approach to knowledge has practical implications for schooling. Gergen's approach to the question for example is representative of influential ideas which though it is no part of their intention, effectually undermine knowledge by relativising it. In discussing progress and science Gergen writes:

There is no convincing account of how an array of syllables (scientific theory) can increasingly 'capture the contours' of what exists ...there are important advantages in abandoning the view of science as a march to the truth. The claim to vertical movement progress in scientific understanding has no grounds. As we move from Aristotelian physics to Newtonian mechanics and then atomic physics, we come no closer to the truth. We simply move from one domain of meaning to another.

(Gergen, 1999, p. 239)

This type of position has a powerful appeal at present. But when it is subjected to detailed philosophic examination serious flaws in its structure are exposed. Consider Davidson's treatment of it. For Davidson, the giving up of dependence on the concept of an un-interpreted reality does not mean relinquishing the notion of truth (Davidson, 1984). On the contrary, given the dualism of scheme and content what we get according to Davidson is truth relative to scheme. Without the dualism of scheme and content which for Davidson is dogma – relativism goes by the board. The crux of Davidson's argument is that a relativism is nothing but an aspect of the dualism of scheme and content, where scheme is understood as distinct from content and is applied to content externally to give it shape. To repeat then according to Davidson, once a dualism of scheme and content is adopted relativism follows virtually automatically since it is the scheme which is posited as the ground for making sense of the world.<sup>54</sup> Davidson also points out that, where the scheme is the context from which the content is constructed the idea of truth is not avoided but remains, although as relative to scheme. Davidson's analysis applies not only to Gergen but also to all theorists who believe that the question of truth is one of objectivity. What Davidson's argument shows is that the problem of truth is not simply one of objectivity, since the problems that are believed to

---

<sup>54</sup> By utilising Davidson's argument here, I do not mean to imply that 'scheme' is restricted to the use that Davidson makes of it. The relation of scheme and content could still hold even where scheme involves non-textual forms of meaning-making.

arise with objectivity also arise if knowledge were produced contextually and validated by local warrants.

It is important to make the presuppositions implicit in this type of constructivist argument, explicit. The flaw with this type of constructivist argument is that, in the critique of any possibility of representation of an empirically given realm, constructivists continue to hold to a form of the 'myth of the given' from which to build their critique and in so doing are faced with junking rationality, progress and truth. By contrast to Gergen, who is prepared to reject concepts such as rationality, progress and truth out of hand, Robert Reich has no such stated intention. As an advisor to the Clinton Administration and Secretary of State for labour, in the USA, Robert Reich has been influential: indeed Bruner refers to Reich's book *The Work of Nations* as a work that 'could serve as a policy document in our times' (Bruner, 1996, p. 33). In this book Reich popularises the argument about the importance of the 'symbolic analyst' as the way of mitigating the declining position of the U.S. economy in an increasingly globalised market. Reich's polemic on the need for education to produce 'symbolic analysts' (learners active in the conceptualisation of the knowledge) depends, in part, on the claim that we are now part of the 'knowledge age' where 'data ...will be available...at the touch of a computer key' (Reich, 1992, p. 229). Reich uses the contemporary rhetoric concerning new technologies to make his case about the importance of recognising specific powers of transformation and synthesis possessed by the 'symbolic analyst'. Corresponding to this analyst, and it is here that the constructivist elements of Reich's thought become apparent, is a concept of the world as devoid of meaning bearing no particular truth apart from that arising from constructive intervention. For when Reich writes: 'Consider first the capacity for abstraction. The real world is nothing but a vast jumble of noises, shapes, colours, smells and textures-essentially meaningless until the human mind imposes some order on them' (Reich, 1992, p. 229) he is giving expression to a dualist default position, commonplace in contemporary thought.<sup>55</sup>

---

<sup>55</sup> This dualism entails the 'myth of the Given'.

To sum up, once a dualist view of a world devoid of the conditions for meaning is adopted, responsibility for meaning rests with the human activity of abstraction. The possibility of meaning arising in a historical process, whereby nature is transformed through human activity, simply does not arise. There are two aspects to the implicit philosophy underpinning much post-Vygotskian research. First a common sense dualism that the world external to our thoughts and immediate activity is devoid of meaning until the point of construction – Reich’s ‘buzzing confusion’ and second that meaning is limited to the constructive activity of individuals.<sup>56</sup> The first operates with precisely the type of epistemological *Given* which Sellars criticises while the second, with a denial of meaning in the world, which McDowell posits as crucial.

### ***3.5 Schooling, constructivism and knowledge***

Constructivism is influential in the appropriation of Vygotsky, yet at the same time a tension arises as a result of the importance Vygotsky attached to instruction. This tension occurs particularly in the interpretations of ZPD (Zone of Proximal Development) and therefore has featured prominently in Vygotskian approaches to pedagogy. By introducing the idea of a ‘zone’ of development Vygotsky recognised not only that learning did not consist of discrete events within a process, but also that knowledge itself consisted of a continuing process (i.e. arose in mediation – nothing is immediate).<sup>57</sup> One reason for introducing this concept was to credit the developmental aspect of conceptualisation. Although the example Vygotsky provides barely does justice to the idea of a ZPD, it begins to explain what is at issue. Vygotsky uses the example of two children of the same age, performing at the same level in a test (summative assessment) to show that a full indication of ability is not provided

---

<sup>56</sup> This would seem to suggest an emphasis on human freedom, as the individual is viewed as the ground of meaning. This might appear to contradict what I am claiming, i.e. that human freedom is neglected. However the point that I am making views freedom as historical and as such neither a matter of a Cartesian will or of causal effect from an epistemological *Given*.

<sup>57</sup> It is difficult to do justice in a few sentences to what mediation means. See entry in Inwood (1995) *A Hegel Dictionary*, pp. 183-186.

by this form of assessment.<sup>58</sup> The inadequacy of this form of assessment is due to the fact that at any given point in time one child may already have reached a higher level of development, but not yet be at the point of making that higher level of 'concept readiness' explicit. The recognition that the acquisition of knowledge and understanding is the subject of a continual process of development, however, does not lead to the conclusion that an infinite variety of ways of knowing are possible. For fundamental to Vygotsky's use of the idea of a ZPD is that the process of 'becoming' (constituent of all knowledge), is not open-ended. What brings a concept to fruition is the intervention/interaction of an abler peer or adult. Hence the idea of a 'zone' recognises the bounded character of knowledge which is both realised by the frame in which it is articulated and in the absence of such a frame, would not be realised.<sup>59</sup> The emphasis on the intervention or instructional frame of an adult gives weight to instruction not commonly found in constructionist approaches to pedagogy. Thus while the idea of a ZPD opens the way to viewing knowledge as fluid and constructible it does not foreclose on the importance of the transmission of knowledge between generations.

By contrast to Vygotsky's view of knowledge, the interest in constructionism and constructivism in the current period has led to a focus on knowledge-construction, knowledge as a plural ('knowledges') and relativistic approaches to knowledge. The idea of a developmental aspect to meaning in any process of learning introduces the issue of the source of that meaning. For example a Platonist view of mathematics considers mathematics to exist independently of human construction whereas a social constructionist position would see mathematics as a system of operation manufactured by human beings.

Implicit epistemology has definite policy implications. The aim of diminishing the authority of the teacher and crediting the learner with the ability

---

<sup>58</sup> For a full consideration of assessment and its importance as a tool for developing learning rather than only assessing learning, see Black and Wiliam 1998a, 1998b.

<sup>59</sup> Unless, that is, it were realised by the 'boundedness' of a dualist world which provided sense data – a *given*.

not just to learn through constructing their own meaning, but to make new knowledge, and the unproblematised emphasising of ‘collaborative communities’ are all coupled to particular epistemological assumptions.<sup>60</sup> The work of Hatano, Wells and Jaworski corroborates this claim. Their work is presented here only to illustrate the possibility of a one-sided emphasis on active constructive aspect of knowledge that by implication avoids consideration of knowledge beyond individual construction. As such the presentation does not attempt to do justice to their contribution but merely to attend to the way in which their work can be influential in diverting attention from a focus on knowledge *per se*.

Firstly Hatano, whose argument illustrates issues in the application of a Vygotskian approach to pedagogy. Hatano aims to develop (through Vygotsky’s work) a more constructionist approach in applications of Vygotsky’s work to schooling in contrast to interpretations of Vygotsky that favour a more instructional approach (Hedegaard, 1990, 1998, Davydov, 1984).<sup>61</sup> The difficulty with arguments pitted against ‘instructional approaches’ is that the term ‘instruction’ is used pejoratively, to refer to a transmission model of learning and approaches that hold that there is a body of knowledge which should be taught to successive generations. The instructional approach is seen to correlate with the failures of the practice of mass schooling (transmission approaches) and in turn this results in the adoption of a particular stance on knowledge. Hatano argues that a Vygotskian conception of instruction has been interpreted within an empiricist frame in the US, so that it coincides with ‘conventional didactic teaching including ‘rote, drill and practice instruction’ (Hatano, 1993, p. 154). He continues ‘...Vygotskians have been busy criticizing Piagetians’ “romantic child-centered constructivism” without clearly differentiating their conception from transmission (Hatano & Newman, 1985)’ (Hatano, 1993 p. 154). Although Hatano is careful to state that he is offering just *one* interpretation it is clear that his argument for a more

---

<sup>60</sup> This would seem to be at odds with the claims of writers who aim to be agnostic on epistemology. However, their lack of commentary on epistemology does not prevent their having a default position by default.

<sup>61</sup> A difficulty here is the meaning of ‘instructional’ and the extent to which this refers only to a passive caricature of a learner or to an approach which emphasises a core body of knowledge.

constructivist version depends upon the caricature of the instructional approach that he sets up. This caricature is commonplace, posing constructivism as an alternative to a traditional transmission model of teaching. To make his point clear Hatano sets up, what he admits to be, 'the so-called Vygotskian conception of knowledge acquisition by instruction ... [in] a somewhat caricatured form...' (Hatano, 1993, p. 154). His typification brings to the fore what he sees as a central issue - the emphasis on the teacher's authority as knowledge expert rather than the child's own construction of a problem. According to this schematised version of a Vygotskian approach: 'Knowledge to be acquired by the learner (a less mature member of society) is possessed by the teacher (a more mature member) usually in the form of a set of skills or strategies for solving the target problem...' (Hatano, 1993, p. 154). It is necessary to bear in mind here that Hatano is aiming to show how, even with an avowedly Vygotskian approach, teachers still perpetuate a form of transmission. He describes the method used as one in which the teacher demonstrates how to solve problems, while the learner takes over steps involved in the solution as the supporting role of the teacher becoming less and less important (Hatano, 1993). Although he recognises that this is only one possible interpretation, he still wishes to condemn acquisition by instruction which he claims has hidden empiricist assumptions. These he details as: 1) the learner being passive and not needing to understand the meaning of the skills being taught or construct knowledge that goes beyond them; 2) only the interaction with the teacher allows the acquisition of knowledge; and 3) the teacher acts as the only source of information and evaluation. For Hatano, this set of assumptions defines a transmission model. Hatano uses Palinscar and Brown's research on joint problem-solving (reciprocal teaching) as a method of comprehending a text, to indicate his concern that so-called Vygotskian approaches still place emphasis on the teacher's authority rather than upon the learner's own knowledge-construction. In regard to Palinscar and Brown's example of reciprocal teaching, Hatano states that 'if the strategies are acquired *because of the teacher's authority* [my emphasis] ...rather than to enhance understanding... then "reciprocal teaching" is not based on a constructivist approach' (Hatano. 1993, p. 158). There are two problems here, first what Hatano calls the 'authority' of the teacher and second, the conception of



constructivism and its location in contemporary criticisms of abstract knowledge. Both have consequences for how teachers interpret and legitimate their practice.

Hatano's aim is to bring a constructive dimension to the Vygotskian legacy as he sees it, to revise the 'transmission skills' framework, and to extend the conception of learning by instruction. He argues that the conception of learners in his caricature of Vygotsky's approach does not fit well with evidence which shows humans as active beneficiaries of interactions with people and natural and artificial environments. Hatano's response to deficiencies in North American schooling, is to provide a 'reinterpretation of Vygotsky's theory as exemplifying "realistic constructivism"...an idea that knowledge is constructed by learners themselves under a variety of sociocultural constraints' and he argues that this 'can legitimately be called a *radical extension* of the Vygotskian conception' (Hatano, 1993, p. 155).

The aim of this constructivist reinterpretation of Vygotsky illustrates a widely experienced uneasiness with Vygotsky's position that there is a body of knowledge that is passed on to the next generation, and an equally widely experienced desire to give weight to meaning-making and knowledge construction of learners themselves. But what meaning should be attached to the phrases 'constructed by learners themselves', and the 'teacher's authority'? Such phrases are taken as prescriptions for giving priority to learners own construction of knowledge and reducing the role of the teacher, to a 'facilitator' of the child's own constructions (Cobb, 1994).

The opposition of a teacher's authority to a learners' meaning-making and knowledge construction also plays a central part in the work of Gordon Wells, only where Hatano wants to bring a radical reinterpretation to Vygotsky to incorporate constructivism, Wells sees Vygotskian theory as already social constructivist (Wells, 1999, p. xii). However, Wells is critical of what he sees as Vygotsky's 'overly optimistic belief in the superiority of scientific rationalism and an unquestioning acceptance of the progressive and benign consequences of schooled instruction' (Wells, 1999, p. 325). Wells argues against the design of

curricula which are independent of the 'needs and aspirations of learners'. This is a tricky area due to the highly politicised nature of what is involved in responding to 'the needs of individual learners' in the current period. On the face of it, any educator can claim to be responding to the needs of learners if education is achieved, and it would seem peculiar not to assign the term education to a practice that helped learners to learn, although many commentators attribute schooling with covert aims far removed from education.<sup>62</sup> How far 'access' should be interpreted in terms of fulfilling student demands when such demands are not made out of independent interest but in a context in which achievement is measured in a specific way and demand driven by objectives that may be quite separate from student learning, is highly problematic. At times Wells' interest in 'inclusion' appears unaware of the possibility that knowledge (and also the process of education) might be 'counterintuitive' coming into conflict with what learners (at one point in time) perceive to be their aspirations. To a large extent the issues at stake in Wells' investigation into an effective pedagogy, are a matter of emphasis and dependent upon the way that the issues are interpreted by practicing teachers.

Certainly Vygotsky would be in agreement with Wells that a learner needs to be fully engaged and actively thinking/constructing if learning is to occur. Vygotsky criticises the: 'wholly abstract thinking [which] is entirely incomprehensible to the student, and in the Tsarist school produces naked and dry literalism, i.e. an infinite propensity for verbal formulations and for verbal definitions without any effort to penetrate into essentials, and instead of a knowledge of subject matter, there was a knowledge of words' (Vygotsky, 1997c, p. 173). However, this did not lead him to conclude that the curriculum should be built around the 'aspirations' of learners. Vygotsky's approach to knowledge was different from that of Wells. For Vygotsky the issue was to find a way to design curricula so that learners would be in a position to exercise thinking in coming to know a substantial body of knowledge. In this sense the attribute of 'effective practice' was not to work for collaborative meaning-

---

<sup>62</sup> For instance Braverman's (1974) characterisation of education as limited to basic skills, conformity to the rules of society and obedience in contrast to Pippin's (2000) claim that liberal education is one in which learners, in acquiring knowledge also understand the *reasons* for holding such knowledge.

making where meaning is *constructed* by members of the class, but to set up obstacles designed to assist thinking to develop so as to approach deeper understanding of existing knowledge.<sup>63</sup>

By contrast, Wells assumes a ‘community’ exists in any classroom, through which the valuable principles of dialogic pedagogy can be realised by joint activity working towards shared goals.

He argues that there is an automatic link between learning and the development of identity, with the implication that schooling (learning in the ZPD) is responsible for identity development: ‘the *whole person* [my emphasis] is involved in activity undertaken with others, interaction in the zpd *necessarily* [my emphasis] involves all facets of the personality’ (Wells, 1999, p. 331). The assumption of an immediate link between the ‘whole person’ and the experience of learning is conflated with a further more sociological claim that ‘because individuals and the social world are mutually constitutive of each other, transformation of the learner also involves transforming the communities of which he or she is a member’ (Wells, 1999, p. 331).

There is an easy slippage, in educational practice, from Wells’ integration of learning with the development of individual identity to an idea of ‘inclusivity’ entailing commonly defined values and accepted modes of behaviour, attitude and temperament. Wells’ claim that a classroom can be a ‘collaborative community’ where by implication goals are shared, is contestable. In a later work (Wells and Claxton, 2002, p. 5) Wells, recognises that the participants in collaborative activity may not share identical goals or beliefs (though a degree of overlap is necessary for collaboration) and that disagreement is valuable.<sup>64</sup> The appropriation of terms such as ‘community’, ‘collaboration’ ‘individual purposes’ to an outline of education practices raises more questions than it answers. Similarly an emphasis on the development of

---

<sup>63</sup>Vygotsky’s approach does not deny that learners are active in coming to know, but holds that learners are not *creating* knowledge.

<sup>64</sup> The activity theory of Engestrom makes conflict key to development, albeit at an early stage of a process of DWR (Developmental Work Research). For Engestrom, the ‘double-bind’ generating an impasse in activity, provides the focal point for ‘expansive learning’.

‘the whole person’ and ‘identity’ can be read as entailing the responsibility of educators for the development of individual learners in every aspect of their being. In mass schooling this easily slides into the monitoring of attitudes and behaviour patterns. Walkerdine has made a convincing criticism of the way in which primary classrooms became arenas for increasing social control under the guise of a more humane and child-centred approach (Walkerdine, 1984). She draws on a Foucauldian perspective to argue that what appear as strategies of freedom - a pedagogic practice which will set children free – are really ‘administrative apparatuses for providing techniques of social regulation’ (Walkerdine, 1984, p. 163).

The importance Wells attaches to the value of collaborative activity leads to seeing the teacher, ‘rather than being primarily a dispenser of knowledge and assigner of grades [as one who] sees him or herself as a fellow learner whose prime responsibility is to act as leader of a community committed to the co-construction of knowledge’ (Wells, 1999, p. 331). The emphasis is on the construction of values and knowledge, whereby teachers support and guide students as they ‘create their own alternative versions of the future’ (Wells, 1999, p. 332). Wells’ educational prescriptions and ideals are informed by an explicit rejection of any idea of *telos* in development; this he shares with many post-Vygotskian researchers. He outlines three factors since Vygotsky’s death that provide ‘grounds for challenging what many now consider to be an overly optimistic belief in the universal superiority of scientific rationalism’: 1) the criticism of the hegemony of technical rationality; 2) the challenge from cultural anthropologists ‘to reject the view that treats the trajectory of European cultural history as the point of reference for evaluating other cultures’; and 3) ‘the influx of immigrants from a range of different cultures has led to a de facto multiculturalism that is demanding a re-evaluation of the assumed superiority of white, male, middle-class values and, hence, also the technical-rationality on which it is based’ (Wells, 1999, p. 325). Each of these factors has led to a questioning of knowledge and the directing of attention to the constructive activity of groups of individuals.

Questions of realism and knowledge are fundamental for curricula and institutional design in education. A further example illustrates the part played by epistemology in Wells' theory of education. Wells refers to his colleague Bereiter's use of Popper's discussion of 'third-world objects' as an illustration of the type of erroneous conceptions of knowledge that educators can subscribe to. Bereiter writes of knowledge objects such as numbers, Newton's second law and Puccini's *Madam Butterfly* as having 'the characteristics of real objects, except for being immaterial. They have origins, histories; they can be described and criticized, compared with others of their kind. They can be found to have properties that their creators or previous generations were unaware of [Bereiter, 1994, p. 22]' (Wells, 1999, p. 73). Incidentally, the idea that knowledge objects may have properties that their creators are unaware of is the same point made by Ian Hacking below. Wells disagrees with Bereiter's claim that knowledge is independent of the construction of individuals at any one point in time. He lays what he perceives to be the error in Bereiter's argument, at the door of a particular version of representation. For Wells the flaw in Bereiter's position is due to his retaining the idea of representation of 'something' whilst rejecting the idea that representations match objects in the world:

The mistake, I think is in assuming that, because a text or musical score is a representational artifact, there must be an object that exists to be represented; and then, because this object – unlike its representation – does not exist in the material world, in arguing that it must therefore be located in a different world – a World 3.

(Wells, 1999, pp. 73-74)

Here again Wells shows the influence of linguistic discourse analysis and constructivism in his account of the problem of knowledge in general and schooled-knowledge in particular.

In the following passage, it is the conception of knowledge, rather than the poverty of a representationalist paradigm, which is at issue:

...it may sometimes be convenient to speak as if ideas, theories and concepts had an autonomous and immaterial existence - provided that such terms are recognized for what they are, that is to say, as *synoptic constructs that function as shorthand expressions in particular genres of theoretical discourse* [my emphasis]. In general, however, this way of speaking can be seriously misleading. Serious not simply because it misrepresents the way in which knowledge is constructed and used, but serious also in its consequences for the way in which, in schools and other educational institutions, knowledge, by being reified, becomes a commodity to be transmitted to students and its possession subsequently assessed and quantified.

(Wells, 2002, p 113)

What Wells is critical of, is that ‘Separating ‘the “message” from the form in which it is realised, as Popper does, ignores the process by which a theory or any other putative third world object is developed’ (Wells, 2002, p 113). For Wells, knowledge can be explained only by reference to the discourse and genres through which it is produced. But the nature of the form in “the form in which it is realised” is not established. Although Wells credits that knowledge develops over different time scales his prime concern is to combat an approach to schooling which views knowledge as a product which can be ‘transmitted’. So whilst he mentions that knowledge is constituted over centuries, his aim is to emphasise that all knowledge is constantly reconstituted and transformed by the activity of individuals in a social context. Where Wells gives credit to the idea that science develops in history due to a historical process involving the development of technologies and social forces, then he would not be in disagreement with Popper or Hacking for that matter. However, Wells appears to retain the representational relation criticised by Brandom. Having rejected the idea of an artefact representing a real object, he maintains an ideal/real dualism whereby a theory can only be understood as a relation between one set of signifiers and another.<sup>65</sup>

---

<sup>65</sup> Wells states that he is using the form of dialogue to develop a theory of knowledge and infers that his words *are* provisional and exploratory.

However, the fact that we can use the metalinguistic term 'theory' as a way of referring to the current textual end product of this constructive process of synoptic abstraction does not mean that there is a corresponding immaterial object that then exists, independent of the linguistic formulation and argumentation through which it was constructed. ...So when Popper argues that the unexpected new problems to which new theories give rise are 'in no sense made by us; rather they are discovered by us; and in this sense they exist, undiscovered, before their discovery' (Popper, 1972, pp.160-161), I find his claim to be at best hyperbolic, and at worst confusing.

(Wells, 2002, p. 114)

Where Bereiter and Popper hold a view of knowledge that cannot be reduced to the meaning-making of individuals at specific points in history, Wells finds himself in the position of having to counter his rejection of 'discovery' as opposed to construction, with an argument for the local situated knowledge construction of the classroom, 'knowledge does not have an existence apart from the situated acts of knowing in which it is constructed, reconstructed and used' (Wells, 2002, p 116). Again the issue of epistemology is crucial in influencing the position adopted by Wells. Arguments concerning appropriate pedagogy are inevitably politicised and Wells' position on knowledge is formed in the context of North American schooling where States prescribe educational content, in a draconian way, even down to the textbook used in teaching. Wells' attempt to develop a theoretical framework for handling the idea of knowledge was developed in part as a response to a report on the role of schooling prepared by an educational association in one of Canada's largest provinces. He cautions that his contribution forms part of an ongoing dialogue rather than presenting definitive conclusions (Wells, 1999, p. 52). Wells sees 'the view of knowledge as having an independent existence that can be transmitted through texts of teacher exposition, is one of the chief impediments to creating classrooms as 'knowledge building communities' (Wells, 1999, p. 52). In this situation it is not surprising that once a view of knowledge as the outcome of accurate representations of the world is rejected (the mirror view of nature) the alternative seems to be the continual reconstitution of knowledge via the activity of participants in a particular social context. But the problem with recourse to such a position, is the tendency to diminish the role of the teacher as authority or to value texts in their own right.

At the extreme, approaches adopted in the name of constructivism, have the most serious consequences for education. The following anecdote illustrates the extent to which a rejection of the possibility of knowledge existing beyond individual construction, is pervasive in schooling. The anecdote was related to Barbara Jaworski by Rita Nolder from her experiences as a mathematics advisory teacher and is used by Jaworski to advocate a particular approach to mathematics education. As the anecdote shows how slippage occurs when epistemological presuppositions are not made clear, it is worth relating the anecdote in full:

In a class of 11 year olds working with SMP, the teacher was going around helping students. Rita, feeling redundant, was listening to two boys working with the SMP book on *angle*. They were looking at a diagram of two triangles (i) with angles of 45, 45, 90 and (ii) with angles of 30, 60, 90.

One boy said to the other "This one's a triangle [the first], and this one isn't [the second]". The boy speaking seemed to have some image or concept of a triangle which included the first triangle, but not the second. Now, Rita believed that both objects were triangles. The boy made his construction according to his own experience. So did Rita. We might say that the boy was wrong and Rita was right. But this is to make judgements about truth without taking into account the circumstances from which the statements arise. What was the boy's experience which led to his statement? Why did he believe that the second shape was not a triangle?

The context in which a statement is made is crucial to the validity of the statement, and it is very difficult to say therefore when any statement is true without knowing this context. We might, for example, be tempted to say that an object with angles adding up to more than  $180^\circ$  could not be a triangle. However, a triangle on the surface of a sphere could fit this criterion. In plane geometry we might feel happy with the statement that the angles of a triangle add up to  $180^\circ$ . So, to understand the boy's statement in Rita's anecdote, it would be helpful to locate the discourse in a wider context, although this might be quite difficult to elicit.

A consequence of pupil talk and teacher listening is that the teacher is able to glean a sense of the origins of pupils' ideas and to challenge these in some way if it seems appropriate. ...Rita might have asked the boys why the second figure was not a triangle, and could have followed up her question with further examples and situations for the boy to consider, possibly extending his experience and causing him to modify his knowledge. This might be described as 'challenging the student's *misconceptions*', but if there are, 'mis'conceptions, what then is a *conception*? Is this some form of knowledge which the 'mis'conception is not? Can a conception be independent of the person or circumstance of the conceiving?

(Jaworski, 1993)



These questions raised by Jaworski reveal the degree of conflation of different issues in the development of concepts.<sup>66</sup> The interest in working dialogically with the pupils' own conceptions, is given priority over any concern to ensure that the pupils are able to distinguish clearly between correct and incorrect knowledge. Indeed, the extract is used by the author, to question whether there can be a form of knowledge against which a misconception can be compared. The agnosticism with respect to epistemology at the heart of constructivism is stated explicitly:

Noddings' response to questions such as this is to recognise that constructivism cannot of its very nature make any statement about the status of knowledge, and so she claims that constructivism is *post-epistemological*. Von Glasersfeld, in the same volume, accepts Noddings' position and modifies his own language, talking of constructivism as a theory of *knowing* rather than a theory of knowledge.

(Jaworski, 1993)

The preceding anecdote is used only to illustrate the sort of discussion arising in mathematics education in the context of constructivist ideas. An understandable concern of educationalists (Hatano, Wertsch, Jaworski) in the context of the limitations of state schooling, is to redress the poverty of a 'transmission' approach to the knowledge by putting in its place a powerful emphasis on the creative dimension involved in any form of understanding. A problem arises though when all creativity is put on a par or all considered to warrant the term creativity. The issue of how powerful theories with major applications are developed in the minds of particular individuals is not dealt with by viewing all human activity as creative even though it may happen that a child (lacking relevant knowledge) may make a comment that coincides with a major theory – e.g. that only triangles in Euclidean geometry have angles that add up to 180 degrees. However, there is far more to the realisation of an original contribution than the coincidence of a critical statement and the boy's 'experience' mentioned earlier. The idea that an alternative geometry might validate the boy's conception of the second triangle as 'not a triangle' or prevent it from

---

<sup>66</sup> In this development no conception of history is present.

being described as a ‘misconception’, misunderstands what is involved in knowledge. Because universality is sidelined by the importance of recognising human activity in a context, well-meaning arguments are led into absurd conclusions. Cobb comments on ‘the “political correctness” that frequently surrounds constructivism in maths and science education’ (Cobb, 1994) and argues for the importance of going beyond purely psychological and individualist constructivism to view learning maths at least in part as enculturation into an intellectual community. He also makes the point that students construct their own ways of knowing in the most authoritarian pedagogic situations, hence the ability to construct is only furnished by particular contexts.

### ***3.6 Conclusion***

The previous discussion has considered the extent to which attempts to offer explanation of the failure of schooling in terms of the transmission of decontextualised rationality, have turned to a communitarian constructivism as an alternative. However, this alternative is not unproblematic and there are significant points to take into account. Two points are relevant here: the conflation of individuality and identity with the practice of schooling and the subsumption of knowledge to local construction. Richard Sennett has a different version of identity and Ian Hacking a different version of texts and knowledge. A different sense of individuality is found in Richard Sennett's conception of public life. For Sennett a serious problem for contemporary society is the loss of public life of which the classroom is an instance (although Sennett himself does not give this example). For Sennett, individuality and personality are enhanced by the possibility/opportunity of the full development of discrete ways of acting in discrete circumstances.

The space, which sustains these discrete ways of being, arises out of the conventions and rules bounding activity in the public context:

Convention itself is the single most expressive tool in public life. But in an age wherein intimate relations determine what shall be believable, conventions, artifices, and rules appear only to get in the way of revealing oneself to another; they are obstructions to intimate expression. As the imbalance between public and intimate life has grown greater, people have become less expressive. With an emphasis on psychological authenticity, people become inartistic in daily life because they are unable to tap the fundamental creative strength of the actor, the ability to play with and invest external images of self. Thus we arrive at the hypothesis that theatricality has an equally special, friendly relation to a strong public life.

(Sennett, 1977, p. 37)

There is a separation ‘between public and intimate life’ which is assisted by the conventions, artifices and rules which facilitate expressiveness. The idea of identity and activity which underlies Sennett’s account of public life is quite different from that implicit in Wells’ argument. Sennett’s account of identity and activity stands in sharp contrast to that which holds that identity arises in a community holding shared goals and working towards a common understanding.

Turning now to what Ian Hacking has to say about text and knowledge, another aspect of Wells’ work. Hacking addresses the question of relativism which results from an awareness of the different valuations of artefacts and texts in different contexts and periods of history. But unlike Wells, who claims that meaning can only be credited to individuals at a particular point in time, he presents a narrative to illustrate the argument that meaning can be carried beyond the locale of any collection of individuals.

The narrative involves a collection of Chinese porcelain, traded by August der Stark in the 18<sup>th</sup> century; this collection was the stunningly beautiful product of techniques of glazing in the style called ‘the green family’. Hacking tells how August de Stark’s love for his china was so great that he built a palace to house it but how later the collection was dismissed as of no more value than ‘a collection of dolls’. For a century it was left in a crowded cellar. Then, at the

end of the nineteenth century, the porcelain was returned to light and delighted and amazed scholars before being housed in cellars again during the Second World War and then again returned to an appreciative public gaze (Hacking, 1995, p. 238). For Hacking the adventures of the Chinese porcelain illustrates an argument against both relativism and the idea that a work of art has no intrinsic value. The story of the porcelain can be related as:

... a human tale of wealth, lust, changes in taste, destruction, survival. Only a sequence of accidents created the Chinese export trade of objects suited to a certain European fashion for chinoiserie around the 1700s, and then brought such characteristic examples under one lavish roof, saw the lapse from public taste, witnessed a revival, a firestorm and a return... In short there were periods of admiration and times when these pieces were despised, unlit and unloved.

(Hacking, 1995, p. 238)

The fact that different periods invest the green family porcelain with a different aura leads to the 'crass' conclusion that '*[e]vidently there is no intrinsic value in this stuff, it goes up and down in the scale of human admiration as the wind blows*' (Hacking, 1995, p. 238).<sup>67</sup> But Hacking argues against the position preferring, as he says, the empirical claim supported by historical evidence that 'there will be generations that rediscover [the porcelain]. It will time and again *show itself*' (Hacking 1995, p. 238) even though to do so, particular conditions may apply. His point is that '[a]chievements created by humans have a strange persistence that contrasts with fashion' (Hacking 1995, p. 239).

Hacking makes essentially the same argument in relation to texts when he reports the comments of his undergraduate students about their introductory philosophy course. "Gee what a great course" was followed by "But you could not help it...What with all those great books, I mean like Descartes..." (Hacking, 1999, p. 239). Hacking modestly reports that he gives terrible lectures, and tells his students that he does not understand Descartes but knows that '[i]t does not matter. Descartes speaks directly to these young people, who

---

<sup>67</sup> The term crass is actually used by Hacking to describe his own statement, but in fact he believes the statement does justice to the relativist position.

know as little about Descartes and his times as I know about the green family and its times. But just as the green family showed itself to me, directly, so Descartes shows himself to me' (Hacking, 1999, p. 239). Even though many students may have thought Descartes and Sartre were contemporaries, 'the value of Descartes to these students is completely anachronistic, out of time...Descartes, even more than Sartre, can speak directly to them across the seas of time' (Hacking, 1999, p. 239). Hacking also gives the example of Hegel as someone who 'once again shows himself' who speaks 'directly... after decades of oblivion' even though during his absence, he 'dominated the formation of Dewey, and perhaps that of Pierce, and also the young upstarts Moore and Russell who laid waste to him within a few years' (Hacking, 1999, p. 240).

Hacking's appreciation of texts is totally different to that of Wells. For Wells the text<sup>68</sup> is dependent for its meaning on the successive subjective constructions placed upon it, whereas for Hacking the text retains its value, which is to be re-discovered. A text can be read differently from one period to the next but this different reading does not create new meanings *ex nihilo*. Hegel's text is generative in the sense that it discloses more knowledge with more reading and also more knowledge is available in the text as history allows it 'to show itself' (Hacking).<sup>69</sup> The different position taken by Wells, Jaworski and Hatano on the one side and Sennett and Hacking on the other have profound implications for education since they imply quite different positions as regards to the attitude of educators towards knowledge and to the role of the teacher as authority or facilitator. The representational paradigm is unable to deal with issues of meaning without oscillating between *either* attributing meaning and/or agency to artefacts/tools, *or* reducing meaning to the construction of individuals and thereby losing any sense of 'universalising' knowledge.

---

<sup>68</sup> Wells is normally referring to texts which bear no comparison to the texts that Hacking has in mind (school classrooms texts versus Descartes Meditations).

<sup>69</sup> Similarly a scientific theory or mathematical formula is generative beyond its original value and purpose.

It is important to note that in his criticism of the pervasiveness of the concept of representation in attempts to deal with meaning, Brandom introduces a Hegelian dimension. Hegel exposes the fallacies of a way of thinking that does not recognise the underlying epistemology with which it operates.<sup>70</sup>

According to Brandom:

a representational paradigm reigns not only in the whole spectrum of analytically pursued semantics...but also in structuralism inheriting the broad outline of Saussure's semantics, and even those later continental thinkers whose poststructuralism is still so far mired in the representational paradigm that it can see no other alternative to understanding meaning in terms of signifiers standing for signified than to understand it in terms of signifiers standing for other signifiers.

(Brandom, 2000, p. 10)

His point is that even though a version of the correspondence view of knowledge according to which a signifier represents an object/event is rejected, the paradigm is frequently left untouched.<sup>71</sup> It follows therefore that the implication of a critique of the failure of signifier to represent an external world leads to the relativist positions that the knowledge available for human beings arises from the relation between one signifier and another. Postmodernism has replaced signifiers standing for signified with signifiers standing for signifiers – but it has not broken decisively with a representationalist paradigm, that still operates implicitly. Instead of unearthing the pre-suppositions of representation, it retains representation as a relation between representations. In effect it continues the limitations of *the Understanding*, which Hegel exposed in his critique (Hegel's critique is considered in Chapter 6).

The importance of the representational paradigm is not limited to agency, freedom and the under-theorisation of human activity, it also has an ethical dimension. Referring to Sellars, Brandom insists that what distinguishes a

---

<sup>70</sup> Hegel's exposure of what is involved in our way of grasping the world compels consideration of human freedom. Thought and freedom are thus inextricably linked. For Spinoza the development of intellect and freedom are one and the same.

<sup>71</sup> Correspondence view of truth as one which presupposes that representations map isomorphically on to the world.

human from a non-human knower (which only responds differentially) is normativity - the giving and asking of reasons. This giving and asking of reasons is a necessary element of human knowing which is always conceptual and as such different from non-human knowing such as is apparent in the report of a parrot screeching 'red' in response to a red object. The normativity immediately locates epistemology in ethics, but not ethics in the way that it is commonly thought of, i.e. an external code that can be approved or disapproved, accepted or rejected. To put it another way values are not separated from facts. All knowing takes the form of judgments that one *ought* to make. According to Brandom following Hegel and before him Kant, human knowledge and judgement go together and the Humean distinction between fact and value is groundless.<sup>72</sup>

In effect, Brandom's interest lies in the priority of inference over reference. This inversion of the conventional order of explanation gives a different weight to factors involved in the development of meaning, emphasising human agency and history rather than artefacts or representational resources. A commonsense understanding of the word 'history' is that which goes before and has an effect on that which comes after, but this understanding leads to problems with the concepts of progress and development of which writers in the post-Vygotskian research field are wary. This will be discussed further in Chapter 7. Only one aspect of this very large and complex area needs to be mentioned here. From the point of view of Hegel, history is not a matter of antecedents to any current state, but of a holism which, in contrast to dualism, attributes activity with consequences, but eschews the type of direct causal relation that is commonly assumed in explanation.<sup>73</sup> The theorisation of

---

<sup>72</sup> However, advocates of a fact/value distinction are not completely mistaken in their attempt to keep values separate from facts. The argument that values intricately combine with facts does not necessarily entail that the values are ones that individuals have added consciously (actively). The values are implicit in the very process of thinking, i.e. to perceive something is to distinguish it as significant – to relate it to other concepts, i.e. place it in a space of reasons. This is quite different to the position that most provokes negative response from those who advocate a fact/value distinction in popular discussion, e.g. when an individual labels a particular scientific theory as subscribing to a particular set of moral or immoral positions.

<sup>73</sup> The argument made by Bakhurst that Vygotsky's view of higher mental functions could not be reduced to their primitive antecedents, is a case in point. An account of higher mental

events is an open question in which a distinct area of scholarship is devoted to historiography. My argument is that the dualism implicit in conceptualisations of human meaning-making (semiosis) effects the theorisation of issues which are crucial to education. Positions adopted on knowledge, and the role of the teacher, have practical positions on policy for schooling.<sup>74</sup>

Although the subtleties of philosophical argument needed to unearth the presuppositions of representationalism are not easily accessible, the work not only of Sennett and Hacking but also of contemporary philosophers such as Brandom and McDowell have a bearing on practical questions of education, research and policy. Every position on knowledge, learning and pedagogy has presuppositions about the nature of knowledge. Approaches to pedagogy are informed by epistemological presupposition as well as research.

Where these epistemological presuppositions are not worked through there is a tendency which is apparent in much recent work to take knowledge which can be separated from individual contexts and generalised across a variety of domains, to be questionable because it is decontextualised: associated with this tendency is the critique of the 'Enlightenment project' interpreted as one of knowing and manipulating the world. This 'project' has been fiercely criticised in several quarters and the criticisms have been recruited by researchers in education to legitimate a relativist and contextualist approach to knowledge. It has become fashionable to rescind the term 'truth' and to speak of knowledge(s) in the plural.<sup>75</sup> Much of criticism of the enlightenment project

---

functions (intellect) cannot be made simply from neurophysiology, developmental biology or child development.

<sup>74</sup> A trivial example of this form of explanation or account, though one with impact in UK education departments is the requirements from the key agency auditing teaching quality (QAA) that course bibliographies are 'up to date' and older texts for literature published before 2000 are dropped. This creates a climate of opinion in which newer is viewed as better. Paradoxically this outlook implies a theory of progress which those who favour newer over older publications would often reject out of hand. In this context it is interesting to note that there is public acknowledgement that the Research Assessment Exercise (RAE) has had a detrimental effect on the quality of published work over the last decade as academics attempt to fulfill output requirements.



is phrased in terms of individual rights, multiculturalism and equality.<sup>76</sup> What education research has lost in the process is the enthusiasm and the grounds for examining the political order of far greater importance for education than pedagogic strategy.

It is interesting to note that the ideas discussed above can fit different and even opposed political agendas: Kirshner and Whitson point out that the research on situated cognition has been adopted by advocates of market vouchers whose views about the funding of public education stand in sharp opposition to those who develop these ideas in education in the first place (Kirshner and Whitson, 1997, p. viii).<sup>77</sup> The attack on decontextualised knowledge may be conceived as an attack on authoritarianism and abstraction but it can easily be construed opportunistically as grounds for cutting programmes for formal education or grounds for reducing actual education to the most narrow programmes of training. Lave has contrasted the success of learning in everyday contexts (as purposeful and motivating) to the inert knowledge of formal schooling. In doing so, sadly, it is possible that this type of position may, like Adam Smith's invisible hand, contribute to an end that is no part of its intention.

In turning to Hegel, this thesis signals an alternative position, which, while it retains the traditional concept of knowledge, neither ignores nor denies the diversity of routes by which knowledge arrives. For the moment however it is not Hegel alone that we turn, but to Hegel and Kant as reflected through the work of Vygotsky and Piaget.

---

<sup>76</sup> The 'Science wars' and the 'Culture wars' have been a part of a continuing debate which has influenced approaches to curricula and, at a deeper level, shaped ideas about knowing and knowledge.

<sup>77</sup> '...situated cognition theory...has served as a powerful platform for analysing the pressing problems and possibilities of schooling and schools...But such research has subsequently been co-opted to argue for literal apprenticeships in the United States...and to advocate market-driven vouchers as a way to eliminate public education' (Kirshner and Whitson, 1997, p. viii).

## Chapter 4

### Vygotsky-Piaget – a case of different philosophies

#### *4.1 Introduction to philosophical background*

The preceding chapter has set out the problem of decontextualisation as it is posed in relation to Vygotsky's work. It has taken issue with the way in which causality is assigned to context in the formation of mind and has attempted to show that too many of the terms used in this area are taken as unproblematic. This chapter and the next continue the argument by exposing the philosophical tradition informing Vygotsky's work. Their aim is to make explicit vis-à-vis Vygotsky's work what many commentaries upon it leave unsaid, namely that it has a definite philosophical provenance which conditions and shapes its arguments.

It is often difficult to attribute a clear influence on an author of any particular philosophy but one of Vygotsky's strengths was his use of named sources. They earned him no credit in the Soviet Union where Stalinism imposed a narrow caricature of Marxism as the criterion of theory. Van der Veer and Valsiner (1993) have contributed most to an excavation of the influences on Vygotsky and although their work has established his debt to Hegel and Spinoza, there is little to explain in detail exactly what this debt comprises (Bakhurst, 1991, Robbins, 2001, Van der Veer, 1984, Bronckart, 1996, Brockmeier, 1996, Kozulin, 1990).

This chapter uses a comparison of Vygotsky's and Piaget's work to pose the question of different philosophical approaches. Both Vygotsky and Piaget offered forms of genetic epistemology.<sup>78</sup> Genetic epistemology – the attempt to

---

<sup>78</sup> Kitchner notes that although Mark Baldwin was responsible for the creation of a field termed 'genetic epistemology' it was Piaget who became most closely identified with it. However, the view that empirical psychology is relevant to normative epistemology has received little attention even though it holds considerable philosophical promise. This is in part due to the mistaken view that Piaget was only doing child psychology (Kitchener, 1994).

understand the development of knowledge as paralleling the development of faculties was particularly important for Piaget:

The fundamental hypothesis of genetic epistemology is that there is a parallelism between the progress made in the logical and rational organisation of knowledge and the corresponding formative psychological processes.<sup>79</sup>

(Piaget, 1970, p. 13)

The formulation of this parallelism has played a fundamentally important role, but Vygotsky took it a step further and linked it to the sociogenetic development of faculties and knowledge. In Piaget 'the flow of construction is from one's interactions with one's nonhuman environment toward an exchange with others. In Vygotsky, the flow of conceptual development is reversed' (Confrey, 1995, p. 202). This reversal of the flow by Vygotsky, relates to an argument concerning the space of reasons mentioned in Chapter 1 and considered later. By contrast to the comparisons between Vygotsky and Piaget which are commonly made from the point of view of psychology, attention here is directed to the less well aired but no less important, philosophic differences between them. This chapter and the next two put these differences in context by considering points in parts of the philosophy of Hegel and Spinoza which are relevant for Vygotsky's conception of mind and world and its differences from that of Piaget. As has been said in Chapter 1, the commentaries on Vygotsky have not always been attentive to this.

The importance of the philosophical background to Vygotsky's work cannot be underestimated. The contrast between Vygotskian and Piagetian, positions which is presented in many discussions as an internal dispute within educational research about learning, is a moment in the classic debate in European thought between Cartesian dualism and the reworking of the classical Aristotelian rejection of empiricism contained within *De Anima*. Discussion within education research about scientific concepts, the nature of knowledge

---

<sup>79</sup> Piaget was interested in the way that representational systems are built by the manipulation of objects developing mental operations.

and the process by which knowledge can be learnt, mimics issues that have been worked over centuries of philosophic dispute. Joseph Dunne's (1993) detailed consideration of philosophical issues, stemming from educational questions, provides clear evidence of the extent to which questions of education have a philosophical dimension.<sup>80</sup> Many of the presuppositions of educational theory are drawn from a dualism that posits the minds of learners as comprising distinct and separate capabilities with which an educator interacts. This process is understood predominately in a cognitive way, independent of context. Educational theory is steeped in a Cartesian conception of consciousness. One of the problems is we are living in a cultural and intellectual milieu which despite protestations remains irrevocably dualist and with the best will in the world, it is very difficult to step outside presuppositions that are continually renewed by everyday practice.

The issues involved here are philosophic but this does not preclude them from having important practical implications. For instance, the differences in the conceptualisation of consciousness has implications for the understanding of constructivism and universal knowledge and hence for pedagogy. The difference between Vygotsky and the early Piaget and its philosophic dimensions involving egocentrism and concept development, have not yet been fully explored in educational theory.

Both thinkers were fully aware of the philosophical context of their work. Piaget's work, for instance, was deeply entrenched in philosophy. Brockmeier, who has pointed out how 'Piaget never lost sight of the philosophical dimension of psychology' (Brockmeier, 1996, p. 125) comments on Piaget's retreat from the metaphysical issues of his youth (Bergsonian) and '...the emergence...of the omnipresence of reference to Kant. '[For Piaget] the main issue...is nothing other than the construction of the categories of understanding in *The critique of*

---

<sup>80</sup> Dunne's work, which is primarily concerned with the Aristotelian questions of *techné* and *phronesis* has, because of the nature of these concepts, a direct bearing on the question of rationality. In *Back to the Rough Ground* he develops a careful consideration of 'the nature of rationality in teaching and ...the nature of any rational practice' (Dunne, 1993, p. 3).

*pure reason*'<sup>81</sup> (Bronckart, 1996, pp. 92-93). Piaget took over the term 'genetic epistemology' from Baldwin to show how the acquisition and *growth* of knowledge is possible rather than merely resting with epistemology's concern to show only how knowledge, rather than its growth, is possible.

An earlier version of genetic epistemology can be found in the last chapter of Aristotle's *Posterior Analytics* (book 2 chapter 19, 99b 15-100a 8) which deals with Plato's argument in the *Meno*, that learning and the acquisition of new knowledge are impossible because all learning presupposes knowledge. Known as 'the Learning Paradox' (Bereiter, 1991) in modern times, this raises the question of the identity of thought and being - how mind and world can in any way be connected. One underlying purpose of this thesis is to show how overcoming this modern version of the Learning Paradox, requires moving thought from ideal contemplation to material activity by overcoming Cartesian dualism. To understand this move it is necessary to understand the importance of philosophy as thought working on itself (thought thinking itself).

At a time when education research is predominately concerned with the details of policy for immediate implementation, the fact that every position has its own domain of enquiry that necessarily involves philosophic issues of relevance beyond education is pushed aside as lacking practical urgency. This is what makes Vygotsky's debate with Piaget significant, namely that it shows that by opening or foreclosing avenues of enquiry the philosophic traditions underlying apparently straightforward positions have the greatest possible practical significance. Vygotsky's confrontation with Piaget not only exemplifies his involvement in a particular philosophical tradition but it also can account for the innovative and original nature of his work. A comprehension of the philosophical influence on his work also enables a defence of his interest in what has come to be mis-termed abstract or decontextualised rationality.

---

<sup>81</sup> Piaget occupied the Chair of Philosophy of Science at Neuchatel

## 4.2 Vygotsky-Piaget

Vygotsky introduces his comments on Piaget's work in chapter 6 of *Thinking and Speech* as an aside to his discussion of the nature and development of 'scientific concepts'. He notes that his distinction between everyday and scientific concepts is initially a heuristic device and that a task of the research is to clarify the differences between these types of concepts as they develop in the process of concept-formation (Vygotsky, 1987, p.172).

Vygotsky refers to Tolstoy to illustrate the weakness of thinking about concept development in children and to raise the issue of learning scientific concepts. Endorsing Tolstoy's position that concepts cannot be taught directly, he argues that the learning of concepts entails a 'complex and delicate' developmental process. Although he accepts Tolstoy's argument that crude and direct interference damages the delicate process, like trying to build the full flower from the petals extracted in the bud, he argues that 'a complex, more direct method of instruction will lead to development to higher levels' (Vygotsky, 1987, p.171). For Vygotsky, Tolstoy's belief in naturalist development 'exaggerates the distance between instruction and development' (Vygotsky, 1987, p.171).

Two conclusions relevant to modern education theory can be found in this area of Vygotsky's work: 1) formal intervention has productive and unique consequences for development; 2) the process of concept formation is of greater complexity and subtlety than is often imagined by a conventional empiricist epistemology.

Vygotsky uses Tolstoy's commentary on a child's learning to develop his argument concerning concept development. He makes the distinction between everyday and scientific concepts, defining everyday concepts as what Tolstoy had in mind 'because they emerged from the child's everyday life experience, we will refer to the latter as "everyday"' (Vygotsky, 1987, p.172). Vygotsky comments that a distinction between everyday and scientific concepts is often ignored even though it is possible to make a variety of distinctions:

heuristic, theoretical and empirical. In Piaget's case a distinction is made between different types of concepts, but although Vygotsky acknowledges this, he remains critical of Piaget's account of how a child learns concepts. He finds errors and contradictions in Piaget's argument, in particular his limited explanation of consciousness. It is these errors and contradictions in Piaget's work which Vygotsky points to, that expose the radically different philosophical frames which underpin their work.

### ***4.3 Scientific/everyday concepts***

Three examples are used here to illustrate the philosophical difference between Vygotsky's and Piaget's approaches to the relation between everyday and scientific concepts: the meaning and place of inner speech and the idea of development. All these matters are interlinked. The argument here is that certain characteristics of Piaget's explanation can be understood as a reflection of a presumed Kantian framework which contains the following elements: opposition as distinct and separate; the separation of different processes from one another and the supposition of an individual, mentalist model of development.

Firstly as regards everyday and scientific concepts: Vygotsky takes issue with Piaget's assumptions about a child's use of concepts. Piaget is concerned with the way in which a child's thought differs from an adult. Vygotsky comments that Piaget inclines towards asserting that only the child's *spontaneous* concepts (Piaget's term for what Vygotsky calls 'everyday') reflect the character of the child's thought. Rene Van der Veer notes that by spontaneous concepts Vygotsky meant those 'that are acquired outside of specific instruction' (Van der Veer, 1993, p. 270). As they are mostly taken from adults, but are not introduced in a systematic fashion, Vygotsky preferred to call them *everyday* rather than *spontaneous* since this usage avoided the impression that the child acquired them spontaneously. This is significant not only for the understanding of 'knowing' as different for Piaget and Vygotsky

but also for the coincidence between their concepts of 'knowing' and their different epistemologies.

For Piaget the Kantian idea of receptivity<sup>82</sup> is pivotal, receptivity being the idea that at one level a form of knowing arises merely by the mind interacting with the world. For Vygotsky who rejected the stark dualism of mind and world, all knowing (concept acquisition),<sup>83</sup> occurs in a context/frame which is part of the world that humans inhabit (monism and the space of reasons). This includes both learning at the level of what Kant has called receptivity and at a deeper level where a more conscious construction takes place.

As regards non-spontaneous concepts, different conditions hold: 'Once the idea that non-spontaneous concepts do not reflect the child's thought, there exists an impassable solid barrier that excludes any mutual influence' (Vygotsky, 1987, p. 174). Vygotsky argues that 'Piaget contradicts his own argument that the child reworks the concept in learning it' (Vygotsky, 1987, p. 174). According to Vygotsky, Piaget does not appreciate that it is a child's own characteristics of thought that are expressed in non-spontaneous concepts as well as in spontaneous concepts. The significant point here is that for Vygotsky non-spontaneous concepts (the concepts of science and abstract thought) still express the characteristics of an individual's own thought in their development in that they arise dialogically, building on the form of thinking which exists for the individual at the current point in time. There is no break in the way in which an individual grasps new concepts.

---

<sup>82</sup> For an introduction to the concept of receptivity see Caygill (1995) "Receptivity involves the 'capacity' [of the subject] to be affected by objects (CPR A 26/B 42). It forms one of two sources of knowledge...namely the 'capacity for receiving representations (receptivity for impressions)', which is accompanied by the 'spontaneity of concepts' (A 50/B 74)...in combination with spontaneity it allows the generation of knowledge" (Caygill, 1995, p. 350).

<sup>83</sup> The conflation of the concept *acquisition* to knowing is quite intentional and in keeping with Sellars' claim that knowing something is to place it in the space of reason. The danger here of overly rationalist account is more apparent than real. Much research (Dennett, 1993, Damasio, 2000) has focused on how the body 'knows something' in advance of the mind, or where there is a form of 'knowing' which is not 'articulateable', though still functioning as a form of knowing. The point here is that knowing relates to an ongoing process not a fixed state through which concepts develop.



In effect it is the dualism at the base of Piaget's thinking that Vygotsky attacks. Vygotsky rejects a monologic conception of reason and his approach presupposes the dialogic origin of scientific concepts. The issue of whether Vygotsky entertained a logocentric and monologic conception of reason has been commented upon by various authors such as Wertsch (1991, 1992, 1996, 2000), Lemke (1999), Wegerif (1999), Wells (1999) and see in Chapter 2 earlier. This issue of how reason/rationality is understood and located within current debates extends beyond the field of education. Commentaries on Chapter 5 and 6 of *Thinking and Speech* make the case that while Vygotsky had not worked with a dialogic notion of concept development in Chapter 5, in Chapter 6 he had entertained this dimension of thought (Minick, 1987). To some commentators (Wertsch, Lemke) this appears simply as ambivalence. However what they do not take proper account of when considering Vygotsky's work is the philosophical frame in which he worked. This is the central theme of this thesis – to demonstrate that the philosophical frame both explicitly stated and implicitly present, in Vygotsky's work, calls into question the criticism that he adopted a crude conception of abstract rationality and more generally that this line of criticising fails to do justice to the potential of his arguments. The dialogic origin of scientific concepts is implicit in Vygotsky's Spinozist/Hegelian conception of the development of concepts.

Vygotsky's discussion of Piaget's work demonstrates the difference between their philosophical frameworks. Piaget's concept of opposition, expressed as part of his argument about the development of scientific concepts, is one in which the elements that comprise opposition are distinct and separate as opposed to moments that are mutually exclusive and mutually dependent at the same time. By contrast to Piaget, Vygotsky posits the formation (determination) of one concept as the negation of another. Vygotsky remarks on how Piaget 'sees only the break, not the connection. As a consequence he [Piaget] views the development of concepts as a mechanical combination of two separate processes which have nothing in common and move as it were along two completely isolated or separate channels' (Vygotsky, 1987, p. 174).

Vygotsky argues that as a consequence of this approach adopted by Piaget:

the process involved in socialization of thought that we find in instruction (among the most important processes in the child's development) turns out to be entirely independent of the child's own internal processes of intellectual development ...[and reciprocally] the socialisation of the child's thought [via instruction] is represented as unconnected with the internal development of the child's representations and concepts.

(Vygotsky, 1987, p. 174)

Of importance here is the way in which different philosophical positions encourage different views of the development of intellectual faculties. Moreover the positions, adopted on the basis of different philosophical positions, have practical implications. The limitations of Piaget's Kantian position have real world implications: the emphasis upon the 'child's own internal process of intellectual development' is not without consequences when used to inform practical application. For instance it was the Piagetian emphasis on the individual spontaneity of the child which had consequences for the implementation of the computer environment 'Logo', developed by Seymour Papert and his team. By producing a physical image of instructions which the child had inputted into a computer, Logo was expected to provide enormous opportunities for a child's intellectual development by supplying a means to model thinking. The idea was to create an environment which, in keeping with Piaget's ideas, would enable children to build their own intellectual structure via activity in the simulated Logo world.<sup>84</sup> Papert's confidence in the children's spontaneous ability to learn from a creatively constructed environment was drawn from Piaget's Kantian understanding of a child's spontaneous development and maturation in a rich environment. Successive research to examine the successes and failures in the use of Logo have supported Vygotsky's emphasis on the role of instruction by highlighting 'the crucial influence of the teacher in the learning of Logo' (Hoyles and Sutherland, 1992, p. 141). Papert's project entails a particular notion of Constructivism -

---

<sup>84</sup> Bruner writes that 'Too often, human learning has been depicted in the paradigm of a lone organism pitted against nature...in the Piagetian model where a lone child struggles single-handed to strike equilibrium between assimilating the world to himself or himself to the world' (Bruner 1985, p. 25). Although Bruner's view has been disputed by Leslie Smith (1995, p. 6), my point remains that Papert retained an overall individualist emphasis holding to the view that a children could develop their own cognitive structure independently, through activity.

'constructionism'. Constructivism is a widely used concept within education research, taking a variety of forms. Steffe and Gale (1995) in a reader entitled *Constructivism in education* dealt with no less than six different versions of it: social constructivism, radical constructivism, social constructionism, information-processing constructivism, cybernetic systems, and sociocultural approaches to mediated action.

With a different concept of development in mind, Vygotsky takes issue with the way that 'Piaget represents the child's mental development as a process where the characteristics of the child's thought die out' and goes on to explain that for Piaget:

The developmental process is not represented as the continual emergence of new characteristics of thought of higher, more complex and more developed forms of thought on the foundations of more elementary and primary forms of thought. Rather development is portrayed as a process through which one form of thought is gradually and continually being forced out by another.

(Vygotsky, 1987, p. 175)

and he continues:

What is new to development arises from without. The child's characteristics have no constructive, positive, progressive or formative role in the history of his mental development...it became clear that the relationship between instruction and development is presented as one of antagonism in the process of formation of the child's concepts...the child's thinking is placed in opposition to the adult's thought. One does not arise from the other; one excludes the other...One must be done away with so that the other can take its place.

(Vygotsky, 1987, p. 175)

The notion of one form of thought ending and another beginning without the two coexisting and interpenetrating, is exactly the type of dualism that Vygotsky resists. It is clear that Vygotsky has a different understanding of opposition/negation from the one he attributed to Piaget, one that bears the hallmark of Hegel's concept of *Aufhebung*.

It is necessary at this point to make a brief detour to signal one of the main concepts of Spinoza and Hegel as leading proponents of a definite and distinct tradition of Western thinking which stands apart from the empirical tradition. In the passages cited above the concept 'opposition' has a different meaning in the two traditions. When Vygotsky wrote of 'opposition' he drew from the Hegelian tradition where the concept (*Aufhebung*) has a more complex meaning than distinct elements clashing as externalities. Inwood explains that Hegel uses the term *Aufhebung* in all three senses of its meaning at once - 'to raise, to hold, lift up'; 'to annul, abolish, destroy, cancel, suspend' and 'to keep, save, preserve' (Inwood, 1995, p. 283). According to Inwood, '*Aufhebung* is similar to determinate [negation] that has a positive result. What results from the sublation of something, e.g. the whole in which both it and its opposite survives as moments, is invariably higher than, or the [truth] of, the item(s) sublated' (Inwood, M., 1995, p. 284). Blanck notes that the related term 'supercede' is commonly translated into Russian with the aid of the word *skhoronit* which has both a negative and positive meaning: *liquidation* and *conservation...*' (Blanck, 1992, p. 46). It is in this Hegelian sense that Vygotsky understands the term 'opposition' in his discussion of Piaget.

Returning to the relation of everyday to scientific concepts; for Vygotsky, this is not one of separation, but of the *repositioning* that arises when a child uses a word for a different purpose and as a result, in a new sense. However as the old meaning is retained in the new, the new is therefore not entirely novel. Consequently what is involved is not only a merely different understanding of a new concept, but also crucially a new element of conscious awareness – an ability to act in the world in a new way. Vygotsky drew from Shif's research that showed that there is a higher level of conscious awareness in the use of scientific than in the use of everyday ones. In the child the weakness of the everyday concept is the child's inability to operate with it in a voluntary manner, its strength is its saturation with the immediate perceptual experience. For instance the concept *brother* can be used appropriately as a term of reference, but the child may not automatically be in a position to understand it as part of a system of other concepts which give it meaning. According to Vygotsky: 'The child formulates Archimedes' law better than he formulates his

definition of what a brother is' (Vygotsky, 1987, p. 178). In this example Vygotsky argues that the concept *brother* and the concepts involved in Archimedes' law, are learnt in different ways. The concept *brother* has already completed much of its developmental path and is saturated with the child's rich personal experience before the child has need to use the term in a scientific way (by defining it). In the case of Archimedes' law, the concept has barely begun such saturation with content when the teacher starts to introduce it as a scientific concept. For the school-aged child 'the weakness of the *everyday* concept lies in its *incapacity for abstraction*, in the child's inability to operate on it in a voluntary manner. ... In contrast, the weakness of the scientific concept lies in its *verbalism*, in its insufficient saturation with the concrete' (Vygotsky, 1987, p. 169).

The distinction between Vygotsky's and Piaget's notion of different kinds of concepts parallels the distinction between their philosophical approaches to the relation of theory to practice or of rationalism to empiricism. As already noted according to Vygotsky, Piaget separated the different kinds of concepts more starkly than himself. For him they have a much greater degree of co-dependence.

Piaget's Kantianism has quite different educational implications from the Hegelianism of Vygotsky. Moreover Kant's elaboration of the process of how knowledge is possible leaves terms separate and unrelated. Faculties of mind are distinguished in order to comprehend their different functions in thought. According to Kant these faculties are spontaneity and receptivity, concept and intuition. Each in its own turn explains a different mode in which knowing arises and distinguishes conscious knowing in the case of spontaneity<sup>85</sup> from the passive reception of information in the case of receptivity.<sup>86</sup>

---

<sup>85</sup> A confusion may arise here from the use of the term 'spontaneity'. The Kantian usage is technical, referring to a conscious form of knowing, it is almost the exact opposite of the more common usage that is found in the English translation of Piaget and Vygotsky. In the latter case spontaneity refers to a lack of consciousness in the use of a concept.

<sup>86</sup> There is a difficulty with a categorical presentation of Kant within the overall argument of the thesis, due to the variety of scholarly readings of the tensions which exist within his work.

Returning to Vygotsky's discussion of everyday and scientific concepts, it may be noted that the child's 'incapacity of abstraction' of everyday concepts and 'insufficient saturation of the concrete' of scientific concepts, raises for Vygotsky exactly the same issues as Kant. Kant addresses the problem of overcoming the gap between mind and world arising from dualism with his often quoted reference to a dove in flight which wishes the air was removed so that it could fly with less resistance, not appreciating that it is the very resistance of the air that sustains its flight. The reference is to the limitations of a common understanding of thought as completely separate from and bearing no relation to the world that it represents. But for Vygotsky the inadequacy of 'thought without content' and 'intuitions without concepts' is resolved, not by the assumption of common modes of understanding inherent in human nature, but by social development. And although Vygotsky's discussion of the different modes of knowing relates expressly here to the school aged child, the underlying argument, though it appears by its location in a discussion of Piaget, to be restricted to children, has wider application to thought in general. In particular, once the idea of the concept is understood dynamically rather than as a static representation of the world, that is as a tool, which is modified according to context of development and application, then what is initially posed as an issue for child development becomes relevant to the use of concepts by adults.

An issue at the heart of the discussion of scientific and everyday concepts is the way in which concepts (words) are understood. The creation of scientific concepts i.e. their systematicity, plays a direct role in the formation and development of spontaneous concepts since spontaneous concepts are deployed in an already existing space of reasons and not formed in a void. Van der Veer notes that when Vygotsky speaks of everyday/spontaneous concepts he understands a child being inducted into usage by an adult. The adult draws on a different conceptual structure and positioning from that of the child. Thus while the child may have his own relation within a 'space of reasons' in which to use the concept and within which the concept has meaning for him, he is drawing on a term that has meanings and locations of which he is not yet

aware.<sup>87</sup> Consequently, he moves within a domain (a space of reasons) that is not yet fully his own.

A 'historical' approach is evident throughout Vygotsky's writing. In his discussion of scientific concepts he criticises the view that scientific concepts may be learnt in a completed form, and emphasises that in such a view '*scientific concepts do not have their own internal history*' (Vygotsky, 1987, p. 169). He notes that the development of scientific concepts is not accomplished simply by teaching them to the child and by the child's learning of them. He argues from research that it is known that the concept is not just a set of associative connections but a '*complex and true act of thinking*' (Vygotsky, 1987, p. 169). Although educational research may take account of this point, it is difficult to avoid (particularly in the practice of teaching within mass state-funded schooling) the assumption that a concept has been taught if pupils claim that they have understood it. The process of development of taught concepts is not only difficult to take account of, in a system of monitorable results, but it is also possible that where such a system exists, with results sometimes being monitored even on an hourly basis, no development can take place at all. Pupils' apparent failures are attributed to a failure of ability to develop concepts rather than to the lack of opportunity for concept development. By the development of concepts what is meant here is not only a formal understanding of the concept but the ability to situate it within a system of concepts.

A crucial point for Vygotsky is that word meaning is a process of development, irrespective of age. When a child learns the meaning of a word, the development of its meaning, rather than being completed, has only just begun. Moreover its meaning is not learnt as a result of the direct transmission of a concept as empty verbal form, to be committed to memory, in which the

---

<sup>87</sup> In Brandom's terms, to use a concept (word) is to be involved in 'the game of giving and asking of reasons' (Brandom, 2000, p.192). That is not necessarily in a formal and explicit sense (i.e. in that the 'space of reasons' is present regardless of conscious awareness). In Vygotskian terms the child's utterance (as soon as it is more than noise) participates in the game of giving and asking of reasons in that the utterance is meaningful. It is meaningful, to the extent that the child had reasons for the use of the 'noise'/utterance by virtue of having a sense of what follows from and what supports the utterance (even if this sense arises externally and is not all of the child's own making).

word is taken over in memory but not by thought. Meaning involves the development of a series of functions; voluntary attention, logical memory, abstraction, comparison and differentiation. Such complex mental processes, Vygotsky stresses, cannot simply be learned, since the word acts within a system as a tool and performs more than merely a representational function.

The tendency to abstract the concept of *thinking* from the world in which it takes place and the forms through which it is expressed finds its origin in Descartes' dualism. Vygotsky continually attempts to explain mind (thinking) and world in a different way. He uses the Hegelian terminology of *becoming* in an attempt to retain the complexity of what is easily misunderstood as a simple relation of representation between thought and word: 'thought is not expressed in word, but is completed in the word. One might therefore speak of the becoming (the unity of being and non-being) of thought and word' (Valsiner and Van der Veer, 1991, p. 370).

#### **4.4 Consciousness**

Vygotsky's discussion of scientific concepts and their relation to everyday concepts cannot be separated from the deeper questions of consciousness and will. Consciousness is a problematic concept which is understood in a variety of ways reaching from on the one extreme simply having the capacity to pay attention to metacognition on the other.<sup>88</sup> For Vygotsky consciousness was an unsettled question, and, then as now, one on which researchers and commentators are still working. But one thing we can say here is that in keeping with his rejection of Cartesian dualism, he does not see consciousness as a state of mind apart from the objects and activities of consciousness. For Vygotsky to be conscious is to be conscious of something – either an object or an activity. As part of the issue of consciousness Vygotsky is particularly

---

<sup>88</sup> It can also be understood as the opposite of unconsciousness though Vygotsky makes it clear that when he speaks of conscious awareness he is not using the term this way. He notes that 'Freud's research establishes that the unconscious --which is carved out from consciousness-- emerges comparatively late' (Vygotsky, 1987, p. 190). For Freud unconsciousness arises symbiotically with consciousness, and does not exist simply in opposition.



concerned with ‘conscious awareness’ which he designates a level of consciousness arising as a distinct aspect of consciousness as an activity, rather than a level present as a simple natural attribute: ‘Conscious awareness is an act of consciousness whose object is the activity of consciousness itself’ (Vygotsky 1987, p. 190). Vygotsky links conscious awareness to scientific concepts:

Scientific concepts have a unique relationship to the object. This relationship is mediated through other concepts that themselves have internal hierarchical systems of interrelationships. It is apparently in the domain of scientific concepts that conscious awareness of concepts or the generalization and mastery of concepts emerges for the first time. ... Thus conscious awareness enters through the gate opened up by the scientific concept.

(Vygotsky, 1987, p. 191)

By changing the relation to the object, new possibilities for action arise: ‘To perceive something in a different way means to acquire new potentials for acting with respect to it. At the chess board to see differently is to play differently’ (Vygotsky, 1987, p. 190).<sup>89</sup> Vygotsky remarks that in Piaget’s thought, it is not possible to find ‘the thought that “spontaneous” is a synonym for “lack of conscious awareness”’ when referring to concepts. He continues:

*Only within a system can the concept acquire conscious awareness and a voluntary nature. Conscious awareness and the presence of a system are synonyms when we are speaking of concepts, just as spontaneity, lack of conscious awareness, and the absence of system are three different words for designating the nature of the child’s concept.*

(Vygotsky, 1987, p. 191)

This concept of conscious awareness is totally different from merely being aware: it is the capacity to reflect on the process of reflection. Ilyenkov (1977a,

---

<sup>89</sup> Vygotsky is influenced by Spinoza’s argument in the *Ethics*. Spinoza discusses how our common sense Cartesian understanding of freedom affects the ideas we have leading us to experience greater pain or sadness than is necessary. By repositioning elements involved in an affect (e.g. by re-assigning what we link together) the strength of affect may be altered. Proposition 48 states ‘Love or hate – say, of Peter – is destroyed if the sadness the hate involves, or the joy the love involves, is attached to the idea of another cause, and each is diminished to the extent that we imagine that Peter was not its only cause’ (Spinoza, 1993, p.114).

pp. 38-39) discusses the capacity not just to experience the rays of the sun on our eyeball, but to have a concept of the sun, projecting the rays. In other words we can conceive the sun apart from the effect it has on the rods and cones at the back of our eyes, and thus 'see' the sun as more than what would simply be the experience of a biochemical process.

For Vygotsky 'at one and the same time, generalization implies the conscious awareness and the systematisation of concepts' (Vygotsky, 1987, p. 191). Vygotsky argues that what Piaget failed to see was that the empirical laws and regularities, which he drew from his work with children, only applied within the domain of children's unsystematised thought. Piaget had not appreciated the possibility that the child's lack of systematisation was dependent on the location of the child's thinking activity and was not a quality of the child's thought as such. Vygotsky argued that 'the capacity for deduction is only possible within a definite system of relationships among concepts' (Vygotsky, 1987, p. 192). Within a system, sensitivity to contradiction was possible.

Margaret Donaldson and her colleague's replication of Piaget's experiments (to demonstrate the conservation ability and egocentrism of the child) achieved different results to Piaget because they introduced what effectually was systematic meaning into the test. However, this was not exactly the way in which they interpreted the success of their results. In *Children's Minds*, Donaldson explains the success of Martin Hughes' redesign of the 'mountain task' in terms of the fact that it 'requires the child to act in ways which are in line with certain very basic purposes and intentions (escape and pursuit)...' (Donaldson, 1978, p. 24). She saw it as introducing the motives and intentions of the characters involved in the task. However, it could equally be argued that Hughes' replication introduced not merely context that provided purposes and intentions but also the systematicity necessary to allow the child to make decisions according to a meaningful system of relations. If Brandom's point about the inferential character of any representation is taken seriously then what the children were offered in Hughes' task was the visibility of the 'reasons that follow from' and the 'reasons that are implied by', the task's events. The

evidence in the Hughes' experiment indicated that the vast majority of children were able to 'de-centre', unlike the egocentric children evident in Piaget's experimental results.

Piaget's use of the category of egocentrism is profoundly conditioned by dualism and as Vygotsky rejects this dualism so also he rejects Piaget's use of egocentrism. Vygotsky's critique of Piaget's designation of egocentrism as evidence of a child's incapacity to think abstractly is based on his argument that conscious awareness is sustained by the location of concepts in meaningful relations to one another. In the case of scientific concepts, meaning is developed by the location of concepts to one another rather than by direct reference to the world. An ideal type of this self-reference is mathematical equations where the structure and the interrelation of its parts defines the values of the terms.

The difficulty of providing an example of an analytic statement, such as that found in mathematics, is that this is exactly the type of example which leads some commentators on Vygotsky to fear that he is concerned with an abstract rationality which denies the dialogic construction of knowledge (Werstch, 2000, Wegerif, 1999). This fear appears to be substantiated as the study of mathematics has exposed flaws in the Platonist position, that mathematics directly reflects the truths of reality. Much of the discussion about reason and relativism has occurred within the mathematics education community and this has resulted in extreme and influential forms of constructivism (von Glasersfeld, 1995). In philosophy the questions posed by the incapacity of mathematics to reflect the truth of reality directly are considered under the rubric of the epistemological status of analytical statements. This in fact is a set piece of philosophy. Quine's (2001) classic *Two Dogmas of Empiricism* exposed the failure of the separation between analytic and synthetic statements – the claim that some statements are true by definition while others are true as matters of fact. Vygotsky's text diminishes this problem: for the rejection of the Cartesian mind/world separation cuts the ground from under the analytic/synthetic distinction as the analytic can arise synthetically. However, it is not the contribution that Vygotsky's text can make

to philosophy that is of concern, but the importance of philosophy to the formation and shaping of Vygotsky's thought. Here in particular it is important to note that the Vygotskian notion of scientific concepts carries an immense wealth of meaning steeped in a long philosophical tradition.<sup>90</sup>

To provide some basis for understanding what scientific concepts might mean in the light of this tradition, a brief digression is necessary. As we have seen, Vygotsky used the systemic relation of concepts and the possibility of conscious awareness (reflection on the way in which thinking proceeds), to criticise Piaget's understanding of the relation between egocentrism and thought in the child: 'We found the source of the lack of conscious awareness of concepts not in egocentrism but in the absence of system in the child's spontaneous concepts'(Vygotsky, 1987, p. 193). To appreciate his argument it is necessary to grasp how Vygotsky understood science and the relation of concepts to the world. This matter is broached at the end of this chapter. But first we will consider Vygotsky's ideas of the sociogenesis of mind.

#### ***4.5 The sociogenetic constitution of mind***

The sociogenetic constitution of mind is inextricably tied up with the question of foundationalism and there is evidence to show that for Vygotsky, foundationalism was constituted by history.<sup>91</sup> His understanding of Hegel would have led him away from the sort of abstract knowledge and decontextualised rationality that he has been criticised for. There is no way as a follower of Hegel that he could have embraced such a position, because Hegel rejected these ideas more uncompromisingly than any other.

The dualism of mind and world and the idea of thought as the pure contemplation of matter underlie common sense to such an extent, it is difficult

---

<sup>90</sup> What is not taken account of in critique of Vygotsky is that scientific concepts grasp the historical development of science. To have achieved this scientific concepts are themselves the result of scientific development.

<sup>91</sup> In a sense it could be described as an 'anti-foundational foundationalism'.

not to view thinking as an ideal activity totally separated from what is being thought. But once this separation is overcome, thinking and the object of thought no longer reach towards their object across a void but becomes a thinking of that object or, to look at things from the other side, thinking becomes a material activity. Being a material activity means being a moment of the social order or the impossibility of human thought outside of society. Vygotsky makes the radical point that social relations or relations among people genetically underlie all higher mental functions.

The implication of this point is that every aspect of the activity of thinking - that is the means of thought as well as the material of thought - arises socio-genetically. Since this implies that mind itself is sociogenetic and as such distinctively human, it entails more than a position on the nature/nurture issue, which presupposes a capacity to think as a datum, and then considers the extent to which the development of this capacity depends on external or social conditions. As Davydov puts it, no human mental functions are given at the time of birth but only arise cultural-historically (Davydov, 1997, p. xxix). Vygotsky came to the conclusion that the study of children's behaviour needed radical review to show that even the most elementary functions were mediated from birth, '...even the most elementary functions, even those that arise at the earliest stage of man's life, possess a mediative, i.e. specifically human, structure' (Davydov, 1997, p. xxviii). Vygotsky's appreciation of what Hegel called 'the Understanding' (a matter that will be dealt with later) alerted him to all the difficulties of this approach:

The social nature of each higher mental function has thus far escaped the attention of investigators who did not think to represent the development of logical memory or voluntary activity as part of the social formation of the child because in its biological beginning and in the end of mental development, this function appears as an individual function; only genetic analysis discloses the path that unites the beginning and end points.

(Vygotsky, L. 1999, p. 41)

The actual movement through which higher mental functions are determined by social genesis is understood little more than it was in Vygotsky's lifetime. In

part this is because these functions in their completed forms present themselves as individual and, even more to the point, are almost compelled to present themselves in society as though they were individualistic and natural due to the social conditions of modern society. Vygotsky was well aware of the significant change in the direction of research to address this area: ‘The internalization of socially rooted and historically developed activities is the distinguishing feature of human psychology, the basis of the qualitative leap from animal to human psychology. As yet the barest outline of this process is known’ (Vygotsky, 1999). In taking this completed form, in which higher mental functions present themselves as the object of analysis, social science, including psychology, tends to remain implicitly Cartesian despite the exponential increase of interest in Vygotsky’s ideas over the last 30 years.

#### ***4.6 Sociogenesis***

Issues of sociogenesis have been raised in connection with Artificial Intelligence research and comparisons have been made with human intelligence. Andy Clark who has worked in the field notes that: ‘biological systems profit profoundly from local environment structure’ (Clark 1997, p. 220-221). As an illustration he uses research into how some fish are able to exceed their natural swimming efficiency by 100 percent by exploiting the natural fluid dynamics of water (swirls, eddies and vortices) to ‘turbocharge’ their propulsion. Since it involves actively creating vortices e.g. by flapping their tail etc. the use of external conditions is more than an opportunistic exploitation of what is given. As Clark puts it:

The environment is not best conceived solely as a problem domain to be negotiated. It is equally, and crucially, a resource to be factored into the solutions. This simple observation...has some far reaching consequences. ...ours are not the brains of disembodied spirits. ...they are essentially the brains of embodied agents capable of creating and exploiting structure in the world. ...we must begin to face up to some rather puzzling [metaphysical] questions. ...the traditional divisions among perception, cognition and action look increasingly unhelpful.

(Clark, 1997, pp. 220-221)

Suggesting a bootstrapping or snowball effect in the development of mind, Clark writes that simple 'external props enable us to think better and hence to create more complex props and practices which in turn "turbo charge" our thought a little more.' (Clark, 1997, p. 62) Commenting on conceptions of planning and problem solving, Clark criticises the idea that a plan, as 'determined by internalised sequences of instructions' (Clark, 1997, p. 63), should contain all the actions necessary to achieve its goal since this implies not only a representational conception of knowledge but also one in which each representation is isomorphic with the world. This view of planning, he argues, is inadequate because it overlooks the 'complex interplay between the plan and the supporting environment [which] ...goes well beyond the obvious fact that specific actions, once performed may not have the desired effect' (Clark, 1997, p. 63).

Although trivial in themselves, the examples that Clark gives indicate the importance of factors often not taken account of. Take his example of repairing an alternator. In dismantling an alternator to repair it, the spatial properties of the workspace are utilised to assist computation. Pieces of the alternator are laid out in a grouped or linear array to help in selecting for reassembly. 'We manage our physical and spatial surroundings in ways that fundamentally alter the information-processing tasks our brains confront' (Clark, 1997, p. 63). Another example Clark gives is writing. He argues that instead of understanding writing as performing a representational activity, we can more usefully treat it 'as an environmental manipulation which transforms the problem space of the brain' (Clark, 1997, p. 63). In this connection it is interesting to note that recent arguments in philosophy on the use and content of concepts, have moved away from representationalism to inferentialism.

As noted in chapter three, the most notable exponent of this view is Brandom:

the meaning of linguistic expressions and the contents of intentional states, indeed awareness itself, should be understood, to begin with, in terms of playing a distinctive kind of role in reasoning...The master idea that animates and orients this enterprise is that what distinguishes specifically *discursive* practices from the doings of non-concepts-using creatures is their *inferential* articulation....My hope is that by slighting the similarities to animals which preoccupied Locke and Hume and highlighting the possibilities opened up by engaging in social practices of giving and asking for reasons, we will get closer to an account of being human that does justice to the kinds of consciousness and self-conscious distinctive of us as *cultural*, and not merely *natural*, creatures.

(Brandom, 2000, p.35)

In distinguishing humans from animals, Brandom, by implication, also distinguishes humans from machines as knowers. Clark may be right when he argues: '[Environmental] structures, moulded by an iterated sequence of brain-world interactions, can alter and transform the original problem until it takes a form that can be managed with the limited resources of pattern-completing, neural network style cognition' (Clark, 1997, p. 220). But this bears no relation to the distinction that Brandom draws between instrumental and the human knowledge with which Vygotsky was specifically and exclusively concerned. Having introduced Brandom however briefly into our discussion, it is important to mention another development in contemporary philosophy that bears directly on this problem, namely the 'space of reasons' as conceived by Sellars. Again it is important to remind ourselves of what was said earlier. Significantly both Brandom and Sellars, like Vygotsky, attach decisive importance to Hegel.

This distinction between knowing in a human sense and mechanical or digital forms of knowing bears also on the issue of scientific activity. If we reject a view of knowledge which describes representationally, a separate and distinct world in which fact and value are separated, then a totally different understanding of the relation of laws to events must follow; in other words a totally different understanding of what science is. The expression of the regularities from which the laws of science take their construction, already



presuppose an enormous effort of human intervention; since nature does not present regularities directly to the observer in a ready made form (Hacking, 1983 , Cartwright, 1983, Bhaskar, 1978). As Bhaskar puts it, the relation between laws and events is not one of constant conjunction rather what we do in science is produce regularities: Drawing on Bacon, Bhaskar uses the analogy of ‘twisting the lion’s tail’. This issue is returned to in Chapter 7.

#### ***4.7 Conclusion***

At the end of the section on consciousness earlier we said that in order to grasp Vygotsky’s understanding of consciousness it was necessary also to understand his ideas of science and development. These ideas together with free will have already been raised in this chapter. The point we need to stress now is that none of these concepts as Vygotsky understood them, that is: Consciousness, Free will, Science, Development, can be understood apart from one another. Each of these is related to the other three. For example consciousness is stimulated by externalities when our responses are not passive, that is to say when we act using concepts which have a systematic relation to one another. For Vygotsky systematically related concepts of this type, which incidentally are not representational, are characteristic of science. The possibility of acting, rather than merely behaving, arises through the human capacity to formulate scientific concepts or to put it another way to develop what Spinoza called adequate ideas. This is a matter for the following chapter and the concepts of activity and passivity are considered in the next chapter.

For the moment it is important in drawing this chapter to a close to underline how Vygotsky’s criticism of Piaget brings to light the differences of philosophic approach employed. On the one side there is the Kantianism of Piaget, on the other the influence of Spinoza and Hegel. From the standpoint of the latter the dualism that stems from Descartes and orders common intuition today is rejected out of hand and with it many issues which appear self evident in contemporary research. Just one of these we may mention here as it has

particular significance for the interpretation of Vygotsky. It is the idea first that there was a homogenous body of thought from the mid-17<sup>th</sup> to the end of the 18<sup>th</sup> century that can be classed as Enlightenment thought and second, that this body of thought was committed to abstract rationality. No stronger critics of the concept of abstract rationality can be found than Spinoza and Hegel, namely the philosophers from whom Vygotsky drew his inspiration and under whose influence he shaped his theories.

## Chapter 5

### Spinoza and free will

#### 5.1 Freedom

The social character of thought as discussed in Chapter 4, raises the issue of free will. Vygotsky's understanding of free will derives from Spinoza. His work is peppered with references to Spinoza, who, according to his childhood friend Dobkin, was his favourite philosopher. In the preface to *The Psychology of Art*, submitted as his doctoral thesis, Vygotsky noted his debt to Spinoza: 'My intellect has been shaped under the sign of Spinoza's words, and it has tried not to be astounded, not to laugh, not to cry, but to understand' (Vygotsky, 1971). In volume 6 of the collected works in the section *The Teaching about Emotions, Historical Psychological Studies*, there is an extended discussion of the difference between Spinoza and Descartes. This section highlights the elements of Spinoza's philosophy that were relevant to Vygotsky. The chapter will develop three themes involving the issue of free will, necessary to an understanding of Vygotsky's work. They are: 1) his distinctive idea of freedom understood as self determination; 2) the distinction between this idea of freedom and a common-sense concept of free will; 3) arising out of this notion of free will the issue of determinism and determinist readings of Marx.

Free will in Spinoza is not separated from his idea of truth. An appreciation of this lack of separation is necessary to grasp Vygotsky's epistemological stance. The latter part of the chapter will extend the discussion of free will into Spinoza's idea of truth. For Spinoza truth is necessary to freedom as the two are inextricably linked together. Truth is the outcome of adequate ideas and free will only arises when humans are active rather than passive. In turn this is only possible when they have adequate rather than inadequate ideas. This is a deeper, more ontologically embedded notion than the simplistic idea that the possibility of free-action depends upon sufficient knowledge.

This link between adequate ideas and free will is fundamental for Vygotsky. Inextricably related to his argument about the development of intellect is the possibility of theorising freedom in a quite different way to the one entrenched in our common sense of how we act in the world.

Vygotsky was acutely aware of the issue of free will, which was of central importance in his thought: ‘...we have tried to show...the development of freedom of action is directly functionally dependent on the use of signs’ (Vygotsky, 1999, p. 65). On the question of free will he wrote:

The philosophical perspective opens before us at this point of our study. For the first time in the process of psychological studies we can resolve essentially purely philosophical problems by means of a psychological experiment and demonstrate empirically the origin of the freedom of the will... We cannot help but note that we have come to the same understanding of freedom and control as Spinoza developed in his ‘Ethics’.

(Vygotsky, 1997b, p. 219)

The phrase in this passage ‘for the first time’ is even more significant than it first appears since it implies that there is something in the modern period that gives issues discussed under the remit of philosophy a practical character that they had not had hitherto. In other words philosophy in the modern period has become practical knowledge. On the matter of freedom Vygotsky turned to Engels’ argument about the implacability of necessity: ‘...Engels places in one order the control of nature and the control of self. Freedom of will with respect to one and the other is, for him as for Hegel, understanding necessity.’ (Vygotsky, 1997b, p. 218) But he went beyond Engels to criticise Descartes who, ‘...cannot always make a clear distinction between passions of the soul and passions of a soulless machine’ (Vygotsky, 1999, p. 176).

The common conception of will as freedom from restraint seems at odds with the idea of necessity. However, as intellect is a key aspect of will for Vygotsky and intellect is by its nature restrained - what in the Vygotskian literature is known as embedded - then the coexistence of freedom and restraint is not a

problem. A significant contribution of Vygotsky's was to see how mindedness is formed and sustained by mediation with artefacts in a social domain. Vygotsky opposed the idea of the mind as a metaphysical entity (soul) free to act on the world at will. Spinoza, as well as Hegel was particularly important for Vygotsky on this question of freedom:

He [Spinoza] believed that human freedom was not, as was commonly held, indeterminacy of choice, but was self-determination, entirely by one's own nature, free from external compulsion. This for him was action proper, while determination by extraneous causes was passion, the subjection to which he called bondage.

(Harris, 1992, p. 6)

However, at the same time that Vygotsky grapples with a distinction between humans and animals which does justice to the higher ability of humans and which theological explanations of the soul attempt to capture, he also develops a framework that has the potential to be read deterministically. This issue of determinism was referred to in the previous chapter in connection with recent research in artificial intelligence drawing on the idea that the mind is developed externally: this research is easily led to a causally reductive notion of consciousness and agency. For Vygotsky determinism was a crucial issue:

In the final analysis, the question is: does what is higher in man, his free and rational will and his control over his passions, allow a natural explanation that does not reduce the higher to the lower, the rational to the automatic, the free to the mechanical, but preserves all the meaning of this higher aspect of our mental life in its fullness, or to explain the higher, do we inevitably have to resort to rejecting the laws of nature, to introducing a theological and spiritualistic principle of absolute freewill not subject to natural necessity? In other words, the question is: is scientific knowledge of higher forms of conscious activity possible or impossible, is human psychology as a science, not as applied metaphysics as it is in all consistent idealists, beginning with Descartes, continuing with Lotze, and ending with Bergson, possible or impossible?

(Vygotsky, 1999, p. 173)

## *5.2 Free will*

When considering the concept of freedom it is necessary to be aware that it has different meanings for different traditions. The sense in which we commonly think of ourselves as free actors owes much to Descartes' modernist separation of mind and world. To understand the sense of free will that informs Vygotsky's work it is necessary to get to grips with the sense of free will which derives from the work of Spinoza and Hegel. This is not easy to grasp, since it seems counter intuitive and goes against our sense of our activities as resulting directly from the exertion of our will.<sup>92</sup> Moreover we inhabit a world whose social institutions and structures are premised on an implicit Cartesian notion of will (Ilyenkov 1976, Gergen, 1999). In our common sense conception, will presents itself to us as a capacity, a power vested within ourselves. This power, located in the soul, can operate on the world as an independent force, set apart from the world of matter upon which we act. Coupled to this everyday common-sense conception of freedom is the idea that free will is the unencumbered pursuit of the objects of desires and wants – 'free to consume what I like'. Presupposed here is that what I am, is what I desire (my identity is an outcome of my consumption patterns). There is no thought that desires may not be genuinely my own, i.e. not my own in the sense that they determine me externally.<sup>93</sup>

By contrast, Spinoza's conception of freedom is so different that some commentators have viewed him as a mechanical determinist without a notion of freedom at all. It is necessary to understand a number of elements of Spinoza's

---

<sup>92</sup> 'Traditionally the will was taken to be a mental faculty responsible for acts of volition such as choosing, deciding, and initiating motion. This faculty of the soul or mind was taken as one of the most important, separating us from animals and inanimate objects' (Weatherford, 1995, p. 910).

<sup>93</sup> Conceptions of freedom inform education practices. They can be understood as forming part of the 'folk psychologies' (Bruner, 1996) underlying pedagogic practices. For instance, some practices of 'child centred education' emphasising the 'rights' of children (another problematic area) to follow their own interests/desires/wants, are premised upon it.

philosophy to comprehend that he does indeed have a concept of freedom and thus to understand how it differs from the common sense notion of free will. These elements are: thought and extension as attributes of one substance; *causa sui*; adequate as opposed to inadequate ideas; and the distinction between passions and affects. Spinoza's treatment of theological questions led him to reject the dualist world view. He argued that as God is infinite he must be undetermined and, more than this, self-determined or *causa sui*. Through a lengthy argument, he concluded that there is only one substance consisting of an infinite number of attributes of which thought and extension are part. Everything which exists has a degree of self-determination - human beings have the highest possible degree. It is in self-determination that human beings exhibit freedom. A free agent is not one whose actions are undetermined, but whose actions are self-determined and self-determination arises only when we are not controlled by our passions. A passion is what Spinoza calls an affect produced by external causes rather than by our own power; when we are not controlled by our passions, we understand the reasons of our actions.<sup>94</sup> Spinoza is often placed alongside the Stoics – certainly he shares with them a different sense of human existence and is not troubled by the anxiety of what the modern conception understands as free choice. The Stoics accept events that are unavoidable. For Spinoza we are free when we are guided by adequate knowledge rather than moved by external causes. To be guided by adequate rather than inadequate knowledge is to be free from external determination.

---

<sup>94</sup> On this matter, Freud has a debt to Spinoza for his practice of therapy. In discussing Spinoza, Moreau refers to Freud who, he writes 'in one of his interjections... asserts that he [Freud] has always lived "in a Spinozist environment"'. Moreau goes on to argue that '...a certain number of Freudian motifs recall the great themes of the *Ethics* without ever repeating them: first of all, the idea that the psychological does not reduce to the conscious, and that events occurring in the psychological realm manifest themselves in the body' (Moreau, 1996, p. 428).

As regards Descartes' notion of freedom as lack of compulsion by external cause, Spinoza writes (in correspondence) that:

...if by a man who is compelled he means one who acts against his will, I admit that in certain matters we are in no way compelled and *in this respect we have free will*. But if by compelled he means one who, although he does not act against his will, yet acts necessarily, then I deny that we are free in anything.

(Kashap, 1987, p. 168)

This is a curious and unfamiliar notion of free will but it is a notion of freedom nonetheless. Freedom arises here because of necessity, not in spite of it.

Spinoza continuously disputes the Cartesian conception of will grounded in a dualism of a material world and a wilful mind capable of free action in relation to it. He ridicules the common-sense notion of free will: '...so firmly are they persuaded that the body is moved by mere command of the mind, or is kept at rest, and that it performs many things which merely depend on will or ingenuity of the mind' (Spinoza, 1993, p. 86) and also denies it: 'The body cannot determine the mind to think, nor the mind the body to motion, nor to rest, nor to any other state (if there be any other)' (Spinoza, 1993, p. 85). The belief that we have the power to act in the world free from any material restraint of our circumstance is caricatured by Spinoza as a metaphysical faith in will.<sup>95</sup> Vygotsky cites Spinoza's ridiculing of Descartes' metaphysical faith in will:

Spinoza most acutely contrasts his thought with Descartes. Spinoza claims that Descartes...significantly promotes the false opinion that affects depend absolutely on our will and that we can control them infinitely. Spinoza says that he cannot 'be surprised enough that a philosopher, having strictly held to reaching conclusions only on the basis of sources that are certain of themselves [Descartes said he wanted to build his philosophy only on the firm foundations of certain ideas] and claiming only what he recognises clearly and definitely, and so frequently reproving the scholastics for thinking to explain dark things by hidden properties, how this philosopher accepts a hypothesis that is darker than any dark property.'

(Vygotsky, 1999, p. 126)

---

<sup>95</sup> Indeed the very conception of a mind free from substance perpetuates this position.



In contrast to Descartes who assumed free will without accounting for the source of its power, Spinoza provided the argument that free will arises in the development of intellect and Vygotsky benefits from this insight. However, as previously noted, Vygotsky appreciated that any explanation of will that attempts to remove metaphysical or theological assumptions, risks determinism. Kashap points out that ‘Descartes takes “the will” and “the understanding” to be distinct; for Spinoza the two are one and the same.’ For Spinoza, ‘the will and the intellect are nothing but the individual volitions and the ideas themselves. But the individual volition and the idea are one and the same’ (Kashap, 1987, p. 103). Kashap argues that because of the theory of what has been described as ‘parallelism’<sup>96</sup> commentators such as H.H. Joachim have been led to remark that Spinoza makes ‘the last vestiges of the popular conception of free will disappear’ (Kashap, 1987, p. 106). Joachim is concerned that although Spinoza admits conscious desires he denies the reality of purposive action. However, Kashap remarks that Spinoza repudiates the charge that he reduces man to the level of plants or stones. Indeed the central concern of the *Ethics* is purposiveness and Spinoza made his concern with betterment through understanding quite explicit. What ‘Spinoza discredits and contemptuously rejects, is action towards “ideals not yet real, but yet to be realized”, or “action with a view to the attainment of an unpossessed “better”’ (Kashap, 1987, pp. 107-108). The point here, which also relates to the possibilities of policy for development, is that change can only be brought about from within in conjunction with the potential for development. Development cannot be imposed according to an abstract *ratio* whose ‘ideals [are] not yet real, but yet to be realised.’

Kashap offers an explanation of how Spinoza was able to hold the two seemingly incompatible views that every particular thing ‘must involve reference to determining conditions outside its own nature’ and that human beings as finite things can be said to direct their efforts ‘purposefully towards

---

<sup>96</sup> Parallelism is the term used to describe the simultaneous existence of the human mind and human body, without one being the cause of changes in the other. Kashap suggest that Spinoza’s statement: ‘The body cannot determine the mind to thought, neither the body to motion or rest...’ (EIII, 2) ‘is the first of its kind in so-called modern philosophy which suggests a distinction between causes and reasons of human behaviour’ (Kashap, 1987, p. 117).

an end of which they are conscious' (Kashap, 1987, p. 109). He suggests that the understanding of explanatory conditions do not preclude purposive and intentional action, for Spinoza. By taking over Spinoza's rejection of a mind-body dualism, Vygotsky was able to frame his work in a context that allowed him to work with a notion of human agency which lies within a realm of determination yet has the possibility of freedom.

For Vygotsky 'mastery' of external determinations are crucial; as for Spinoza an entity is free only when it is the cause of itself, when it is self-determined. Self-determination is not possible through a pure act of will, but requires (indirect) mediation - the mind can be steered towards its intention. It is by placing the causes of thought in the realm of reasons as scientific concepts that ideas escape the realm of contingent determination and acquire positive potential for action. Psychological tools direct the mind and behaviour as technical tools transform the object. Speech used for others becomes speech for oneself. Behaviour is moved not by an innate metaphysical power - Descartes' will, but from reflexive interaction in the world. Vygotsky leaves no gap between mind and world; action creates mind as mind creates world.

For Vygotsky, following Spinoza, the basis of freedom is man's ability to separate himself from his passions, from the contingencies of nature, and to make for himself a space within which he can determine his actions. Such actions are determined, not by causes which are completely external but by ones which lie within his sphere of efficacy.<sup>97</sup> As noted in the previous chapter, it is possible to discern a concept of freedom in Vygotsky, as for instance when he discusses the sense in which consciousness is just *assumed* by Piaget. Whereas for Piaget, consciousness occurs in the child once the bankruptcy of his own thinking is evident, for Vygotsky, consciousness arises by the subjects' changing location in relation to external forms of determination.

---

<sup>97</sup> Vygotsky cites the case of Buridan's ass where the animal is unable to choose between the stimulus of two equal bales of hay and thus starves. He uses the tale to distinguish the possibility of freedom in human activity through the use of mediating artifacts. In the simple case of an inability to decide a human may toss a coin. No matter that the point is trivial, the human has an additional means of interaction with external determination which the ass lacks (Vygotsky, 1997, p. 46).

A further aspect of Vygotsky's disagreement with Piaget's Kantianism concerns existence. For Spinoza and also Hegel, to explain the existence of a thing it is also necessary to explain its genesis. A thing cannot be apprehended merely as it appears in existence. Genesis and the importance of history are considered in more detail in Chapter 6, which discusses Hegel's critique of *the Understanding*. For the moment it is enough to note that for Hegel there is a distinction between the actual and real in that what is real arises from a process of actualisation, and is not, therefore, what it appears to be at any given moment.<sup>98</sup> Vygotsky looks to the unfolding of consciousness rather than its arbitrary positing in terms of the bankruptcy of egocentric thought. Vygotsky finds the genesis of consciousness in the development of scientific concepts. This was the argument (noted earlier) which Vygotsky used to criticise Piaget's failure to understand that the child's lack of conscious awareness was affected by his position in relation to what he was asked to understand, rather than to a conflict between his own childish concepts and those which gave him access to reality.

To reiterate, human behaviour according to Vygotsky is neither controlled nor directed by immediate means based on pure acts of will, but is moved indirectly through the use of signs and tools. Modification of the world by human activity, creates an artificiality (or 'artefactuality') of conditions. Within such artificial and man-made conditions volition can be directed/mediated (caused) but in these circumstances the cause of an action arises through man's own creations/artefacts and not merely as response to external determinations. This provides for human beings the possibility of a universality not available to animals which do no more than respond directly to environmental determinations i.e. without conscious mediation or reflection.

This aspect of Vygotsky's work is linked to Ilyenkov by Bakhurst. Ilyenkov captures the artistic moment of science when he writes that 'The capacity to

---

<sup>98</sup> One of the propagated misunderstandings of the term *essentialism* is that it refers to an intrinsic essence of all things understood as inherent quality or capacity. Moreover this inherent quality or capacity is understood in terms of individual objects or things, atomistically. However the concerns that critics have of any claim to define what a thing is absolutely, ignores the use of *essentialism* as a term that refers to a process.

think is just the capacity to inhabit an idealized environment' (Bakhurst, 1991, p. 244). Ilyenkov draws also on Spinoza:

'[As Spinoza correctly believed,] Thought prior to and outside of its spatial [external] expression in appropriate material forms simply does not exist' (Ilyenkov cited by Bakhurst, 1991, p. 245).

We think so much that we 'will' the world into existence, when we do not. Ilyenkov captures thoughts embedded (or better - embodied) character - yet universality, when he states that it is:

the mode of action of the thinking body... ...the genuine, specific form of the action of the thinking body is its *universality*...  
*...Man - the thinking body - builds his movements according to the form of any other body. He does not wait until the insurmountable opposition of other bodies forces him to swerve from his path; the thinking body freely negotiates any obstacle of the most complex form. The ability actively to build one's action according to the form of any other body, actively to make the form of a spatial movement agree with the form and disposition of all other bodies, Spinoza considers the distinguishing feature of the thinking body, the specific mark of those actions that are called 'thought,' 'reason.'*

(Ilyenkov cited by Bakhurst, 1991, pp. 250-251)<sup>99</sup>

As Bakhurst puts it: 'It is this ability to conform to the dictates of no particular situation, but of any, that Ilyenkov calls thought's *universality*. ...Thought embodies the permanent possibility of transcendence; it may always go beyond what it took to be its own limits' (Bakhurst, 1991, p. 251).

While this bodily dimension of thought is absent from Piaget's characterisation of a contemplative mind, it is central to Vygotsky theory:

Consciousness arises out of life and forms only one of its features. But once awakened, thought itself defines life. Or more accurately, a thinking life defines itself through consciousness. As soon as we separate thought from life, from dynamics, and from necessity, we have deprived it of all reality; we have put off all paths to the clarification and explanation of the traits and chief purposes of thought: to define lifestyle and behaviour, to change our actions, to direct them, and to free them from the power of concrete circumstances.

(Vygotsky, 1993, p. 237)

---

<sup>99</sup> Bakhurst notes that Ilyenkov's 'conception of thought largely emerges during his treatments of Spinoza' (Bakhurst, 1991, p. 251).

Following Spinoza, a crucial question for Vygotsky is, how to free ourselves from our concrete circumstances, from our passions; how to be free, not determined by external causes but to be a cause of ourselves (*causa sui*). According to Spinoza we are not able to control ourselves directly through a will not tied to matter; we can only achieve freedom by altering our position in relation to external determinations or as Vygotsky put it, by creating extrinsic stimuli.

Spinoza explains the relationship of will and conscious awareness as characteristic of concepts located in relation to one another, i.e. systemically. The more our actions are formed by adequate ideas (i.e. ideas where the genetic connections are understood explicitly) the more we are determinate of our own actions and we are said to be active. The more we act according to inadequate ideas (ones whose relations are unexpressed) we are said to be passive and as such our actions are not free:

The physical and mental behaviour of a human being... may be active or passive to various degrees. The more it stems distinctively or creatively from its own conatus, the more active it is; the more it is merely acted on by external things, the more passive it is.

(Sprigge, 1995, p. 848)

Spinoza calls the active behaviour of the mind 'adequate ideas', the passive behaviour 'inadequate ideas'. Adequate ideas necessarily constitute more genuine knowledge:

Spinoza regards us in bondage so far as we are under the control of external things (in a sense which includes especially mental processes of our own that we do not properly understand) and as free to the extent that we meet life with creative understanding of what will best serve the purposes that adequate ideas will determine in us.

(Sprigge, 1995, p. 848)

Related to the Spinozist conception of freedom, gained by holding adequate ideas, is a totally different notion of truth from one that we commonly hold to (as the direct opposite of falsity and referring directly to something which is actual rather than actualising).

### *5.3 Spinoza and truth*

Spinoza insists that:

error is always the privation of knowledge; to say that an idea or proposition is false is to say that it is relatively incomplete and fragmentary, and is therefore to say something about its lack of logical relation with other ideas; the falsity is corrected as soon as the idea is placed in connexion with other ideas in a larger system of knowledge.

(Hampshire, 1992, p. 87)

Every idea has its own ideatum (material parallel), and therefore what we understand as false belief is a matter of incomplete knowledge (Hampshire, 1992).

The materiality of thought is reiterated in the writings of scholars of Spinoza. Deleuze takes issue with the contemplative character of what it is to make something explicit. 'Explication far from amounting to an understanding that remains outside its object, amounts primarily to the objects' own evolution' (Deleuze, 1992, p. 18). From a Cartesian point of view and for those who adopt it as self-evident, these are difficult ideas. The notion of truth in Spinoza is fundamentally different from that of propositional knowledge, yet it is the assumption that Vygotsky is referring to propositional knowledge when he talks of scientific concepts, that leads commentators, such as Wertsch, to criticise him on the grounds of holding to a decontextualised form of rationality. Propositional knowledge is often used to mean that a statement corresponds to or pictures a truth of the world. However, once the dualist conception of mind and world is replaced by the idea of thought and extension as 'two sides of the same coin' - attributes of the same substance, - the question of the relation of thought to the world takes a different form. Truth is no longer something that can be ascribed to isolated facts. In his discussion of Deleuze, Hardt argues that: 'Along with Thomas Mark, a perceptive American commentator, Deleuze shows that Spinoza's theory of truth is an ontological theory of truth' (Hardt, 1993, p.90). He continues: 'Mark explains that the traditional approach of Anglo-American and Analytical interpretations of Spinoza (Joachim, Stuart Hampshire, Alisdair MacIntyre) counterposes Spinoza to a correspondence theory of truth and in line with a 'coherence theory' where truth is defined as

coherence within the orderly system that constitutes reality' (Hardt, 1993, p. 131). (This reading of Spinoza still sees thought as operating only within a realm of contemplation and rather than as a material activity). Hardt explains Mark's argument that by contrast to American and Analytical interpretations, 'Spinoza is better situated in the much older epistemological tradition of truth as being. "If we want to see Spinoza's theory of truth within its proper historical setting we must not contrast the correspondence view of truth with the coherence view of truth, but rather with theories of 'truth of being' rather than 'truth of things' i.e. as *ontological* truth'" (Hardt, 1993, p. 131). Hardt argues that Mark does not take this line of argument far enough when he satisfies himself with situating Spinoza in the 'Platonic tradition' as sufficient. Hardt continues that once truth is understood as ontological then an inextricable relationship exists between truth and power and Spinoza's rightful place is as Deleuze places him within a Nietzschean tradition (Hardt, 1993). Foucault draws from this tradition, when he argues that something is true because it is powerful not powerful because it is true.

For Spinoza adequate ideas are true by virtue of their adequacy:

Adequate ideas are expressive, and inadequate ideas are mute. In other words, the distinctive character of an adequate idea is that it tells us something about the structure and connections of being (or at least the attribute of thought) through a direct expression of its efficient and formal causes. From an ontological perspective, the inadequate idea tells us nothing because we cannot recognise its place in the productive structure of thought.<sup>100</sup>

(Hardt, 1993, p. 90)

---

<sup>100</sup> This relates directly to pedagogical approaches which attempt to make the development of any concept explicit to the learner.

Spinoza introduced a material and 'historical' element to Descartes' requirement of clear and distinct ideas (and in doing so paved the way for Hegel's historical concept of mind):

A given idea of a circle may be clear and distinct, but it remains inadequate unless it explains the path of its own production. An adequate idea of a circle might for example, involve the idea of a fixed radius rotated around a central point; it expresses its cause. ... An adequate idea of justice would have to express the means by which we produce or construct such an idea; it would involve a genealogy of ideas that result in this idea.

(Hardt, 1993, p.132)

A description of a circle as a figure where all straight lines drawn from the centre to the circumference are equal would be inadequate since it expresses only one of its properties but not how the circle is produced and or how its essence can only be captured by expressing the elements intrinsic to its formations. For Spinoza the adequate idea of the circle is 'a figure described by a straight line wherein one end is fixed and the other is free. This clearly comprehends the proximate cause and states how the figure is brought about, and hence constitutes a proper definition' (Kashap, 1987, p. 6).

... Spinoza suggests that if the thing to be defined is a dependent or a created thing then its definition must specify the conditions or factors which explain how it comes to be (i.e. its immediate or proximate cause). The innermost essence of a thing that depends for its existence on conditions external to itself consists precisely in those conditions without which it could not be produced, or come to be what it is. ...once the essential conditions for its production have been specified then it would be possible to infer all the characteristics or properties of a thing from such a definition. This...clearly involves an unfolding of the very nature of the thing that is being defined.

(Kashap, 1987, p. 5)

This perception of truth is different from its everyday one: and it has particular significance for consideration of abstract rationality and constructivism. Once again philosophy intervenes in the discussion. Spinoza provides a different insight into the 'hermeneutic challenge of perspectivalism' raised in Chapter 4.



Brockmeier argues that Vygotsky shared the same Kantian starting point as Piaget, assuming that ‘there is no absolute and objective cognition of the world as it really is’ (Brockmeier, 1996, p. 140). Brockmeier’s positioning of Vygotsky, however, presupposes mind/world dualism and is not sustainable when thought and extension are understood as attributes of one substance and when each idea has its own ideatum. The different idea of truth entailed in Spinoza’s position allows precisely the opposite – the idea that absolute and objective cognition of the world is possible. Vygotsky’s debt to Spinoza precludes him from subscribing to Piaget’s Kantianism and to perspectivalism.

This discussion of truth is not separate from freedom but dependent upon it. Kashap agrees with Hampshire that for Spinoza the fundamental term of evaluation is not *good* but *free*. This again goes against the familiar understandings of common sense. But it must be remembered that Spinoza rejected the Cartesian dualism in which these understandings are grounded. Spinoza does not subscribe to the Cartesian power of judgement. Kashap points out that, for Descartes, error depends on two factors in combination. These are the power of understanding and the power of will. Understanding only allows us to apprehend ideas but it does not affirm or deny them. Citing Descartes, Kashap notes the emphasis on free choice: ‘The faculty of will consists solely in our having the power of choosing to do a thing or choosing not to do a thing’ (Kashap, 1987, p. 99). Spinoza rejects the notion of liberty that Descartes imagines the mind to possess. For Spinoza liberty cannot be distinct from necessity. Hence free action for Spinoza is not a matter of choice or volition but of the mind’s activity as opposed to its passivity. Activity for Spinoza concerned the quality of activity rather than its mere fact, i.e. the mind is active when its ideas are adequate and passive when its ideas are inadequate. For Spinoza we are said to *act* when we are the adequate cause of our actions that is when the ideas on which our actions are based on adequate ideas. This is a totally different sense of action from the common one which makes no such profound distinction. So many of the actions that we feel ourselves to be engaged would, if we take Spinoza’s line of argument, be understood differently as vain less repetitions. Often such vain less repetitions perpetuate what they are intended to change. This, of course, is a standard

psychotherapeutic position, where an action that is claimed by a patient to be effective, is revealed to be preserving the situation that the patient wishes to change. For Spinoza such activity, though it comprises concrete actions, is not really activity at all; or it is, to be precise, because it is driven by inadequate ideas – it is passivity. The mind becomes active in relation to these passive ‘actions’ once it is formed by adequate ideas and is the adequate cause of events. Action for Spinoza is restricted to what we are adequate cause of in the same way that we are active when our mind is composed of adequate ideas.

Here again freedom, truth and goodness are ontological rather than representations of states of the world. Their existence depends on aspect and activity rather than an assigned essence. This brings us back to the learning paradox and a different way of conceiving learning.

To educate is to relocate ideas and this is different from what are termed child-centered approaches or traditional didactic approaches. The attempt to grow a higher understanding exclusively from children’s experiences fails as completely as the attempt to implant a higher understanding without regard to these experiences. Bruner’s attempt to explain how knowledge is already present in the child, shows the actualisation of the knowledge is a neither a reduction to, nor an ignoring of the particularities of the child. This sense of pedagogy as moving intellect is so different to one of techniques and style. Bruner comments on Vygotsky’s fruitful idea of ZPD. Vygotsky describes the assessment of the mental development of children of the same chronological age. The assessment might reveal a similar mental age. He states:

If I stop at this point, people would imagine that the subsequent course of development and of school learning of these children will be the same, because it depends on their intellect.... Now imagine that I do not terminate my study at this point, but only begin it...Suppose I show...[these children] have various ways of dealing with a task...that the children solve the problem with my assistance. Under these circumstances it turns out that the first child can deal with the problems up to a twelve-year-old’s level. The second up to a nine-year-old’s level. Now are these children mentally the same?

(Vygotsky, 1978, pp. 85-6)

Bruner locates what he describes as Vygotsky's 'stunning concept' of ZPD in Plato's discussion of *a priori* knowledge in the *Meno*. One of Bruner's arguments stresses that as novice learners we already know a great deal. The idea that we can only know what we already know is referred to as the 'Learning paradox': how is it possible to know when knowledge already presupposes the means of knowing. Bruner explains that the idea of ZPD rests on 'the brute fact, perhaps first celebrated by Plato in the *Meno* where he discusses the young slave's apparent "knowledge" of geometry while being questioned appropriately by Socrates, that ignorant learners can do better in understanding a matter when prompted or "scaffolded" by an expert than they can do on their own' (Bruner, 1987, p. 4). In a later work he argues: 'In some deeper sense, grasping something abstractly is a start toward appreciating that seemingly complicated knowledge can often be derivationally reduced to simpler forms of knowledge that you already possess' (Bruner, 1996, p. 51). To illustrate his point Bruner gives the example of a Mystery story with note inserted in a text saying that the reader already holds all the knowledge necessary to solve the crime. He makes the point that an educator can lead children 'to recognise that they know far more than they thought they ever knew, but that they have to 'think about it' in order to really know what they know [to actualise the knowing]. And that, after all was what the Renaissance and the Age of Reason were all about! But to teach and learn that way means you have to adopt a new theory of mind' (Bruner, 1996, p. 52).

#### ***5.4 Determinism and development***

The preceding discussion has attempted to illuminate elements of Spinoza's philosophy that are relevant to Vygotsky's approach to mind. However, a continuing theme in this thesis is the issue of determinism. In Chapter 2 it was raised in relation to attempts to provide 'a mechanics of mind'. In this chapter the issue of determinism is raised in attempts to provide a causal account of mind and will.

A difficulty in conceiving freedom is locating it within its relationship to determination. The 'Freedom and Determinism' debate has a long and distinguished history in philosophy. Once a theological conception of freedom is rejected – a mind made of some different substance than the world and thus able to transcend that world and the mechanical causes by which it moves – then the alternative scientific position appears only to offer an explanatory base in efficient causes. Where a causal explanation appears to offer the alternative to a metaphysical or mystical conception of freedom, it reduces human action to the mechanical and determined thus leaving no space for freedom or what seems more pertinent – a means for assigning responsibility. The difficulty of subscribing to causal explanations of agency as an alternative to a theological position is that in attempting to explain the sociogenesis of man it becomes viable to assign the causes of what a human being is to the environment that determines him. If such a thing were possible then the development of humanity ('the construction of socialist man' in Vygotsky's time) would be a matter of 'scientific data' used via policy to develop. However, this is a danger inherent in applications of Vygotskian theory where policy makers require precise information as to factors that account for different outcomes.

These problems of determinist explanations arise in interpretations of Marx. The temptation is to see man simply as a product of his circumstances. This determinism plagued Vygotskians - it was the difficulty Leontiev and the Kharkov group had with Vygotsky as he appeared to retain a plane that was not explainable by tool use in an environment.

The idea of economic determinism has been developed through a crude reading of Marx where a determinate relation is taken to exist between what became known as the base and superstructure model. Glassman provides an illustration of a typical case of a commentator on Vygotsky who misreads Marx and in doing so produces a particular interpretation of Vygotsky. In discussing Leontiev and Vygotsky's work, Glassman argues that their work contains the idea of the progressive evolution of social systems championed by Spencer and the social philosophy of Marx and Engels. 'Marx and Engels seem to have partially embraced Spencerism along with Darwinism...the difference for Marx

and Engels was that, rather than seeing progress as driving activity, progress emerged out of activity' (Glassman, 1996, p. 311).

The reading of Marx in this way influences interpretations of Vygotsky's work. The conflation of Marx's work to the practice of Soviet Marxism, commonly imposes reductive notions of progress and development that are then transferred to readings of Vygotsky. On many occasions Marx himself found the need to refute crude conceptions of his interest in Darwin's work. It was Spencer who used the phrase struggle for survival often wrongly attributed to Darwin, and Darwin like Marx, did not hold to the conception of progressive development often read into their work.<sup>101</sup>

Bruner, notes that Vygotsky 'did *not* subscribe to the Soviet Marxist dogma that then viewed man as a mere "product" of history and circumstance' (Bruner, 1987, p. 2). He also recognises the possibility in Vygotsky's work of conceiving freedom differently when he states: 'In the end Vygotsky flirts with the idea that the use of language creates consciousness and even free will' (Bruner, 1987, p. 2).

Bruner's suggests that Vygotsky's interest in the place of consciousness in mental life put him at odds with Stalinist ideologues and offers the following explanation. According to Bruner, the 'battle of consciousness' became central to Soviet psychology only after the Stalinist suppression was lifted. Vygotsky's followers were lined up against the Pavlovians. However, an improvement of relations between the two sides could arise only when Vygotskian theory was restated in the language of the Second Signal System of Pavlov. The Second

---

<sup>101</sup> Marx writes in a letter to Ludwig Kugelmann, June 27, 1870: 'Mr. Lange has made a great discovery. The whole of history can be brought under a single great law. This natural law is the *phrase* (in this application Darwin's expression becomes nothing but a phrase) "struggle for life", and the content of this phrase is the Malthusian law of population or, rather, overpopulation. Thus instead of analysing the "struggle for life" as represented historically in various definite forms of society, all that is done is to translate every concrete struggle into the phrase "struggle for life", and this phrase itself into the Malthusian "population fantasy". One must admit that this is a very impressive method - for swaggering, sham-scientific, bombastic ignorance and intellectual laziness.' (Marx, 1934, p. 20)

Signal system incorporates the notion that language and concepts mediate human existence as a second signal rather than as a first signal where stimuli act on the nervous system directly. However the overly determinate implication of this model of signalling and an alternative means by which the sense of freedom in Vygotsky can do justice to his interest in the 'transcendent' quality of art, remains in question.

The issue of determinism infuses much work in the Vygotskian field and it was there right from the start. The split between Vygotsky and his colleagues centred to some extent on this issue. Leontiev split with Vygotsky and other members of the group to form the Kharkov group. The split has been presented as a contrast between Vygotsky's emphasis on semiotic mediation and Leontiev wanted to focus on social activity. In his obituary of Vygotsky, Leontiev wrote that Vygotsky's ideas belonged to the past and that there must be a move away from semiotic mediation: the Kharkov group must distance itself from these ideas (Van der Veer & Valsiner, 1991). In 1939 Zinchenko wrote an article in which he argued the priority Vygotsky gave to semiotic mediation should be abandoned (Kozulin, 1990). Yet as we see in chapter 7 the issue of semiotic mediation was more than a matter of idealism and of sign versus the materialism of tool.

### ***5.5 Conclusion***

Here to bring this chapter to a conclusion we turn our attention to two further issues about determinism. The first concerns explanations of freedom framed exclusively in terms of causation; the second involves the issue of normativity. Both of these issues are of concern in appropriations of Spinoza and hence at one remove Vygotsky as well.

A problem of determinism arises when explanations of freedom are addressed solely in terms of causes. Although Spinoza has suffered from being understood as a determinist, his working through of ideas offer the possibility of theorising freedom in a radically different way.

The siting of freedom within the free will-determinism polarisation has led those commentators, who hold a notion of freedom as freedom from necessity, to the conclusion that Spinoza has no notion of free will at all. Martin Jay sees Spinoza as a determinist who argues that free will was an illusion that 'an understanding of logical necessity would dispel' (Jay, 1984, p. 29). The reading of Spinoza by Plekhanov and the interpretation placed upon him in Soviet Marxism supports Jay's interpretation. However, although a first reading of Spinoza indeed suggests a determinist and mechanical approach, it is possible to see in his working through of certain fundamental questions, a clear notion of freedom. Spinoza's use of the geometric exposition supports the impression that the argument is determinist in its conception. However, his use of this approach can be understood heuristically as a way of demonstrating that his argument is as systematic as Descartes even though it does not start from a Cartesian point of certainty (i.e. Spinoza's 'antifoundationalist foundationalism' as opposed to Descartes foundationalism). Stuart Hampshire comments that Spinoza's '... metaphysics of the mind, which provides his scheme or outline of science of psychology, was certainly not simply mechanical or behaviouristic' (Hampshire, 1988 p.70). This judgement is made by many Spinoza scholars. Errol Harris points out that Spinoza denies that his theory subjects man to fate, arguing that he is not a mechanical determinist (Harris, 1992, p. 31).

Ilyenkov argues that the geometric structure of Spinoza's argument should not be misread as proof of a determinist position:

It is not so easy, however, to bring these brilliant principles out because they are decked out in the solid armour of the constructions of formal logic and deductive mathematics that constitute the 'shell' of Spinoza's system, its (so to say) defensive coat of mail. In other words, the real logic of Spinoza's thinking by no means coincides with the formal logic of the movement of his 'axioms', 'theorems', 'scholia', and their proofs. 'Even with philosophers who gave their work a systematic form, e.g. Spinoza, the real inner structure of their system is quite distinct from the form in which they consciously presented it,' Karl Marx wrote to Ferdinand Lassalle.

(Ilyenkov, 1977a, p. 29)

What is important here is not so much whether Spinoza was a mechanical determinist or even whether Vygotsky was party to the determinist tendencies

of post-revolutionary Russia's attempt to implement policies for rapid development, but the extent to which a particular way of working through certain questions opens up new possibilities. Ilyenkov denies the reductive reading of Spinoza's idea; indeed the whole impetus of dealing with thought as an attribute of one substance prevents any reduction of thought to neurons or causal mechanisms in physiology.

Where for Descartes, will and therefore freedom have no cause nor explanation, Spinoza has definite conception of freedom based on self-determination. To be free for Spinoza is to be a cause of oneself. Will is not separate from intellect and nor from the adequacy or inadequacy of ideas. Freedom is found in necessity but in one that man mediates as his own rather than one that remains uncompromisingly external. The idea of freedom untouched by necessity is impossible. Vygotsky grasps this point as a way to understand freedom through mediation. Bruner recognises the beginnings of a theory of freedom in Vygotsky but also that he was unable to complete this task. The task is not even addressed within contemporary psychology.

A further difficulty facing attempts to theorise freedom (and with it intellect) stems from the Cartesian dualism of a mind and world. Linked to the problem of consciousness and the question of human agency is the question of ethics. In the Cartesian model, ethics is relativised by the separation. A distinction which parallels the gap between mind and matter is implied between an evaluative and descriptive use of language. Following Hume, there is an unbridgeable gap between fact and value - the impossibility of deducing an *ought* from an *is*. Dualism entails a separation of the normative from the positive and a separation of reason from the passions. The critique of rationality, or more specifically abstract rationality, depends upon the assumption of the separation of a reason dealing with the facts of the world from the passions entwined with values and intentions.<sup>102</sup>

---

<sup>102</sup> Curiously this is the exact opposite of the intended goal of those critiquing abstract rationality. Their purpose is to show that emotions or the affective dimension of thought is central to thinking. As a result there is a need to reject what they take (mistakenly) to epitomize abstract reason – thought devoid of affect. It can be argued that the separation of affect and reason which they criticize is a supposition of their own making.



Here is one of the crucial themes of this thesis, namely that the critique of Vygotsky on the grounds of abstract rationality fails to apprehend the philosophic tradition within which Vygotsky was working and quite apart from its own limitations really misses its target altogether. Given Vygotsky's interest in Spinoza, the brief discussion of Spinoza above is hopefully enough to show that the claims made by those who criticise Vygotsky for abstract rationality fail to do justice to the complexity of the issues involved.

The argument here complements the argument of the preceding chapter since it shows that for Vygotsky following Spinoza the question of the intellect and the problem of freedom are part and parcel of one another.

A moment ago we referred to the separation of positivity and normativity that stems from Hume, now it is important to mention that recent philosophy has laid the grounds for overcoming this separation. An important instance of this is McDowell's use of Sellars critique of the 'myth of the given' to formulate a position where reasons are in the world, laid down by our intentional activity:

Thought can bear on empirical reality only because to be a thinker at all is to be at home in the space of reasons. And being at home in the space of reasons involves not just a collection of propensities to shift one's psychological stance in response to this or that, but the standing potential for a reflective stance at which the question arises whether one ought to find this or that persuasive.

(McDowell, 1996, p. 125)

The phrase 'the space of reasons' contains complicated ideas about the character of our knowing but it has an important bearing on our understanding of Vygotsky's interest in the semiotic. For as we see in a moment it was not only Spinoza who influenced Vygotsky but also Hegel.

## Chapter 6

### Vygotsky and Hegel I

To grasp the extent to which Vygotsky's ideas go beyond a limited concept of abstraction and decontextualisation, it is necessary to understand the different philosophical frame and presuppositions in which his thought was developed. The preceding chapter established elements of the ideas informing his work through an examination of aspects of Spinoza's thought, such as free will, determination and truth. This chapter continues with a discussion of the most significant philosopher for Vygotsky – Hegel. Hegel's philosophy is not readily accessible. As Houlgate remarks, 'there is no short cut... There is nothing but the long and difficult, at times tortuous, at times exhilarating path through the details' (Houlgate, 1998, p. 19). Simplistic guides to Hegel rarely achieve much and often falsify his thought completely (Pinkard, 2000). Hence it is not a straightforward task to summarise his contribution to philosophy. The aim of this chapter, however, is limited to providing illustrations of the link between him and Vygotsky and in particular to see how this shows the argument, that Vygotsky employed an abstract decontextualised form of reason is groundless.

#### *6.1 Kant and dualism*

A difficulty with the interpretation of Vygotsky's idea of scientific concepts and abstraction, is that it has tended to accept the presupposition of a dualism of mind and world if not the dualism itself, that goes back to Descartes. The questions of dualism were a major theoretical issue in the seventeenth and eighteenth century from Descartes to Hume and from Hume the issue was taken up by Kant and then by Hegel.

Three contrasts between Kant and Hegel can be noted:

1. Kant's idea of a realm that cannot be known<sup>103</sup> versus Hegel's position that everything is knowable.
2. Kant's argument that the mind already has within it the means to construct the world in a particular way as opposed to Hegel's argument that the mind emerges in social activity<sup>104</sup> rather than being *a priori*.
3. Kant's emphasis on representations<sup>105</sup> as providing a correspondence to the world that we have knowledge of as opposed to Hegel's emphasis on meaning arising inferentially within a system.<sup>106</sup>

It must be stressed that the contrast between Kant and Hegel here is concerned only with the importance for educational thought of popular understandings of their work. As a result it stops short of a full scholarly treatment of their philosophies. These contrasts are indispensable for locating abstract rationality as a theme in a particular history of philosophy which gives Kant pride of place

---

<sup>103</sup> Kant's transcendental idealism maintains, for example that, spatial features are not a quality of things in themselves but of objects of our representations, 'If the object (the triangle) were something in itself, apart from any relation to you, the subject, how could you say what necessarily exist in you as subjective conditions for the construction of a triangle must of necessity belong to the triangle itself?' (Kant, *CPR*, A48/B65)

<sup>104</sup> The active transformation of the world creates the possibility of mind/consciousness, which is not pre-given.

<sup>105</sup> "Kant defines representations as 'inner determinations of our mind in this or that relation of time' (A 197/B 242)... [He] argued that sensibility and its sensations were 'the appearance of something and the mode in which they are affected by that something' (A 44/B 51). [subjective perception]... Objective perception is further divided into intuition and concept, the former relating 'immediately to the object and is single [while] the latter refers to it mediately by means of a feature which several things may have in common' (CPR A 320/B 377). Both are produced in an 'act of spontaneity' with intuition being 'given prior to all thought' (B132) but while the intuition provides a field within which the manifold of intuition may appear and representation, it is the concept which synthesises these representations into experience and knowledge" (Caygill, 1995, p. 355).

<sup>106</sup> The characterization of Kant as being a representationalist thinker is open to serious questioning. For instance Rorty takes Kant as an inferentialist as opposed to Descartes, on the grounds that Descartes took 'concepts to be representations (or putative representations) of reality rather than, as Kant did, rules which specify how something is to be done. Kant's fundamental insight, Brandom says, "is that judgements and actions are to be understood to begin with in terms of the special way in which we are *responsible* for them'" (Rorty, 1997, p.9).

and more or less ignores Hegel altogether. For example the literature on Vygotsky does not appear to have consciously taken this history as a basis of its understanding but its use of concepts such as: representation, reality, constructivism as discussed in Chapter 3 earlier are consistent with its terms.

Brockmeier notes the contrast between the approaches of Piaget and Vygotsky in terms of the ‘unsolved relation between the *constructivist* emphasis of the great Geneva scholar and the *interpretative* approach that has developed out of the Russian psychologist, semiotician, and cultural theorist (Brockmeier, 1996, p. 127). As regards constructivism Leslie Smith argues that Vygotsky’s approach involves a social Platonism and that this precludes it as a component of his thinking:

Social platonism and constructivism are incompatible and so an exclusive choice would have to be made between them. Evidently, Piaget (1977/1995, pp. 71, 208) denies all commitments to Platonism, whereas the Platonist commitments of Vygotskyan accounts have been insufficiently realised.

(Smith, 1996, p. 117)

The constructivist assumption of the separation of world and mind, leads Smith to the conclusion that social Platonism in which logic is enculturated in a social space and constructivism are incompatible.<sup>107</sup> To the extent that Piaget was influenced by Kant, his understanding of how a child comes to know depends upon his implicit conception of engagement with the world as a process that brings out the veracity of transcendental idealism. The mind is able to intuit because the mind is equipped with the categories of understanding characteristic of any human mind. It is these categories of understanding which account for the universality and necessity of particular forms of knowledge.

Leslie Smith’s concern with the question of how new knowledge is possible is what leads to his critique of Vygotsky. Leslie Smith has recourse to these categories when in relation to the question of how new knowledge is

---

<sup>107</sup> In one way Smith’s insight is correct in that he has recognized that Vygotsky work invokes a social Platonism which can also be found in McDowell’s argument concerning the space of reasons and its existence in the world rather than in a purely ideal realm.

possible he champions Piaget against Vygotsky. For Smith, the Kantian position offers a way out of the learning paradox, as the conditions of knowing are in the mind prior to any actual knowledge. In Kantian terms, my ability to know geometry is already a condition of my innate conceptual capacity; for Piaget, this capacity matures in development. Kant sets out to resolve the dualism of world and mind by positing the categories of understanding. His goal was to establish the possibility of synthetic *a priori*<sup>108</sup> knowledge; this was crucial for overcoming two problems, first the dependence of knowledge on experience; and second the rationalist alternative that knowledge is simply the internal relation of concepts to one another.

Hume held that *a priori* knowledge could only be found in analytic propositions, that is in propositions which are true by definition where there is nothing contained in the subject which is not already present in the predicate - for example, 'all bachelors are unmarried men' or 'the angles of a Euclidean triangle equal 180 degrees'. Part of what had to be resolved was how our experience of the world becomes knowledge for us. Kant asked, what are the conditions of the possibility of our knowing?<sup>109</sup> i.e. how can our thoughts have the content they do? He showed how it is possible to have knowledge that is due *both* to our experience and to the way in which as human beings we are capable of understanding. Kant's transcendental idealism implied that the possibility of synthetic *a priori* knowledge of objects of possible experience is real because objects must conform to the conditions under which they can become objects for us in the first place. Incidentally this is the philosophy underlying constructivism and the work within education theory concerned with perspectivism – the idea that no knowledge exists beyond the means by which that knowledge is realised. The difficulty here of course is specifying what 'the

---

<sup>108</sup> Knowledge is *a priori* if it is knowable without recourse to experience.

<sup>109</sup>Houlgate notes how Kant's 'Copernican revolution' aimed to justify rather than just take for granted the assumption that *a priori* concepts tell us about things. 'Kant wrote in the preface to the second edition (1787) *Critique of Pure Reason* that 'it has been assumed that all our knowledge must conform to objects. But all attempts to extend our knowledge of objects...*a priori* by means of concepts, have on this assumption, ended in failure. We must therefore make trial whether we may not have more success in the task of metaphysics, if we suppose that objects must conform to our knowledge' (Houlgate, 1998, p. 8).

means by which the knowledge is realised' consists of. Is it the individual discourse of a classroom teacher? or the biographies of individual students? or the *space of reasons* within which any propositional statement is made (thus giving the proposition an inferential rather than representational form)? or is it the 'spirit of a time'?

It is relevant to note here that the Humean claims which prompted Kant to deal with these questions in a new way were characteristic of the modern period. Greek philosophy, to which Hegel returned, dealt with the question of mind and world in a fundamentally different way from that of the dualist approach that came to prominence in the seventeenth century. According to Caygill, by the time that Kant came to the problem, Aristotle's account of the abstraction of sensible and intelligible forms had 'become narrowed by the focus upon the problem of conception or the abstraction of ideas and notions from sensible experience. The human subject was divided into faculties of sensibility and intellect. The problem of how to bring together sense data and ideas was solved either rationalistically or empirically' (Caygill 1995, p. 119). Kant's 'Copernican revolution',<sup>110</sup> Caygill continues, consisted of reversing the idea that cognition conforms to objects, putting in its place the idea that the thought of objects conforms to our ways of knowing.<sup>111</sup> This became known as transcendental idealism - transcendental in the sense that knowledge transcends experience; ideal in the sense that objects are only knowable to the extent that they conform to the conditions of our knowing.

Kant reunited what seventeenth and eighteenth century philosophers had separated and made distinct. In the process, he exposed the limits of both rationalism and empiricism and saw that some way of synthesising the two was

---

<sup>110</sup> Copernicus improved on Ptolemy's explanation of the motion of heavenly bodies by referring to the observer's own motion rather than attributing motion solely to the bodies themselves. Kant explained many of the features of objects by referring to the characteristics of the observer rather than to those of the objects themselves (Van Cleve, 1994).

<sup>111</sup> According to Kant 'If intuition must conform to the constitution of objects, I do not see how we can know anything of the latter *a priori*; but if the object (as object of the senses) must conform to our faculty of intuition, I have no difficulty in conceiving such possibility (Kant, *CPR*, B.xvii).

necessary to ground the possibility of knowledge. The logic of his argument compelled him to confront the perennial question – the relation between theory and practice and, following from this, the relation between the necessary and the contingent. By asserting the inadequacy of both empiricism and rationalism he was drawn to the conclusion that ‘Thoughts without content are empty, intuitions without concepts are blind. ... The understanding can intuit nothing, the senses can think nothing’ (Kant, *CPR*, B75, A51).<sup>112</sup>

In rejecting the rationalist belief in mathematics as abstract reason able to operate independently of experience, he wrote: ‘Misled by such a proof of the power of reason, the demand for extension of knowledge recognises no limits. The light dove, cleaving the air in her free flight and feeling its resistance, might imagine that its flight would be easier still in empty space’ (Kant, 1973, *CPR*, A5, B9). Where Kant posits the relation between intuitions and concepts as inextricable (even though they retain their distinct characters), Vygotsky working within a Hegelian frame argued that the possibilities of what we receive and what we reflect upon are linked to one another genetically/historically. In fact, ways of knowing have an actual, practical symbiotic, historical relation: and forms of knowing are actually developed from activity rather than by linking the categories of understanding (by our nature, as Kant assumes). Vygotsky follows a Hegelian rather than Kantian approach to the problem of consciousness. Like Hegel he has a science of consciousness.<sup>113</sup>

The issue of abstract rationality appears problematic only when it is conceived in terms of a dualist understanding of a mind and world separated from each other by a void. Within the framework of dualist theory, the void

---

<sup>112</sup> Kant defines receptivity, intuition, spontaneity and the understanding in the following way: ‘If the *receptivity* of our mind, its power of receiving representations in so far as it is in any wise affected, is to be entitled sensibility, then the mind’s power of producing representations from itself, the *spontaneity* of knowledge, should be called the understanding. Our nature is so constituted that our *intuition* can never be other than sensible; that is, it contains only the mode in which we are affected by objects. The faculty, on the other hand, which enables us to *think* the object of sensible intuition is the understanding’ (Kant, *CPR*, B75, A51).

<sup>113</sup> Pinkard relates how Hegel originally called the *Phenomenology of Spirit*, the *Science of the Experience of Consciousness* but changed his mind during negotiations with the printer (Pinkard, 1996, p. 1).

between the subject and object of knowledge can only be overcome either by the imposition of a rationality with imperial pretensions or by emphasising, to the exclusion of all else, the specificity and situatedness of human values, understandings and knowledges. Kant remained dualist in so far as he assumed certain categories of the mind and limited the domain of our knowing. Our knowledge of the world was understood to arise through the different components of how we come to know - spontaneity and receptivity remained separate. Bowie explains how once *spontaneity* (the way the mind makes sense of the world) and *receptivity* (the way the world is given to a subject) are understood as not fully separated, it is no longer viable to think of the subject and the world in terms of a dualism. Significantly, this is the case for Vygotsky. Bowie refers to Schleiermacher, the originator of modern hermeneutics, when he spells out these issues. But (of relevance here) he also notes parallels in some strains of modern analytical philosophy such as McDowell's *Mind and World*. Robert Brandom also within the analytic tradition, addresses the same questions. It is surely not by chance that McDowell states that both his own work *Mind and World* and Robert Brandom's *Making it Explicit: Reasoning, Representing and Discursive Commitment*<sup>114</sup> can be considered prolegomenas to a reading of Hegel's *Phenomenology* (McDowell, 1996). It is also significant that contemporary analytical philosophy, though steeped in the dualist frame of thought, is making a move from Kantian dualism to a Hegelian re-thinking of the questions of mind and world. In his introduction to Wilfred Sellars' *Empiricism and the Philosophy of Mind* Rorty remarks that:

Philosophers in non-anglophone countries typically think quite hard about Hegel, whereas the rather skimpy training in the history of philosophy which most analytical philosophers receive often tempts them to skip straight from Kant to Frege. It is agreeable to imagine a future in which the tiresome "analytical-Continental split" is looked back upon as an unfortunate, temporary breakdown of communication...

(Rorty, 1997, p. 12)

---

<sup>114</sup> Rorty comments on the Hegelian character of the work of his ex-research student Robert Brandom as follows: 'Wilfrid Sellars described his project as an attempt to usher analytic philosophy out of its Humean and into its Kantian stage...Brandom's work can usefully be seen as an attempt to usher philosophy from its Kantian to its Hegelian stage – an attempt foreshadowed in Sellars's wry description of "Empiricism and the Philosophy of Mind" as "incipient *Meditations Hegeliennes*"' (Rorty, 1997, pp. 8-9).



It is interesting to note that this move in analytical philosophy has occurred during a period in which there has been an exponential increase of interest in Vygotsky and post-Vygotskian research.

Bowie lists as problems of the dualist framework of Mind (subject) and World (object) (1) 'the incoherent separation of knowable 'appearances' and (2) the unknowable 'things in themselves'. There is also the question of '... how we gain an accurate 're-presentation' of a 'ready-made' world of pre-existing objects ... that would require a complete account of the difference between what is passively received from the 'outside' and what is actively generated by the 'inside' mind' (Bowie, 1998, p. x). The dualism underlying accounts of mind and cognition are continually referred to. Either the dualism appears resistant to attempts to eradicate it from the form of explanation or it is accepted as defining the human condition. However the point that is important to this thesis is that dualism still underlies some forms of explanation which attempt to incorporate anti-dualist conceptions of mind (Lemke, Wertsch). Prawat makes the point that the attempts by Vygotskians to deal with the issue of individual mentalist descriptions of mind repeat the problems that they attempt to evade. As it stands, Prawat argues, 'strategy based Vygotskian theory is subject to *same* dualist afflictions that plague head fitting cognitive psychology. Chief among these is the problem of accounting for how a mind separated from the world can truthfully represent the world' (Prawat, 1999, p. 61).

Even though attempts to move away from a mentalist conception of mind place emphasis on the role of 'socially developed cultural tools as mediators of intra- and intermental functioning' (Prawat, 1999, p. 61), there still remains either the same epistemological problem or a collapse into relativism with no stance on knowledge at all.

## 6.2 Hegel

It is useful to remark at this point that dualism survived Hegel: it still provides a widely held commonsense understanding, even though the claim is made that ‘we are all anti-dualist now’. It is particularly influential in the social sciences.

The problem of knowing in a dualist world throws up the old antinomies. German philosophy has a long tradition of working through this question reaching one of its critical moments in Kant’s attempt to show how empirical knowledge is possible when it requires a universality not found in experience. Kant’s position provoked a massive controversy in which Hegel played a decisive role. Hegel dealt with it from a radically different standpoint that transformed the terms in which it can be posed. In contrast to Kant, he rejected the categorical separation of subject and object and opened a philosophic space within which the antinomies of dualism were transcended. For Hegel (like Vygotsky) cognition is a historical process (the phenomenology of spirit<sup>115</sup>) and philosophy inhabited a totality of all that there is without the need for an external or posited foundation. Philosophy has no privileged starting point, nor does mind which does not stand free from the matter of which it is part. Hegel started from Spinoza’s conception of totality as one substance (God or Nature) of which everything is part. But he recognised the difficulties that the deep entrenchment of dualism created for this approach – like those of attempting to understand quantum mechanics within a Newtonian paradigm. He argued that it was impossible to grasp Spinoza without a conscious effort. Accordingly to Hegel: ‘When one begins to philosophise one must first be a Spinozist. The soul must bathe in the aether of this single substance, in which everything one has held for true is submerged’ (Hegel cited in Beiser, 1995, p. 5). The Spinozist roots of Hegel’s philosophy were important for Vygotsky. Yet associations with Hegel often result in a postmodernist caricature of an abstract, hierarchical and

---

<sup>115</sup>Although Hegel’s work bears the title *Phenomenology of Spirit*, laying it open to the belief that it is a mystical work, Pinkard has aptly subtitled his reading of the *Phenomenology*, ‘The Sociality of Reason’. While Hegel was teaching his work to high school pupils he characterized it in his dictation notes as ‘a study of “modes of consciousness, knowing (Wissens) and cognizing (Erkennens),” ...’ (Pinkard, 2000, p. 333). See also Stewart, (ed) 1996, *The Hegel Myths and Legends*.

decontextualised form of reason. It should be noted that when Hegel referred to Spinoza's single substance he was not alluding to a mystical idea of an Absolute and it is perhaps more helpful to understand Hegel's notion of the Absolute heuristically. This conception is obviously incomplete, but it indicates the role that the Absolute plays in Hegel's argument, as the totality of which everything is a moment.

A difficulty besetting reference to Hegel to develop an argument about Vygotsky's work is that common understandings of Hegel's philosophy are generally inaccurate or completely distorted. Pinkard (2000) notes how most short histories of thought or encyclopedia entries on Hegel make false statements about Hegel; misunderstandings are even more common among those who have not studied Hegel seriously. Pinkard also points out that most reactions to Hegel after Marx were intermingled with reactions to Marx. The misinterpretation of Hegel communicates itself to readings of Vygotsky where the influence of Hegel is read as evidence of hierarchical conceptions of abstract reason. Hegel's concept of the Absolute is often misunderstood as an entity rather than a way of working through certain questions.

It happens, then, that the dualist tendency of modern thought instead of seeing Hegel's work as a frame in which questions of the nature of mind and its relation to world can be considered, reads it as mystical and speculative. A similar fate befalls Vygotsky. Beiser warns against mistaking the absolute for a metaphysics of the soul, for God or for Providence. He notes that for Hegel there was no need for such a specific kind of entity. '[The] absolute is not a kind of thing, but simply the whole of which all things are only parts' (Beiser, 1995, p. 5). Misunderstanding of Hegel's absolute is an important issue here because it relates to the argument in Chapter 7 later about the relevance of an antifoundationalist epistemology to Vygotsky's work.<sup>116</sup> It may also be noted here that not only did Hegel start from a Spinozist position of one substance which includes both thought and extension, he also went back to Aristotle and

---

<sup>116</sup> While a rejection of pre-given foundations cannot lead to any foundationalist concept of knowledge in itself, when linked to a notion of totality it is perfectly consistent with a foundationalist position construed as one in which the foundations do not come in advance are part of the process of the unfolding of being.

Greek philosophy and rejected the claims to clarify thinking by early modern philosophers such as Bacon and Descartes. Significantly where Descartes started from the separation of thought and being, Greek thought started from their unity.

Any attempt to understand the potential in Vygotsky's ideas must recognise the type of philosophy informing his work. This requires an uncompromising adoption of ways of thinking which overcome the dualist afflictions to which Prawat refers. At the same time a major obstacle blocks this approach; namely that the world we actually live in is dualist in the sense that this is the mode in which it actually presents itself. Dualist misconceptions are not superseded because the presentations are continually renewed, for example our dualist definition of an agent. This is why the development of Vygotsky's ideas may appear impractical except in so far as they can be translated into a dualist frame. Dualism cannot be overcome by philosophy when the real world existence of thought is dualist (Gergen, 1999, Ilyenkov, 1977b). Hegel's crucial contribution that philosophy arises after the event bears directly upon the relationship between thinking and the conditions that sustain it. Thought and word are so inseparably related that thought cannot exceed the bounds of what sustains it and what expresses it. In Spinozist terms we might say each idea has its own ideatum.

The dualist separation of Mind and World central to Kant's investigation of the possibility of reason and knowing is precisely what Hegel attempted to overcome. As we have seen from Bowie's comments earlier, modern philosophers working on the same dualism make the same Hegelian move to deny the stark separation of receptivity and spontaneity, arguing that receptivity is already conceptual (McDowell)<sup>117</sup> or that it must be understood as taking an inferential form (Brandom).<sup>118</sup> In an identical view a key contribution of

---

<sup>117</sup> Receptivity is already conceptual in the sense that it occupies a conceptual sphere.

<sup>118</sup> Brandom explains how the interrogation of the assumptions of empiricism have led to an appreciation of a more rationalist way of thinking (i.e. where the conceptual is not separated from the empirical): 'Classical empiricist philosophy of mind takes immediate perceptual experiences as the paradigm of awareness or consciousness. Classical empiricist epistemology takes as its paradigm those same experiences, to which it traces the warrant for and the

Vygotsky was to emphasise the way in which words and concepts represent or transmit - actually structures thought, rather than reflects thought. Instead of following thought, concepts are understood as preceding thought. Children enter a space in which concepts already have meaning beyond their grasp. Yet the very use of a concept within the social space in which it is sustained meaningfully, allows the children's activities to become meaningful within that space. Although Kant's later work moved towards overcoming the rigid separation of concept and intuition and of spontaneity from receptivity, dualism remained (Pinkard, 2000, p. 339).

### **6.3 Vygotsky and Hegel**

Deriving the categories of our understanding from what he took our thought to be, Kant sought to work out what would be the conditions of our reasoning, Hegel worked through particular claims to knowledge *on their own terms*. He argued that it was necessary to go beyond what claims to knowledge took themselves to be and to work through particular claims. This is significantly different from that approach which posits (however rigorously) what the conditions of our knowledge might be. Hegel's approach uses the activity of thinking to push thought along by pushing individual thoughts to their limits.

By contrast to Kant who may be said to have attempted to establish universal criteria, Hegel was aware that in different periods, different criteria prevailed and that what counted as knowledge was dependent upon these criteria rather than upon a universal measure. However, Hegel did not let matters rest in what might have been a relativist position, but argued that reflection about the nature of knowledge occurred in every period and

---

authority of all the rest. As the tradition has developed it has become clearer that both rest on a more or less semantic picture, according to which the concept of experience, awareness, and knowledge is understood in the first instance in *representational* terms: as a matter of what is (or purports to be) represented by some representing states or episodes. ...Empiricism attempts to understand the content of concepts in terms of the origin of empirical beliefs in experience that we just find ourselves with, and the origin of practical intentions in desires or preferences that in the most basic case we just find ourselves with.' According to Brandom, Sellars was motivated by a classically rationalist thought that 'what was needed was a functional theory of concepts which would make their role in reasoning, rather than their supposed origin in experience, their primary feature' (Brandom, 2000, pp. 24-25).

precipitated reflection on the nature of knowing. In other words, he linked knowledge to the movement of historical conditions. Consciousness is successively faced with contradictions (or antinomies) arising from what it takes to be its object and its knowledge of this object. Hegel himself believed the historical nature of thought achieved its fulfilment in the triumph of reason as he saw it in his time and place, but the historical nature of knowledge is not dependent on any enlightenment conceit.

The historical nature of knowledge has implications for the materiality of thinking, namely that thinking always takes place within a definite historical space. According to Hegel, the thought that Kant assumed in deriving his categories was not thought *per se*, but thought at a particular historical point, dealing with particular questions and as a result throwing up contradictions that appear as antinomies. For Hegel, thinking outside this space and hence outside of history, i.e. thinking in terms of abstract reason, simply does not happen. Following Hegel this thesis argues that Vygotsky favoured historical rather than abstract reason and in doing so opens a question about his work which the dualist approach forecloses - what counts as reason? what counts as knowing?

The contextualist positions, considered in Chapter 2 earlier, make the claim to be a criterion of knowledge in opposition to the criterion that Vygotsky got from Hegel. In a peculiar parallel of the same point, the contextualist or perspectivist position wants to give credence to the idea that knowledge is constituted by the means of knowing available. Moreover, to confuse the issue still further, those who favour an extreme version of contextualism, reject history. In this way their critique of Vygotsky as embracing abstract reason is a reflex of their own view of knowledge.

In developmental psychology there has been a shift from a mentalist position focusing on the solitary learner to a 'discursive turn' that emphasises the linguistic practices, discursive activities and semiotic mediations by which activities take place: it also attaches importance to the socio-cultural contexts in which activities occur. At present, it seems strange to consider thinking a material activity. However, a move away from mentalism and internalism

towards externalism has even taken place in analytic philosophy where there has been some concern with the reductive logical analysis of the way that language and, specifically, how sentences picture the world. The linguistic turn prompted by Wittgenstein (a key representative of the analytic tradition) precipitated a move away from a mentalist conception of thinking; 'It is misleading then to talk of thinking as mental activity. We may say that thinking is essentially the activity of operating with signs' (Harré and Gillet, 1994, p. 50). However, explaining thinking in terms of an activity using signs makes only a small step towards an alternative to the internalist and mentalist model of mind - see Chapter 3.

The idea that thought works and constitutes its object exists alongside the idea of thought as contemplation or an empirical sensing of an external world. The two positions, contemplation and empiricism, are not necessarily opposed but when taken separately, they suggest opposed understandings of knowledge. Put simplistically, where the former sees thought as constituting its object, that is to say a constructivist and relativist version of knowledge, the latter sees thought as contemplating or sensing a distinct world. This entails a representationalist position that posits thought as capable of making representations that coincide with a world taken as independently real.

In Vygotsky's work this simplistic opposition is rejected and the possibility of going beyond it is spelled out. According to Vygotsky, representations (scientific concepts) arise neither because they reflect a world that exists independently of human thought, nor because they construct the world in their own image. Rather they arise through the continual reciprocity of the constitution of ideas through activity and their successive re-formation in thought.

In *Crisis*,<sup>119</sup> Vygotsky expounds this dynamic view of knowledge. In this dynamic exposition knowledge formation takes the form of a cycle moving

---

<sup>119</sup> 'The Historical Meaning of the Crisis in Psychology' published in English translation (Van der Veer, 1997) in *The Collected Works of L.S. Vygotsky: Volume 3*.

from a vital phase of early development to one of stagnation as its maturity changes its position vis-à-vis its own development.

Bakhurst, writes that ‘for Vygotsky, the identity of psychology as a science depended on the degree to which it contributed to the transformation of the object it investigates. Its tasks were not simply to mirror reality but to harness it’ (Daniels, 1996, p. 24). In other words, Vygotsky’s conception of knowledge cannot be reduced to a representationalist view of knowledge grounded by what Hegel relegated to the unconditioned universal in his discussion of the Understanding. By contrast, Wertsch argues that Vygotsky had a commitment to universal human rationality as the *telos* of development which is ‘reflected in his claims about how increasing levels of abstraction and generalisation attach to “genuine” and “scientific” concepts (Wertsch, 1996, p.25). The problem here concerns what scientific concepts are taken to be. For example Wertsch refers to scientific concepts as taking a propositional form as purported representations of a demonstrated truth. This more common-sense representationalist understanding of scientific concepts differs from the inferential form proposed by Robert Brandom. This distinction between representationalism and inferentialism is significant since the critique of both abstract rationality and, at the extreme, rationality *per se* depends upon a particular understanding of the role that concepts play within science and other domains (see Chapter 7 later).

What Wertsch overlooks is the possibility that the abstraction and generalization to which Vygotsky refers are not artificial moves made by the mind. That is to say, Wertsch does not see that Vygotsky is *not* working with a Cartesian framework which claims to capture an unconditioned universal. For Hegel, and following him Vygotsky, the understanding of the universal is an integral development of one substance of which thought and extension are part. To examine the logic of an argument that rejects dualist premises, it is helpful to grasp Hegel’s critique of what he called ‘Understanding’. The Understanding could stand as an example of the common conception of knowledge. In the *Encyclopedia* Hegel describes the characteristics of the metaphysical thinking (with which he takes issue) found in philosophers who assume the true nature



of things is knowable through thought alone. He comments that this is also the way 'in which *mere understanding* views the objects of reason' (Houlgate, 1998, p. 7). Hegel also criticised Understanding in the *Phenomenology* when he advanced a radically different way of conceiving what it is to be human, possess mind and to exercise free will. In Vygotsky's writings it is possible to discern this radically different way of conceiving mind and will, considered in the discussion of Spinoza in the previous chapter. This critique will be considered more closely later. For the moment it can be noted that Hegel's critique of the Understanding was important to Marx and that the use that Marx made of it reinforced its importance for Vygotsky. In the *Economic and Philosophic Manuscripts* Marx demonstrated his roots in Hegel when he writes that:

The great thing in Hegel's *Phenomenology* and its final result ....is simply that Hegel grasps the self-development of man as process...; that he thus grasps the nature of work and comprehends objective man...as the result of his own work; "he grasps labor...as man's act of self-creation"

(Marx cited in Wood, 1988, pp. 67-75)

The idea that man and his higher mental functions are an ongoing creation of his own activity immediately places thought on a different footing. The radical break that Hegel made with dualism and the space he opened for an investigation of mind that resists a cognitivist or mentalist approach is credited by numerous sources:

In the view of T.W. Adorno, Hegel challenged the naive, positivistic belief that experience renders 'something immediately present...free, as it were, of any admixture of thought', and showed that there is in fact nothing in our experience that is not mediated in some way by reflection and understanding. In the view of Charles Taylor, Hegel's achievement is to have undermined the idea that human consciousness can be understood in the abstract and to have insisted that we situate subjectivity by relating it to our life as embodied and social beings.

(Houlgate, 1998, p. 3)

In the *Phenomenology*, Hegel worked through the problems of what it is to know by examining different forms of historical consciousness. However, it is

not a simple examination but an ontological logic where each successive moment arises out of the partialness<sup>120</sup> of the previous one. Hegel was concerned with different forms of consciousness not in terms of simple comparisons but as moments in a process of development through which successive forms arise out of the inadequacies and one-sidedness of those that precede them.

Where the problem of knowledge - how we can claim to have knowledge? and on what basis? - was previously a matter of epistemology, Hegel turned knowledge into a matter of ontology. By ontology is meant the actual movement of being as opposed to a separate analysis of the object of understanding by a subject. Hegel subsumed these separate analyses into the actual process of the development of thought. This development is neither a simple comparison nor a simple linear progression. Each form of thought is taken as the thought of a real age and the movement from one form to the next is precipitated by the inadequacy of one form to grasp what it has set itself to grasp. To see this schematically as a simple, inevitable process of development does not do justice to the richness of the original. Or, it might be said in passing, a simple understanding of it which claims that all forms of thought that exist at this moment are somehow equal to each other, does not do justice to the complexities of the contemporary world.

Hegel praises Kant for beginning the move to ontology by dealing with knowing as a logic. But at the same time he criticises Kant for assuming the categories rather than deriving them from thought itself as the necessary outcome of self-reflection.

---

<sup>120</sup> Hegel follows Spinoza in viewing truth as the whole. Partialness means one-sided as opposed to many-sidedness, which is the essence of a phenomenon. Essentialism is not concerned with things but a process in which its essence of a thing is *actualised* over time.

Unlike Kant, Hegel was not concerned with the foundations with which we might be able to discern as the basis of any knowledge, but with the actual process through which these foundations are laid in the process of the development of thought itself:

Hegel understands his logical study of categories to be also an ontology in the strongest possible sense. Hegel agrees with Kant that our categories contain the meaning and structure of objectivity; but against Kant, he thinks the categories contain the structure not just of objectivity *for us*, but objectivity *as such*. ...not just the objective structure of *our* world but the objective structure of being itself. ...Hegel's post-Kantian examination of what it is to *think*, ...is thus...a pre-Kantian, quasi-Spinozan examination of what it is to *be*. He proceeds through Kant to his new 'Spinozism'.

(Houlgate, 1998, p.12)

Hegel argued that Kant's 'thing-in-itself' could be understood only as an abstraction. As explained in Chapter 5, his Spinozism entailed a radically different understanding of what had previously stood as epistemology. The representative relation of an appearance standing in place of a reality was at odds with the idea of one substance (the Absolute). Instead, and in accord with a Spinozist conception of truth, the real is what has been fully actualised rather than merely existent as one-sidedness and not fully actual. A specific peculiarity of Hegel's approach is that it takes the appearance of a thing as an expression and not a disguise. According to Houlgate:

Hegel's derivation of the categories in the Logic proves Kant's conception of the thing in itself to be an abstraction, by demonstrating that what something is in itself has actually to be conceived as inseparable from its relations to other things and the way it appears. ...there is in fact no good reason to contrast the appearance of a thing with what it is in itself, as Kant does. Appearance, rather, must be understood as manifesting what the thing is in itself. And experience thus must be understood as experience of what there ultimately is.

(Houlgate, 1998, p. 13)

One of the differences between Hegel's thought and the thought of the Enlightenment is sometimes posed as one between empiricism and speculation, each of which can be simply opposed to the other by exaggeration, to an almost meaningless caricature of itself. Thus empiricism is characterised as an almost thoughtless recounting of fact and contemplation as thought totally separate from any object. Rockmore (1993) implicitly attacks this bi-polarity by distinguishing different forms of empiricism arguing that although Hegel criticises Sense-certainty for its one-sidedness he can himself be seen as an empiricist insofar as he held to the general position that knowledge comes from our experience.

Many confusions result from the oversimplification of philosophical labels. The philosophical position of empiricism - that nothing can be known independently of experience - is taken in such diverse ways that the term loses meaning. The reading of Hegel as a mystical thinker would find it hard to conceive of Hegel as an empiricist. Yet his anti-foundationalism shares with Quine, a renowned empiricist, the position that a merely analytical resolution of epistemology - how we can claim knowledge - is mistaken. Knowledge ultimately emerges world-historically. The separation of knowing from what is to be known has led to paths in philosophy that have thrown up antinomies which expose the error of these paths. Quine's classic *Two Dogmas of Empiricism* referred to in Chapter 4, exposes the failure of the Kantian separation of analytic and synthetic statements - the claim that some statements are true by definition and others true as matters of fact. Quine questions whether anything is ever *a priori*. In relation to Quine's discussion of empiricism, it must be noted that the distinctive feature of Hegel's empiricism is its ontological character. For Hegel all theory, even common or garden Sense-certainty, already belongs to historical forms of thought and is therefore ontological in the sense of belonging to being in one or other of its various historical moments.

Empiricism, in the sense of what Hegel calls Sense-certainty, sees experience as the cause of knowledge and the senses as the means for acquiring

such knowledge where our representations coincide with the object that they purport to represent. For Vygotsky, following Hegel, the process of acquiring knowledge is reversed - a correspondence theory of knowledge is rejected and eventually what comes to be our representations, arises over a long process of development during which they are at no point separate and distinct from their process of coming-to-be. Under the influence of Hegel, Vygotsky is bound to reject the representationalist view of knowledge, which presupposes a terminus where knowledge is complete. When discussing word meaning, for example, Vygotsky notes that when a word is first learnt the process of the development of its meaning has only just begun. Words are used in a rough and ready way to perform particular jobs and in the context of their use and reception their meaning is expanded and deepened.

The peculiar conception of how our representations arise and relate to the world is clear in Hegel's arguments about the requirements of science. As regards these requirements, Hegel certainly made clear what was *not* necessary: 1) The type of knowledge claimed for by the Understanding; 2) The assumption of a Given (what Sellars calls the myth of the given) against which the validity of our knowledge claims may be assessed; 3) The idea that cognition exercises certain categories that allows it to relate to an assumed Given; and 4) The idea of a fixed subject and fixed object separated by a void. He puts it as follows:

Now in order to raise oneself to the standpoint of Science one must give up the presuppositions [*Voraussetzungen*] which are contained in the already mentioned subjective and finite modes of philosophical cognition: 1) the presupposition of the firm validity of limited and opposed determinations in general, of the Understanding in general, 2) the presuppositions of a given, represented, already complete substratum, which is supposed to be a standard for determining whether one of those thought-determination is adequate to it or not, 3) the presupposition of cognition as merely relating of such ready and fixed predicates to some substratum or other, 4) the presupposition of the opposition between cognising subject and its object, which cannot be united with it - each side of which opposition is supposed once again, as in the case of the opposition just mentioned, to be independently [*fur sich*] something fixed and true.

(Hegel, *Encyclopedia*, par. 35, cited in Forster, 1998, p. 635)

This rejection of presuppositions informs his critique of Kant:

The demand which has become customary through the Kantian philosophy, that before actual cognition the cognitive faculty be subject to critical investigation, appears plausible at first sight. However, this investigation is itself cognition; that it should be performed without cognition is senseless. Moreover, even the assumption of a cognitive faculty before actual cognition is a presupposition both of the unjustified category or determination of faculty or power and of subjective cognition.

(Hegel, *Encyclopedia*, par. 26 cited in Forster, 1998, p. 635)

What distinguishes Hegel from Kant and indeed from all other philosophies is his starting point. For instance in contrast to Kant whose approach to the question of knowing is logical, Hegel takes an ontological position and starts his philosophising from what we take ourselves to be doing in knowing, and then works through the implicit takings which once expressed lead beyond the original claim. The pertinent point is that rather than starting from a position that tries to determine what consciousness must consist of, if it is to 'know', Hegel starts from the forms of consciousness themselves and takes seriously what each of their claims to know comprises. By doing so and examining what is authoritative in its claim to know, Hegel shows 1) that more is claimed than at first sight would appear to be the case; and 2) that each claim, when fully considered, undermines itself and generates within its own terms a further form of consciousness; and 3) this further form of consciousness retains implicit elements that are exercised once what is claimed is made explicit.

In the *Phenomenology*, Hegel traces the movement of reason through different forms - reason where the subject apprehends the world as it is; reason which involves tools/categories for getting to grips with how the world is; and reason knowing the world of objects in their existence for its own purposes.

Hegel starts his examination of the forms that Consciousness takes with Sense-certainty and shows how once we reflect upon what this means - knowledge arising in our senses from a direct effect of experience - it becomes clear that there is more to it than first appears: To recognise an object is

immediately to place it within a system. Thus Sense-Certainty is not quite what it claims to be for itself but requires something further to be accepted as even the barest claim of some truthful impingement on our senses. Sense-certainty claims for itself a knowledge of the world that is immediate i.e. a singularity that does not depend on any contribution from us in order to count as knowledge. Once this claim is fully expressed it undermines itself in exposing that it is inferential knowledge rather than non-inferential. It is in fact not immediate but is mediated. What are required are complexes of individual things - a system not merely a singular object. This system Hegel calls 'Perception' where the truth of what seemed to be immediate being is not given immediately to the senses but rather is perceived by the mind. Here consciousness is distinguished into subjective and objective aspects, no longer do the two coincide, instead the question of the difference between the individual's perception and the object itself, the distinction of appearance and reality, arises. Terry Pinkard in explaining the development of mind, what he terms 'the sociality of reason', in Hegel's *Phenomenology* explains the issues as follows:

The subject...originally understood himself purely as apprehending subject, someone who stood in relation of acquaintance with the objects of knowledge. The guiding metaphor is that of the subject viewing the object. With the collapse of that idea, however an alternative picture of the subject has emerged - namely that of a practical, living subject who deals with objects in terms of his cognitive capacities and for whom his concepts are more like tools with which he can deal with his environment.

(Pinkard, 1996, p. 48)

Hegel's working through of claims to know takes us to a very different position from which to consider what it is to experience or to know:

To see the subject as part of life is to see the object of knowledge not as being like the kind of metaphysically construed objects of 'sense-certainty' or 'perception' that we can only apprehend; it is rather to see how these objects fit into the demands of the life of the subject himself - that is, into his various practical projects.

(Pinkard, 1996, p. 49)

The important point here is that the world/reality is not given to us, nor is it simply apprehended through categories rather it comes to us through our own purposes and intents coming to expression or realisation as a role in our own projects:

Our conceptualising activities are not to be construed on the model of our apprehending objects; knowing something is construed instead as a form of acting. The agent has various desires that demand satisfaction, and his conceptualising activities are tools for the satisfaction of those desires.

(Pinkard, 1996, p.49)

What may appear to be an esoteric discussion in philosophy about epistemology or, what is actually in the case of Hegel's account, a detailed and rigorous investigation of the appearances (phenomenology) of consciousness, has in fact direct implications for the work of Vygotsky. Vygotsky draws on the Hegelian dialectic in his work on the education of children with special needs. Writing in 1931 he takes issue with the pedagogue of the blind who attempts to replace vision with 'visual images' through other senses (e.g. touch) without understanding the nature of perception. He describes a famous tale used by A.A. Potebnia to show that a single generalisation is not knowledge: 'The blind man asks a series of questions which lead to an infinite regress "what is milk like?" – "It is white." – "What is white?" – " like a goose." – "And what is goose like?" – "it's like my elbow." The blind man felt the guide's elbow and said, "Now I know what milk is like!"' (Vygotsky, 1993, p. 203) Following Hegel, Vygotsky's argument is that perception and representation is not the sphere of compensation for the effects of blindness; 'compensation occurs not in the realm of elementary functions but in the sphere of concepts' (Vygotsky, 1993, p. 203). This is a crucial point given that much of contemporary education practice is still conducted on the basis of assumptions about what Hegel called Sense Certainty and Perception without appreciating that more is involved even at what appears to be this elementary level of 'knowing'.<sup>121</sup> Arguing that knowledge is not based on sense impressions or what we perceive

---

<sup>121</sup> Bruner refers to these misconceptions as the general folk psychologies underlying teacher practice.



but instead arises in thought, Vygotsky insists that the lack of a sense changes nothing in human cognition and thought:

...both the blind man and the seeing man, in principle, know much more than they can imagine; they know more than they can absorb with the help of their five senses. If we really knew as much as we can absorb directly through our five senses, then not a single science (in the true sense of that word) would be possible.

(Vygotsky, 1993, p. 203)

Emphasising the counterintuitive character of science and following a Hegelian line of thinking he goes on to argue:

For the links, dependencies, and relationships among things which are the content of our scientific knowledge are not the visually perceivable qualities of things rather they come to light through thought. This is also the way it works for the blind child. Thought is the basic area in which he compensates for the inadequacy of his visual perceptions.

(Vygotsky, 1993, p. 203)

This comprehension of the character of thought is drawn from Vygotsky's understanding of Hegel and the social nature of mind. Vygotsky recounts how in formal logic:

a concept is nothing other than a general representation. ... [There is an] inverse proportionality between the extent and the content of the concept. The path to generalisation is thus a path which leads away from the riches of concrete reality toward the world of concepts, the kingdom of empty abstraction, far from living life and from living knowledge.

(Vygotsky, 1993, pp. 204- 205)

Vygotsky maintains that in dialectical logic it is quite the opposite:

A concept seems richer in content than does a presentation. Thus the path to generalisation is not a path formally divided into separate indications. Rather, it is an uncovering of the links of the relationship of a given matter with another. If the subject becomes truly intelligible, not through immediate experience, but in all the many links and relationships which define its place in the world and its connection to the rest of reality, then one's understanding is deeper, more real, truer and more complete reflection than the envisaged one.

(Vygotsky 1993, p. 205)

This argument made in relation to his discussion of the education of the blind is surely sufficient to indicate that the criticism of Vygotsky as an abstract rationalist is unfounded.

Ilyenkov is an important figure in the field of post-Vygotskian research worked in this same philosophical tradition. He was a significant figure in the Mescheryakov experiment which reached results that challenged the empiricist version of knowledge (Bakhurst and Padden, 1991). Mescheryakov's work which showed how children deprived of sight and hearing could reach high levels of intellectual development, lent support to the Vygotskian idea that intellect 'is formed under the influence of society, through tools, speech and rules of behaviour' (Levitin, 1982, p. 216). An important conclusion reached by Mescheryakov and Ilyenkov was that knowing is not dependent on the senses as understood by empiricism, but arises in a *humanized* environment. Levitin tells how Ilyenkov in his booklet *Learn to Think from Youth* came to write:

When Meshcheryakov's four pupils kept a packed audience of hundreds of students and teachers enthralled for three hours, one of the many notes from the audience read, 'Doesn't your experiment refute the old truth of materialism whereby there is nothing in the mind that wasn't first in sensations? They don't see or hear anything, but they understand everything better than we do.' 'I conveyed that question, letter by letter, through the finger (dactile) alphabet to Sasha Suvorov. I was sure he could answer it better than me. And indeed, Sasha replied promptly and clearly, speaking into the microphone: 'Who told you that we don't see or hear anything? We see and hear with the eyes of all our friends, all people, the whole human race.'

(Levitin, 1982, pp. 216-217)

Ilyenkov uses the example of Meshcheryakov's four pupils to illustrate the significance of the 'humanised environment' of 'objectivised human capacities' which we inhabit. This environment extends to material objects, codes of behaviour and the ordering of life in time and space. The possibility of the experience of sensing for the blind/deaf child arises, not by a mind directly interacting with a world but by a mind that is immediately social.

Bakhurst judged Ilyenkov's work to have major significance for the way in which traditional questions of knowledge have been circumscribed:

we should grant Ilyenkov that considerations about the nature of our 'humanized' environment must figure in any remotely adequate account of the human condition and the powers of our mind and language. This is something much philosophy particularly of the analytic stripe, has failed to appreciate, relegating such considerations to the contingent context of thought and language, rather than the very medium of the mental

(Bakhurst, 1997, p. 39)

These limitations of analytic philosophy and the turn by McDowell and Brandom suggest a Hegel connection between Vygotsky and Ilyenkov and contemporary philosophers such as McDowell and Brandom.

The historical location of Hegel which has been associated, like that of Marx, with the failures of what has been seen as a political project of Enlightenment rationality, has compromised the reception of his work. Thus, as his significance as a philosopher has been diminished so his influence on Vygotsky has been seen in a somewhat negative light, as evidence of an atavistic commitment on Vygotsky's part to a concept of reason that stands above context subsuming all multiplicity and variety to its own end. In fact, as we have seen, Hegel was the greatest critic of abstract rationality, though it is nonetheless paradoxical in that Hegel should find a renaissance in the tradition of analytical philosophy that is so much at odds with his form of philosophising.<sup>122</sup> Given the popular caricature of Hegel it is not surprising that he should be associated with the idea of an abstract rationality which is used as a hallmark of poor educational practice and that Vygotsky should be tarred with the same brush. McDowell's 'Hegelian' claim that receptivity is already conceptual<sup>123</sup> involves a conception of 'reason' quite different from that which

---

<sup>122</sup> R.J. Bernstein suggests that John McDowell's "analytic" and former Oxford colleagues must have thought McDowell's reference to Hegel, informing his work *Mind and World*, a joke. For 'Hegel is a philosopher that few "analytic" philosophers have taken seriously (one even read) – a philosopher typically held up for ridicule, as someone who epitomizes the intellectual vices that "analytic" philosophers have sought to overcome' (Bernstein, 2002, p. 9)

<sup>123</sup> Although I have called this McDowell's *Hegelian* claim, McDowell exploits Kant's terminology to make his case of the unboundedness of the conceptual. He clarifies that in answer to the question: 'Does Kant credit receptivity with a separable contribution to its

Wertsch quite correctly takes to task – that is an extreme of a decontextualised schooled knowledge, presented without regard to its genetic development, ignoring all sense of learning as the actualisation of concepts. Chapter 7 continues the effort of this thesis to establish sufficient links with Hegel’s philosophical approach to sustain the argument that Vygotsky’s concept of rationality did not conform to the version of Enlightenment characterised in contemporary work.

---

cooperation with spontaneity? It is possible to answer in both the affirmative and the negative. However it is possible to take from Kant’s conception of experience that ‘reality is not located outside a boundary that encloses the conceptual sphere’ (McDowell, 1996, p. 41).

## Chapter 7

### Vygotsky and Hegel II

This thesis has examined the philosophical background of Vygotsky's work to show that his notion of reason was far more sophisticated than the expression 'Enlightenment Rationality' suggests. This chapter considers four areas in which Vygotsky's concept of reason differs from Enlightenment rationality: 1. Foundationalism and anti-foundationalism; 2. The conception of science; 3. The conception of development and; 4. Idealism and materialism. The latter is developed more by Ilyenkov though it can be reasonably interpreted as part of a general drift of Vygotsky's work.

These areas are treated here as though they were separate but this is for practical reasons only. In point of fact they are not simply interrelated but different facets of a totality. To demonstrate this point however would require a longer excursion into Hegel than is possible here. Suffice it to say that questions concerning rationality and questions concerning starting points, i.e. foundations or data are really part and parcel of one another. Although these different areas (foundationalism, science, development, idealism and materialism) are treated separately, their selection is not arbitrary nor are the questions concerning practice which take the place of a conclusion in the final section.

#### *7.1 Foundationalism and anti-foundationalism*

Wertsch's criticism of abstract rationality discussed above is now considered again from the point of view of foundationalism and anti-foundationalism. This point of view locates the question of abstract reason within the contemporary rhetoric for conceptualising what is negative about abstract theory. Although discussion of abstract rationality is not normally conducted in terms of foundationalism and anti-foundationalism it is helpful to

bear this matter in mind since it would appear to interconnect with those other aspects of the critique of rationality which favour multiple knowledges as an alternative to what is taken to be the logocentrism of rationality.

In Postmodernist thought foundationalism and anti-foundationalism are posited as a simple opposition - on the one side foundationalism as a denial of human creativity; on the other, anti-foundationalism as an opportunity for infinite variety and creativity. However, two problems arise with this opposition: first, anti-foundationalism conceived as the simple opposite of foundationalism does not eradicate all its elements; and second, rejecting foundationalism and posing anti-foundationalism as its alternative does not imply free human creativity to the extent that postmodernists imagine. Moreover, as already suggested, underlying the criticism of abstract rationality is an un-theorised conception of freedom. When foundationalism is understood as a denial of human creativity and a representative of logocentric rationality, anti-foundationalism is promoted for allowing space for infinite human variety and creativity: such is the position of postmodernists such as Gergen. But what is missing from the concept of anti-foundationalism is the possibility of material constraints on our thinking imposed by our cognitive activity in the world.

Foundationalism and anti-foundationalism are concerned with the way knowledge is obtained. The one starts from the secure ground of what is known to be certain and builds upon it; the other denies the existence of such a secure starting point. But this direct opposition has not been universally accepted *and* Hegel rejected it out of hand. Although Vygotsky is explicit about the importance of Hegel for his work Wertsch takes it for granted that Vygotsky is a foundationalist in the sense of operating with presuppositions that the nature of knowledge is given in advance of any activity and that development is determined teleologically. Wertsch argues repeatedly (Wertsch, 1991, 1996, 2000) that Vygotsky has a deep philosophical commitment to Enlightenment traditions of abstract rationality and shared with his colleagues involved in 'the first grand socialist experiment in the form of the Soviet Union'... 'a belief in some form of universal rationality and a belief in the possibility of progress

towards such rationality' (Wertsch, 2000, p. 22). He takes as evidence for this view, what he believes to be, foundational assumption underlying Chapter 5 and 6 of *Thinking and Speech*. For Wertsch, what he takes to be Vygotsky's assumptions of 'referential relationships between signs and objects' and 'increasing generalization and abstraction' lead inevitably to the position whereby the 'decontextualisation of mediational means' is the aim of development: 'In Vygotsky's view assumptions about meaning [in language] provide the foundation for defining human development and telos' (Wertsch, 2000, p. 22). To avoid these presuppositions which he sees as the Enlightenment conception of rationality, Wertsch emphasises local meaning-making:

I shall argue that there are some major inconsistencies in his writings, in that he sometimes espoused abstract rationality as *telos* of development but on other occasions assumed that other forms of mental functioning occupy that role. ...such inconsistencies reflect a struggle between basic philosophical commitments, on the one hand, and the results of analysing complexities of human speech, on the other.

(Wertsch, 1996, p. 26)

In a later work he writes that 'Vygotsky was deeply committed to Enlightenment traditions of abstract rationality.' Wertsch equates abstraction with the 'decontextualisation of mediational means': it is the semiotic potential available in abstraction (and the systematicity of interrelationship of signs) which 'yields increasingly, powerful ways to categorize, reflect and control the world' (Wertsch 2000, p. 22). This characterisation of rationality and its rejection, however, leaves the alternative position open to charges of relativism and the devaluation of knowledge.

What can be noted here is that the question of the nature of rationality has an important bearing on the relation of theory and practice. Where rationality is deemed a universal abstraction, theory is viewed as applicable to practice in such a way as to 'categorize, reflect and control the world'. It was this view of theory which was denounced by Schon (1983) when he commented on the dissonance between the swampy lowland of practice and the high ground of theory. It was Schon's comment illustrative of the inadequacies of the

competency approach to teacher education, that prompted Joseph Dunne's 'conversation' with philosophers with the aim of finding out what rationality could mean if it were not to be applied as a technique to achieve specified ends – the all too familiar contemporary aim of control through regulation and accountability.

The critique of 'the Enlightenment project' as a version of abstract reason applied to the world in an authoritarian way has been extremely influential in education research, leading many commentators to question knowledge *per se*. Vygotsky himself recognises a view of rationality as controlling and regulating at the expense of richness and diversity when he criticises formal logic<sup>124</sup>:

It is completely clear that if the process of generalizing is considered as a direct result of abstraction of traits, then we will inevitably come to the conclusion that thinking in concepts is removed from reality. ... Others have said that concepts arise in the process of castrating reality. Concrete, diverse phenomena must lose their traits one after the other in order that a concept might be formed. Actually what arises is a dry and empty abstraction in which the diverse, full-blooded reality is impoverished by logical thought. This is the source of the celebrated words of Goethe: 'Gray is every theory and eternally green is the golden tree of life'.

(Vygotsky, 1998, p. 53)

However, as this commentary on the generalisations of formal logic shows, Vygotsky's view of rationality is quite different from the one which construes 'the development of meaning [as] a matter of increasing generalisation and abstraction' (Wertsch, 2000 p. 20).

---

<sup>124</sup> 'From the point of view of formal logic, the development of concepts is subject to the basic law of inverse proportionality between {the} scope and the content of the concept. The broader the scope of the concept, the narrower its content. This means that the greater the number of objects that the given concept can be applied to, the greater the circle of concrete things that it encompasses, the poorer its content, the emptier it proves to be' (Vygotsky, 1998, p. 53).



In contrast to this impoverished version of reason Vygotsky argues instead that:

A real concept is an image of an objective thing in all its complexity. Only when we recognise the thing in all its connections and relations, only when this diversity is synthesised in a word, in an integral image through a multitude of determinations do we develop a concept. According to the teaching of dialectical logic, a concept includes not only the general, but also the individual and particular.

In contrast to contemplation, to direct knowledge of an object, a concept is filled with definitions of the object; it is the result of rational processing of our existence and it is mediated knowledge of the object. To think of some object with the help of a concept means to include the given object in a complex system of mediating connection and relations disclosed in determinations of the concept.

(Vygotsky, 1998, p. 53)

Wertsch's concern with Vygotsky's treatment of rationality centres on what he takes to be the conception of truth in which words are designative of things. Some statements by Vygotsky do indeed look like examples of a suspiciously simple correspondence of truth. Statements such as those which suggest once the child has appropriated scientific concepts they have grasped reality would be a case in point. However, what can be missed in readings of Vygotsky which take such statements out of context at face value, is his use of a Hegelian and Spinozian inspired conception of reason which rejects a simple idea of correspondence out of hand.<sup>125</sup> Put simply, for Vygotsky a concept does not correspond to an object but enables thinking by including the object 'in a complex system of mediating connection and relations disclosed in determinations of the concept' (Vygotsky, 1998, p. 53).

---

<sup>125</sup> Although Hegel can ultimately be viewed as a correspondence theorist he is one of a quite different kind than Wertsch considers.

Unlike the caricature of abstract reason, Vygotsky's conception of reason is embedded in the historical processes involved in the genesis of concepts:

Thus the concept does not arise from this as a mechanical result of abstraction – it is the result of a long and deep knowledge of the object. ... Psychological research is disclosing that in a concept we always have an enrichment and deepening of the content that the concept contains.

(Vygotsky, 1998, p. 54)

The link between reason and the world implied here is at odds with the abstract caricature of reason found in popular commentary with Hegel.

It has been stressed in previous chapters that a dualist conception survives unnoticed in the presuppositions of the criticisms of abstract rationality. This implicit dualism conjures up a version of rationality in which reason is so divorced from the world that it can be easily dismissed as a grandiose gesture, yet in fact, Hegel dismissed this version as 'the vanity of reason'. Statements such as 'all that is real is rational' have exposed Hegel to accusations of a hierarchical, logocentric form of reason, where what is known also happens to coincide with Hegel's version of events – e.g. the superiority of the Prussian state. The understanding of Hegel outside Hegel scholarship and the accounts of his philosophy which have arisen from the Communist party dogma of dialectical materialism complicates matters further. In particular Hegel's anti-foundationalism has not been appreciated. Pinkard deals with the misapprehensions of Hegel in the introduction to his biography: his remarks are worth quoting at length:

Hegel is one of those thinkers just about all educated people think they know something about. His philosophy was the forerunner to Karl Marx's theory of history, but unlike Marx, who was a materialist, Hegel was an idealist in the sense that he thought reality was ultimately spiritual, and that is developed according to the process of thesis/antithesis/synthesis. Hegel also glorified the Prussian state, claiming that it was god's work, was perfect and was the culmination of all human history. All citizens of Prussia owed unconditional allegiance to that state, and it could do with them as it pleased. Hegel played a large role in the growth of German nationalism, authoritarianism, and militarism with his quasi-mystical celebrations of what he pretentiously called the Absolute.

Just about everything in the first paragraph is false except for the first sentence.

What is even more striking is that it is clearly and demonstrably wrong, has been known to be wrong in scholarly circles for a long time now, and it still appears in almost all short histories of thought or brief encyclopaedia entries about Hegel.

(Pinkard, 2000, p. ix)

In Pinkard's caricature of the common conception of Hegel's philosophy all the elements of the familiar criticisms of Vygotsky can be found; in particular: 1) the idea of a *telos* of abstract rationality towards which all cognition develops (Wertsch); and 2) the idea that Vygotsky was an idealist dealing with concepts and symbols rather than matter and tools (Zinchenko). Pinkard's point is that Hegel's philosophy has not been understood beyond a small field of scholars. But while the idea that Hegel's approach was crudely foundational is in error, it is also the case that it was not simply anti-foundational. For Hegel the absence of a pre-given foundation does not mean the existence of no foundations at all. Rockmore explains Hegel's position as follows:

The justification is then, not already there, present from the beginning, so to say like something that is preserved and unchanged through the reasoning process. ...the justification is created or produced during the development of the theory. .... To begin, it is not enough to begin, for there is and can be no privileged beginning point. We ...encounter the relation between system and history. The true only becomes true in and through its development, its real unfolding in the course of which it actualises itself.

(Rockmore, 1993, p. 63)

We start as an anti-foundationist but, having built our foundations as we go along, we finish as foundationalists. As Neurath (1932) put it 'We are like sailors who have to rebuild their ship in the open sea, without ever being able to dismantle it in dry dock and reconstruct it from the best components' (Neurath cited by Cartwright *et al*, 1996, p. 89). Both Hegel and Neurath were fully aware that their view of knowledge had a socio-cultural or historical dimension. Creating and transforming the ground of knowledge as we go along (i.e. history), comes to have a central role. The rejection of foundations of thought

entailed in this position is effectually also a rejection of abstract reason. In the same way that Hegel has been misunderstood for a commitment to an abstract, foundational notion of reason, so Vygotsky is misunderstood by criticism which does not take account of his anti-foundationalism:

Vygotsky's discussion of Spinoza's 'theory of method' shows clear evidence of anti-foundationalism:

A theory of method is, of course, the production of the means of production, to take a comparison from the field of industry. But in industry the production of the means of production is no special, primordial production, but forms part of the general process of production and itself depends upon the same methods and tools of production as all other production.

(Vygotsky, 1997a, p. 253)

Vygotsky endorsed Spinoza's argument that we should not commit ourselves to a search going back to infinity. To discover the best method for finding truth we do not need to find a method of finding a method:

By such proceedings, we should never arrive at knowledge of the truth, or, indeed, at any knowledge at all. The matter stands on the same footing as the making of material tools, which might be argued about in a similar way. For, in order to work iron, a hammer is needed, and the hammer cannot be forthcoming unless it has been made; but in order to make it, there was need of another hammer and other tools, and so on to infinity. We might thus vainly endeavour to prove that men have no power of working iron. But as men first made use of the instrument supplied by nature to accomplish very easy pieces of workmanship, laboriously and imperfectly, and then, when finished, wrought other things more difficult with less labour, and greater perfection; and so gradually mounted from the simplest operations to the making of tools, and from the making of tools to the making of more complex tools, and fresh feats of workmanship, till they arrived at making, with small expenditure of labour, the vast complicated mechanisms which they now possess. So, in a like manner, the intellect, by its native strength, makes for itself intellectual instruments, whereby it acquires strength for performing other intellectual operations, and from these operations gets again fresh instruments, or the power of pushing its investigations further, and thus gradually proceeds until it reaches the summit of wisdom.

(Spinoza cited by Vygotsky, 1997a, p. 254)

Two indications of the importance of Hegel for Vygotsky research are 1) the absence of an unbridgeable epistemological chasm between thought and world

and 2) following from this, the conception of development as a non-linear process embedded in historical resources. In particular Vygotsky took on board Hegel's position that while we must be anti-foundationalist at the start we cannot help but develop foundations for our knowledge as we proceed. Hegel rejected all claims to *a priori* knowledge and to knowledge apart from experience. As Rockmore puts it:

According to Hegel, philosophy, that he, like Kant, regards as the highest form of knowledge, and that he later in a famous passage in the Philosophy of Right will compare to an owl, can only take wing afterwards, or after the fact. The point is that for Hegel, knowledge, including philosophy, is not and cannot be *a priori*; on the contrary, it emerges in and is the product of collective effort of human beings over the course of recorded history to come to grips with their world and themselves.

(Rockmore, 1993, p. 85)

When the Hegelian dimension of Vygotsky's thought is acknowledged, it becomes clear that Vygotsky's understanding of the concept is far richer than that which is often attributed to him. Far from having a decontextualised view of abstract rationality, Vygotsky's reason is ontological. Like a snowball rolling down a mountainside, his concept grows through the material it picks up in its descent:

Thus the concept does not arise from this as a mechanical result of abstraction – it is the result of a long and deep knowledge of the object. ... Psychological research is disclosing that in a concept we always have an enrichment and deepening of the content that the concept contains.

(Vygotsky, 1998, p. 54)

A concept's relation to the world is not one of correspondence (though ultimately Hegel can be understood as a correspondence theorist though not one which Wertsch reacts against when he is concerned with the designative approach to word-meaning). A concept's development cannot be separated from the world of which it is a part and in which it plays a role of constituting conditions for knowing. However, such conditions are not arbitrary as they are in some constructivist understandings of word-meaning. Rather they are intricately connected to the formations in which the concept functions.

Vygotsky's understanding of the concept offers the possibility of grasping the gap between mind and world - and its mediation - as creative. The concept is a result of a complex process of development in which thought and the world are never categorically separated. 'In Hegel's view, the word [by which Vygotsky means concept] is existing vitalised thoughts. The connection between thought and word is not a primal connection that is given once and forever. It arises in development and it itself develops' (Vygotsky, 1987, p. 285).

## ***7.2 The conception of science***

Scientific concepts are not the apex of abstract rationality in the way that commentators such as Wertsch and Lemke suppose. Criticism of abstract reason often coincides with a criticism of science, which in postmodern thought is frequently seen as an authoritarian claim to knowledge. The conception of science underlying this position is not however unchallenged. For instance interesting positions taken up in the philosophy of science by authors such as Nancy Cartwright, Roy Bhaskar, and Ian Hacking consider scientific theory as something other than generalisation and abstraction (representation). In different ways each of these authors takes issue with the idea that theory represents the world and describes real events. However, claims of this type do not necessarily lead to a view of theory as a social construction (viewing it as just one more perspective), or to its devaluation, since they open the way to seeing the relation between scientific concepts and the world in iterative terms: at some points theory and the world are isomorphic;<sup>126</sup> at others they are dissonant.

---

<sup>126</sup> Hofstadter remarks that: 'It is a cause of joy when a mathematician discovers an isomorphism between two structures which he knows. It is often a "bolt from the blue", and a source of wonderment. The perception of an isomorphism between two known structures is a significant advance in knowledge - and I claim that it is such perceptions of isomorphism which create *meanings* in the mind of people' (Hofstadter, 1980, p. 50).

The idea that scientific concepts are the expression of an abstract reason applied to the world, is not what Vygotsky had in mind and the attempts to interpret what he actually had in mind in these terms fails to appreciate his understanding of science. In discussing the character of science and the misunderstandings of it, Vygotsky refers to Marx. ‘The essence of any scientific concept was defined in a profound manner by Marx: “If the form in which a thing is manifested and its essence were in direct correspondence, science would be unnecessary”’<sup>127</sup> (Vygotsky, 1987, p. 193). Vygotsky has a particular concern for the value of theory, abstract thought and the possibilities inherent within it: ‘It might seem that analysis, distorts reality - creates artificial conditions for observation. ...’ but he goes on to maintain, that ‘The strength of analysis is in abstraction, like the strength of experiment is in artificiality’ (Vygotsky, 1993, p. 147).

Vygotsky’s appreciation of science as a practice which cannot be set apart from our engagement with the world and has a normative character (our transactions with nature carry significance) is illustrated by his view that ‘each word is already a theory’ and that the ‘real and the scientific fact’ do not coincide:<sup>128</sup>

...while the highest scientific abstraction contains an element of reality...Even the most immediate, empirical, raw, singular natural scientific fact already contains a first abstraction. The real and the scientific fact are distinct in that the scientific fact is the real fact included in a system of knowledge... The material of science is not raw, but logically elaborated, natural material which has been selected according to a certain feature. The fact itself of naming a fact by a word is to frame this fact in a concept... it is an act toward understanding this fact by including it into a category of phenomena which has been studied before. Each word is already a theory.

(Vygotsky, 1997a, p. 249)

---

<sup>127</sup> See Marx and Engels, *Collected Works*, V.25, chap.2, p. 384

<sup>128</sup> Feynman in *The Character of Physical Law* offers a sense of this lack of coincidence when he argues: There is...a rhythm and a pattern between the phenomena of nature which is not apparent to the eye but only to the eye of analysis; and it is these rhythms and patterns which we call Physical Laws...’ (Feynman cited by Cartwright, 1986, p. 55).

The emphasis on artificiality and abstraction resonates with an argument made by Ian Hacking that phenomena and more specifically 'effects', on the whole, do not occur in nature but are created by a careful effort of theory and experimental design. It is through the activity, procedures and techniques of experimentation that we are able to express matter such that its characteristics are amenable to the form of conceptualisation that creates regulative and predicative capacity: 'To experiment is to create, produce, refine and stabilise phenomena' (Hacking, 1983, p. 230). This line of argument has little in common with the representational view of reality in which laws describe effects in the world.<sup>129</sup> In this view, intervention prises reality into expressing itself in particular forms which do not exist without it. Hacking explains his position as follows '...the phenomenon of physics- the Faraday effect, the Hall effect, the Josephson effect - are the keys that unlock the universe. People made the keys and perhaps the locks in which they turn' (Hacking, 1983, p. 229). It is important to note that while making the case for the manufacture of phenomena, Hacking maintains that this approach is firmer ground for a hard headed scientific realism than the conventional view of theories as representations.

Bhaskar and Cartwright are similarly at odds with the common hypothetico-deductive conception of science. According to this conception of science a hypothesis is made, events are deduced and predicted and then tested against reality. By contrast Cartwright (1986) distinguishes different orders of scientific theory on the basis that there is a trade off (inverse proportionality) between the explanatory power of fundamental theoretical laws and their predictive capacity. Bhaskar (1978), for his part, echoing Bacon's claim that experiment is twisting the lions' tail, argues that the relation between laws and events is not one of constant conjunction: rather it is what we do in science which *produces* the regularities.

Crucially, Vygotsky has not only a different appreciation of science from that which relates theory directly to observable empirical objects in the world,

---

<sup>129</sup> There is a dissonance, even an asymmetry, between thought and world. Hacking (1983) repeats Feyerabend's point that events do not serve well as the basic building blocks of matter.



but tied up with this is a different appreciation of intellect. The fact that humans possess a second nature, which allows a different sort of contact with the world from that of animals or machines, makes it possible for human beings to overcome the limitations of their physical characteristics. The specific nature of scientific knowledge, as Vygotsky following Marx understood, prevents the disability of a sense from necessarily impairing the development of the intellect. This development does not depend upon the 'receptivity' of a bare 'Given':

the links, dependencies and relationships among things which are the content of our scientific knowledge are not the visually perceivable qualities of things: rather they come to light through thought. This is also the way it works for the blind child. Thought is the basic area in which he compensates for the inadequacy of his visual perceptions.

(Vygotsky, 1993, p. 203)

This artistic character of science is intimated by Ilyenkov when he writes that 'The capacity to think is just the capacity to inhabit an idealized environment' (Bakhurst, 1991, p. 244).

Vygotsky was well aware of the arguments, taken up later by philosophers of science, that the relationship of knowledge to the world is neither one of induction nor mere description. As would be expected of a writer well read in Hegelian philosophy, Vygotsky rejects a correspondence theory of truth in which our knowledge arises from the world and immediately maps on to it, isomorphically. He is at pains to make the point that this is not the way in which a scientific concept contains knowledge. 'The scientific concept necessarily presupposes a different relationship to the object, one which is possible only for a concept' (Vygotsky, 1987, p. 193). The difference between scientific concepts as they are commonly understood, as descriptions of the world and as they are understood by Vygotsky, drawing upon Marx, is that for Vygotsky they are constituted historically rather than abstractly. When Marx speaks of abstractions in the *Grundrisse*, he understands them as 'forms of being'.

The possibility of universalising abstractions arise ‘world-historically’:

As a rule, the most general abstractions arise only in the midst of the richest possible concrete development, where one thing appears as common to many, to all. Then it ceases to be thinkable in a particular form alone. On the other side, this abstraction of labour as such is not merely the mental product of a concrete totality of labour. Indifference towards specific labour corresponds to a form of society in which individuals can with ease transfer from one labour to another, and where the specific kind is a matter of chance for them, hence indifference. Not only the category of labour, but labour in reality has here become the means of creating wealth in general, and has ceased to be organically linked with particular individuals in a specific form. ...and that therefore this society by no means begins only at the point when one can speak of it as such.

(Marx, 1973, pp. 104-106)

Marx criticises an abstract application of categories without regard either to their origin in, or expression of, their material context: instead he points to how categories emerge historically:

This example of labour shows strikingly how even the most abstract categories, despite their validity – precisely because of their abstractness – for all epochs, are nevertheless, in the specific character of this abstraction, themselves likewise a product of historic relations, and possess their full validity within these relations.

(Marx, 1973, p.106)

Marx writes of how bourgeois society is the most developed and complex organisation of production and of how its development makes features of other forms of production understandable. However, this understanding is not achieved by the mere application of a category: ‘Human anatomy contains a key to the anatomy of the ape. ...The bourgeois economy thus supplies a key to the ancient, etc. But not at all in a manner of those economists who smudge over all historical differences and see bourgeois relations in all forms of society’ (Marx, 1973, p. 106).

This is a more subtle point than it appears when read simply as argument for a telos of development. In the last sentence Marx attempts to distinguish this ontological conception of development from one which merely imposes

abstract categories in order to construct explanation. Vygotsky makes a similar criticism of assumptions about method when he refers to the way in which psychologists (like Marx's bourgeois economists) take concepts derived from one perspective and apply them to others as though they represented constants of reality rather than variables which developed with reality historically. This approach reduces concepts (as though they were identical in transfer) to 'round and empty zeros' (Van der Veer and Valsiner, 1993, p. 145).

Although particular concepts arise historically, their relation to the world is not isomorphic in the sense of corresponding directly to particular instances of an empirical given. Thus, in rejecting an empiricist way of deriving categories, Marx continues:

It would therefore be unfeasible and wrong to let the economic categories follow one another in the same sequence in which they were historically decisive. Their sequence is determined, rather, by the relation to one another in modern bourgeois society, which is precisely the opposite of what seems to be the natural order or which corresponds to historical development.

(Marx, 1973, p.107)

In dealing with our possibility of knowing in this way Marx shares with Hegel a rejection of the dualism of a distinct mind and world. Vygotsky's socio-genetic conception of mind entails the same conception of the development of knowledge and the nature of science. Vygotsky cites the passages from Marx's *Grundrisse* quoted above in *Crisis* and uses it against Pavlov's understanding of how science proceeds when, repeating Marx's statement 'the anatomy of man is the key to the anatomy of the ape' he argues for what he terms 'this methodological principle of the "reverse" method' (Vygotsky 1997a p. 235).

### ***7.3 The idea of Development***

Marx and Hegel's idea of history and development is reflected throughout the development of Vygotsky's thinking on concepts. Vygotsky rejects the notion

of a linear development from the everyday to scientific concept in favour of an approach in which scientific concepts, in their formation, act back on everyday concepts. The way Vygotsky works with these ideas counts as further evidence against the accusation that he is a recapitulationist or stagiest in terms of his conception of development. Scribner (1985) has provided a strong argument to refute this reading, clearly Vygotsky's use of Marx's argument indicates that he does not hold to the conventional notion of development often attributed to him (Smith, Tomlinson and Dockrell, 1997).

It is necessary to have some knowledge of the Hegelian notion of development to understand the potential in Vygotsky's ideas and to appreciate that he did not subscribe to the caricature of evolutionism mistakenly attributed to both Hegel and Marx. It is worth noting that it is difficult, if not impossible to take account of this Hegelian sense of development when Vygotsky is assimilated into the paradigm of contemporary psychology. A particular instance of a misreading of Vygotsky is evident in a recent text that draws similarities between Vygotsky and Piaget's ideas. What is striking about this text is the fact that the authors are led by their assumption that Vygotsky shares their unproblematised narrative of development to misquote him. Claiming that there is a common view that intellectual development occurs as a sequence of stages,<sup>130</sup> they align two passages supposedly drawn from the relevant text to support their argument that Vygotsky and Piaget shared the same view on development:

a commitment to this view is made explicitly by both Piaget and Vygotsky, for example;

'we do in fact find, in the analysis of forms of social equilibrium, these same structure ....(just as the) cognitive mechanism in children involve three distinct systems.' (Piaget, 1995a, pp.56)

'Development consists in three intrinsic stages.' (Vygotsky, 1994, p.216)

(Smith, Tomlinson and Dockrell, 1997, p. 2)

---

<sup>130</sup> The authors are aware of the complexities in providing a characterisation of development but what stands out in their text, from their more subtle consideration, is a stageist view of development common to Vygotsky and Piaget.

The two passages are presented as definitive, but they are not accurate quotations. The text from which the 'quote' 'Development consists in three stages' has been extracted is Rene Van der Veer and Jaan Valsiner's *Vygotsky Reader* which actually translates Vygotsky as writing:

If one were to attempt to make *schematic* [my emphasis] inferences from our research, they would basically reveal that the road which leads to concept development consists of three intrinsic stages, each of which in turn, can also be subdivided into separate parts or phases.

(Van der Veer and Valsiner, 1994, p. 216)

Even if it could be doubted that it matters that Vygotsky qualifies talk of stages with the qualification that; 'If one were to attempt to make any schematic inferences...' the question would remain of the frame of reference which leads to an adjustment of quotations that not only alters the syntax but omits the point that it is concept development rather than development in general that is being referred to. As in Van der Veer's translation, so in Norris Minick's *Thinking and Speech* in Volume 1 of *The Collected Works of L. S. Vygotsky* the cautious qualification, 'an attempt to represent...schematically' is present and the reference is to concept development rather to development in general:

If we attempt to represent the genetic implications of our research *schematically*, it indicates that the course of concept development is composed of three basic stages each of which breaks up into several distinct phases.

(Vygotsky, 1987, p. 89)

The omission of words from Vygotsky's text obscures the distinctive character of his views of development which is subsumed into the common sense understanding within cognitive psychology.

Bakhurst's study of Soviet philosophy in relation to consciousness is more amenable to a Hegelian idea of development in Vygotsky's work.

In counterposing Vygotsky's position to the view of development which understands results as the outcome of prior stages, Bakhurst writes:

the idea that psychological faculties themselves exist prior to experience. He denies that the child enters the world naturally equipped with embryonic forms of higher mental functions from an understanding of more basic psychological mechanism (of the kind, perhaps, with which animals and human children are endowed by nature). The higher mental functions, he claims, are irreducible to their primitive antecedents, either phylogenetic or ontogenetic. ...The complex is the key to the comprehension of the simple. He argues that a proper understanding of elementary capacities rests on a grasp of higher mental functions and not vice versa. .... 'the anatomy of man is the key to the anatomy of the ape.

(Bakhurst 1991, p. 66)

Taking the phrase of Marx concerning the anatomy of men and apes Bakhurst's argument points to a rejection of a foundationalist approach to mind, that is a conception of the development of intellect as evolutionary process from lower to higher stages.

#### ***7.4 The ideal and the real***

It is useful at this point to take stock: So far I have argued that neither the view that there are foundations on which knowledge may be built, nor a conception of scientific theory as corresponding to the world as it is, nor a hierarchical idea of development, do justice to Vygotsky's work. Now a further point needs to be added namely that the polarisation of the ideal and the real into mutually exclusive opposites, also leads to misapprehensions. The polarisation of the ideal and real is integral to the Cartesian dualism of mind and world. Contemporary criticism of Vygotsky have been based on dualism despite an intention to transcend it, while in the Soviet Union attacks on Vygotsky during his lifetime were framed in terms of the opposition of the ideal and real. In the Soviet Union the philosophic presuppositions of Cartesian dualism took the form of a Stalinised 'Marxism' in which the material was conceived as brute matter and the ideal posited as mystical and bourgeois. This clearly led to a profound misreading of Vygotsky. It is here that the significance

of Ilyenkov's thought can be grasped. For, in challenging the presuppositions for Stalinised Marxism and in particular rejecting the polar opposition for the real and the ideal, he returned to a conception of Marxism as that of Vygotsky.

Ilyenkov is a particularly significant figure here because as David Bakhurst has demonstrated, his work can be linked to both Vygotsky on the one side and to John McDowell on the other, thus making McDowell's work relevant for the understanding and interpretation of Vygotsky. What is it about Ilyenkov's work that makes this connection with McDowell? Basically it is that both turn to Hegel for rejecting a categorical distinction between the ideal and the real.

The way in which Ilyenkov, from a quite different tradition to McDowell, addresses what he calls the problem of the ideal provides important insight into the question of the social nature and sociogenesis of mind. But it should be noted that his conception of universal reason is again distinctively different from that caricatured in critiques of reason. For it does not entail a particular reason able to depict the world but rather the ability of the 'thinking body' to move in such a way as to make the form of any other body (Ilyenkov 1977a, p. 44-47). Its key point is an appreciation that our ability to think, our second nature is part of nature and not distinct from it.

Ilyenkov follows Vygotsky arguing that higher mental functions are the realisation of human potential, but that humans are by nature social animals and the realisation of this potential can only happen socially. At this point what arises is the extremely difficult problem of how the brain can be realised as mind only through activity. For Ilyenkov this arose in his considerations of Kant idea of "transcendentally inborn" forms of operation of the individual mentality as *a priori* "internal mechanisms". Against this position and in line with Vygotsky and also Hegel, he insisted upon the self 'the self-consciousness of *social man assimilated from without* by the individual...' and stressed that: 'It is these forms of the organisation of social (collectively realised) human life activity that exists *before, outside and completely independently* of the individual mentality...' (Ilyenkov, 1977b, pp. 80-81). We have here, to put it in

simple terms, a concept of reason in which individuals participate rather than one which is constructed by individuals.

For Ilyenkov the rejection of the simple opposition of idealism and materialism is explicit and unqualified:

It will readily be appreciated how much broader and more profound such a positing of the question [the ideal and the material] is in comparison with any conception that designates as "ideal" everything that is "in consciousness of the individual" and "material" or "real", everything that is outside of the consciousness of the individual, everything that the given individual is not conscious of, although this "everything" does exist in reality, and thus draws between the "ideal" and the "real" a fundamental dividing line which turns them into "different worlds" that have "nothing in common" with each other. It is clear that given such a metaphysical division and delimitation, the "ideal" and the "material" cannot and must not be regarded as opposites.

(Ilyenkov, E.V., 1977b, p. 81)

A simple example of the materiality of thinking-activity is that of tying a knot in a handkerchief as an aide memoir i.e. constituting a material thing as an ideal object. The most important ideal object is of course money i.e. a thing of no intrinsic significance in itself but one that is the very stuff of wealth; an ideal object which clearly has the most massive material implications. One of these implications is to condition the way we begin to think about the world in the first place. Reference to this aspect of money features prominently in Ilyenkov's argument concerning the materiality of the ideal. What we might normally think of as separate and distinct from the world that we inhabit (a pre-conceptual Given) is, although ideal, constitutive of our activity. As humans we inhabit a world constituted not only by causes but also by reasons.<sup>131</sup>

McDowell deals with the same issues as those raised by Ilyenkov's consideration of the ideal and the real through his examination of the limits of contemporary epistemology. The crux of his argument is: 1. That epistemology

---

<sup>131</sup> The interest in Ilyenkov's work is that he aspires to reconcile the space of reasons and the space of causes, to portray us as minded beings who are inhabitants in a natural world, but whose distinctiveness resides in the fact that our mode of existence cannot be exhaustively explained in causal terms. (Bakhurst, 1997, p. 39)



is not best conceived in terms of in terms of a separation of mind and world and  
2. That humans are constrained by reasons as well as causes.

In a typically Hegelian way, McDowell exposes what he calls the philosophical anxieties present in contemporary epistemology. He argues that the way in which the problem of epistemology is outlined in contemporary writings produces a philosophical anxiety about the very possibility of thought. He utilises the distinction in modern philosophy between impressions (empirical description) and knowledge, to expose an implicit problem/tension in what we take to be the conditions or foundations of our knowing. On the one hand, he argues that we are faced with the thought that what we conceive as the empirical world could not (by our very conception) stand in judgment over our thought, yet on the other hand the retreat to a form of Coherentism to avoid this difficulty leaves us equally anxious as to the purchase that any self-defining system might have on anything that is external to its own internal coherence. The key point of McDowell's argument for the thesis here is the breaking down of the barrier between mind and world by his formulation the 'unboundedness of the conceptual'. What follows from his engagement with contemporary philosophy is that 'the space of reasons' can be conceived of as in the world. This offers a possibility of seeing the world as 'enchanted' again but not in the way that it was seen as enchanted in pre-modern times.

McDowell has not actually spelt out what he means by 're-enchantment' but it is clear from his writings that it must entail recognition that reason is a force in the world. For in rejecting the tradition of Cartesian dualism McDowell sees reason on both sides of the divide so to speak: indeed it is because there is a space of reason in the world that human beings are capable of grasping it by exercising their rational capacities. This presence of reason on both sides of the divide allow McDowell to resist the charge of idealism i.e. that the world is simply what thought takes it to be. The crucial move that McDowell makes is to argue that to be in touch with the world at all (as a human) assumes a normative context.

McDowell's work has greater sophistication and subtlety than a few sentences can convey but the purpose here is not to summarise McDowell beyond the point of showing that the philosophic tradition within which he is developing his ideas about epistemology is the same as that within which Vygotsky and Ilyenkov worked, namely the Hegelian tradition. What can be said of McDowell can also be said of Robert Brandom: again there is a highly elaborate innovation in contemporary philosophy which looks back to the Hegelian tradition within which Vygotsky and Ilyenkov worked. The fact that leading contemporary philosophers are turning to Hegel does not endorse a particular reading of Vygotsky; what it does however is underline that it provides support for taking Hegelianism seriously and thus at one remove taking Vygotsky's statements about the importance of Hegel for his work seriously. The issues at stake here come into focus over the question of reason where a sharp distinction exists between the conceptualisation by Hegel and those who followed him on the one hand and the critics of logocentrism and 'the enlightenment grand narrative' on the other.

In as much as this thesis has attempted to adjust a contemporary rhetoric about rationality by providing some of the philosophic background to Vygotsky's work it has also tried to introduce an aspect of the area which is not given sufficient attentions and that is the point that humanity is defined by its ability to respond to reasons as well as causes.

### ***7.5 What is practice?***

In bringing Hegel back onto the agenda of contemporary philosophy – McDowell and Brandom are bringing back also, though it is not part of their immediate project, the philosophic tradition that shaped the work of Vygotsky and also Ilyenkov. The aim of this thesis has been not only to argue that Vygotsky's work was influenced by Hegel but that his work cannot be properly understood outside this influence and that it can be misunderstood when it is assimilated into the alternative Cartesian tradition of western thought.

The connections between the philosophic tradition within which Vygotsky framed his work and contemporary philosophy is of interest in its own right. The work of McDowell and Brandom adds strength to the claim that Vygotsky's work should be considered within this frame of thought and that its translation into a different and alien framework is likely to lead to serious misinterpretations. However, even if this argument which forms a major part of this thesis is accepted, the question remains of whether Vygotsky's work has practical implications for contemporary education or, to be absolutely precise, whether Vygotsky's work as seen through a Spinozist and Hegelian lens has got practical implications.

The prospects are not initially encouraging for at first sight philosophy as such and, in particular, the philosophic tradition within which Vygotsky worked, appear far removed from the issues which face educational practitioners. But before concessions are made to what already in the 1780's Kant called 'the old saw that it is alright in theory but it won't work in practice,'<sup>132</sup> it is important to note that practice is not a self-evident and independent criterion. In fact, it is not immediately clear what counts as practice in the first place. Clearly the measures taken by teachers in classrooms and policy makers in educational administration must address the imperatives of circumstances. But if these circumstances are made so engulfing by political pressure, bureaucratic inflexibility or constraints upon teachers as to allow no scope for self-determination and discretion, than corresponding to Spinoza's distinction between un-free and free actions, these measures will be more of the nature of responses rather than practices.

It will be recalled from Chapter 4 that Spinoza considered freedom not in terms of the absence of constraint but of a full recognition of all the dimensions of the circumstances within which individuals were working. Freedom, to put it another way, did not for Spinoza imply the absence of necessity but its recognition, hence the capacity to deal with it. Applying Spinoza, connection to

---

<sup>132</sup> Kant (1792) *On the Proverbial Saying: "All is Very Well in Theory, but No Good in Practice."*

practice yields the idea that only certain types of action qualify, namely those which are based upon a full and by implication, free examination of circumstances. What is practice is not given independently by circumstances and the supposition that practice provides criteria by which theory can be judged is subject to the same type of criticisms of dualism and the 'myth of the given' considered earlier. In relation to theory, practice is not an independent datum, because theory supplies a part i.e. grasping the circumstance in thought is an indispensable element in the determination of practice in the first place.

As soon as the idea of practice as an independent datum is abandoned and with it the idea that if it is not giving directions for practice, theory must be abstract - complexity is inevitable. In place of the simple opposition there is distinctness and inseparability - theory and practice are not the same, yet they cannot be considered apart from one another. As Marx said of the forms of value, they 'belong to and mutually condition each other, but at the same time they are mutually exclusive or opposed extremes.'<sup>133</sup> The reference in this statement of Marx's to Hegel's *Logic* is unmistakable and it points directly towards the premise of this thesis and the conclusion that it seeks to establish, namely that far from being an abstract undertaking which has no particular bearing on practice, philosophy plays an essential role in '*making explicit*' what is taken to be practice in the first place - or to be precise that tradition of philosophy within which Vygotsky worked.

---

<sup>133</sup> Marx, K., 1976, p.140.

## References

- Anderson, J., Ryder, L., Simon, H. (1996) 'Situated Learning and Education' *Educational Researcher* 25, 4: 5-11.
- Bakhurst, D. (1991) *Consciousness and Revolution in Soviet Philosophy: From the Bolsheviks to Evald Ilyenkov* Cambridge University Press.
- Bakhurst, D. (1997) 'Meaning, Normativity and the Life of the Mind' *Language and Communication* 17, 1: 33-51.
- Bakhurst, D and Padden, C. (1991) 'The Meschcheryakov Experiment: Soviet Work on the Education of Blind-Deaf Children' *Learning and Instruction* 1: 201-15.
- Beiser, F.C. (ed) (1995) *The Cambridge Companion to Hegel* Cambridge: Cambridge University Press.
- Bereiter, C., (1991) 'The Learning paradox: Commentary' *Human Development* 34: 294-298.
- Bernstein, J. M. (2002) 'Re-enchanting nature' in N. H. Smith (ed) *Reading McDowell on Mind and World* Routledge.
- Bernstein, R. J. (2002) 'McDowell's domesticated Hegelianism' in N. H. Smith (ed) *Reading McDowell on Mind and World* Routledge.
- Bhaskar, R. (1978) *A Realist Theory of Science* Hassocks, Sussex: Harvester Press.
- Black, P. and Wiliam, D. (1998a) 'Assessment and Classroom Learning, *Assessment in Education*, 5, 1: 7-73.
- Black, P. and Wiliam, D. (1998b) *Inside the Black Box: Raising standards through classroom assessment*. London: School of Education. King's College.
- Blanck, G. (1992) 'Vygotsky: The man and his cause' in L.C. Moll (ed) *Vygotsky and education: instructional implications and applications of sociohistorical theory* Cambridge: Cambridge University Press.
- Bowie, A. (ed) (1998) *Schleiermacher Hermeneutics and Criticism and other writings* Cambridge University Press.
- Brandom, R. (2000) *Articulating Reasons: an introduction to inferentialism*, Cambridge, MA: Harvard University Press.
- Braverman, H. (1974) *Labour and Monopoly Capital: the degradation of work in the twentieth century* New York: Monthly Review Press.

Brockmeier, J. (1996) 'Construction and interpretation: Exploring a joint perspective on Piaget and Vygotsky' in A. Tryphon and J.N. Voneche (eds) *Piaget - Vygotsky The Social Genesis of Thought* Psychology Press, an imprint of Erlbaum (UK) Taylor and Francis Ltd.

Bronckart, J. (1996) 'Units of analysis in psychology and their interpretation: Social interactionism or logical interactionism?' in A. Tryphon and J.N. Voneche (eds) *Piaget - Vygotsky The Social Genesis of Thought* Psychology Press, an imprint of Erlbaum (UK) Taylor and Francis Ltd.

Bruner, J. (1985) 'Vygotsky: a historical and conceptual perspective' in Wertsch, J. V. (ed.) *Culture, communication and cognition: Vygotskian perspectives* Cambridge: Cambridge University Press.

Bruner, J. (1987) 'Prologue to the English Edition' in N. Minick, (trans), R.W. Reiber and A.S. Carton (eds) L.S. Vygotsky (1987) *The Collected Works of L.S. Vygotsky, Volume 1 Problems of General Psychology* Plenum Press, New York and London.

Bruner, J. S. (1996) *The Culture of Education* Cambridge, MA: Harvard University Press.

Burgess, T. (1993) 'Reading Vygotsky' in Daniels, H. (ed) *Charting the Agenda, Educational Activity after Vygotsky* Routledge.

Carraher, T.N., Carraher, D. W. and Schliemann, A.D. (1985) 'Mathematics in the streets and in schools' *British Journal of Developmental Psychology* 3: 21-29.

Cartwright, N. (1983) *How the Laws of Physics Lie* Oxford: Oxford University Press.

Cartwright, N. *et al* (1996) *Otto Neurath: philosophy between science and politics*, Cambridge: Cambridge University Press.

Caygill, H. (1995) *A Kant Dictionary* Oxford, UK: Blackwell.

Chaiklin, S. and Lave, J. (1996) *Understanding practice: Perspectives on activity and context*, Cambridge: Cambridge University Press.

Clark, A. (1997) *Being There: Putting Brain, Body, and World Together Again* Routledge.

Clark, A., *Magic Word: How Language Augments Human Computation*  
URL: <http://www.nyu.edu/gsas/dept/philo/courses/concepts/magicwords.html>  
[accessed 11/2002].

Cobb, P. (1994) 'Constructivism in Mathematics and Science Education' in *Educational Researcher* 23, 7: 4.

Cole, M. (1996) *Cultural psychology: a once and future discipline*, Cambridge, MA: Harvard University Press.

Cole, M. and Engestrom, Y. (1993) 'A cultural-historical approach to distributed cognition' in G. Salomon (ed) *Distributed cognitions: Psychological and educational considerations* Cambridge University Press.

Confrey, J. (1995) 'How Compatible Are Radical Constructivism, Sociocultural Approaches, and Social Constructivism?' in L.P. Steffe and J. Gale, (eds) *Constructivism in Education*, Lawrence Erlbaum.

Cowen, M. P. and Shenton, R. W. (1996) *Doctrines of Development* Routledge.

Damasio, A. (2000) *The Feeling of What Happens: Body and Emotion in the Making of Consciousness* London: William Heinemann.

Daniels, H. (ed) (1996) *Introduction to Vygotsky* Routledge.

Davidson, D. (1984) 'Essay 13 - On the very idea of a conceptual scheme' in *Inquiries into Truth and Interpretation* Oxford University Press.

Davydov, V.V. (1984) 'Substantial Generalization and the Dialectical-Materialist Theory of Thinking in M. Hedegaard, P. Hakkarainen, Y. Engestrom (eds) *Learning and Teaching on a Scientific Basis: Methodological and Epistemological Aspects of the Activity Theory of Learning and Teaching* Aarhus Universitet, Psykologisk Institut.

Davydov, V.V. (1997) 'Introduction: Lev Vygotsky and Educational Psychology, in Vygotsky' in L.S. Vygotsky *Educational Psychology* Boca Raton: St Lucie Press.

Deleuze, G. (1992) *Expressionism in Philosophy: Spinoza*, New York: Zone Books.

Dennett, D.C. (1993) *Consciousness Explained*, Penguin Books.

Donaldson, M. (1987) *Children's Minds* London: Fontana Press.

Dunne, J. (1993) *Back to the Rough Ground: 'Phronesis' and 'Techne' in Modern Philosophy and in Aristotle*, Notre Dame: University of Notre Dame Press.

Forman, E.A., Minick, N. & Stone, C.A. (eds) (1993) *Contexts for learning: sociocultural dynamics in children's development*, Oxford University Press.

Forster, M.N. (1998) *Hegel's idea of a Phenomenology of Spirit* London: The University of Chicago Press Ltd.

Gergen, K.J. (1999) *An Invitation to Social Construction* London: Sage Publications.

- Glassman, M. (1996) 'Understanding Vygotsky's motive and goal: and exploration of the work of A.N.Leontiev' *Human Development* 39: 309-27.
- Greeno (1997) 'On Claims that Answer the Wrong Questions' *Educational Researcher* 27, 1: 5-17.
- Hacking, I. (1983) *Representing and Intervening: Introductory topics in the philosophy of natural science* Cambridge: Cambridge University Press.
- Hacking, I. (1995) Three parables in Goodman, R.B. (ed) *Pragmatism: a contemporary reader* Routledge.
- Hampshire, S. (1992) *Spinoza: An introduction to his philosophical thought* Penguin Books.
- Hardt, M. (1993) *Gilles Deleuze: An Apprenticeship in Philosophy* University College London Press.
- Harré, R., and Gillet, G. (1994) *The Discursive Mind* London: Sage.
- Harris, E. E. (1992) *Spinoza's philosophy: An outline* New Jersey: Humanities Press.
- Hatano, G. and Wertsch, J.V. (2001) 'Sociocultural Approaches to Cognitive Development: The Constitutions of Culture in Mind' *Human Development* 44: 77-83.
- Hatano, G. (1993) Time to Merge Vygotskian and Constructivist Conceptions of Knowledge Acquisition, in Forman, E.A., Minick, N. and Stone, C.A. (eds) *Contexts for learning: sociocultural dynamics in children's development*, Oxford University Press, New York.
- Hedegaard, M. (1990) 'How instruction influences children's concepts of evolution' *Mind Culture and Activity* 5, 2: 114-26
- Hedegaard, M. (1998) 'Situated learning and cognition: Theoretical learning and cognition' *Mind, Culture and Activity* 5, 2:114-126
- Hofstadter, D. R. (1980) *Godel, Escher, Bach: an eternal golden braid* London: Penguin Books.
- Houlgate, S. (ed) (1998) *The Hegel Reader* Blackwell Publishers Ltd.
- Hoyle, C. and Sutherland, R. (1992) *Logo mathematics in the classroom*, Routledge.
- Hutchins, E. (1995) *Cognition in the Wild*, Cambridge, MA:MIT Press.



- Ilyenkov, E.V. (1977a) *Dialectical Logic: Essays on Its History and Theory* Moscow: Progress Publishers.
- Ilyenkov, E.V. (1977b) 'The Concept of the Ideal' in *Philosophy in the USSR: Problems of Dialectical Materialism* Moscow: Progress Publishers.
- Inwood, M. (1995) *A Hegel Dictionary* Oxford: Basil Blackwell Ltd.
- Jaworski, B. (1993) Constructivism and Teaching - The socio-cultural context in *ChreodsXX*, URL: <http://www.grout.demon.co.uk/Barbara/chreods.htm> [accessed 11. 12. 02]
- Jay, M. (1984) *Marxism and Totality: the adventure of a concept from Lukacs to Habermas* Berkley and Los Angeles: University of California Press.
- Jewitt, C. and Kress, G. (2002) Multimodal research in education in S.Goodman, T. Lillis, J. Maybin and N. Mercer (eds) *Language, literacy and education: a Reader* Stoke on Trent: Trentham Books/Open University
- Joravsky, D. (1989) *Russian Psychology* Basil Blackwell Ltd.
- Kant, I. (1973) *Critique of Pure Reason [CPR]* London: The Macmillan Press Ltd. (Norman Kemp Smith trans.).
- Kashap, S.P. (1987) *Spinoza and Moral Freedom* State University of New York Press.
- Kirshner, D. and Whitson, J.A. (eds) (1997) *Situated cognition: social, semiotic and psychological perspectives*, Lawrence Erlbaum Associates.
- Kitchener, R.F. (1993) 'Genetic Epistemology' in Dancy, J. and Sosa, E. (eds) *A Companion to Epistemology* Oxford: Blackwell.
- Kozulin, A. (1986) Vygotsky in Context, in *Vygotsky Thought and Language* (Alex Kozulin trans. and ed) Cambridge, MA: The MIT Press.
- Kozulin, A. (1990) *Vygotsky's Psychology: a biography of ideas* Harvester, Wheatsheaf.
- Kress, G., Jewitt, C, Ogborn, J. and Tsatsarelis, C. (1999) *Multimodal Teaching and Learning: the rhetorics of the science classroom* London and New York: Continuum.
- Lave, J. and Wenger, E. (1991) *Situated Learning: Legitimate Peripheral Participation* Cambridge: Cambridge University Press.
- Lave, J. (1988) *Cognition in practice: Mind, mathematics, and culture in everyday life*. Cambridge: Cambridge University Press.

- Lave, J. (1996) 'The practice of learning' in S. Chaiklin and J. Lave (eds) *Understanding practice: Perspectives on activity and context* Cambridge: Cambridge University Press.
- Lave, J. (1997) 'The Culture of Acquisition and the Practice of Understanding' in D. Kirshner and J.A. Whitson (eds) *Situated cognition: social, semiotic and psychological perspectives*, Lawrence Erlbaum Associates.
- Lemke, J. (1999) 'Meaning-Making in the Conversation: Head Spinning, Heart Winning, and Everything in Between' *Human Development* 42, 2:87-91.
- Levitin, K. (1992) *One Is not Born a Personality: Profiles of Soviet Education Psychologists* Moscow: Progress Publishers.
- Marx, K. and Engels, F. (1934) *Marx and Engels Selected Correspondence, 1841-1895* London: Lawrence and Wishart.
- Marx, K. (1973) *Grundrisse* Penguin.
- Marx, K. and Engels, F. (1976) *Capital Vol 1* Harmondsworth: Penguin.
- McDowell, J. (2002) 'Responses' in N. H. Smith *Reading McDowell on Mind and World* Routledge.
- McDowell, J. (1996) *Mind and World* Cambridge, MA: Harvard University Press.
- Minick, N. (1987) The Development of Vygotsky's Thought: An Introduction in Vygotsky, L.S. *The Collected Works of L.S. Vygotsky, Volume 1 Problems of General Psychology* Minick, N. (trans.), Reiber, R.W. & Carton, A.S. (eds), New York and London: Plenum Press.
- Moreau, P. (1996) Spinoza's reception and influence in Garrett, D. (ed) *The Cambridge Companion to Spinoza* Cambridge: Cambridge University Press.
- Nardi, B.A. (1997) *Context and consciousness: activity theory and human-computer interaction* Cambridge, MA: The MIT Press.
- Ortner, S. B. (1984) 'Theory in Anthropology since the Sixties' in *Comparative Studies in Society and History* 26:126-66.
- Papert, S. (1993) *Mindstorms: Children, Computers and Powerful Ideas: All About LOGO - How It Was Invented and How It Works* Perseus Books.
- Parker, I. (ed) (1998) *Social Constructionism, Discourse and Realism* London: Sage Publications.
- Piaget, J. (1970) *Genetic Epistemology* New York: Columbia University Press.

- Pinkard (1996) *Hegel's Phenomenology: the sociality of reason* Cambridge: Cambridge University Press.
- Pinkard (2000) *Hegel: A Biography* Cambridge: Cambridge University Press.
- Pippin, R. (1989) *Hegel's Idealism: The Satisfactions of Self-Consciousness* Cambridge University Press.
- Pippin, R. (2000) *Liberation and the Liberal Arts* annual talk at the University of Chicago, URL: <http://www.uchicago.edu/docs/education/aims2000.html> [accessed: 10.12.2002].
- Popper, K.R. (1972) *Objective Knowledge: An Evolutionary Approach*, Oxford: Spinger-Verlag.
- Prawat, R.S. (1999) 'Cognitive Theory at the Crossroads: Head Fitting, Head Splitting, or Somewhere in Between?' *Human Development* 42, 2:59-77.
- Quine, W. V. (1951/2001) 'Two Dogmas of Empiricism' in A.P. Martinich and D. Sosa (eds) *Analytic Philosophy: an anthology* Oxford: Blackwell Publishers Ltd.
- Reich, R. (1992) *The Work of Nations: Preparing Ourselves for 21<sup>st</sup> Century Capitalism* New York: Vintage Books, A Division of Random House, Inc.
- Robbins, D. (2001) *Vygotsky's Psychology-Philosophy: A Metaphor for Language Theory and Learning* New York: Kluwer Academic/Plenum Publishers.
- Rockmore, T. (1993) *Before and After Hegel: A historical introduction to Hegel's thought* Berkley: University of California Press.
- Rorty, R. (1997) 'Introduction' in Sellars, W. *Empiricism and Philosophy of Mind* Cambridge, MA: Harvard University Press.
- Schon, D. (1983) *The Reflective Practitioner* New York: Basic Books.
- Scribner, S. (1985) Vygotsky's uses of history in Wertsch, J. V. (ed.) *Culture, communication and cognition: Vygotskian perspectives* Cambridge: Cambridge University Press.
- Searle, J. R. (1980) 'Minds, Brains and Programs', *The Behavioral and Brain Sciences*.3, pp. 417-424.
- Sellars, W. (1997) *Empiricism and Philosophy of Mind* Cambridge, MA: Harvard University Press.
- Sennett, R. (1977) *The Fall of Public Man* Faber and Faber.

- Sloman, A. (1996) 'Towards a general theory of representations' in Peterson, D. (ed) *Forms of Representation* Exeter, UK: Intellect Books.
- Smith, L. (1995) Introduction to Piaget's *Sociological Studies*' in Piaget, J. *Sociological Studies* (editorial selection and introduction by Leslie Smith) Routledge.
- Smith, L. (1996) 'The social construction of rational understanding' in Tryphon, A. & Voneche, J.N. (eds) *Piaget - Vygotsky The Social Genesis of Thought* Psychology Press, and imprint of Erlbaum (UK).
- Smith, L., Tomlinson, P., and Dockrell, J. (1997) *Piaget, Vygotsky and beyond: Future issues for developmental psychology and education* Routledge.
- Spinoza, B. (1993) *Ethics and treatise on the correction of the intellect* (Boyle, trans.) London Everyman, J.M.Dent.
- Sprigge, T.L.S. (1995) 'Spinoza' in Honderich, T. (ed.) *The Oxford Companion to Philosophy* Oxford University Press, Oxford, New York.
- Steffe, L.P. and Gale, J. (eds) (1995) *Constructivism in Education* Lawrence Erlbaum Associates.
- Stewart, J. (ed) (1996) *The Hegel Myths and Legends* Northwestern University Press, Illinois, USA.
- Taylor, C. (1985) *Human Agency and Language: philosophical papers 1* Cambridge, MA: Harvard University Press.
- Taylor, C. (2002) 'Foundationalism and the inner-outer distinction' in N. H. Smith, *Reading McDowell on Mind and World* Routledge.
- Toulmin, S. (1992) *Cosmopolis, the hidden agenda of modernity*. University of Chicago Press, Chicago.
- Tulviste, P. (1999) 'Activity as Explanatory Principle', in S. Chaiklin, M. Hedegaard, U. Juul Jensen, *Activity Theory and Social Practice: Cultural-Historical Approaches* Aarhus University Press.
- Valsiner, J. and Van der Veer, R. (2000) *The Social Mind: construction of the idea* Cambridge University Press.
- Van Cleve, J. (1994) 'Kant' in J. Dancy and E. Sosa *A Companion to Epistemology* Oxford: Blackwell.
- Van der Veer, R. & Valsiner, J. (1993) *Understanding Vygotsky: A Quest for synthesis* Oxford, UK: Blackwell.
- Van der Veer, R. & Valsiner, J. (1994) *The Vygotsky Reader* Oxford, UK: Blackwell.

Von Glasersfeld, E. (1995) A Constructivist approach to teaching in Steffe, L.P. and Gale, J. (eds) *Constructivism in Education* Lawrence Erlbaum Associates

Vygotsky 1925/1971 *The Psychology of Art* 'Preface' [accessed 2.12.02]  
URL: <http://www.marxists.org/archive/vygotsky/works/1925/index.htm>

Vygotsky, L.S. (1987) *The Collected Works of L.S. Vygotsky, Volume 1 Problems of General Psychology*, (including the Volume *Thinking and Speech*) Minick, N. (trans.), Reiber, R.W. & Carton, A.S. (eds) Plenum Press.

Vygotsky, L.S. (1978) *Mind in Society: The Development of Higher Psychological Processes* M.Cole, V. John-Steiner, S. Scribner, Ellen Soubermann (eds) Cambridge, MA: Harvard University Press.

Vygotsky, L. S. (1993) *The Collected Works of L.S. Vygotsky, Volume 2, The Fundamentals of Defectology (Abnormal Psychology and Learning Disabilities)* R.W. Reiber and A.S. Carton (eds) J. Knox (trans. and introduction) London: Plenum Publishers.

Vygotsky, L. S. (1997a) *The Collected Works of L.S. Vygotsky, Volume 3, Problems of the Theory and History of Psychology* (Including the Chapter on *the Crisis in Psychology*) R.W. Reiber and J. Wollock (eds) R. Van der Veer (trans. and introduction) New York: Plenum Press.

Vygotsky, L. S. (1997b) *The Collected Works of L.S. Vygotsky, Volume 4, The History and Development of Higher Mental Functions* R.W. Reiber (ed) M.J. Hall (trans.) Prologue by J. Glick, New York: Plenum Press.

Vygotsky, L. S. (1997c) *Educational Psychology* trans. R.Silvermann, Boca Raton, Florida: St. Lucie Press.

Vygotsky, L. S. (1998) *The Collected Works of L.S. Vygotsky, Volume 5, Child Psychology* R.W. Reiber (ed), Prologue by C. Ratner, New York: Plenum Press.

Vygotsky, L. S. (1999) *The Collected Works of L.S. Vygotsky, Volume 6, Scientific Legacy*, Reiber, R.W. (ed) M.J. Hall (trans.) Prologue by D. Robbins, New York: Kluwer Academic/ Plenum Publishers.

Walkerdine, V. (1990) *The Mastery of Reason* London: Routledge.

Walkerdine, V. (1984) 'Developmental psychology and the child-centred pedagogy: the insertion of Piaget into early Education' in J. Henriques, W. Holloway, C. Urwin, C. Venn, V. Walkerdine (eds) *Changing the Subject: Psychology, Social Regulation and Subjectivity*, London: Routledge.

Weatherford, R.C. (1995) 'Will' in T. Honderich (ed.) *The Oxford Companion to Philosophy* Oxford: Oxford University Press.

- Wegerif, R. (1999) Two models of reason in education. *The School Field*. 9, 3-4: 77-107.
- Wells, G. (2002) 'Dialogue about Knowledge Building' in B. Smith (ed) *Liberal Education in a Knowledge Society* Chicago and La Salle, Illinois: Open Court.
- Wells, G. and Claxton, G. (eds) (2002) *Learning for life in the C21st: Sociocultural perspectives on the future of education*, Oxford: Blackwell Publishers.
- Wells, G. (1999) *Dialogic inquiry: towards a sociocultural practice and theory of education* Cambridge: Cambridge University Press.
- Wertsch, J. V (1985a) *Vygotsky and the social formation of mind* Harvard University Press.
- Wertsch, J. V. (1985b) *Culture, communication and cognition: Vygotskian perspectives* Cambridge University Press.
- Wertsch, J. V. (1991) *Voices of the mind: a sociocultural approach to mediated action* London: Wheatsheaf.
- Wertsch, J. V. (1992) 'The voice of rationality in a sociocultural approach to mind' in L.C. Moll (ed) *Vygotsky and education: instructional implications and applications of sociohistorical theory* Cambridge: Cambridge University Press.
- Wertsch, J. (1996) 'The role of abstract rationality in Vygotsky's image of mind', in A. Tryphon and J. N. Voneche (eds) *Piaget - Vygotsky The Social Genesis of Thought* Psychology Press, an imprint of Erlbaum (UK) Taylor and Francis Ltd.
- Wertsch, J. V. (1998) *Mind as Action*, New York: Oxford University Press.
- Wertsch, J. V. (1999) 'Mediated Action' in W. Bechtel and G. Graham (eds) *A Companion to Cognitive Science*, Blackwell Publishers Ltd.
- Wertsch, J. V. (2000) 'Vygotsky's Two Minds on the Nature of Meaning' in C.D. Lee, P. and Smargorinsky (eds) *Vygotskian Perspectives on Literacy Research*, Cambridge: Cambridge University Press.
- Wertsch, J.V., Minick, N. and Arns, F.J. (1984) 'The creation of context in joint problem solving' in B. Rogoff, and J. Lave (eds.) *Everyday cognition: Its development in social contexts* Cambridge, MA: Harvard University Press.
- Wertsch, J. V., Tulviste, P., & Hagstrom, F. (1993) 'A Sociocultural Approach to Agency' in E.A. Forman, N. Minick, and C.A. Stone (eds) *Contexts for learning: sociocultural dynamics in children's development* Oxford University Press.

Wertsch, J. V., del Rio, P., and Alvarez, A. (eds.) (1995) *Sociocultural studies of mind* Cambridge: Cambridge University Press.

Wood, A.W. (ed) (1988) *Marx: Selections* New York: Macmillan.

Wrong, D. (1969) 'The oversocialized conception of man in modern sociology' in L.A. Coser and B. Rosenberg (eds) *Sociological Theory: a book of readings* New York: Macmillan.

Zinchenko, V.P. (1995) Cultural-historical psychology and the psychological theory of activity: retrospect and prospect, in J.V. Wertsch, J. V., P. Del Rio, and A. Alvarez (eds) *Sociocultural studies of mind*, Cambridge: Cambridge University Press.

## **Bibliography**

Bakhurst, D. (1995) 'Social Being and the Human Essence: An Unresolved Issue in Soviet Philosophy' *Studies in East European Thought* 47: 3-60.

Bakhurst, D. and Shanker, S. G. (ed) (2002) *Jerome Bruner, Language, Culture, Self*, London: Sage Publications.

Bereiter, C. (1985) 'Toward a Solution of the Learning Paradox' *Review of Education Research* 55, 2: 201-226.

Bereiter, C. (1994) 'Constructivism, socioculturalism, and Popper's World 3' *Educational Researcher* 23, 7: 21-23.

Brandom, R. (1994) *Making it Explicit: Reasoning, Representing, and Discursive Commitment* Cambridge, MA: Harvard University Press.

Brandom, R. (2002) 'Non-inferential knowledge, perceptual experience, and secondary qualities: placing McDowell's empiricism' in N. H. Smith *Reading McDowell on Mind and World* Routledge.

Brown, J.S., Collins, A. and Duguid, S. (1989) 'Situated cognition and the culture of learning' *Educational Researcher* 18, 1: 32-42.

Chalmers, A. (1986) *What is this thing called Science?* Open University Press.

Chalmers, A. (1987) 'Bhaskar, Cartwright and Realism in Physics' *Methodology in Science* 20.

Crook, C. (1991) 'Computers in the Zone of Proximal Development: Implications for Evaluation' *Computers in Education* 17, 1: 81-91.

- Davydov, V.V. and Radzikhovskii, L.A. (1985) 'Vygotsky and activity orientated psychology' in J. V. Wertsch *Culture, communication and cognition: Vygotskian perspectives* Cambridge: Cambridge University Press.
- Derry, J. (2000) 'Foundationalism and Anti-Foundationalism: Seeking Enchantment in the Rough Ground' in V. Oittinen (ed) *Evald Ilyenkov's Philosophy Revisited* Helsinki: Kikimora Publications.
- Dreyfus, H. L. (1992) *What Computers Still Can't Do: A Critique of Artificial Reason* Cambridge MA: MIT Press.
- Eisner, E.W. (1993) 'Forms of Understanding and the Future of Educational Research' *Educational Researcher* 22, 7: 5-11.
- Engestrom, Y. (1996a) 'Non scolae sed vitae discimus: Toward overcoming the encapsulation of school learning' in H. Daniels (ed) *Introduction to Vygotsky* Routledge.
- Engestrom, Y. and Middleton, D. (eds) (1996b) *Cognition and Communication at Work* Cambridge: Cambridge University Press.
- Fleck, L. (1981) *Genesis and Development of a Scientific Fact* The University of Chicago Press.
- Friedman, M. (2002) 'Exorcising the philosophical tradition' in N. H. Smith *Reading McDowell on Mind and World* Routledge.
- Haack, S. (1998) *Manifesto of a passionate moderate: unfashionable essays* Chicago: The University of Chicago Press.
- Habermas, J. (2000) 'From Kant to Hegel: On Robert Brandom's Pragmatic Philosophy of Language' *European Journal of Philosophy* 8, 3: 322 –355.
- Hacking, I. (1991) *The Taming of Chance* Cambridge University Press.
- Hacking, I. (1999) *The Social Construction of What?* Cambridge, MA: Harvard University Press.
- Hegel, G.W.F. (1975) *Hegel's Logic* (Wallace, W. trans.) Oxford University Press.
- Hegel, G.W.F. (1977) *Hegel's Phenomenology of Spirit* (Miller, A.V. trans.) Oxford University Press.
- Hooykas, R. (1984) *Religion and the Rise of Modern Science* Edinburgh: Scottish Academic Press
- Jones, P. E. (2001) 'The Ideal in Cultural-Historical Activity Theory: Issues and Perspective' in S. Chaiklin *The Theory and Practice of Cultural-Historical Psychology* Aarhus University Press.



- Lektorsky, V.A. (1999a) 'Activity theory in a new era' in Y. Engestrom, R. Miettinen and R. Punamaki (eds) *Perspectives on Activity Theory*, Cambridge: Cambridge University Press.
- Lektorsky, V.A. (1999b) 'Historical Change of the Notion of Activity: Philosophical Presuppositions' in S. Chaiklin, M. Hedegaard, and U. Juul Jensen (eds) *Activity Theory and Social Practice: Cultural-Historical Approaches* Aarhus University Press.
- Martin, L., Nelson, K. and Tobach, E. (1995) *Sociocultural psychology: Theory and practice of doing and knowing* Cambridge University Press.
- Mercer, N. (2000) *Words and Minds: How We Use Language to Think Together* London: Routledge.
- Minick, N. (1985) 'L. S. Vygotsky and soviet activity theory: new perspectives on the relationship between mind and society', unpublished PhD thesis, Northwestern University, USA.
- Newman, F. and Holzman, L. (1993) *Lev Vygotsky: Revolutionary Scientist* London: Routledge.
- Phillips, D.C. (1995) 'The Good, the Bad, and the Ugly: The Many Faces of Constructivism' *Educational Researcher*, 24, 7: 5-12.
- Razmyslov, P. (2000) 'The Cultural-Historical Theory of Psychology' *Journal of Russian and East European Psychology* 38, 6: 45-58.
- Rockmore, T. (1986) *Hegel's Circular Epistemology*. Bloomington: Indiana University Press.
- Salomon, G. (1997) *Distributed cognitions: Psychological and educational considerations* Cambridge University Press.
- Serpell, R. (1993) 'Interface between Sociocultural and Psychological Aspects of Cognition' in E.A. Forman, N. Minick and C.A. Stone (eds) *Contexts for learning: sociocultural dynamics in children's development* Oxford University Press.
- Smith, N. H. (2002) *Reading McDowell on Mind and World* Routledge.
- Tolman, C.W. (2001) 'The Origins of Activity as a Category in the Philosophies of Kant, Fichte, Hegel and Marx' in S. Chaiklin *The Theory and Practice of Cultural-Historical Psychology* Aarhus University Press.
- Toulmin, S. (1999) 'Knowledge as shared procedure' in Y. Engestrom Tryphon, A. & Voneche, J.N. (eds) (1996) *Piaget - Vygotsky The Social Genesis of Thought* Psychology Press, and imprint of Erlbaum (UK).

Van der Veer, R. (1984) 'Early Periods in the Work of L.S. Vygotsky: The Influence of Spinoza' in M. Hedegaard, P. Hakkarainen, Y. Engestrom (eds) *Learning and Teaching on a Scientific Basis: Methodological and Epistemological Aspects of the Activity Theory of Learning and Teaching* Aarhus Universitet, Psykologisk Institut.

Van der Veer, R. (ed.) (2000) *Journal of Russian and East European Psychology: Criticizing Vygotsky*, 38 (6).

Wardekker, W. L. (1998) 'Scientific concepts and reflection', *Mind, Culture and Activity* 5, 2: 143-154.

Wenger, E. (1998) *Communities of Practice: Learning, Meaning and Identity* Cambridge University Press.

Young, M.F.D. (1998) *The Curriculum of the Future: From the 'New Sociology of Education' to a Critical Theory of Learning* Falmer Press.

Yovel, Y. (1989) *Spinoza and Other Heretics: The adventures of immanence* Princeton University Press.

