Safety, learning and masculinity in the Australian coal mines

In this paper we are exploring gender and workplace learning, in particular learning safety. The empirical base is a qualitative study of some Australian coal mining companies implementing new practices in workplace safety. The starting point for the project was the continuing practical problem of translating training in safe work practices into workplace practice in coal mining workplaces. The employers have more and more during the last 10 years stressed the importance of safety and these kinds of messages are communicated to the employees, the mining workers: Production should not come on the price of injuries, Safety first, production second, A safe production system is a productive and efficient production and It is stupid to be macho. The companies have intensified the training in safety, but the response and the results are not what they want. The incidence of accident and injury, compensation claims, and lost time, remain unacceptably high for mine workers in Australian coal mines. Accident reports and investigations reveal miners frequently take risks that seem inexplicable and often fail to follow even the most basic instructions (Sauer, 1998). These fundamental contradictions between what workplace trainers are teaching, and what workers are learning, led us to explore the relationship between workplace culture, identities and learning.

The research began with a pre-study, a textual analysis of coal miners’ yarns carried out by Somerville & Bernoth (2001). They found that the yarns portrayed a workplace culture based on risk-taking, competitiveness, and also an absence of valuing workers bodies and physical safety. It was also very clear picture of a workplace culture based on a specific and extreme form of masculinity, ‘hypermasculinity’. Attitudes and behaviours related to this kind of masculinization often create problems in learning, implementing and practising safe work practices (Eveline, 2001; Wicks, 2002; Wadick, 2005). In response to the textual analysis the CEO of the coal mining organization, in which the
stories were produced, invited a qualitative investigation into changing masculinities and attitudes to safety. He suggested that although the workplace cultures had changed since the miners’ yarns were published in 1996, masculinity continued to be a problem with learning and practising safety.

In this paper we discuss the implementation of safe working practices from a gender perspective. Theories of gender construction are used to contribute to a better understanding of the consequences, obstacles and problems of implementing safe working practices. They also contribute to an understanding of the links between gender and workplace cultures.

**The empirical material**
The empirical material was collected during October and November 2001 and has two main parts. The first was carried out by Somerville and focuses on mining workers. It includes ethnographic interviews with twenty mine workers from a number of different workplace sites in a coal mining organisation in New South Wales. The mine workers interviewed were highly experienced with 15 to 33 years of experience in underground mining. They represented a range of current roles in the mine, but all began as underground mine workers with about half entering as tradesmen and half as miners.

The second part was done by Abrahamsson and focuses on safety and rescue trainers. It includes interviews with seven trainers at one Mines Rescue Station in NSW and three safety training coordinators at two mine sites in NSW. The second part also includes participatory observations during one week at two Mining Safety Training Courses at the Mines Rescue Station. The seven trainers interviewed were also highly experienced in mine work and in training. Experience of mining work is a prerequisite for working in the training situation. All of the trainers had worked as underground mine workers with five to thirty years experience at the coalface as machine operators prior to their training experience. Their experience in training varied from three to twenty years.

**“In the pit” – an extreme working environment**
The coal mining industry is characterised by dangerous workplaces with a high incidence of accident and chronic injury. There have been two or three accidents or big disasters every decennium since the mining industry in Australia started (Harris, 2001). The first and most obvious comment made unsolicited by most interviewed mining workers was that the mine is an inherently dangerous place. They pointed out that the mine is a hostile and unnatural environment and that we still kill people at a rather horrible rate. The mine is portrayed as an uncaring and unpredictable place where just turning up for work automatically puts you in danger; it’s just an accident waiting to happen. The two main are high emissions of explosive, lethal and poisonous gases and risk of fall of roof.

In contrast to the surprise factor of accidents, the daily grind of the conditions of mine work was a common story in the interviews. In this context participants mentioned isolated work, knee deep black water, dust, noise, cramped, awkward and restricted...
spaces, mud, and uneven floors as making the work environment difficult for their bodies. They talked about walking long distances on uneven ground, often carrying heavy gear. Although the modern coal mine has a high degree of automation and mechanisation there still is a lot of manual work. One mining worker linked these conditions to a necessary level of aggression.

**Men, masculinity and masculine workplace cultures**

The work and the workplaces in the mines are male in a concrete and obvious way since it is almost only men there. Only one female had ever been employed in underground mining in the organization and she left in a cloud of litigation over her workplace harassment. The mines are also male in a discursive and cultural way because the work, the profession and the workplace culture has strong symbolic links to masculinity. Here you can find overexplicit expressions of masculinities, almost difficult to take seriously and analyse. The textual analysis of coal miners’ yarns carried out by Somerville & Bernoth (2001) showed a very clear picture of a workplace culture based on a specific and somewhat extreme form of masculinity, ‘hypermasculinity’ or ‘macho-masculinity’.

Findings from the interviews confirmed the continuing intersection of storylines of aggression, competitiveness, and risk-taking with unsafe work practices. Australian coal mining is seen as a male dominated industry in a male dominated society. One mining worker described the mining workplace cultures as *the last bastion of masculinity* and suggested that shearers as a group might share similar characteristics. Others likened masculine culture of mining to that of soldiers. One frequent theme in the descriptions of the workplace culture was that mining is a closed culture and *a family affair*. The idea of family did not relate to a nuclear family that included females, but to the inheritance of mining knowledge through the male line. Relations in male-dominated workplaces depends not only on the possession of work related skills or qualifications, but equally upon the ability to engage in male bonding. The culture of mining was described as *close knit*, revealing a positive side of the closed, familial nature of mining. The sense of being close knit was related to the danger of mining because *you sorta knew everybody and there was a culture of looking after each other because of the physical conditions*.

The mining workers retold many funny stories about the things that used to happen in the older days and *when they had no safety*, when there were competition among the workers and all men looked up to the “gurus”, the big strong men. There were also storied about manipulations with gas indicators to be able to continue with development (coal cutting) after a shorter time. The stories describe resistance by flying in the face of acceptable behaviour around safety. Stories like this celebrate the “laddishness” and in a way support unsafe behaviour by normalising it through joking; revealing the humour, which permeates much of the masculine workplace cultures of mining. The workers related such behaviour to the stress of a dangerous environment. One worker commented that *the hairier things get the more important humour is*. This was, in turn, associated with a *very strong mateship*, where *you really had to trust the bloke who was standing beside you*. The use of humour appears to work before the event as well in the sense that it is used to
control expressions of weakness in dangerous situations where workers depend on other team members for their safety. One of the mine workers used the expression *cowboy attitude* to describe the culture. Words and phrases such as *a bit of a lad, gung ho, daring do, horseplay, immature, and macho* were also common. Some type of behaviour, close to harassment, was described by some of the mine workers as *competitive, bantering and having a go, and nothing to take seriously*. Other described is as *public humiliation, mockery and derision*.

Another less spectacular but maybe even more pervasive aspect of risk taking behaviour is the attitude to wearing protective gear or accepting help from others because this is seen as a feminine weakness; *Why do you need help to pick that up?* or *Ah, you’re a big girl or Big sheila*. Picking on physical weakness was a commonly noted characteristic and the mine workers commented that you have to have *a skin like a crocodile*. A deputy described *face saving* behaviour as the most prevalent form of masculinity. Masculine peer pressure seemed to support unsafe behaviours preventing workers from expressing problems and admitting mistakes or weakness. The fear of be seen as less masculine was a central theme. Men usually find it difficult to be associated with competences, attitudes or behaviours that have a female gender-code. But the constitution of masculinity is not only a negative mirror of femininity, it is also boarders against other men and other masculinities – and especially unmanliness (Connell, 1995). Some typical restoring responses, such as men’s refusal to do ‘women’s work’ or ‘womanish work’, and an organisation’s desire for strong masculinization, can be seen as the men (and women) guarding local gender order – and local masculinity (Abrahamsson, 2000).

It is common in gender studies to use the term ‘hegemonic masculinity’ after Connell (1995) to refer to such extreme expressions of masculinity including the characteristics of competitiveness, violence, aggression and risk-taking which we have observed in coal mining workplaces. We believe that this is a misnomer. Hegemonic masculinity, according to Connell, refers to whatever form of masculinity is dominant in any given context. The purpose of Connell’s original explication was to illuminate the fact that there are many versions of masculinity, but that one form will generally have dominance over other expressions of masculinity. The different forms of masculinity are often based on class differences, but what is regarded as masculine also varies from time to time and varies in different cultures, countries, regions, companies, activities and workplaces. Not even within the same workplace and during the same time period you can find any essence of true masculinity. According to Connell ‘masculinity’ rather should be described as several parallel and interacting masculinities.

The problem with using the term hegemonic masculinity is that it is a relative rather than a descriptive term. In this paper we have moved to using the term ‘hypermasculinity’ as more accurately descriptive of the masculine work practices identified in coal mining workplaces. Hypermasculinity is a descriptive term used to characterise extreme versions of masculinity generally associated with aggression, violence, war, perceived
invulnerability (eg Scharrer, 2001; Lawrence, 2005), and often with the performative and representational.

The concept of hegemonic masculinity can though be useful. The central characteristic of hegemonic masculinity is that it is difficult to notice and sometimes so invisible that you do not see it as masculinity, instead rather as competence. Hegemonic masculinity is mainly constructed as an ideology or discourse in society, for example in mass media and in commercial advertising, but also ordinary men of everyday life construct it. Only very few men, though, practice it in reality. A much larger group of men choose to be in these men’s ‘neighborhood’, take a subordinated position, but often glorifying, protecting and promoting the hegemonic masculinity-type. By this way they get some of the respect, the authority, the power and the material and economical benefits that follow with the top-masculinity, but without the risks that also follows being in the front line. Connell (1995) calls them ‘complicit masculinities’. It is tempting to treat them simply as a slacker version of hegemonic masculinity, but it is more complex that that. This kind of masculinity also includes extensive compromises and negotiations with their wives, daughters, mothers and other women in their lives.

The same pattern could be found in the coal mine, but in a smaller scale. Also here you find ‘mining hero stories’ and some macho men around which hegemonic masculinity are built. And you can also find that behind the overexplicit discourse of hypermasculinity there is a wide spectrum of individual expressions. The majority of mining workers do not live or act fully according to the ideals and norms in hypermasculinity, but they all share the same picture of what a real mining worker is and they restore and conserve the story of mining work.

Obstacles towards implementation of safe working practices

The storylines around hypermasculinity are part of the strong connection between work, identity and gender that is very common in homo-social workplaces, just as the underground workplaces in a coal mine. The workplace culture is based on likeness and identification and the system controls and reinforces the similarities between workers. Whether it is about power or just ‘free-zones’ the strong homosocial relations make it difficult to change attitudes and behaviour at the workplace fuels restoration at organisational level as well as at individual level (Abrahamsson, 2000).

The kinds of masculinities and attitudes described above can obviously create problems in learning, implementing and practising safe work practices. Also the interviews with the trainers show a link between this kind of masculinization of mining workplaces and a disregard for safety regulations. It is interesting to note here also that parallel problems have been found in learning and practising safety in conditions of hyperfemininity in aged care organizations (Somerville and Bernoth, 2001).

Ideas of gender, femininities and masculinities, are often conservative and can create a lot of trouble and restoration responses during organizational changes (Abrahamsson, 2000).
A strong gender order keeps individuals in narrow spaces, both physically and mentally. It hinders dialogue, communication and the mixture/integration of different work experiences and exchange of different skills/knowledge. Strong gendered workplace cultures can therefore create problems for organisational as well as individual learning and change. If ignored, the gender based organisational processes can form an almost inherent element that fuels restoration. There could be restoration of existing structures and the prevailing behaviours and attitudes – in spite of the fact that the management aims were to achieve the opposite (Abrahamsson, 2000). This is especially common when the companies start implementing new organisational ideas that, as a side effect, rummaged about in the prevailing gender order.

Restoration responses can be seen as a type of direct ‘disobedience’ conducted by individuals or groups (Sundin, 1998; Fältholm, 1998, Lysgaard, 1961). Passivity and tolerance is two other ways of resisting change. The ones that do not wish to learn and take on new behaviours or working practices are usually, in spite of the goals with the company’s strategy, allowed to carry on in more or less the same way they always have done. Fältholm (1998) points out that the tolerance of the workers’ collective should not be underestimated. There might even be reason to see the tolerance of the work group towards individuals that are unwilling to change their behaviours or attitudes as a strategy of the collective to resist change, at least in the short run. This kind of smaller disobedience actions can function as norms within the workers workplace culture (Lysgaard, 1961). The norms are usually well known and sanctioned, within certain limits, by the management/employer (Fältholm, 1998). You could discuss this as a kind of informal cooperation between the techno-economic and the collective systems.

While there appears to have been a marked change in the relationship between production and safety promoted by the company, most of the interviewed workers suggested that many workers still cut corners to save time and energy – for themselves and for the production. Older workers in particular were portrayed as being steeped in a culture of production where the workers cut corners instead of being safe. The mine workers described competitiveness as the basis of the mining industry and many of those interviewed commented on the intersection of competitiveness and production and the conflict between production and safety. There is also competition between different sections in the mine and this is one explanation about why accidents do happen.

New demands on safety and change
During the 1980s and 1990s the Australian coal mining companies were meeting a more keen competition on a global market, and that is still the case. Those changes in the surrounding world, e.g. higher capital costs, greater competition and new technology, or the ideas and expectations of them, are thought to lead to a need for organisational changes in order to achieve higher productivity. The new models of work organisation with a flexible and individualized flow organisation are seen as the best way to enable companies to react more quickly to the demands of the surrounding world, thanks to self-regulated work teams working safe and with quality, less bureaucracy, faster decision-
making processes and organisational learning. The mining companies’ strategy with implementing safe work practices comes in with total quality management and statistical process control. These are central aspects or tools in modern organisational models and it has clear and distinct effects on behaviours, attitudes and work practises.

From the organization’s point of view the cost of unsafe work practices outweighed the gains in productivity. Legislation had also required the introduction of new safety practices and safety training associated with a raft of different legal obligations. A female communications trainer explained the enactment of changing organizational attitudes to (the bodies of) workers in the mine:

*They used to go to work, be told to leave their brains at the gate, TOLD to leave their brains at the gate, and just do what they’re told to do. Now you’re changing that culture to one that’s told, “Well, you’ve gotta have some input here. You’re trained and you’re responsible”.*

Even though the implementation of new organisational models or ideas is difficult, there is seldom a complete restoration or insurmountable obstacles. Restorations and problems during the implementation of a new organisational idea can be seen as a temporary condition (Abrahamsson, 2000; 2001). First it is mostly talk and there is a rather large gap between rhetoric and praxis. But little by little the new ideas and practices become visible and real. People and organisations adapt the organisational praxis in order to reduce the gap between rhetoric and praxis. Some of this adaptation takes form in gender dynamics.

The possibility for planned change then, seemed to lie in the intersection of changing organizational practices and changing hypermasculine work cultures about safety. The mine workers themselves identified disjunctures and fragmentations around masculine subject positions in both empirical studies as possible sites of change. Disjunctures were located in storylines about tolerance of non-conformity, negotiating masculinities, hypermasculinity as performance and individual agency involving transformational change.

**The Mines Rescue Station – an arena for the story of mining work**

The Mines Rescue Station which is part of the empirical material in this paper has been a training facility for seventy five years and has built up a history of its own. The primary function of the Station is emergency response, i.e. to assist with rescue, control or recovery operations at a mine following an incident. The trainers are on 24 hour standby and the Station maintains eighty five brigadesmen (trained personnel from the mines), who will form twelve rescue teams in the event of an emergency. The Station’s secondary function is to provide occupational health and safety training. The trainers spend 60-70% of their time teaching and the rest of their time developing new courses, liaising with clients, marketing their services, or working with equipment maintenance at the station. There are two main types of training: rehearsal or certification courses for mining rescue teams and annual training days for mine workers – for example the BHP
Illawarra Coal Annual Training Day and the Mining Safety Training Course, which are one part of the empirical material in this paper.

During the interviews and observations it became obvious that contradictory stories of masculinity were circulating at the Mines Rescue Station. The Mines Rescue Station is an important site for both the production and the spreading of these stories. The Mines Rescue Service has an intimate relationship with mine workers, mining organizations and safety training. Every year thousands of mine workers pass through the station and during the training sessions they talk and reflect on organizational and workplace cultural practices and attitudes towards safety. As a consequence of the distance from the ‘real’ mining work, the story of mining work needs to be clear and visible so the trainers can prove the Station’s connection to the mine. The trainers consciously use their experience of mining culture during the training sessions in order to create better communication with the mine workers.

Working as a rescue volunteer and as a rescue trainer at the Station appear to have high status. The trainers said that the best workers were selected to become rescue volunteers. Being a rescue volunteer or a rescue trainer seemed to be an important step in their careers. One trainer, for example, had left a managerial position in the mines to work as a trainer at the Mines Rescue Station. Nearly all of the trainers had worked as a deputy or supervisor in the mines. During the interviews it was obvious that the trainers were proud of being mining rescuers and saw themselves as heroic men. The Mines Rescue Station was portrayed as a place of readiness and preparation for emergencies, although there had been no emergency call outs in the last two years. This story of masculine heroism is an important part of the story about mining and rescue work. When the trainers described their job in the interviews they mostly talked about mining rescue and the Station’s twenty four hour standby function. As one trainer explained; ‘We are here as a response to the mining industry. That’s our primary role, and that’s why I took the position here. Not so I could train people. That just comes with the position basically’.

The story of mining work is represented in the hallway of the Station which is full of both recent and historical photographs glorifying the tough and dangerous nature of mining and rescue work. There are, for example, photos showing outbursts and methane gas explosions, and a series of photos of men wearing different kinds of early rescue apparatus. In other photos the mine is constructed as a typical masculine world with mine workers at big powerful machines; eating “crib” sitting close to coal-cutting machinery; getting very dirty and wet from black mud and water; working alone in the dark, always risking their lives. Perhaps this way of showing the worst aspects of mining is, like the performance of hypermasculinity, a picture for the outside, for visitors. It also has an impact, however, on the mine workers coming to the station for safety training courses and is part of the story of mining work.

The Mines Rescue Station is also, simultaneously, a site for the telling of new stories about safe work practices, ‘It is stupid to be macho’, i.e. attitudes based on the new
organizational storyline. All the trainers were very clear that it is so dangerous in the mines that you can’t work there if you don’t work safely, follow orders, rules, instructions and authorizations. All of the trainers maintained that there was not a macho-culture in the mines and that there was absolutely no aggression, risk-taking or competitiveness, ‘at least not today’. As one of the trainers explained:

*Perhaps ten years ago the macho-style was the main culture, but I think there’s been a fair bit of work done by most of the employers here, where they have stressed the importance of not being hurt. They have stressed that production should not come at the price of injuries.*

On the one hand, trainers at the Rescue Station align themselves with the discourses and practices of hypermasculinity evident in the mines, and on the other, they promote the new organizational line of safe work practices and a change to new masculinities. So the Mines Rescue Station is a site for the promotion of new stories about masculinity and safety, at the same time as being the protector of the old organizational culture. Without their adherence to the outward signs of hypermasculinity mine workers would have no identification with the trainers at the Mines Rescue Service and the trainers would have no credibility. It is within this contradiction that trainers have the capacity to introduce new practices of masculinity, in particular practices of masculine bodies.

The concept of story and storylines can be used to identify previously invisible or new storylines that ‘are realised and created/changed in the more or less fragmented ways they are taken up by subjects as they develop their own narratives’ (Sondergaard, 2002). Storylines are collective, they are made and changed in community but, as Davies (2000) reminds us, the task of generating alternative storylines ‘that have the power to displace the old is extraordinarily complex’. In this paper we take up the idea of contradictions and disjunctures as possible sites for changing storylines and discursive practices associated with masculinity and learning safety. These changing storylines of masculinity and learning safety inevitably involve changing the relationship between masculinities and male bodies. The male body, for example, was a particular site of disjuncture at the Mines Rescue Station where trainers both reproduced the old culture of masculinity and introduced new discourses of the slim, fit and healthy male body.

**Changing masculinities in the mine**

Gender is embodied and naturalised through people’s actions. Tacit collective agreements and a continuous dramatisation of gender create and change our ways of seeing masculinity and femininity. According to Butler (1990; 1993), this play doesn’t become really visible unless the prevailing ideas of masculinity and femininity are threatened. The changes in the Australian coal mining industry during the last 5-10 years with high demands on learning safety have probably threatened the local hegemonic masculinity. This made ‘masculinity’ visible to the mine workers as well, and possible to address. One mining worker suggested that he recently had become able to reflect on his own behaviour and could now step ‘outside’ and look at the masculinity of the workplace culture.
Several of interviewed mine workers and trainers explained that the cultures of masculinity in the mines had changed over the last five to ten years. Some workers reported changing their own traditional masculine behaviours quite recently, as a result of general social changes and changes in men’s role as they are no longer the traditional sole breadwinner. One mine worker explained that it is not the actual men that have changed, but the outward appearance, the performance of masculinity. Hypermasculinity was recognized as a performance, ‘the rough tough exterior’ or ‘the picture of the coal miner’, like the photos on the wall in the Rescue Station. In this space between the outward performance and the inner experience, they said new ways of being masculine were beginning to emerge, with workers being able to express their feelings more openly. They are more able to acknowledge and share the effects of accident, pain and injury and to express their vulnerability.

Changing cultures of masculinity in the interviews are often related to the age of workers. Some commented that traditional masculine behaviours still exist with older workers. Older mine workers were portrayed as being part of a different culture that belonged to an older era when mining knowledge was passed down through the male line from grandfathers to fathers to sons. New knowledge is believed to be coming in to the industry from younger workers who have experience in other workplaces, A lot of them this is their second career and the attitude isn’t as gung ho as it used to be. Many participants mourn the loss of older mining characters and the knowledges associated with them.

One mining worker linked the new safety concept of awareness to a broader social change about awareness of self and others and to the expectation conveyed in the media that kids (read boys) should be a lot more caring. Again, the attitude of caring is related to a change in the performance of masculinity rather than to a change in feelings; I think the blokes are a lot more emotional than what they were before, or they’re probably not a lot more emotional, but they show it more now than what they did years ago. This link to awareness is closely related to the idea of awareness promoted as a key feature of the new attitudes to safety. This change is often expressed in the idea that workers used to leave their brains at the gate, y’know and then pick em up again when they went home, an attitude that is directly opposed to the new culture of awareness in which workers are expected to have forethought and to anticipate the consequences of their safety behaviours. Many of the mine workers commented on a change in awareness about the need for wearing protective equipment as evidence of changing masculine workplace cultures.

Mine workers generally drew on two main sources of learning, from outside the mining environment, to develop practices of care of the body. These were sport/fitness, (including exercise and diet) and medical/paramedical learning from medical treatment. The outside discourse of sport and fitness was imported to the inside of the coal mine in a translation of popular culture and acceptable masculinities. The mine workers could
identify with the image and practices of a competitive weight lifter who turned the lesson of manual handling into fun, both reinforcing and subverting the practices of hypermasculinity. There where also difficulties, however, in translating these practices into the mining workplace. One worker, for example, explained how the physiotherapist had shown him to do warm up exercises at the start of each shift, as they would do before a game of football. While the comparison with the warm ups for football gave the idea some degree of acceptability to this mine worker, it was met with cynical humour in the workplace: ‘You get laughed at. They’ll say, what are you doin ya idiot?’

While these disjunctures indicated potentialities for change, they were fragile, often ephemeral, and their potential could only be realized as long as the organization remained committed to changing the relationship between production and safety. This frailty was demonstrated when the coal mining company was sold and the ownership changed from a government-owned to a privately-owned company. The first change was that the female communications trainer was made redundant and then the employment of other non-production workers, often with a safety or training role, was terminated. The new company was not interested in continuing the study but it seems likely that the fragile changes that had been made in practices of masculinities and safe bodies were likely to be reversed. On the basis of these potentialities, however, it is possible that more permanent changes can be made by the Mines Rescue Service as an outside organization with a long and legitimate history of providing safety training for mine workers.

**Changing masculinities at the Mines Rescue Station**

At the Mines Rescue Station the body, rather than masculinity, is the new focus of training and organizational culture. In the training courses workers are taught about the risks of not wearing protective gear such as respirators and hearing aids. They are taught about how gases, chemicals, dust and heavy lifts affect the body and how to use their bodies in the right way. The workers are also reminded about the affects of injuries and told stories about older workers with destroyed bodies. In interviews trainers describe the new story of the male body:

*People are more aware of how they can hurt themselves, and of course lifting being, in particular, a high potential. .... Dust masks were available, but a lot of people didn’t wear them. If you went into the mines today, ten years later, you would find in dusty situations, 99% of the people would be wearing some sort of respiratory protection. And again it’s a long-term education program.*

The trainers described how the Joint Coal Board, another organization set up to support and promote the health of coal miners, have been drawn into the web of changing organizational practices that focus on the production of the male body:

*We have, for example, the Joint Coal Board, it is like a medical arm of the mining industry. Each three years the miners go and have a physical examination, which includes X-rays of lungs and blood pressure and cholesterol. The Joint Coal Board also put out posters and stickers and educational paraphernalia that also assist to drive home that message.*
During the tea breaks the trainers at the station discussed body and fitness with each other. One of the training co-ordinators (a female) at the mine sites described how she had started to tell the workers that their body is like a machine, it has its limitations and the workers need to learn how to use their body as a machine:

... you see a man who’s big and strong and tough, but you don’t realise that in many instances too he knows how to work. He knows to pace himself, he knows to rest, he knows, depending on the job he’s up against, .... It’s one thing to go up there and dig and dig, but it’s no good if after half an hour you’re tired, y’know what I mean, you’re dead, you can’t go on anymore. ... a smart worker knows how to keep going, do the job, be consistent and constant.

In this storyline the smart worker will be aware of his body so he can pace himself to do his work effectively and ‘know to rest’. It is a very different male body that is being produced in this story to the body in hypermasculinity. It is clear that one a part of the new discourse at the Mines Rescue Station is that the worker’s body is becoming more and more important. Taking care of the (male) body goes hand in hand with a focus on safety. The new story of the male slim, strong and fit body is very important and the discourses of the Mines Rescue Station about bodies and safety are persistent in a way that they may not be in individual companies. This new story about the production of male bodies can be seen as a way of handling the contradictory messages of masculinity and demands of safety working practices in mining organizations. It is precisely because these trainers represent both the old cultures of hypermasculinity and the new cultural practices of the strong fit and healthy male body that they can introduce these new stories to mine workers convincingly.

New masculinity emerging – the male slim, strong and fit body

The meaning of gender and gender orders on a local level interact with the global gender orders (Connell, 1995). One shift in hegemonic masculinity that we can see today is a change in attitude towards the male body (Connell, 1995; Johansson, 2000). The serious, hard working, active and strong male body has periodically been common in commercials and art. But today more and more often we see beautiful, fit and aesthetic male bodies in commercials and mass media. This aesthetic male body is very much alike his female counterpart. Even if the mine workers don’t fully accept this new masculinity and even if it doesn’t affect their life styles in any important way, they still have to relate to it, through media representations for example.

This expression of the masculine body does not necessarily need to be physically big and strong. Style, fitness and health are more important. Johansson (2000) points out that the male body becomes more and more visible as an object of desire for both women and men. In this version of masculinity, it is important to stay slim, fit, young, and healthy. Men can understand themselves as vulnerable bodily beings at risk of physical problems and defects such as impotence and ill health. This kind of man takes care of his body and
cares about his looks. It is this narcissistic masculinity that has raised the discussion about a new contemporary and more feminine man.

Contemporary organisational models and tools focus on the so-called “soft things” or soft competencies: mainly social competence – communication, sensitivity, co-operation, awareness, responsibility and also caring for one’s body (i.e. in line with the new slim, fit masculinity-type). In western countries, these kinds of soft competencies have traditionally been linked to women and femininity and to, in many cases, positive and desirable natural female characteristics. In modern organisational models, all employees, both women and men, are expected to either possess or acquire these competencies or attitudes. But interestingly enough, although women in some natural way are supposed to possess such abilities and competencies, they are not obviously appreciated in the modern models of organisation. Thus, men should acquire the new competencies and abilities instead. The fact that large parts of the important attitudes, qualifications and roles of modern organisations are gender marked as feminine becomes a strong challenge to the prevailing masculine ideal (Hollway, 1996; Lindgren, 1999).

Parts of the adaptation of modern organisational models and tools result in a re-negotiation and re-formulation of both local and global masculinities and femininities. Consequently, organisations not only restore the existing masculinity, but there is also a shift in what is seen as male work, male competencies and masculinity. In order to make the new behaviours, attitudes and competencies important and desirable among men, they have to be incorporated into the local conception of masculinity. The modern organisations and new demands on learning safety therefore mean that “feminine” attitudes are being switched to “masculine” competencies and therefore transferred to men and masculinity.

**Gender technologists**
In relation to understanding the processes of changing masculinities in Australian coal mining organizations we suggest that following Farrell (2001) we borrow Fairclough’s concept of ‘discourse technologies’ to describe the tools for changing discourses of masculinities. Discourse technologies are types of discourse which involve the more or less conscious application of social scientific knowledge for purposes of bureaucratic control (Fairclough, 1996). These colonizing discourses employ such methods as social skills training. Farrell, however, in her microanalysis of the processes involved in the application of TQM in corporate production focuses on the discourse technologist as ‘the expert outsider whose role is to research the discursive practice of institutions, design discourse practices in line with institutional aims and strategies, and train people in their use’. This microanalysis highlights the negotiation involved between local and global knowledges.

In the Mines Rescue Station the trainers can be seen as discourse technologists, introducing globally circulating discourses of safety through which local masculinities and male bodies are renegotiated. As Farrell points out, “knowledge” remains a highly
contextualised and local achievement, one which relies on the complex interplay of persistent and transient local and global discourses (Farrell, 2001). The way in which this is played out is an effect of these local negotiations. In the mining companies themselves there was an absence of an ‘expert outsider’. Although there was evidence of changing masculinities through changing discourses of safety, the changes appeared to be ephemeral and vulnerable to local economic conditions. The Mines Rescue Station, with both outsider status, and embeddedness within mining cultures, is able to introduce changes that are more robust and resilient, albeit still in negotiation with local conditions. The changes are introduced through discourses and practices of safety however and not directly through changing masculinities. The focus is on changing discourses of the male body and practices of the care of the body. In this sense we suggest that trainers at the Mines Rescue Service are more appropriately conceived as gender technologists changing masculinities through the production and reproduction of masculine bodies at the site of work. Their training focuses on embodied learning of safety knowledge which they have acquired in part from their direct experience of mining work.

It seems evident that the introduction of a Total Quality Management System is of dubious benefit for the workers in Farrell’s study in comparison to the obvious benefits for the company. Ultimately the change is about neoliberal systems of control under conditions of late capitalism in which standardized, codified knowledge and practices facilitate global control of workers and determines what counts as knowledge. In this context workers are seen as having only limited negotiating capacity at the local level. While we have taken for granted that changing practices of masculinities and safety is for the good of the workers, it is important also to recognize the storyline of mine workers about the mine as an inherently dangerous place, about the need for aggression, competitiveness and risk taking to get the job done, and the inevitability of the production of hypermasculinity to achieve the purposes of mining. Another way of viewing the changing discourses of safety and mining production is to see it as a shift in responsibility for safety to the individual worker who is expected to self manage safety in terms of both accidents and chronic injury.

**Conclusion**
The answer to the question of whether masculine workplace cultures have changed in relation to safety in the studied organisation is a complex one. Many of the expressions of hypermasculinity, representing an extreme version of masculinity characterised by violence, aggression, risktaking and competitiveness, continue to be enacted in the mining workplace culture. These practices have previously been reinforced by mining organizations for the purpose of production and profit. Recently however new safety legislations and the cost of insurance demand a change in practice. Coal mining organizations share ongoing problems of hypermasculinity and learning and practicing safety with other industries such as building construction, policing, the defence forces and other forms of mining.

The ground of the possibility for change lies in the intersection of changing
organizational cultures, and changing practices of masculinity, and safety. From the mine worker’s accounts we identified disjunctures and contradictions in the practice of masculinities as ways in which they saw change as possible. These included tolerance of non-conformity and negotiating masculinities, awareness of hypermasculinity as performance, individual radical transformations, and changing practices of the body. Each of these had positive outcomes on their practices of safety and their bodies and it was this effect that was their focus rather than on masculinities as such. These changes however, proved to be fragile and ephemeral and subject to local economic conditions when the company was sold and it seemed that the changes were under threat.

The changing discourses and practices of the trainers at the Mines Rescue Station appeared to be more stable, robust and enduring. These trainers have an insider-outsider relationship to mining organizations and mine workers in that they have all been mine workers in the past and this is a requirement for their role. They reinforce their connection to mining work through their language and obvious representations of mining culture and this gives them credibility with miners in teaching safety. They also distance themselves from mine work, and even training, in their valorization of their rescue role. As outside experts they function as discourse technologists, introducing new global discourses of safety and masculinity to mine workers and mining organizations. They focus on the body as the site of change however, rather than masculinities as such. In their insider physical connection to the mines and mine workers, and their experiential knowledge of mining and the production of miner’s bodies, as opposed to the codified global discourses of safety training, we have characterized their training interventions as gender technologies. In their role as gender technologists they bridge global discourses of safety and bodies, and local negotiations of male bodies and masculinities.

However, it is also clear that there have been changes in the way masculinities are performed in the workplace and there have been changes in the relationship between masculinity and safety. It is clear that one characteristic of the new workplace culture of the last 10 years is that the worker’s body is becoming more and more important. Taking care of the body (the male body) goes hand in hand with focusing on safety. Coal mining has always been labour intensive and still is, but today companies have to keep their employees safe and therefore they need to take more care. The male slim, strong and fit body becomes more and more important, both at the Mines Rescue Station and at the mine sites. This new kind of masculinity can be seen as a way of handling the contradictory messages of masculinity and the demands of safe work practices. Safety, to take care, can be seen as a ‘female’ characteristic or ability, but is becoming a “male” competence, something that men should also be or have. The new high demand for safety in modern organisations leads to these competences being ascribed to men, but expressed in another way. The construction of masculinities in local organisations is modified according to what is important in modern organisational concepts.
References


*Lysgaard, (1961)*


