



**“Let’s move on”: Bob Young's contribution to radical science concepts and practices**  
 Les Levidow

‘Let’s move on’ is a memorable phrase from Bob’s comments in group discussions and articles. The phrase combined a friendly invitation with a sometimes scary challenge to contest and abandon conventional concepts. They were perpetuating systems of capitalist domination, variously disguised as neutral objectivity, as the natural order, as techno-scientific progress. etc. His invitation meant a joint task to substitute different concepts and practices prefiguring a post-capitalist society. This meant collectively creating pathways and methods for such a future, while addressing anxieties about uncertainties.

‘Move on’ arose especially in discussions within the Radical Science Collective. The same phrase began his 1977 essay, ‘Science *is* social relations’, where he enjoined readers:

It is time to move on both in theory and in practice. ... It is time that our theories and our lives expressed struggle towards socialism and prefigured that social order in the process (Young, 1977: 65).

Social order? Even for its advocates, a move towards a future socialist order was experienced as potential disorder -- at once exhilarating and frightening. To inspire a transitional process, Bob formulated several aphorisms, e.g. ‘Make political work relations more personal *and* personal relations more political’, and ‘Prefigure the ends in the means’ (pp. 99, 101). As pithy observations, these aphorisms were at once insightful, stirring, and unnerving, as noted by Maureen McNeil (this issue).

Bob’s phrase ‘move on’ expressed a close engagement with his colleagues, readers, societal change and practices seeking to prefigure post-capitalist futures. In Gary Werskey’s history of radical science generations as ‘three movements’, he compared Bob Young’s role with J.D. Bernal’s prominent role in the 1930s movement. Gary described Bob’s role as follows:

As a thinker and writer on often highly abstruse subjects, Young had the gift of being clear and entertaining enough to keep you hard at work trying to follow him. He could, by turns, also be disarming or – to some – intrusive in his personal revelations of weakness or confusion, or confronting when enjoining his readers to ‘move on’ with him. However, the deeper hallmark of his style was that of a perpetual dialogue between, himself, his material, and his audience about how we might make more sense of the world/ourselves, in order to change the world/ourselves for the better. Young’s texts are nearly always presented as unfinished, open-ended, and – while not inconclusive – never at rest. For those looking for definitive answers and certain foundations, his approach was bound to frustrate. But he could not be more encouraging of the need for others to criticize and join him in thinking important subjects through to better conclusions, however interim (Werskey, 2007: 435).

For the aim of moving on, Bob initiated or facilitated in several collective projects:

- The *Radical Science Journal (RSJ)* Collective, later extended to the journal *Science as Culture* with its Editorial Board;
- RSJ seminars as interventions within the wider radical science movement, especially the British Society for Social Responsibility in Science (BSSRS) and its various thematic working groups;
- The Publications Distribution Cooperative (PDC), established jointly by radical periodicals for ensuring their distribution in bookshops, playing this crucial role for a couple decades;
- *Crucible*: Channel 4 documentary series on technoscientific issues with an accompanying Pan Books series in the early 1980s (e.g. *The Gene Business*).
- Free Association Books (FAB), whose name linked Freud's key methodological concept with Marx's reference to communism as 'the free association of the producers'. FAB published books especially on psychoanalytic and radical science themes.
- *Free Associations* journal, linking various critical psychoanalytic perspectives and eventually stimulating annual conferences on Psychoanalysis and the Public Sphere.

All these initiatives were opportunities for developing or promoting critical analyses of capitalist science, anti-capitalist alternatives and practices.

### **Radical science as engagement with Marxist traditions**

Bob's writings analysed how professional knowledge embodied societal values and power structures while disguising them through various appeals to scientific objectivity, technological progress and human nature. He analysed their philosophical basis in a Cartesian dualism which conceptually separated the rational mind from physical nature. Hence he highlighted the paradox that a non-spatial mind somehow knows a spatial world (Smith, 2020). As Bob understood, 'Values vanish into this ideological universe, becoming invisible as they are absorbed into nature, including the nature of things', as noted by Karl Figlio (2020).

Hence he sought means to contest stereotypical binaries – such as mind/body and fact/value – as both practices and ideas. Looking beyond representational mystifications, he argued that ideological roles are institutionally embedded and reproduced. Indeed, ideology derives from everyday practices. As he argued, effective opposition had to go beyond even the most critical philosophy.

Hence de-naturalising value systems meant disrupting everyday institutional practices. This awareness stimulated Bob's political-intellectual engagement with Marxist concepts in order to deploy them strategically. To facilitate moving on with colleagues, he extended and linked three Marxist traditions: Critical Theory, labour process perspectives, and psychoanalytic Marxism. Let us consider each in turn.

#### *Critical Theory: reification and fetishism*

The term 'libertarian Marxism' has been used to encompass a wide range of Left-wing movements and ideas over several decades. It encompasses 1920s anti-Stalinist Communists (especially the ideas of Karl Korsch and Antonio Gramsci), the Frankfurt School's Critical Theory (including theories of Herbert Marcuse, as well as Horkheimer & Adorno, 1972), Italian workerists & autonomists, the latter sometimes called autonomous Marxism. In each historical period, those movements

and theorists opposed authoritarian agendas imitating the physical-biological sciences, invoking their putative objectivity and justifying capitalist work discipline -- all in the name of Marxism (Levidow and Pellizoni, 2021).

To counter authoritarian agendas, those movements revived Marx's dual concepts of reification and fetishism. As Bob noted, 'demystification of science entails the demystification of its reifications' (Young, 1977: 71). Marx had theorised reification and then fetishism as follows:

A definite social relation between people assumes the fantastic form of a relation between things ... This fetishism of commodities has its origin in the peculiar social character of the labour that produced them (Marx, 1990: 165; earlier edition quoted in Young, 1977).

Indeed, for Marx, these phenomena were not illusory misrepresentations of reality. Rather, they were reproduced in everyday practices, especially in commodity exchange, which structured waged-labour exploitation by extracting surplus value.

This insight informed Bob's inquiry into capitalist metaphors in scientific concepts. Applying Marx's concepts to technoscientific production, he analysed facts as fetishized forms of human labour. Rather than inquire whether facts are true, as in empiricist philosophy, he changed the question. For example: What social values become embodied (and thus fetishized) as properties of things? How does scientific knowledge reify relations between people as relations between things? As a political task, then, how can collective action de-fetishise and de-reify scientific knowledge?

Together we posed such questions as tasks for the radical science movement and beyond. These questions stimulated our interest in the labour process as the form and role of technoscientific production.

#### *Labour process perspectives: capitalist relations within forces of production*

Drawing on various traditions since Marx's *Capital*, Harry Braverman (1976) elaborated a labour process perspective to analyse contemporary capitalist agendas for restructuring production, work and everyday life. This approach was taken up systematically by the Conference of Socialist Economists (CSE, 1976) as the basis for a research agenda which included a study group, booklets, journal articles and books.

From the RSJ Collective's engagement with the CSE, together we analysed changes in physical production systems within a global restructuring agenda. Then we extended this perspective to technoscientific activity and concepts. These more subtly embedded capitalist aims and designs through capitalist social relations, e.g. hierarchal division of labour, intellectual property, customer-contract principle, etc. (RSJ Collective, 1981).

Our perspective inverted key concepts, especially 'forces and relations of production', as they were commonly understood. According to the dominant Left formulations within Stalinism and Social Democracy alike, capitalist social relations of production were external constraints on inherently progressive forces of production, reductively equated with technology. By contrast, we investigated how capitalist social relations were designed within and manifested as forces of production, which Marx understood broadly as 'the general intelligence'. Such forces included: new knowledge-systems for both expelling and disciplining labour, the new international division of labour, Taylorised professional labour, digital-

financial metaphors of nature, etc. This critical perspective opened up questions about how non-capitalist social relations could redesign the forces of production through different metaphors of nature.

### *Psychoanalytic-Marxism*

Conventional Marxism generally presumed a rational model of humanity. It attributed capitalist ideology to ‘false consciousness’ or irrationality as misperceptions of reality. For example, individual competition obscured collective interests, and racial or ethnic divisions obscured class interests. This rationalist diagnosis warranted more effective ways to ‘expose’ capitalist ideology as misperceptions.

Looking more deeply, psychoanalytic Marxism has sought to understand how capitalist social relations become internalised and naturalised within everyday emotional life, in ways which generally remain elusive or hidden. As this perspective suggests, capitalist value systems become naturalised through subconscious processes, which can be understood through various psychoanalytic concepts. Bob cited Habermas (1972): ‘Psychoanalysis is relevant to us as the only tangible example of a science incorporating methodical self-reflection’ (Young, 1997).

As one entry point, an early contribution came from Joel Kovel (1976, 1988, 1990). He combined political theory and Freudian psychoanalytic concepts to illuminate his patients’ insights. He analysed how capitalist oppression was internalised in everyday emotional lives along class, race, gender lines.

Bob found more helpful the Kleinian theory of object relations, emphasising projective identification and splitting (Young, 1997). Regardless of which theory was elaborated, psychoanalytic writers sometimes succumbed to the same scientism underpinning other knowledges; they slipped into a reductionist, trans-historical reification of human nature. Bob readily applied his critical insights to such loss of critical perspective (Figlio, 2020). Highlighting historical change, he identified political-economic drivers which were being implicitly served, disguised and naturalised.

### **Building on the legacies in the 1980s**

Bob invited us to ‘move on’ by developing and linking the three Marxist traditions outlined above. By doing so, the RSJ Collective abandoned various conceptual obstacles and diversions. We criticised banal binaries, e.g. between use/abuse (of science), externalist/internalist approaches, science/ideology, fact/value, etc. Likewise we moved on beyond epistemological battles about the truth of scientific knowledge. Instead our revived Marxist concepts provided a stronger basis for engaging with new capitalist strategies and anti-capitalist revolt.

That re-orientation led us to these trans-historical observations about historical change:

- Historical change (especially class struggle) is the motor of technology, whose design and artefacts embody historically specific value choices.
- Nature likewise is always an historical category yet is portrayed as eternal.
- Natural science (like nature itself) entails historically specific categories and social relation, which become reified as the ‘objectivity’ of scientists.

- Scientific concepts are products of labour processes and are thereby shaped by its social relations.

Accordingly, ‘moving on’ meant identifying recent political-economic changes within those historical processes (RSJ Collective, 1981). In particular we recognised the following trends (also see Werskey, 2007):

- The current historical phase features greater capitalist reconstitution of science and technology, being jointly redesigned to restructure global economies and thus strengthen capitalist domination.
- Key areas of capitalist restructuring (ICTs, biotechnology, reproductive technology, reparative medicine, etc.) are being promoted and portrayed as technological process, conflated with societal progress.
- Capitalist domination has new forms setting narrower limits on the scope for relative academic freedom.
- Class struggle increasingly centres on capitalist restructuring: people resist, while potentially creating alternative technological designs and concepts of Nature.

From those trends, we tried to engage more effectively with professional experts, critics of technoscientific developments and resistance movements.

### **Today’s legacies of the radical science movement**

Four decades later, ‘the radical science movement’ is remembered as such by few people. Nevertheless its insights (especially Bob’s contributions) remain more relevant than ever before. They resonate with new critics targeting an ever-wider range of technoscientific innovations as deceptive or oppressive. As critics emphasise, such innovations are variously designed to exploit waged labour and fragment people into individual consumers. Such innovations today include: mass surveillance being justified as ‘security’, the gig economy justified as ‘self-employment’, the ‘internet of things’ justified as individual freedom, etc.

In the past decade a critical network has been *Breaking the Frame*. Its name echoes the original Luddites who sabotaged weaving frames which were degrading craft skills and then faced heavy penalties from the 1812 *Frame Breaking Act*. Likewise the name contests the dominant frame of technoscientific progress in today’s capitalist strategies. The group has held numerous events engaging with various social movements and opposition campaigns (BtF, 2015). In particular it has recovered the historical memory of the 1970s effort by Lucas Aerospace workers to shift the company’s priorities towards socially useful production and employment; such events have stimulated debate on analogous efforts today (BtF, 2016).

In many such campaigns and critiques, there are echoes of ideas from the radical science movement, even if it’s unclear by what trajectory they forged such links (King & Levidow, 2016). Alongside such continuity, however, earlier critical concepts have become fragmented by campaigns separately targeting each technoscientific development. Thereby lost is Bob’s agenda to integrate critical concepts: libertarian, Labour Process and psychoanalytic.

Many historical resonances are apparent likewise in the academic field of Science & Technology Studies (STS), especially given the radical politics that originally motivated some STS academics. Gary Werskey noted wider intellectual

contributions from the radical science movement but also its practical limitations since the 1980s neoliberal assault:

While some of the movement's ideas and projects – stripped of their theoretical moorings and political critique – have since moved into the mainstream of STS and science policymakers, they were rarely seen on scholarly and political agendas twenty-five years ago. It is also important to acknowledge that the RSJ programme was only a prolegomena to a more adequately theorized and rigorously applied framework for theoretical and agitational work, which never materialized (Werskey, 2007: 440).

As an important sequel, STS scholars have been analysing how neoliberal technoscience extends capitalist social relations to more areas of everyday life and living matter (Kleinman and Moore, 2014; Pellizzoni and Ylönen, 2012). Scholars have been designing critical research with opposition movements and discussing strategies for such collaborations (Moore, 2021). Sometimes called the 'New STS', academic-activist joint efforts have been reported in the journal *Engaging Science Technology and Society* (ESTS. e.g. Kinchy, 2020).

In 2019 North American activists relaunched the organisation and magazine *Science for the People* from three decades earlier. As its first new issue emphasised, critiques and resistance have always contested science, sometimes shaping its trajectory. This caveat echoed earlier lessons:

.... a radical analysis must not theorize strategy in isolation from radical critiques of science's applications, epistemic features, and material basis. What is to be done can be realistically decided only by accepting an important lesson of critique: that the way to understand the different parts of science, and therefore to *change* them, is to understand the whole of science, particularly its integration in global systems of power and capital (Zhao, 2019).

Hence 'A radical analysis must offer lessons for how to transform science in a revolutionary direction.'

As these recent developments indicate, there will be more opportunities to recover and extend radical science legacies, including efforts to learn lessons from past advances and setbacks. From such analysis, we can better 'move on', as Bob had urged.

## References

- BtF. 2015. Radical Science and Alternative Technology: From the 70s to the Present, Breaking the Frame conference, <http://breakingtheframe.org.uk/radical-science-and-alternativetechnology-april-11th-2015>
- BtF. 2016. Celebrating the Fortieth Anniversary of the Lucas Plan, national conference, <http://breakingtheframe.org.uk/lucas-plan/>
- Braverman, H. 1976. *Labour and Monopoly Capital*. NY: Monthly Review Press.
- CSE. 1976. *The Labour Process and Class Strategies*. London: Conference of Socialist Economists.
- Figlio, K. 2020. A reflection on Robert M. Young, *Free Associations* .
- Horkheimer, M. & Adorno, T. 1972. *Dialectic of Enlightenment: Philosophical Fragments*. Stanford University Press.

- Kleinman, D.L. and Moore, K. 2014. *Routledge Handbook of Science, Technology, and Society*: 1st Edition.
- Kinchy, A. 2020. STS currents against the “anti-science” tide, *Engaging Science Technology and Society* 6: 76-80, <https://estsjournal.org/index.php/ests/article/view/305/211>
- King, D. & Levidow, L. 2016. Introduction: contesting science and technology, from the 1970s to the present, *Science as Culture* 25(3): 367-372, <https://www.tandfonline.com/doi/full/10.1080/09505431.2016.1207375>
- Kovel, J. 1976. The Marxist view of man and psychoanalysis, *Social Research* 43(2): 220-245, <https://www.radicalphilosophy.com/article/marxism-and-psychoanalysis-an-exchange>
- Kovel, J. 1988. *The Radical Spirit: Essays on Psychoanalysis and Society*. London: Free Association Books.
- Kovel, J. & Craib, I. 1990. Marxism and psychoanalysis – an exchange, *Radical Philosophy* 55, Summer 1990, <https://www.radicalphilosophy.com/article/marxism-and-psychoanalysis-an-exchange>
- Levidow, L. 2018. *Science as Culture, EASST Review*, February: 25-30, <https://easst.net/article/science-as-culture>
- Levidow, L. and Pellizoni, L. 2021. Technoscience: divergent Marxist perspectives, in *The Sage Handbook of Marxism*, edited by Beverley Skeggs, Sara R. Farris, Alberto Toscano. London: Routledge, [https://www.researchgate.net/publication/343501514\\_Technoscience\\_divergent\\_Marxist\\_perspectives](https://www.researchgate.net/publication/343501514_Technoscience_divergent_Marxist_perspectives)
- Marx, Karl. 1990. *Capital: A Critique of Political Economy*. Vol. 1. Translated by Ben Fowkes. New York: Penguin.
- McNeil, M. 2020. ‘Science is social relations’: some reflections, *Free Associations*, this issue.
- Moore, K. 2021. Capitalisms, generative projects, and the New STS, *Science as Culture* 30(1), special Forum, ‘From Radical Science to STS’, forthcoming.
- Pellizzoni, L. and Ylönen, M. 2012. *Neoliberalism and Technoscience: Critical Assessments*. Farnham/Burlington, VT: Ashgate.
- RSJ Collective. 1981. Science, technology, medicine and the socialist movement, *Radical Science Journal* no. 11: 3-70, [http://www.psychanalysis-and-therapy.com/human\\_nature/papers/pap100.html](http://www.psychanalysis-and-therapy.com/human_nature/papers/pap100.html)
- Smith, R. 2020. The quest for a humane metaphysics: the underlying principles of an intellectual life, *Free Associations*, this issue.
- Werskey, G. 2007. The Marxist critique of capitalist science: a history in three movements, *Science as Culture* 16(4): 397–461.
- Young, R.M. 1977. Science is social relations, *Radical Science Journal* 5: 65-129, [http://www.psychanalysis-and-therapy.com/human\\_nature/papers/sisr.html](http://www.psychanalysis-and-therapy.com/human_nature/papers/sisr.html)
- Young, R.M. 1985. Darwinism is social, in D. Kohn, ed., *The Darwinian Heritage*. Princeton and Nova Pacifica, pp. 609-638, [http://www.psychanalysis-and-therapy.com/human\\_nature/papers/paper60.html](http://www.psychanalysis-and-therapy.com/human_nature/papers/paper60.html)

Young, R.M. 1997. Whatever happened to human nature?, Chapter 1 of *Whatever Happened To Human Nature?*, [http://www.psychanalysis-and-therapy.com/human\\_nature/human/chap1.html](http://www.psychanalysis-and-therapy.com/human_nature/human/chap1.html)

Zhao, H. 2019. What is a radical analysis of science?, *Science for the People* 22(1), The Return Of Radical Science, <https://magazine.scienceforthepeople.org/vol22-1/what-is-a-radical-analysis-of-science/>

**Les Levidow** is a Senior Research Fellow in the School of Social Sciences and Global Studies (SSGS), Faculty of Arts and Sciences (FASS), Open University. For three decades there he has done research on dominant technoscientific developments, public controversy and alternatives such as agroecology. He worked with Bob Young on most activities mentioned on the second page of this article. He is co-Editor of the journal *Science as Culture*, successor to the *Radical Science Journal*.