

## Wallis Arthur Suchting (1931-1997)

Wallis Suchting was born in 1931 in the small north Queensland sugar-cane town of Gordonvale. In an severe depressive state, of the kind he had suffered for some many years, he ended his life on 12 January 1997 at his home in the inner Sydney suburb of Ultimo. The scholarship, the command of languages, and the broad grasp of the history of ideas and culture, that he brought to bear on philosophical issues, particularly those of epistemology and methodology raised by Marxism and by the sciences, has seldom been equalled by Australian scholars, nor by scholars considerably distant from Australia.

Wal was an only child, brought up in Australia's 'deep north' where his father was a police sergeant. By his own account, his youth and family life was less than happy, to put not too fine a point upon it (as he was fond of saying).

His intelligence ('titanic' as an academic friend described it) stood out early, and he won a place in the prestigious Brisbane Grammar School for the last two years of his education. He boarded in a house near to a former north Queensland school friend Ted D'Urso who was already in the second year of philosophy studies at Queensland University. Ted introduced Wal to philosophy which, along with Wal's already strong interest in literature and the arts, filled his final years of school.



His earliest writings – 'To Shelley: A Sonnet', 'Thoughts on the Function of Criticism in Art' and 'Demophilus: A Socratic Dialogue' – were published in *The School Window* (1947-48), an annual publication of the Brisbane Grammar School. While at school, and immersed in the aestheticism movement, he was selected to represent Queensland in a national colloquium of Australia's young intellectuals.

In 1949 he commenced the study of philosophy, history, and literature at Queensland University. At the end of his first year he spent the summer vacation teaching himself Italian. Then he wrote an essay on Dante's *The Divine Comedy* that won first prize in the Australian Dante Alighieri Society's competition. This was the first sign of his life-long commitment to, where ever possible and despite the effort, reading authors in their original tongue. In 1951 he graduated BA from Queensland University with first class honours in philosophy, ranked equal with his soon-to-be wife, Marie Leaver, and moved on a scholarship to Melbourne.

In 1953 he completed his MA at Melbourne University on 'The Concept of Necessity in Marx and Engels'. In 1954 he commenced his PhD degree on 'The Criterion of Empirical

Verifiability in Science'. His supervisor was Gerd Buchdahl who wrote one major text on *Metaphysics and the Philosophy of Science*, another on *Kant and the Dynamics of Reason*, and who would become the first lecturer in history and philosophy of science at Cambridge. In order to read ancient texts on this subject Wal learnt Latin and Greek; and then German, Russian, French and Spanish to understand the texts and arguments of the European philosophers who debated the subject.

This concern with the mastery of languages was one reason why the thesis extended four years beyond his scholarship funds, and why during this time he completed a Diploma of Education at Sydney Teachers College and became a high school history teacher. The thesis was awarded in 1961, with one examiner describing it as 'a terrifying piece of work'. The following year, 1962, he was appointed to the Philosophy Department at the University of Sydney where he stayed till his retirement in 1990 as Reader in Philosophy.

Wal cared about words and what they meant. He regarded language as the greatest enabler of human culture. He took delight in reading well written and elegant prose, poetry, and philosophy. He laboured as a craftsman over his own writing. He was a wordsmith. He strove for elegance, but not at the expense of clarity; and he did not allow the primacy of clarity to obscure nuances of meaning. He had an abiding animus for sloppy, careless and confused writing, and for dishonest euphemisms, jargon and pretence. In his latter years he despaired at how the humanities in Australia were encouraging all the things he hated. In particular, he regarded the bulk of postmodernist, constructivist, and feminist writing as destructive of language, rationality, scholarship and of the possibility of a humanising culture.

Wal's despair with the scholarly world was only heightened by his experience of having to work with a person widely held as the 'Prince of Hegel translators' on a translation of Hegel's *The Encyclopedia of Logic* published in 1991. The situation arose because Wal and the very prominent north American scholar had in 1986 independently submitted a new English translation of the *Logic* to Hackett Publishing Company. The director urged them to pool their work and make a joint translation. Wal said in correspondence: 'This was the beginning of one of the most miserable periods in my life'. Wal's interpretations and judgements were repeatedly overruled, and he was driven to ask that a 'dissenting, minority foreword' be included in the publication, listing the numerous points of difference between himself and his prestigious co-translator. Wal privately wondered whether the Prince could order a meal in a German restaurant.

Wal derived bitter pleasure when the early reviews in major journals – *Review of Metaphysics*, *Mind*, *Bulletin of the Hegel Society of Great Britain*, etc. – endorsed his minority report and said, as in the last mentioned journal, that 'This reviewer is of the opinion that [the collaborators] would have done better to heed the advice of their colleague, Suchting, as set out in his minority comments on terminology'. The whole experience only confirmed Wal's pessimism about the state of university scholarship, even at the supposed highest levels. It confirmed for him the wisdom of his 1990 request for early retirement from the University of Sydney.

The Hegel episode is also indicative of another feature of Wal's scholarly life: He strove to understand those he disagreed with. He did not believe in cheap shots, or in repeating others' critiques and analyses. He was a life-long Marxist who had no sympathy for Hegel's idealism, writing that his whole system was 'an artificial concoction' and that his *Philosophy*

*of Nature* was ‘a lot of rubbish’. Yet he worked for years on mastering the philosophical and cultural contributions of German Idealism, and on providing a faithful English translation of Hegel’s *Logic*. He also was an atheist who read the Bible daily in ancient Greek. And for a while he toyed with learning Hebrew to do this better but was exhausted by the prospect. He wilted, shaking his head and verging on being sick, when he read work making cheap and mistaken claims about ‘Positivism’, ‘Modernism’, ‘Scientism’, ‘Empiricism’, ‘Marxism’, ‘Realism’ and other supposed bogeymen, by people who had never bothered to read, understand or study the views they criticised.

Wal was a meticulous teacher. When teaching courses on Hume, Hegel, Dewey, Marx, Popper and Foucault he picked the central texts and strove to have his students understand them. For instance, in his class on Dewey’s 1938 *Logic* (that he regarded as one of the ‘masterpieces of 20<sup>th</sup> century philosophy’) there were only two students, yet he spent days on the preparation of each class.

Wal thought that in teaching philosophy, texts were akin to rocks for geologists, birds for ornithologists, reactions for chemists or plants for botanists. Good teachers brought students into contact with the actual subject matter of the discipline, and made it ‘come alive’, as might be said. For philosophers, ‘eyes on’ teaching was the equivalent of ‘hands on’ teaching for the sciences; close reading was experiential learning.

Progressive humanities pedagogy passed Wal by. He had too much respect for his students, and for the texts and ideas he was dealing with, to get by with ‘throwing some ideas about’ or ‘facilitating students’ responses to the author’. The question of ‘What does this mean for you?’ came a distant second to ‘What does this mean for the author?’ in Wal’s classes. He saw such ploys as basically bull sessions, and an abnegation of the educative function of the teacher; the author disappears in favour of the reader. He had no problem with being a ‘sage on the stage’. Wal thought that the immense problems of education could only be solved by providing students with good books and with teachers who understood them. Other more high-tech and costly proposals he saw as simply adding to the problem. Needless to say, he saw postmodernism as a blight on the academy and a cultural disease.

Wal was committed, with eyes wide open, to the Enlightenment tradition. He saw it as a praxis tradition with in-built expanding and correcting mechanisms. Necessarily he was seriously engaged by the intellectual and cultural achievements of the Scientific Revolution that gave birth to the tradition. The latter was the outstanding achievement of the universal quest for knowledge of the world. He wrote of the ‘Galilean-Newtonian Paradigm’ and regarded this scientific-philosophical GNP as far more consequential than any economic GNP. He believed that the history of philosophy was inseparable from the history of science, and that those seriously engaged in the former needed to be seriously engaged with the latter. To complement his training in the humanities he taught himself the rudiments of physics, and of mathematics, by working through every page and example in Feynman’s three-volume *Lectures on Physics*.

Some of Wal’s early publications (1967, 1969) were on the conceptual structure of Newtonian mechanics, a topic he returned to in 1993 in one of his final reviews (in *Science & Education*) where he took exception to interpretations of a prominent Newton expert. Something of Wal’s style is manifest when he says ‘the limits of the review forbid following the author into the “waste howling wilderness” wither his footsteps are directed by his original false compass readings’. Of the mistakes in the text, he said that they were:

*Thick as autumnal leaves that strow the brooks  
In Vallombrosa, where th'Etrurian shades  
High over-arched embower.*

His style strained professional relations. But Wal thought that academics should resist the 'Macdonaldisation' of discourse. Not surprisingly he was not overly bothered with the academic circuit. In his thirty-year university career, he attended one philosophy conference and came back regretting the time away from his library and music. A consequence was that his reputation was limited. But he never thought that academic fame and, God forbid, popularity, was a substitute for ideas understood and arguments followed through. He was, of course, interested in the ideas and work of others. To the very end, he subscribed to journals and carried on voluminous private correspondences over points of philosophical interpretation; but the idea of doing anything 'for show', or spending time on a social circuit when he could be reading or listening to classical music or jazz, appalled him.

From the early 1950s, Wal was engaged by the study and exposition of Marx's fundamental philosophical ideas. Needless to say, he read Marx in the original. In 1972 he taught, with Michael Devitt, the very first course in Australia on 'Marxism as Philosophy'. The course was attended by hundreds and had a lasting impact on a generation of Sydney philosophy students. Two books gave public face to this engagement: *Marx: An Introduction* (Harvester, 1983), and *Marx and Philosophy* (Macmillan, 1986). He had hundreds of pages of correspondence with Marx scholars over large and minute matters of interpretation of Marx's text, and the classical traditions of exposition and translation of them.

Perhaps two examples from these pages suffice to give a feel for Wal's Marxist project, and his own tentativeness and inquisitiveness about aspects of it. In 1996, in commenting on two papers on 'Value-Theory in Political Economy' sent to him by an Australian colleague, Wal replied:

However, neither of them [the received papers] so much as hints at what seems to me to be one of the fundamental problems of M.'s value-theory – perhaps *the* fundamental one – namely, the idea of 'abstract labour'. M. himself emphasised the significance of the idea of the distinction between 'abstract' and 'concrete' labour early in the first volume of *Capital* – he calls it the *Springpunkt* of his theory (a relatively unusual word, meaning something like: the very source from which all else flows – quite inadequately rendered in the Penguin edition which simply has M. saying that it is 'crucial' to this theory). In two letters to Engels he lists it as one of the original ideas in *Capital*.

I well remember that when I used teach courses on *Capital* I always had a sneaking feeling that I was being a bit of a phony at the point where I had to introduce the notion of 'abstract labour', because, deep down, I didn't feel confident that I had a real grip on the idea. But M. seemed to have no doubts about what he was talking about, people whom I respected seemed to understand it, it seemed crucial to a theory to which I could see no alternative, so I pressed on, hoping that eventually light would vouchsafe me (cf. Pascal's advice to kneel and pray and belief would come!). But I am still uncertain that I really 'get it'.

In 1995, in commenting on a manuscript on Ideology sent by a Finnish correspondent, Wal wrote:

You say that Marx never used the phrase 'false consciousness', to be found in the well-known letter from Engels to Mehring (14 July 1893, MEW 39:97). That is true. But I think that it is

not seriously contestable that what E. indicates, in the text mentioned, he means by this is an idea held by Marx *from first to last* in different forms, tied up with the idea of *Verkehrung*. I have been struggling mightily over the last few months to become clearer in my mind about the latter, which I always found puzzling and which I've found the more puzzling the more I've thought about it.

He then documents three slight variations on *Verkehrung* as found in the *Paris Manuscripts*, the *German Ideology* and *Capital* periods. He regards it as a transition by Marx from an ontological to an epistemological understanding of the term.

After retirement Wal contributed to international science education by writing a series of long and scholarly articles for the journal *Science & Education*. These articles, published yearly from 1992 to 1997, ranged over the cultural significance of science, constructivism, scientific method, the sociology of scientific knowledge, hermeneutics and science, and Newtonian mechanics. They all bear the stamp of his scholarship, command of language and concern with the 'truth of the matter'.

His *Science & Education* papers provide some of the clearest statements of his overall philosophical position. For instance, in a 1992 commentary on an exposition of constructivist theory written by an acknowledged 'world leader' in the field, he wrote:

First, much of the doctrine known as 'constructivism' ... is simply unintelligible. Second, to the extent that it is intelligible ... it is simply confused. Third, there is a complete absence of any argument for whatever positions can be made out. ... In general, far from being what it is claimed to be, namely, the New Age in philosophy of science, an even slightly perceptive ear can detect the familiar voice of a really quite primitive, traditional subjectivistic empiricism with some overtones of diverse provenance like Piaget and Kuhn. (Suchting, 1992, p.247)

Concerning empiricism, in his 1995 paper on 'The Nature of Scientific Thought', he wrote:

Thus the *key* inadequacy of empiricism has really nothing to do with the centrality it accords to sense-experience; in particular, the controversy over whether the 'basic language' of science should be 'phenomenalistic' or 'physicalistic' is irrelevant to the main question, a mere internal family dispute, as it were. The central deficiency of empiricism is one that it shares with a wide variety of other positions, namely, all those that see objects themselves, *however they are conceived*, as having epistemic significance *in themselves*, as inherently determining the 'form', as it were, of their own representation, rather than as determining the degree of applicability of representations of a given 'form', and hence, conversely, that the nature of what is represented can be more or less *directly* 'read off' its representation'. (Suchting 1995, p.13)

For Wal, theory, and theorising conducted in accord with an appropriate methodology, was the key identifier of science. The theory was linked to the world by appropriate practices, notably experimentation. Hence supposedly big issues about, for instance, the theory dependence of observation, became side-shows for Wal. Interesting enough, but of no great epistemological import.

His 1997 paper on 'The Sociology of Scientific Knowledge' (SSK) develops at length his negative critique of, and positive reconstruction of, this enormously influential epistemological programme. From the time of Mannheim's original formulation, the sociology of knowledge had a certain Marxian flavour; it appeared as an extension of Marx's theory of ideology. But Wal believed that 'the general field of sociology of knowledge, as

identified by those who have written under this rubric – Bloor, Latour, Woolgar, Collins - is fundamentally (and not just in detail) all wrong’. His positive critique involved the elaboration of Marxist historical materialism in a manner that encompassed and illuminated the production of scientific knowledge. This was succinctly done in a four-page appendix to the paper.

His final academic works were a brace of four articles – ‘on experiment’, ‘on empiricism’, ‘on falsificationism’, and ‘on epistemology’ – published in 1997 in a German Encyclopedia of Marxism. And a posthumously published 1998 paper: ‘What is Living and What is Dead in the *Communist Manifesto*?’

Suchting belonged to a fast disappearing scholarly world. Few graduate students now spend seven years on a PhD because they believe that relevant languages need to be mastered. For staff, and students, reading sources in their original language is not rewarded. Concentrated scholarship is not rewarded; one publication a year does not get anyone tenure or renewal of a contract. In the end, Suchting was deeply pessimistic. He saw everywhere in the arts and social sciences that the pursuit of publications irrespective of their quality, and the pursuit of research dollars, was corrupting the search for truth and understanding, and interfering with the time required to prepare good classes. He saw less and less evidence that universities were fostering, or even caring about, a love of learning. Concerning philosophy, he thought that ‘bad coinage was driving out the good’, with reading lists being ever-increasingly filled with the former.

On retirement from the University of Sydney in 1990 Wal shed about two-thirds of his academic library, the ‘inessentials’. The ‘essentials’ he kept in his home library. The contents are a window into the authors he saw as having personal and scholarly value:

HEGEL	<i>Werkes</i> (German)	20 vols.
	<i>Lectures in Philos. Religion</i>	3 vols.
	<i>Lectures in Philos. History</i>	3 vols.
	secondary literature	25 vols.
KIERKEGAARD	Works	12 vols.
NIETZSCHE	<i>Collected Works</i>	20 vols.
	Secondary literature	10 vols.
KANT	<i>Werkes</i> (German)	10 vols.
	Secondary literature	10 vols.
FREUD	<i>Collected Works</i>	30 vols.
	secondary literature	25 vols.
GIBBON	<i>Rise and Fall ...</i>	3 vols.
BRAUDEL	<i>History of Europe</i>	3 vols.
ANCIENT PHILOSOPHY	Penguin Classics	25 vols.
	assorted authors	25 vols.
MONTAIGNE	<i>Works</i>	1 vol.
LENIN	<i>Collected Works</i>	46 vols.
MARX & ENGELS	<i>Werkes</i> (German)	45 vols.
	<i>Collected Works</i> (English)	16 vols.
MARXISM	secondary literature	250 vols.
SOCIALIST THOUGHT	assorted histories, etc	40 vols.
ALTHUSSER	<i>Writings</i> (French)	6 vols.
BAKHTIN	<i>Werkes</i> (German)	15 vols.
CASSIRER	Works	12 vols.
KOLAKOWSKI	<i>History of Marxism</i>	3 vols.

BACHELARD	<i>Works</i> (French)	25 vols.
COPLESTON	<i>History of Philosophy</i>	15 vols.
SPINOZA	assorted works	15 vols.
LEFREBVRE	works (French)	12 vols.
GRAMSCI	works	5 vols.
TROTSKY	works	40 vols.
LUXEMBURG	works	10 vols.
MATHEMATICS	assorted histories	25 vols.
JAMES	works	5 vols.
FOUCAULT	works	5 vols.
DEWEY	works	8 vols.
PLEKHANOV	<i>Collected Works</i>	3 vols.
WITTGENSTEIN	works	15 vols.
LUKACS	works	10 vols.
PHILOSOPHY OF SCIENCE & EPISTEMOLOGY (assorted)		100 vols.
<i>NEW LEFT REVIEW</i>		complete set, vol. 1 (1957) to 1997
<i>SOCIALIST REGISTER</i>		20 vols.
REFERENCE DICTIONARIES	FRENCH, GERMAN, SPANISH, ITALIAN	
MUSICOLOGY		70 vols.
DANTE	works	5 vols.
THOMAS MANN	<i>Werkes</i>	10 vols.
HENRY JAMES	Works	4 vols.
MAX RAPHAEL	<i>Werkes</i> (German)	8 vols.
HISTORY OF ART	assorted authors	70 vols.
PSYCHOLOGY	assorted authors	15 vols.
OTHER PHILOSOPHICAL AND HISTORICAL WORKS		300 vols. (approx.)

It is worth relating, and not irrelevant to Wal's bleak assessment of the downward spiral of Australian universities, that after his death, this library was offered gratis to the new Western Sydney University. They declined the offer. If universities, even brand new ones with no established library, cannot house such collections, who will?

In one of his *Science & Education* papers - 'Notes on the Cultural Significance of the Sciences' (1994) - he concludes with a statement of, one might say, his own view of the human condition:

*Soft you; a word or two before you go.* At the end of the paper, looking over what I have written, I sense here and there what might be interpreted as, and perhaps is, a tone of optimism, even triumphalism, about the prospects for the deepening and widening of the cultural effects of science, including, in the first rank, a naturalistically conceived ethics. But it would be a betrayal of the realistic spirit of naturalism itself to let this stand, at least without the gravest qualifications.

Recent research has found that homo sapiens shares 98.4% of its genes with pygmy chimpanzees, and this physical continuity is reflected in a propensity for xenophobic killing of other human groups and destruction of the environment. The powers made possible by the remaining 1.6% of genes, have, amongst other things, heightened the former to genocides and the latter to the point where the continued existence of the species, at least in a form worthy of its history at its best, is in serious question. Homo sapiens may be said to be unique in its delight in torture and addiction to toxic substances. It is also, of course, unique in its culture, and here, in the first place, in the possession of the marvel of language.

....

The latter has made possible, amongst other things, the creation of new sorts of toxins such as racisms and nationalisms (but cf. earlier species- and territorial 'imperatives') and others

that are unique, in the first place, religions and those metaphysical beliefs with an essentially similar character, narcotics that induce fantasies which both console present suffering and help guarantee its continuance.

Given the terrible burden that specifically human life inflicts on the instincts (as Freud explains in many places, especially *Civilisation and its Discontents*), and, on top of this, the pervasive miseries inflicted on the mass of people by historically endemic class-exploitation, together with the failures of all attempts so far to construct any form of social organisation that might countervail, wholly or partly, the effects of the first of these sources of distress, or do away with the second, it may seem, and possibly is, largely frivolous to think that human beings, in any great numbers anyway, will, in any realistically foreseeable future, renounce illusions that make life tolerable in favour of a purely naturalistic view of the world that can offer, at best, only limited prospects of unconditional happiness.

Wal's death was a sad loss for this family, his many friends and the sectors of scholarship in which he laboured. He left a model for serious Marxist and more general philosophical research that challenged many who had the good fortune to know him, and will likewise challenge and set standards for many who did not know him.

### Select Publications

- 1966, 'Hume and Necessary Truth', *Dialogue* **5**, 47-60.
- 1967a, 'Deductive Explanation and Prediction Revisited', *Philosophy of Science* **34**, 41-52.
- 1967b, 'Berkeley's Criticism of Newton on Space and Motion', *Isis* **58**, 186-197.
- 1967c, (with G.C. Nerlich), 'Popper on Law and Natural Necessity', *British Journal for Philosophy of Science* **18**, 233-235. [Reprinted in T.L. Beauchamp (ed.), *Philosophical Problems of Causation*, Dickenson Publishing Company, Encino and Belmont, 1974.]
- 1967d, 'Kant's Second Analogy of Experience', *Kant-Studien* **58**, 355-369. [Reprinted in Lewis White Beck (ed.), *Kant Studies Today*. Open Court Publishing Company, 1969; and in Tom L. Beachamp (ed.), *Philosophical Problems of Causation*, Dickenson Publishing Company, Encino and Belmont, 1974.]
- 1969a, 'Force and "Natural Motion"' (with I.E. Hunt), *Philosophy of Science* **36**, 233-251.
- 1969b, 'Perception and the Time-Gap Argument', *Philosophical Quarterly* **19**, 46-56.
- 1969c, 'Euler's *Reflections on Space and Time*', *Scientia* **104**, 1-9.
- 1972, 'Marx, Popper and "Historicism"', *Inquiry* **15**, 235-266.
- 1974, 'Regularity and Law', *Boston Studies in the Philosophy of Science* **14**, 73-90.
- 1975, 'Marx on the Dialectics of Production and Consumption in the Introduction to the *Grundrisse*', *Social Praxis* **3**, 291-314.
- 1977, 'Feyerabend's Discourse Against Method: A Marxist Critique', (with J. Curthoys), *Inquiry* **20**, 243-397.
- 1979, 'Marx's *Theses on Feuerbach*: Notes Towards a Commentary (with a New Translation)'. In J. Mephram & D.-H. Ruben (eds.) *Issues in Marxist Philosophy*, vol.II, Harvester Press, Brighton, pp.5-34.
- 1981a, 'Capitalism and Communism in the *Grundrisse*', *Social Praxis* **8**, 99-123.
- 1981b, (with R. Albury & G. Payne) 'Naturalism and the Human Sciences' [Review article on R. Bhaskar, *The Possibility of Naturalism*] *Economy and Society* **10**, 367-379.
- 1982, "'Productive Forces" and "Relations of Production" in Marx', *Analyse und Kritik* **4**,
- 1983a, *Marx. An Introduction*, Wheatsheaf, Brighton, Sussex (pp. xxii + 242)

- 1983b, 'Knowledge and Practice: Towards a Marxist Critique of Traditional Epistemology' *Science & Society* **47**, 2-36.
- 1985a, 'Popper's Critique of Marx's Method'. In G. Currie & A. Musgrave (eds.) *Popper and the Human Sciences*, Martinus Nijhoff, Dordrecht, pp.147-163.
- 1985b, 'Marx, Hegel and "Contradiction"', *Philosophy of the Social Sciences* **15**, 409-432.
- 1986, *Marx and Philosophy. Three Studies*, Macmillan, London, (pp.xiii + 133) [Revised reprint of 1982a, 1983b and 1985b]
- 1990, 'Hegel and the Humean Problem of Induction', *Studies in History and Philosophy of Science* **21**, 493-510.
- 1991a, 'On Some Unsettled Questions Touching the Character of Marxism, Especially as Philosophy', *Graduate Faculty Philosophy Journal*, New School for Social Research, 14(1), 139-207.
- 1991b, translation (with T.W. Geraets and H.S. Harris) G.W.F. Hegel *The Encyclopaedia Logic (with the Zusätze)*, Hackett Publishing Company, Indianapolis. (With Minority Comments on Terminology xxxii-xlvi.)
- 1992a, 'Constructivism Deconstructed', *Science & Education* 1(3), 223-254.
- 1992b, 'Reflexions upon Roy Bhaskar's *Critical Realism*, *Radical Philosophy* **61**, Summer, 23-31.
- 1993a, 'Reconstructing Marxism', *Science & Society* **57**, 133-159.
- 1993b, Review of Zev Bechler, *Newton's Physics and the Conceptual Structure of the Scientific Revolution*, *Science & Education* **2**, 285-291.
- 1994a, 'Notes on the Cultural Significance of the Sciences', *Science & Education* **3**(1), 1-56.
- 1994b, 'Reconstructing Marxism: Some Comments on Comments' *Science & Society* **58**, 325-331.
- 1995a, 'The Nature of Scientific Thought', *Science & Education* **4**(1), 1-22.
- 1995b, 'Much Ado about Nothing: Science and Hermeneutics', *Science & Education* **4**(2), 161-171.
- 1996, 'Marxism and Experiment', *Studies in Marxism* **3**,
- 1997a, 'Reflections on Peter Slezak and the "Sociology of Scientific Knowledge"', *Science & Education* **6**(1-2), 151-195.
- 1997b, Entries in W.F. Haug (ed.), *Kistorisch Kritischer Wörterbuch des Marxismus*, Argument Verlag, Berlin, 'Empirismus', 'Epistemologie', 'Experiment', 'Falsifikationismus'
- 1998, 'What is Living and What is Dead in the *Communist Manifesto*?' In M. Cowling (ed.), *The Communist Manifesto: New Interpretations*, Edinburgh University Press, Edinburgh, pp.157-165.

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