

The Meanings of ‘Worker Control’ in the Knowledge Economy: A Case Study

Tom Keenoy (King's College, London), Len Arthur (UWIC, Cardiff), Peter Anthony (King's College, London) and Russell Smith (UWIC, Cardiff)

Contact Point: holotom@keenoy.fsnet.co.uk

Abstract

We address the two central themes of the conference: the nature and limits of democracy in a work organisation. Contemporary models of employee empowerment tend to focus on managerially initiated practices such as team-working or employee share ownership. In contrast, our research is on a remarkably successful co-operatively owned mine, Tower Colliery in South Wales, founded through an employee buy-out in 1995. Since then Tower has expanded production in an increasingly competitive market, doubled employment, opened up new markets, made a very significant contribution to the local economy and overcome production difficulties which would have shut down a privately owned enterprise. Perhaps most remarkably of all, all this has been achieved through a management process based on direct democracy. After a brief contextualization, the paper explores a number of substantive issues and theoretical debates: management authority and work organisation in the context of worker control; the nature of the employment relationship under worker control; and the complex role of the union in a worker co-operative. The paper also explores some of the theoretical implications of the Tower experience for the contemporary debates about new forms of organisation; empowerment; team-working; and the role of trade unions in the 21st century.

Background

Tower Colliery is the last deep mine in the South Wales coalfield. It is situated to the extreme North of the coalfield, just outside of Hirwaun and just above the watershed of the rivers Neath and Cynon. It is in an area where the hard coal anthracite seams start. It is in one of the most geographically dramatic settings in South Wales being set about 1/3 of the way up a north facing escarpment which rises in less than a mile over 1200 feet in a great glaciated 'u' shaped sweep from the valley floor. In 1994, after over 100 years of coaling it was threatened with closure along with the other few remaining working South Wales deep mines.

In consequence, a campaign was started by the National Union of Mineworkers [NUM] members at Tower to use the new ability to purchase coalmines to organise an employee buyout and establish a workers co-operative. A small group was elected by the workforce who had committed an initial £1000 of their redundancy money to the project to prepare the tender for the mine. The group was known as the TEBO [Tower Employee Buyout] team. In November 1994 the Department of Trade and Industry confirmed that it had accepted the TEBO bid and the mine became the property of the workers from January 1st 1995.

This paper has three main sections. Firstly, it outlines an appropriate analytical framework within which the operation of Tower can be meaningfully evaluated. Secondly, and within the framework it presents the initial findings of research undertaken at the co-operative, evaluating its economic and social performance. Finally, it draws conclusions and explores some of the ambiguities, tensions and creativity that have characterised its operation over the last 8 years.

Co-operative production straddling the divide between employee ownership and control and operating within a framework dominated by capitalist market relations is somewhat predictably in an ambiguous situation: providing both a practical challenge to the status quo while also affirming it. The analysis of data gathered Tower Colliery has found this ambiguity to be a constant theme of the experience of those in the co-operative and has produced theoretical and conceptual enigmas for us as researchers.

From the start the co-operative could only have come into existence once the Conservative Government had introduced legislation to privatise the mining industry. Direct action resistance to the closure organised by the union did not take place and the success of the buyout was aided by the support of the then Secretary of State for Wales, John Redwood, and was announced by Michael Heseltine as head of the DTI at the Conservative Party Conference. But they were only able to provide this support as a result of the effective organisation of the TEBO team and the widespread support they developed throughout South Wales. Within the co-operative a constant issue has been coping with the nature of the employment relationship where the workers are the owners but are also subject to a contract of employment. From the start an attempt was made to cope by insisting that they are ‘employees when they walk through the mine gate’ – a position that has proved difficult to sustain in practice.

Research Methods/Sources

The research has been developed through a multi-method case study. We have been making periodic site visits and observations for 4 years to interview a wide variety of informants at all levels in the organisation. We have also analysed the minutes of all Board and management meetings since 1995 and newspaper reports going back to 1994.

Tower: a Preliminary Assessment

The last UK work that engaged generally with the issues of co-operative production in the UK was Mary Mellor, Janet Hannah and John Stirling (1988). Waddington et al (1998) proposed a synthesis that incorporates this earlier work but this too was based on the thematic framework as used by Mellor *et al.* This approach recognised the ambiguity of co-operative production and sought to assess the co-operative ‘dream’ against the reality of experience. One problem with the Mellor *et al* approach is that their presentation of the ambiguity of co-operative production – [i.e. assessing the co-operative ‘dream’ against the operational ‘reality’] is that the approach taken has a fundamental tension that remains unresolved. This is the fact that the ‘dream’ draws

upon a largely socio-political approach where cooperatives are expected to behave in accordance with *social* norms, rules and obligations derived from socialist political ideals. However, the reality is measured in accordance with a largely orthodox economic approach where cooperatives are judged as being compelled to behave as independent, economically rational actors within the capitalist system. The inevitable consequence of this is degeneration as the co-operative ‘dream’ [considered as an absolute and definitive indicator of success] is necessarily compromised against the contingent economic institutional ‘reality’. In effect, Mellor et al. set up not merely a ‘straw man’ but an ‘impossible dream’. Our view is that any co-operative enterprise must be evaluated in terms of the socio-economic and political contexts within which it is embedded: *praxis* is a situated daily experience not something subject to an abstracted theoretical audit of what constitutes ‘best practice’.

The fact that this tension is present in such analyses is due, at least in part, to the social and the economic approaches taken being polarised methodologically. The social approach views all actors as fully embedded in society and responding in accordance with social norms and values. In contrast, the mainstream economic approach is that such actors are completely unembedded in society and correspondingly behave in the rational individualistic manner of *homo economicus*. The actual reality faced by any co-operative business or other business organisation however, is somewhere between these two extremes. Indeed most organisations can be considered as simultaneously striving [with varying degrees of commitment] to meet both their economic and their social obligations and objectives. However, it is acknowledged that either could have primacy of need over the other and that in capitalist systems the obligations that stem from what Marx ([1894] 1991) called “the dull compunction of economic life” may often take precedence. However, recent developments in Corporate Social Accountability implies an acceptance that firms do need to consider their social consequences albeit often only from a weak public relations perspective.

Consequently, the fostering of an organisational philosophy that incorporates strong business acumen accompanied by a commitment to collectivist and democratic principles and an ethical approach to business practices is not precluded (Waddington et al 1998:344). Indeed, such a philosophy - it will be contended - is what emerges

from the evidence collected from Tower. Of course, this approach is not without tensions and ambiguities.

However, before any relevant data can be considered, there is a need for an analytical framework that considers the behaviour of business organisations from such a socio-economic perspective. Such a perspective, it is suggested, is found in the Human Firm approach of John F Tomer (1999). Tomer's approach focuses upon '...[an] integration of economic analysis with sociological, psychological, managerial, ethical and other non-economic dimensions of firm behaviour' (Tomer 1999:1). In essence, the framework builds upon a theory of the firm that is *socio*-economic in orientation (Granovetter 1985). The significance of such an approach is the extent to which a firm's embeddedness in society is incorporated into the model. Furthermore, this social embeddedness enjoys analytic parity with the market and regulatory framework [the sole influence in the orthodox neo-classical approach] in terms of influencing the firm's behaviour.

This it is argued is better able to evaluate the reality of the operation of a co-operative such as Tower, in its struggle to reconcile its economic imperatives with its democratic and social objectives. The important factor in determining how the human firm responds to such incentives and to what degree it is able to achieve both its economic and social objectives, is what Tomer terms "organisational capital". This is defined as '...the productive capacity that is embodied in an organisation's people relationships' (Tomer 1999:196). Such capital utilises resources in order to bring about lasting improvements in organisational relationships, worker well-being, social performance and productivity. Further, such organisational capital is categorised as an important type of *social capital* (Coleman 1988, 1990; Fukuyama 1995; Pennar 1997 *inter alia*). Perhaps the most useful working definition of this concept is that provided by Paul S Adler and Seok Woo Kwan (2002:23) as:

'...the goodwill available to individuals or groups. Its source lies in the structure and content of the actor's social relations. Its effects flow from the information, influence and solidarity it makes available to the actor.'

Within this definition, organisational capital [as a sub-category of social capital] allows the development of social relationships that serve as a resource enabling actors [both within and without the firm] to achieve their needs. Moreover, organisational capital is likely to have been created intentionally by people who view it as an investment from which they hope to realise economic, political and social gains. Therefore, it reflects the extent and manner in which the firm's actors have become socially related to each other in new ways and to the organisation as a whole, as well as the extent to which the firm has become more self-consciously connected to the wider society

This emphasis on organisational capital as a source of social capital is important in reinforcing the fact that economic production processes are fundamentally social in nature. Moreover, it further emphasises that all businesses organisations – despite the asocial nostrums of the Chicago School and, more generally, of orthodox economic theory – are at least partially embedded in society. Tomer concludes his argument by suggesting that if the human firm has invested in appropriate levels of organisational capital [i.e. to the degree where its internal organisational capabilities are as fully developed as possible in terms of it being able to fully satisfy its economic and social objectives] then it has become the “ideal” or what he calls the “Z-firm” (Tomer 1999:197).

A Z-firm is a form of socio-economic firm that has developed its organisational capital to the extent that it is able to achieve its highest human potential. The organisational capital development and investment should therefore ensure that the human firm has a capability simultaneously to be:

- Rational in its organisational decision making
- Socially responsible in its behaviour
- Entrepreneurial
- A learning organisation

“[The Z-firm] is not only outstanding in responding to competitive challenges ... but it has also found fully responsible ways to deal with its external and internal stakeholders and society as a whole” (Tomer 1999: 9)

Therefore, the pure Z-firm is an ideal towards which actual socio-economic firms strive albeit with varying degrees of success. Indeed few if any firms even get close to this ideal. This is due to either insufficient investment in the necessary organisational capital or discouragement from the contingent external environment or a combination of both. Notwithstanding this, the Z-firm concept does constitute a comparator against which the actual performance of socio-economic firms [such as Tower] can be contextually validated.

Consequently, this human firm approach will be utilised in the remainder of this paper to consider the case of Tower Colliery. It is intended to use the framework in order to evaluate the extent to which it has developed the necessary organisational and social capital for its own survival and the regeneration of the local economy in Hirwaun. [i.e. how close is Tower to being an ideal Z-firm?]

To facilitate this evaluation the remainder of the paper examines the data collected from Tower under two broad themes: economic performance and social performance with the successes, tensions and ambiguities present also discussed within these subsections. The final section of the paper draws conclusions from these evaluations to consider whether Tower has moved any closer towards being a “Z-firm” since the employees’ take-over in 1995.

1. Economic Performance

(a) Employment.

Like many of the co-operatives set up in the 1980’s in the UK, Tower colliery was established primarily as an attempt to keep the mine open and to preserve employment. In this aim, it has been successful. The initial workforce of 230 has expanded to 300 co-operative members over a period of 6 years. The same period saw

a rapid decline in mining employment in the UK with production of deepmine coal falling from 35m tonnes in 1995 to 18m tonnes in 2002 (www.ukcoal.com) Against this trend, Tower's production in 1995 was 420k tonnes; by 2002 this had *increased* by over 50% to 670k tonnes – a level that is regarded as something of a ceiling. During this period, a small number of mining apprentices have been recruited, indicating an employment policy that is long term and contributing to the industry beyond the immediate workplace. At the periphery the mine has maintained and generated additional employment, directly in the service industries such as engineering, railways and tip maintenance, but also through its diversification strategy. This has involved the purchase of a coal delivery and bagging facility, aiding a manufacturer of solid fuel boilers and the establishment of an electricity generating plant using methane gas at the pit head.

Tower also has strong links with local authorities in the Valleys, supplying coal direct to more than 100 schools and public buildings via a central contract with a consortium of local authorities. Since 1997, Tower has been Rhondda-Cynon-Taff's nominated supplier of solid fuel – a two-year contract with an estimated value of £460k. (Cato 2001)

Since we dealing with just one mine, it is clearly not possible to generalise to the whole Welsh economy in terms of 'widespread' employment creation. However, within the Hirwaun and Aberdare area, the impact is very significant. The mine has lasted for almost 8 years, so the employment created has been long term, and if the lessons of why Tower has survived can be applied elsewhere the implications for employment are clear.

Mining remains a male dominated industry in terms of employment and Tower is in an area where a large-scale loss of full-time male jobs has occurred. Tower therefore appears to offer some degree of amelioration to this trend in that it has actually expanded the numbers of full-time male jobs during a period in which such jobs have been shrinking locally [between 1981 and 2001 numbers of full-time male jobs declined by 13.75%, (Cato 2001)].

The few women employed at Tower, mainly in the offices and in the canteen are also full members of the co-operative and benefit equally from the flat rate pay increases. Tower has the full range of job categories in a working deep mine. There is an extensive use of ICT in controlling and monitoring the mining process. The IT control room was staffed on a number of shifts by ex-face workers who had been re-trained for this 'white collar' work.

Furthermore, over the period since the formation of the co-operative, Tower has been able to achieve employment advantages better than under British Coal [the previous employer] and in comparison with 'traditional' privatised production. The sick pay scheme that provides for 6 months on full pay, serves as an indicative example.

Tower average wage rates for face workers are among the highest in the UK currently running at about £24k per year. All employees receive flat rate increases, although this has been challenged with a rise in overtime payments to face workers during the period of the pay and dividend freeze. The 24% not in the co-operative include contractors working on the tip, driving new headings and those in the bagging plant. They are members of the NUM and represented by the lodge and their membership of the co-operative is the subject of ongoing debate.

(b) Finance and Marketing

Tower is dependent on two main customers for about 60% of its output, Aberthawe power station taking 45% and Corus, a steel-making company, 15%. Dependency on the steel contract has been run down over the last two years. During the period of the co-operative, marketing has been one of the Tower successes. The marketing manager was previously a lodge secretary and had little experience in this field before the co-operative. However, Tower has been able to break through the domination of the coal factors [i.e. marketing organisations which, previously, operated as middlemen between the primary producer and the market] and sell directly to the market, securing the contracts for concessionary coal and heating for a consortium of local authorities. Coal is also sold to France, Ireland and Italy for domestic use. Marketing directly is something that British Coal failed or was not able to do, the nationalised industries

being hemmed in by coal factors dominated by the old coal owners. In part, Tower having a 'good product' in high quality anthracite has helped this.

Furthermore, as part of the diversification strategy an outreach wing [Tower Energy Services] has been established. Its principal task is the creation of an innovative marketing strategy. Tower has also established a joint venture with a specialist heating engineering company Lionheart Heating Services. Through the joint venture Tower is able to offer a "total energy package" of fuel supply, heating equipment, installation and maintenance. This has ensured establishment in new markets and increased value-added as well as creating loyalty in the local populace. (Cato 2001)

Secondly, in relation to finance Tower has been able to reduce its dependency on external sources. The original £2m loan from Barclays to purchase the mine was not fully required and the part used was repaid within the first year of operation. The TEBO paid the state £11.5m for the purchase of the colliery. This sum of money was made available as a form of 'hire purchase' agreement with £2m having to be paid each year. Tower has been able to achieve this with a little bit of 'technical' support from the Labour Government. This support takes the form of short-term subsidies subject to EU approval '...designed to establish a viable future [for deep mined coal] in a competitive energy market' (HM Treasury 2001: 142). The value of such subsidies to Tower was c£3.3m in 2002 and c£3.8m [subject to approval] for 2003.

The financial and managing director of Tower is one of the few people from outside of the mining industry. He left an accounting partnership and bought an £8k member's share in the co-operative on the same basis as all the other employees. His professional expertise and advice have made a significant contribution. One bit of advice proved to very useful, in that Tower insured against loss of production when insurance companies were unaware of the full risks straight after privatisation. Payments from this insurance helped see them through the periods of crisis when coaling was not possible, keeping employees on full pay. Tower is now establishing its own insurance fund. Ownership succession is also becoming a problem with the single Tower share now being worth about £32k, which could be very expensive if

employees decide to leave. Tower is not obliged to buy the share out immediately, but it has now established a trust fund to ease the process of purchase when required.

Although Tower is very vulnerable to the large electricity contract, it has been able to take some innovative steps to reduce the contingent influence of both market and capital, easing the pressures toward self-exploitation over the 8 years of existence. However, if Tower is to have a life beyond the reserves in the current seams it is working, which are already 5 miles beyond the shaft, it will have to finance the opening of new seams in the medium term. This option would require the sinking of a new shaft – an expensive option that would require borrowing a substantial amount from external sources.

(c) Capital Anchoring.

The research undertaken has also explored the notion of worker buyouts, such as that at Tower, as one possibility of a localising response to the pressures of globalisation through a process of ‘capital anchoring’. This relates to establishing ways of making assets and added value more secure by spreading ownership and thus less vulnerable to hostile take-over or, worse, capital flight. [A fuller discussion of this issue is developed elsewhere], (Smith R *et al.* 2001)

In relation to Tower, it is clear that co-operative ownership has enabled the colliery to survive in a hostile market environment. State political and indirect financial support was critical in this process, but once formed it was the action of the co-operative itself that ensured success. Our evidence so far indicates that the co-operative arrangement has gone beyond ensuring survival [in circumstances that would have shut other privately owned deep mines]. At Tower, rates of investment and re-investment are higher when compared with comparable “traditional” private limited company mines and there is a higher rate of distribution to employees and the local community. Co-operative ownership also means it is more difficult for third parties to take over and asset strip a colliery such as Tower, as selling shares could equate to selling work.

However, it is acknowledged that co-operative ownership *per se* failed to prevent a number of small, privatised bus companies being sold by their members to a larger

public limited company, Stagecoach. Consequently, while co-operative ownership may be a necessary condition to ensure a degree of capital anchoring, it is not a sufficient one. Therefore, it may be desirable to look at some other ways – perhaps through a trust arrangement linked with single share ownership - to further bolster the inalienability of the Tower capital.

2. Social Performance

(a) External environmental contribution.

Of course, coal never has been considered a 'green' product. However, Tower coal is less of a pollutant than other types of coal are as it has a low ash and sulphur content and could be deemed, in terms of coal, relatively non-polluting. Nonetheless, Tower does contribute to pollution and global warming through its product and its production processes.

However, the co-operative board is aware of environmental issues and is attempting to address these problems head on. For instance methane gas [or firedamp] has long been an undesirable by-product of coal mining and has caused many of the worst mining disasters. However, the gas itself while dangerous for the mining process also has commercial possibilities due to it being indistinguishable in quality from natural gas. To this end, the colliery is involved in a world-leading project that, through negotiations and agreement with a local generating company, has led to turbines being installed at the pit. These use the waste methane gas as the source of power and currently Tower generates 6.5MW of electricity annually, with a generating efficiency of 95%. This generation allows Tower to be self-sufficient in electricity and is also environmentally beneficial as methane is one of the gases that contributes to the greenhouse effect. The UK Government's Department of Trade and Industry [DTI] considers the project to demonstrate 'best practice' because:

‘Operating mines to best practice guidelines for CBM [coalbed methane] ensures maximising the safety of miners working at the coalface, minimising influence on the surrounding environment, reducing pollution costs and

enabling self-sufficiency in terms of energy requirements' [DTI 2000: no page nos.]

Beyond this particular project, Tower has demonstrated a strong commitment to environmental standards and this too has been recognised by government. The coaltip – where waste ore is stored – is treated with organic material to ensure successful later vegetation, dust and noise nuisance are kept to a minimum and water discharges are filtered and carefully monitored. Tower is also, via its Energy Services Division, developing expertise in energy efficiency. It offers free advice on best practice to its customers, allowing them maximum efficiency from their coal use with minimum environmental impact.

Tower management and staff are also aware of the threat to their industry and livelihoods by the Kyoto Accord's carbon dioxide [CO₂] targets. Consequently, Tower management is keeping up to date with developments in CO₂ capture technologies.

To date, Tower has not yet embraced social auditing and still uses traditional accounting practices. This is, in part, because of cost pressures, internal budgeting and the identification of acceptable spending. All of these are live issues within Tower and are subject to intensive and ongoing debate.

(b) External social contribution

The co-operative is also active in sponsoring local projects. It is a sponsor of Mountain Ash Rugby Club, the Aberdare Motor Cycle road race, the local children's hospice and the South Wales based Opera Box Opera Company. Tower promotes its role as a co-operative and this, combined with the many years of NUM activist experience of the co-operative's leaders, results in constant demands to provide advice and support to community groups, community enterprise, credit unions, business, National Assembly for Wales [NAFW] and educational bodies. During a typical year, Tower receives dozens of local, national [UK] and international visitors.

Indeed, as Cato (2001) discovered through interviews with local workers in the region, Tower's role in its local environment can be considered iconic as well as inspirational. This is due to it being one of the few economic and social successes in an area where one of the main obstacles to regeneration is a chronic lack of confidence.

This creative use of control over the company's activities, the extensive if local nature of sponsorship and Tower's support for 'alternative' groups and activities are somewhat different to what would be expected of a "normal" private company. The source of these activities is bound up with the history of the co-operative and of the founders, but also with being a co-operative and discovering that creative re-cycling makes economic sense.

(c) Organisation of work.

Work organisation at Tower is very traditional and varies little from how the mine was organised under British Coal. This is hardly surprising as deep mining operates under an extensive statutory regime with layers of mine management being required. The mine is semi-automated and there is an element of technological determinism influencing work organisation. However, this area is just beginning to come under examination through the fieldwork. Initial preliminary findings indicate that while there has been a fundamental change in ownership, the tangible effect of this on daily work-relations between workers and managers are less visible. Everything *has* changed but as one underground shift-captain observed "We're all supposed to be on the same side now, but management is still management." In part, what underlies this comment is the fact that operational work organisation has not and cannot change to any great extent. There is, however, concern to encourage workers to 'progress'. The example of the control room has been mentioned above and general business training had been available in the past. More recently, Tower set up a training scheme for potential Board members and it has even suggested that facilities should be made available to allow workers to progress into the more 'professional' jobs, such as financial management. It may also be wrong to see existing work tasks as somehow unrewarding. Given the intrinsic dangers of mining, virtually all roles carry a significant responsibility for safety and there are in fact very few unskilled jobs in

modern mining. Less than 50% of the workforce are face workers, itself a work requiring considerable skill, knowledge and understanding.

The level of discretion that this engenders within the more 'owned' environment of Tower has enabled groups of workers to develop their own domains within the workplace, [such as the security officers, the coal tip controller and the workers who operate the coal washery]. This point can be made about more traditional work places, but within the democratic context of Tower, they operate with greater autonomy and appear to provide a platform for political and democratic participation. For example, within Tower – even when it was managed by British Coal – coalface workers had always elected their own 'shift captains' to liaise with underground management. [They were often, but not always, lodge committee members]. One of the issues being explored further is the extent to which the co-operative has led to an enhanced role for these workers. Under the previous regime, the shift captains played an important representative role; and this continues. However, our impression is that, with worker-ownership relations between the shift-captains and operational management have softened and – although a 'them-us' attitude continues to prevail – there is far greater willingness to accommodate each other than previously. Differential interests are more muted; control issues are now more diffuse while mutual interests have become enhanced. Over 150 years of institutionalised mistrust does not evaporate overnight.

(d) The management structure and organisation of Tower Colliery

The surface appearances of authority-control structures at Tower are more familiar than might be expected. Company law prescribes the remit and responsibilities of the Board; more exceptionally, the coal industry is almost unique in British industry in the legal requirement that its managers must possess specified qualifications before being licensed to practice operational management. Such constraints mean that, *prima facie*, little appears to have changed. There are new 'bosses' but colliery management, work organisation, work roles and operational practices are virtually identical to the situation under British Coal. Except that, well, everything *is* different. Sociologically, it is possible to identify four mutually implicated and sometimes mutually competing sources of effective authority. Tower is a vibrant place.

Charismatic Authority. The driving force behind the buyout, Mr. Tyrone O'Sullivan, presently Chairman of the Board and previously the Personnel Officer and, before that, the NUM Lodge Chairman seems possessed of that illusive quality described by Weber as 'charisma'. He is an exceptional speaker and negotiator and people follow him for who he is. While sometimes the subject of aggressive criticism, it seems undoubted that his remarkable leadership skills and key historical role has secured him a now institutionalized role as the figurehead of Tower. Although now less central to daily operations, he remains a powerful source of political direction and his influence stretches considerably beyond his formal role. That said, his position by no means goes unquestioned.

Employee Authority. Ownership of Tower is vested in the employees and, as shareholders, they elect members of the main Board who have to stand for re-election on a two year rotating cycle. Elections in 1999 and 2001 resulted in defeat for two of the founding Board members indicating not only the commitment to the authority of 'primitive democracy' (Webb B & Webb S, 1897) but also that no member of the Board is safe. According to some, including Tyrone O'Sullivan, this is 'how it should be'. Also the Directors, who are all working directors, have to account for their actions at the company AGM which have never been innocuous affairs. While it is dangerous to generalise, it seems that a continual tension exists between the politicised vision of the majority [which includes nearly all the Board members] and a significant minority among the shareholders who privilege a more instrumental approach to objects of cooperative enterprise.

Legal Authority. As noted above, unqualified formal management authority is legally vested in the Colliery Manager [who is not a Board member] and his team of mining experts. The mine cannot operate unless he says so and, for the most part, this is not an issue because his authority – which derives as much from his technical knowledge as his legal clout - is uncontested. Insofar as other managers represent his views, they too enjoy strong 'line authority' although this is not unconditional. For example, underground face workers are organised into 'shifts' who are represented to management by elected 'shift captains' who, on almost a daily basis, discuss and agree work operations and also function as the leader of what, in contemporary management

speak, would be called 'a self-managing team'. Nonetheless, this legal context is one persuasive explanation for the apparently privileged position that surrounds some managerial functions. It also begins to suggest some entirely defensible reasons for the apparent distance between the ideals of democracy and the realities of managing a complex and dangerous industrial production process.

Union Authority. Everyone working at Tower is a member of a trade union, with the majority in the NUM, [including the 15% who are not shareholders]. Initially, it is probably accurate to say that the local NUM lodge, as the instigator and organiser of the cooperative, was the *only* authority. In this respect, we can say the cooperative was founded on the ideals of politicised unionism – although whether we should dub it socialist in deference to those who continue to promote the selfsame ideals or whether, in deference to Morrison's 'middle-class romantics', we should, in pursuit of academic analysis, label it syndicalist remains problematic. While they are still key actors, the unions' authority appears to be somewhat marginalized. Institutionally, they continue to both signify and directly represent the publicly proclaimed [and deeply ambiguous] distinction which is drawn between the 'member-as-employee' and the 'member-as-shareholder'. There are annual negotiations over terms and conditions but, while all enjoy high wages and excellent welfare benefits, bargaining appears to have lost its former edge. The presence of unions clarifies the continuing sectional conflicts over distribution - though few can now draw the lines with any clarity or genuine conviction.

More generally, the contradictions that emerge in the 'management' of Tower are immanent and continuous. Tower, rescued from closure to ensure the survival of a culture that had been formed by mining, continues to resonate deeply with what might be called the 'anarcho-socialist' tradition in which the achievement of nationalisation was a poor substitute for worker control. Unionised workers now own the enterprise but with what contrived deference South Wales miners can muster, they diligently abide by managerial *dictat*.

Managers have a legal duty to serve the interest of the shareholders and therefore exert authority over the employees, who elect the managers. Also the once virtually unchallenged cultural authority of the NUM is now compromised - are the officials

and their members shareholders or employees? [On one occasion, perhaps as no more than a conditioned historical response, some workers refused 'a legitimate order' and walked off the job, an act that precipitated a mildly embarrassing 24-hour strike]. Tower has to survive the severe realities of competition in an economy that has turned against coal as a major source of energy. It is therefore a heavily capitalised, mechanised colliery with all the array of strategic planning, development, marketing, supply, budgetary control, target setting and IT functions. Tower is thus a very modern mine in which all submit to the full burden of bureaucratic and technical control. Possible criticism of the Tower experiment can be expected to emerge from the Marxist or Blaunerian versions of the theory of alienation but, in this case, they are aimed at a worker co-operative the origins of which were expected to overcome that very condition.

Finally, this area should be seen as a dynamic. Over the 8 years of operating as a co-operative, Tower has experienced production problems that probably would have shut the pit in the days of British Coal. The production crises faced served to re-create the circumstances of the fight to save and buy the pit and the whole workforce come together to solve the problem. Most dramatically, three years ago, the face collapsed and buried the cutting machinery. Essentially the whole mine revolves around this piece of equipment [which would have cost about £1m to replace]. Methods were devised to dig the machinery out, repair it and re-start coaling. More recently, methane gas under pressure came into the face from old workings shutting the face for over 3 months. Four miles of domestic plastic waste pipe were secretly purchased from building stockists around the country [secrecy was necessary to stop prices being raised against them] to help channel the gas out. Tower managed to start coaling again just before the coal stocks disappeared and customers went elsewhere. Although the changed work experience only lasted during the course of these events, they were collectively owned experiences that were often referred to in our discussions and interviews. Individuals were clearly aware that Tower had overcome problems that would have defeated British Coal.

There does seem to be some evidence – including the continuation of collective bargaining - that some important changes have occurred due to a combination of

experience and ownership, but this needs to be more thoroughly understood through further fieldwork.

(e). Participation.

Not surprisingly, participation at Tower is a complex, ongoing and an ever-present issue, where ambiguity often comes to the fore. Provisionally there are a number of important aspects to explore.

Firstly, three-quarters of the workers are full members of the co-operative with an £8k stake and a single vote. Consequently, one of the prominent themes has been the need to constantly re-negotiate and try to define the relationship between the employment contract and being a shareholder. For example, all employees are union members [most are NUM members; the other two unions are National Association of Colliery Overseers, Deputies and Shotfirers [NACODS] and British Association of Colliery Managers [BACM]]. The question: ‘are we tackling this issue as employees or shareholders?’ prefaces many debates. It permeates daily operations and informs the way power is exercised in the working relationships between managers and the workforce. Indeed, even those managers backed by statutory legal authority show some uncertainty about their role. These tensions were at the heart of a widely publicised 48-hour strike. It would appear from this that there is a new and more complex employment relationship that currently lacks a conceptual definition.

Secondly, many features of traditional participative management practice – ‘open doors’ and extensive collective bargaining – exist and continue to operate. Respondents and other reports, such as one produced by the Advisory, Conciliatory and Arbitration Service [ACAS], have expressed a level of disenchantment and cynicism with these practices. However, the fieldwork has found, through interviews and observation, that confident and often combative debate – with considerable humour – is a persistent feature of working life at Tower, where doors are often so open, they don’t seem to exist. This is reflected in the degree of ownership and control that workers appear to exercise within their work space – we spent a memorable afternoon in the security officers’ bungalow and being driven in an old Landrover round the coaltip by the ‘green’ officer.

Thirdly, as shareholders, there is access to the processes of company democracy and control including the AGM and open canteen meetings. Again, considerable scepticism is voiced about these opportunities and the lack of information, but again practice often defied these statements. One aspect of the strike settlement was a special shareholders meeting to discuss the general running of Tower and, more recently, one of the original members of the TEBO team was voted off the Board and replaced by a non-establishment member. Two of the six board members are elected every year and these elections are a focus of considerable debate reflecting the considerable ‘political’ context that characterises relationships within the co-operative.

Working relationships at Tower have clear differences from those in workplaces that are more traditional and these differences are sustained by the nature of the ownership, control and democratic structures. They survive despite employment size, traditional employment relationships and the colliery operating and surviving within a highly competitive industry. Expectations about the future, the demands of production, survival and the distribution of revenues constantly create issues fuelling debates throughout the co-operative and not just at Board level. Despite the continuing centrality of the founders within Tower – a group which Mellor *et al.* might regard as a political clique serving to exclude less politically able or aware members – this does not seem to have prevented the creation of a participative political environment in which democracy can and does flourish.

(f) Political

So far within Tower, a number of trends and tensions have been identified concerning the operation of the mine, as a worker owned co-operative. Of course, in all the analyses presented so far, ambiguity is present and alternative trends exist. However, and importantly, these tensions are the subject of internal debate. Before describing these it is also important to place Tower within its own historical and political context, which does indeed provide a direct and ongoing link to wider debates.

As noted in the introduction, political support from the [Conservative] Government of the day was essential for allowing the TEBO bid to go forward. In addition to this, the TEBO team gathered huge sympathy amongst the trade unions and population of South Wales. It was seen – contrary to the political support that was already there – as a defiant challenge to pit closures and a final defence of the coalfield ravaged by the same Conservative Government. This general political support has continued under Labour and has been re-enforced by the creation of the NafW.

During the last 10 years of British Coal ownership of Tower, many NUM activists appear to have been transferred to the colliery joining an already very active NUM lodge. Both the Chair, Glyn Roberts and the Secretary, Tyrone O’Sullivan share a long history of rank and file and political activism throughout South Wales and were proud to be able to send supporters and the Tower NUM banner to demonstrations throughout the area, the west and the west country. The lodge was active in all the strikes and, in the 1984-5 national dispute, many of its members were involved in direct action beyond striking, such as the occupation of the coal cranes at Port Talbot Docks.

Many of the activists were supporters and workers for the TEBO team and became founder directors of the Tower Co-operative. Tyrone O’Sullivan became a board member and was briefly the personnel officer; he is now Chair of the Board and ‘propagandist’ for the co-operative. Glyn Roberts remained NUM Chair for three years and then became the Personnel Officer. As many activists had been transferred to Tower, there was a considerable pool of ex-lodge officials and committee activists who were prepared to stand for the positions when they became vacant. This has resulted in an NUM leadership that is composed of members with a variety of strongly held views about trade unionism and mine management resulting in considerable debate about the tension between being employees and shareholders and the role of a trade union in a co-operative. These debates are very active and ongoing, and surface around all democratic opportunities.

Beyond the founders and trade union activists the majority of employees are less directly involved in daily decision-making, though not necessarily disinterested in the debates. More fieldwork is required in this area, but from interviews, observations and

other surveys undertaken, many employees have indicated some disenchantment with the way the co-operative is run. This disenchantment is particularly related to a claimed lack of information, an alleged lack of contact with the Board and a continuation of British Coal management attitudes. It appears that a section of workers still do see themselves as employees first and foremost and that the union is there to represent them as in the past. Yet as the debates that surrounded the strike indicate, when action results in this approach being articulated, collectively thinking through the complexity of striking against yourself could not be avoided.

3. Conclusions: Tower Colliery a Human Firm?

Since the take-over of Tower by the workers there appears substantial evidence from the data, that organisational capital and other forms of social capital have been created through organising ownership co-operatively. In the preceding discussion, there are clearly identifiable instances of Tower performing more than satisfactorily in terms of both its economic and social performance. Moreover, in its first eight years of operation it has performed significantly better in both than under the *ancien regime* of British Coal.

It is further evident that due to Tower worker share ownership and the internal democratic structures there is an organisational context for a high degree of internal debate. Such debate impinges even on the daily relationships between managers and employees, working relations and control over work processes. These are issues that are most unlikely to become the subject of debate within workplaces with a 'top down' ownership and management pattern.

Notwithstanding this, the question of whether Tower has invested in sufficient levels of organisational and social capital to fully satisfy its economic and social objectives is much more ambiguous and contentious. It is evident, despite eight years of operation as a co-operative that tensions persist in the organisational structure and relationships at Tower. This is despite the fact that lasting improvements have been

made in the wider socio-economic *milieu* – including substantial improvements in organisational relationships, workplace democracy and control, worker well being, social performance and productivity.

By way of illustration, the research has identified three generic issues that articulate the tensions experienced within Tower.

Firstly, there is ‘revenue tension’. Tower has survived and has increased the surplus available for distribution. This has been achieved, during a period of stable coal prices, through an absolute growth in output. As mentioned above, output has risen from 380k tonnes per year in 1996, to 670k tonnes per year in 2002. With the current level of investment, it is technically very difficult to go beyond the plateau that was reached about three years ago. The increase in revenue experienced during that period enabled wages, benefits and dividends to rise keeping at bay the issue of absolute distributional shares. Since that time and especially during the period where pay increases and dividends were frozen – this is not currently the situation – distributional and cost control issues were debated beyond the confines of the Board meetings. These remain a major source of tension and another potential tension in the medium term concerns the decision about the sinking of a new shaft.

Secondly, the age-old structural tension between ‘bureaucracy and democracy’, managing the organisational tension from above and from below is the source of a range of debates. Both of these established patterns of social relations have started to come under pressure and a tension has developed between the established bureaucratic and technical systems and the inevitable democratic pressures from the power that the employees have, due to ownership. Despite the outward appearance of a strict top down hierarchy of almost machine like appearance, it is the fact that coal mining requires constant shared decision-making at all levels.

Modern mining may look like a production line but close up considerable variation takes place. This requires the winning over of the active participation of workers who are the possessors of specialised skills and, consequently, have considerable levels of work discretion. So long as the mine remains open these skills are in demand and are not easily substituted. This is enhanced in the situation of the co-operative as Tower is

effectively the only deep mine in South Wales. Being a co-operative it is much more reliant on the special category of members. Added to these circumstances is the new dimension of the employees also being the owners.

The problems created by the revenue tension described above combined with this contradiction between the bureaucratic/technical system and the democratic processes serve to enhance the sharpness of the debates. If revenue is not expanding, the distribution of what is available becomes a fraught issue underlying all the important decisions. For example, the technical issue of the use of budgets and targets becomes an issue of mine managers' spending not being controlled sufficiently. This can develop into an issue of expectation of those elected to manage to act on their ability to control managers as their employer. At another level, the increase in overtime for face workers over the last 18 months has increased pay differentials. These were already under pressure as a result of the flat rate pay increases awarded since the start of the co-operative.

Indeed, it is perhaps surprising that these tensions do not create more problems than they appear to. One of main reasons why this does not happen is the very active debate that takes place across a wide range of issues and in a just as wide range of circumstances. Most of this would be considered 'informal' as being beyond what is required by production requirements and the line between employee and owner. These debates, although they can be seen as tangential to the purpose in hand, time wasting and frustrating, are in essence the social process that 'manages' the tension between the bureaucratic/technical systems and the reality of the democracy. It may be helpful in the long run to legitimise these debates, to accept that maintaining the hard line between employee and owner is not possible and that the level of discussion is an essential feature of a co-operative. It will make managing the work even more political [and probably more difficult] and will require a different approach to managing than that which is required by the traditional mining practices. All this, of course, would require additional forms of organisational and/or social capital.

The third tension can be described as the 'strategic tension' between prioritising the objective of business success as opposed to co-operative and social objectives. The financial and technical trajectory and supporting culture is based upon the desire for

Tower to survive as a successful business. Tower was established to save jobs, the mine and the way of life it sustained, and in some part to provide a broad example to others. These wider social objectives can only be achieved if the mine survives economically. The combination of these two ideas has tended to give a priority to the financial and technical strategic arguments. In part, it is one reason for staying with the structure and working practices that existed before the buyout and with the attempt to sustain the difference between owner and employee. This strategy has and continues to be very successful in terms of employment, production and general profitability. It has also been successful in achieving an improving market position.

Nonetheless, this strategic trajectory has its own internal tensions. Its very success places an emphasis on those who provide the technical knowledge that sustains the strategy i.e. the professional mine managers and the accounting and marketing roles. Their expertise and success can be used to justify them continuing to have a leading role within the Board. However, this can only be sustained through the democratic process and, from time to time, this may place an emphasis on a wider basis of representation. So far, the co-operative has managed to maintain a reasonable balance of professional and lay representatives. As noted above, the Board are seeking to address this kind of issue by providing training for potential Board members.

Thus far from our discussions, it is clear that the social and democratic strategy exists alongside the successful financial and business strategy with both views often being held at the same time. The baseline objective is to maintain and develop the co-operative as a business. Hence, the Board are exploring both how to sustain the coal production activity as well as looking for opportunities to diversify business activities [e.g. further developing the waste methane resource as an alternative source of energy generation].

It is suggested from the research and analysis at Tower that the experience is still more ambiguous than definitive. Fieldwork to date indicates that Tower has moved towards the “ideal” Z-firm form. However, it is not a foregone conclusion that this trajectory will continue. The whole picture is complicated by the dynamics of the contingent environment. Tomer (1999:197) states that the Z-firm is an organisation

that has reached ‘...its highest potential with respect to competitiveness and responsibility.’ Tower has clearly achieved some of this potential, the problem is that competitiveness and responsibility are themselves dynamic concepts, and hence prone to creating tensions. This is particularly the case when periods of commensality break down between these concepts and competition or even predation emerges. There is a consciousness of these tensions within Tower and creative efforts are and have been made to ensure that they are reconciled.

To summarise, it appears that, to date, the Tower co-operators have managed to create considerable new organisational capital, maintain an 'alternative view' and develop a distinctive idea about the role and status of 'employee-owners'. It is contended that a more open perspective on the future and the activities of these workers may mean that there is something new to be discovered, within the context of the Human Firm approach. Tower is a working example that does provide an inspiration to others in South Wales and, increasingly, internationally. At this time that inspiration is more about the [heroic] period of defiance and the take-over than the more complex picture of the co-operative over its 8 years of existence. The evidence so far would suggest that this experience also contains some useful pointers to the practice of emancipation. In this sense, we would refer to Crossley's (1999) concept of ‘working utopias’. This is where initial defensive resistance can lead to a form of emancipated social and economic space. This facilitates a process whereby – in this case – employees/shareholders ‘work at’ a different cultural and political identity. Conjointly, they expand their space by challenging the contextual contingent powers through the creation of organisational and social capital that ensures the maintenance of the emancipated space.

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