



South African mineworkers' perspectives on the right to refuse dangerous work and the constraints to worker self-regulation

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Synopsis

The Mine, Health and Safety Act No. 29 of 1996, as amended, embodies worker self-regulation to advance health and safety in the workplace. An important provision for this is the Right to Refuse Dangerous Work (RRDW). This paper explores worker perspectives about the implementation of RRDW on South African mines against a backdrop of revised guidance in the sector: 'Guideline for a Mandatory Code of Practice on the Right to Refuse Dangerous Work And Leave Dangerous Working Places', gazetted in February 2016 by the Department of Mineral Resources (DMR). A mixed methods study conducted at mines ($n = 14$) included a survey of workers ($n = 293$), focus groups ($n = 6$) and in-depth interviews ($n = 16$). Workers reported a high level of awareness, a positive attitude, and experience of the formal RRDW. However constraints to the formal RRDW meant that informal worker resistance to dangerous work was commonplace. Evidence of informal non-confrontational consultation, cooperation, and collaboration in the event of a dangerous workplace also emerged between workers, and supervisors. The research underscores the importance of the RRDW and worker health and safety representatives to mine health and safety. The revised guidance addresses RRDW implementation gaps, but of concern is the potential partiality towards management interests.

Keywords

health and safety, regulatory framework, worker participation.

Introduction

Ensuring that mineworkers act on their duties and responsibilities for health and safety remains a concern across the globe. Article 13 of the International Labour Organization (ILO) Convention Safety and Health in Mines (176 of 1995) entrenched the Right to Refuse Dangerous Work (RRDW) as an important mechanism through which workers act in the best interests of their own occupational health and safety (OHS) and is considered a cornerstone of worker self-regulation (ILO, 1995). Countries ratifying Convention 176 are under obligation to make this right available to workers through OHS legislation that frames the circumstances, procedure, and protection of workers from discrimination in the event of a formal work refusal. The Convention has been ratified by 31 countries, with South Africa becoming a signatory in June 2000 (ILO, 2000). Worldwide studies show that workers use this right with caution (Hilgert, 2013) and cases associated with work refusal are rarely

presented in court (Gunningham, 2007; Cooper, 2013). Rather, in cases of formal notification of a work refusal, issues arising out of this are addressed either in the immediate workplace or through the site OHS system and/or at industrial tribunals or similar mechanisms (Harcourt and Harcourt, 2000).

This paper explores the perspectives of South African mineworkers of the implementation of the RRDW and the consequent constraints to worker self-regulation. It considers the applicability of a typology of worker resistance to unsafe work to the findings of a study commissioned in 2013 by the Mine Health and Safety Council (MHSC) and conducted by the Centre for Sustainability in Mining and Industry (CSMI) at the University of the Witwatersrand (Stewart, Coulson, and Bakker, 2013). Permission to publish was granted by the MHSC in October 2017.

South African legislation

The RRDW was granted to South African mineworkers post-apartheid with the promulgation of the Mine Health and Safety Act No 29 of 1996 as amended (MHSA) (Republic of South Africa, 1996). That OHS performance on mines in South Africa has undergone a significant shift under the MHSA is uncontested by tripartite stakeholders. Reporting by the Mine Health and Safety Inspectorate (MHSI) about progress towards sector-wide OHS targets set in 2003 showed that during the 10 years subsequent to their setting fatalities dropped significantly.

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Whereas in 2004 there were 246 fatalities (0.25 fatality rate per million hours worked) this improved to 93 fatalities (0.09 fatality rate per million hours worked) at the end of 2013 (Chamber of Mines of South Africa, n.d.). The downward trend continued until 2016, when the lowest number of fatalities (73) was recorded (Phakathi, 2016), but reversed in 2017, for which unofficial figures stand at 86 fatalities (Chamber of Mines South Africa, 2018).

The South African expression of RRDW closely reflects that of Convention 176, which grants workers the right to remove themselves from any location at a mine when circumstances arise which appear, with reasonable justification, to pose a serious danger to their health or safety (Masilo and Rautenbach, 2010). Section 23 of the MSHA states that an employee has the right to leave any working place whenever

- '(a) circumstances arise at that working place which, with reasonable justification, appear to that employee to pose a serious danger to the health or safety of that employee; or*
(b) the health and safety representative responsible for that working place directs that employee to leave that working place.' Section 23 (Republic of South Africa, 1996).

Although under South African law the OHS right is expressed as the Right to Leave a Dangerous Working Place (RLDWP), in practice on South African mine operations it is referred to as 'Section 23' or the 'Right to Refuse Dangerous Work', rather than RLDWP. The South African expression of this right, under Section 23, has none of the constraints found in other jurisdictions such as that the danger must be 'imminent' or 'imminent or unavoidable', as in Canada, Ghana, Burkina Faso, the UK, and the USA (Hilgert, 2013). The 'circumstances' in which the right can be exercised are not defined and therefore a worker can, under law, subjectively believe the workplace to be seriously dangerous. Thus, physical conditions in the workplace, the condition of equipment and machinery, and the competence and behaviour of workers are among some of the major factors that could contribute to the workplace being considered dangerous under the Act.

Section 23(b) permits a worker-elected or -selected health and safety (H&S) representative to withdraw workers from a workplace that he or she considers dangerous. On South African mines there are two tiers of H&S representatives, workplace representatives and full-time H&S representatives. Workplace H&S representatives continue with their normal job and exercise their powers in a designated workplace only. Full-time H&S representatives are employed in a full-time capacity in health and safety and exercise their powers across the whole mine site. Both types of H&S representatives can withdraw workers from a workplace they consider dangerous. Chapter 3 of the MSHA requires that the employer enters into a health and safety collective agreement signed with recognized unions on site (the collective agreement is defined in the Labour Relations Act No. 66 of 1995, as amended 2002; Republic of South Africa, 2002). This agreement determines the process and numbers of worker-elected/selected H&S representatives, the constitution of the bipartite mine H&S committee, and importantly, provides for local worker consultation at the mine operation in the

drafting, review, and agreement of OHS policy and procedure, including the mine site procedure for the RRDW. These arrangements apply to both large and small mines in South Africa. This is in contrast with other jurisdictions worldwide, where RRDW procedures are part of the statute. On the one hand, a statutory procedure provides clarity about what must be done, but on the other, it opens up the opportunity for legal action to challenge workers on adherence to procedure (Harcourt and Harcourt, 2000; Cooper, 2013). In South Africa, workers are not subject to a statutory procedure and both individual workers and H&S representatives are granted protection from discrimination (Section 83 MSHA) in the event of exercising the RRDW.

A typology of worker resistance to unsafe work

The employer and management determine the structure and organization of the workplace and workers must find ways to assert themselves within this paradigm, through either confrontation or non-confrontational methods such as persuasion, influencing, coaxing, or side-stepping. The decision to withdraw from a dangerous workplace, as in the case of the formal exercise of the RRDW, is a unique situation under law in which workers have permission to 'confront' the control of the workplace by management. Thus 'confrontation' is integral to the exercise of the right. Gray (2002) introduced a typology of worker resistance to unsafe work. He described the formal exercise of the legal RRDW as 'formal confrontational.' By formally refusing to work, a worker, under the protection of the law, can assert control over his or her workplace and demand that the problem be resolved either in the workplace itself, or through escalation to formal structures such as the bipartite worker/employer H&S committee, or through an external agent such as the H&S Inspectorate and/or legal dispute mechanism. The South African 'Guideline for a Mandatory Code of Practice on the Right to Refuse Dangerous Work And Leave Dangerous Working Places' gazetted in February 2016 by Department of Mineral Resources (DMR) (Department of Mineral Resources, 2016) was a consequence of the study on which this article is based (Stewart, Coulson, and Bakker, 2013). The Guideline promotes the resolution of disputes at the lowest organizational level, or in the event of this failing, through the appointment of an external technical advisor to advise both the mine section manager and the full-time H&S representative. The mine H&S committee is required to monitor all incidents of RRDW. The formal exercise of the right in South Africa, as in other contexts, can, therefore, theoretically result in high-level decision-making related to OHS.

For Gray (2002), however, the formal exercise of the RRDW is only one expression of work refusal. By asking the question, 'when does a safety refusal actually begin?' Gray explores the origin of worker refusals. His ethnographic work, conducted in the Canadian manufacturing sector, found that workers resist unsafe working conditions without formally refusing. In such cases, a challenge is mounted to the management of the workplace, or to the process of production, but remains outside formal procedure – thereby rendering it 'informal'. This prompted Gray to name this type of work refusal, 'informal confrontation'. These efforts on the part of workers most often involve confrontation with

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supervisors and/or colleagues to cope with unsafe working conditions and are subsequently resolved in the workplace only, in marked contrast to the first approach (formal confrontation), where a problem can be escalated.

Gray further advances his evidence-based view by arguing that not all forms of work refusal or resistance to unsafe work are confrontational. Thus, a worker can complete a complaint notice and 'ask' ('*informal non-confrontational*') for management to look at the problem rather than '*demanding*' that it be corrected through refusing to work. By laying a written complaint the worker avoids the inevitable confrontation associated with refusing to work, while at the same time he or she is indicating to the employer that something is sub-standard and therefore unsafe. It is long established that workers make private arrangements in the workplace to manage OHS hazards (Walters and Haines, 1988; Phakathi, 2002, 2012). Gray (2002) argues that '*private safety refusals*' by workers are in fact the most common form of work refusal. They include personal interventions of individual workers to redesign a task so it is safer, and avoidance strategies to sidestep unsafe work, such as reporting sick or asking for a transfer. These strategies are all driven by OHS concerns, but do not challenge, or confront, either management and/or the social relations of production. Rather, the reasons behind these individual actions remain hidden. Thus, Gray provides a useful typology with which to consider worker responses to an unsafe workplace – formal confrontational, informal confrontational, and informal non-confrontational.

This paper draws on Gray's typology to assist the interpretation of the findings of a mixed methods study with respect to South African mineworker experience of the RRDW.

Methodology

The cross-sectional study used a concurrent triangulation mixed methods approach (Cresswell *et al.*, 2003). Quantitative and qualitative data were collected at the same time and then integrated and triangulated at the data analysis stage. Fieldwork was conducted between June and September 2013 and comprised a representative quantitative survey, focus group discussions, and key informant interviews. Access to the two sets of respondents for the quantitative survey and the qualitative research was primarily facilitated by the training centre on surface at each mine. The study had approval from the Human Research Ethics Committee (HREC) non-medical, University of Witwatersrand (Ethics Clearance Protocol Number H13/05/19). Respondents participated on the basis of informed consent and anonymity.

Quantitative survey

The survey was conducted at 14 mine sites (five platinum, five coal, three gold, and one nickel mine), stratified by commodity sector and geographical spread across three provinces: Mpumalanga, Gauteng, and North West. As specified in the MHSC research brief and time-frame, a list of all the major mines employing 2000 and more employees in these three provinces was drawn up. Mines were contacted telephonically to identify sites able and willing to host the project. The sites were all large mines with established OHS systems, hence this research has relevance for the large-scale

mining sector but excludes the small-scale sector. The timeline and budget did not allow for a comprehensive and random sample to be drawn from employee wage rolls or from specific workplaces. Surveys were instead administered on different days and times of day to respondents on surface undergoing ex-leave induction. This is a limitation of this study. The survey nevertheless reached workers ($n = 293$) (refer to Table I) with findings statistically having a simple margin of error of 5.7%. The quantitative research instrument comprised 40 closed and Likert-type statements or questions and one open-ended question. The questionnaire was read to respondents in either English or an indigenous language, predominantly isiZulu, isiXhosa, or Southern Sotho.

Qualitative research

Qualitative research was conducted at six of the 14 host sites – two gold, two platinum, and two coal mines. Six focus groups were conducted with 84 workers, one at each site, and were recorded, translated, and transcribed. In-depth interviews were conducted with five H&S representatives and five union officials at five sites only. Six worker respondents were identified in focus group discussions as having had a direct experience of the RRDW, all of whom worked on gold mines and were subsequently interviewed. All the key informant interviews were conducted in English and notes were taken. The purpose of the qualitative research was to identify key issues, concerns, and themes relating to the RRDW as expressed by worker respondents and other relevant key informants. While saturation point was not reached, specific data repeatedly emerged. Quotations cited in the text were invariably similarly reported by other respondents.

Given that the RRDW is legally bestowed on workers, this paper focuses on the experience of workers and their H&S and union representatives. Mine site documentation made available to researchers, such as lists of incidents and accidents and incident/injury investigation reports, was not consistent across the host mining companies and did not enable the details of specific RRDW incidents described by respondents to be corroborated through a document review. Researchers (including the authors) noted evidence arising through observation at research sites of mine-site communication concerning the RRDW.

Analysis

Quantitative data was analysed using Statistical Package for the Social Sciences (SPSS), Version 15.0. All qualitative data was analysed for inductive and deductive themes. The analysis used a concurrent triangulation approach, thus both quantitative and qualitative data were used to make meaning

Table I

Quantitative survey: number of worker respondents per sector

Respondent category	Coal and other	Gold	Platinum	Total
Workers	109	64	120	293

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of workers' experiences of the RRDW. Quantitative data was largely not analysed against cross-correlations for demographic and other descriptors. Workers included in the focus group discussions were not selected for certain demographic or other characteristics.

Findings

The term 'workers' is used in this paper to refer to both permanent mine employees and contract workers, except at a couple of points. As the terms 'Section 23' and 'Right to Refuse Dangerous Work' (RRDW) were used by workers in their commentary, both these terms are used in the presentation of the data. Findings are presented under three major headings, which are broadly aligned with the typology developed by Gray (2002): formal confrontation, informal confrontation, and non-confrontational responses to the exercise of the RRDW when faced with a dangerous workplace. Percentage figures used in the findings are drawn from the survey results. Quotations and other descriptions are taken from the qualitative data.

Demographics of worker respondents

Table II captures the demographic characteristics of the survey population of worker respondents, 65% of whom were over 30 years of age and 88% were men. Seventy-two per cent of workers reported more than 3 years of service at the present mine operation and 42% reported more than 6 years of service. A fifth of the sample were contract workers, in keeping with estimates cited elsewhere (Forrest, 2013). Overall, the experience and stability of the sample suggested respondents were qualified to consider the topic of the RRDW.

Table II
Demographic profile survey respondents (n = 293)

Variable	Category	No. of respondents	%
Age	21-30 years	93	32
	31-40 years	97	33
	41-50 years	61	21
	51+	40	14
Sex	Male	257	88
	Female	35	12
Race	African	272	93
	Coloured	3	1
	White	17	6
Citizenship	South African	253	87
	Non-South African	39	13
Job status	Employee	228	78
	Contractor	60	20
	Don't know	5	2
Years in mining	< 1 year	29	10
	1-2 years	35	12
	3-5 years	80	27
	6-10 years	63	22
	> 10 years	85	29
Years at mine (where research conducted)	< 1 year	28	10
	1-2 years	52	18
	3-5 years	89	30
	6-10 years	60	20
	> 10 years	63	22

Formal exercise of the RRDW (formal confrontation)

These findings describe quantitative and qualitative data pertinent to the formal exercise of the RRDW, including workers' awareness, attitude, knowledge of procedure, and experience of the RRDW.

Awareness of the RRDW

Awareness of the RRDW was high. Ninety-five per cent of workers reported having heard of the RRDW, with uniformly high reporting across all mining commodities.

'The law does not allow people to work in dangerous places. Should one disobey such a law, he is reprimanded.' (worker)

On site, researchers found evidence of communication campaigns promoting the RRDW. Noticeboards in waiting areas, audiovisual displays, leaflets, stickers on hard hats, internal radio, RRDW cards, and toolbox talks were used at different sites to reinforce awareness of the RRDW. On one coal mine, the mine manager issued each employee with a card bearing his signature making the 'demand' that all mine employees exercise their RRDW.

Worker attitudes to the RRDW

Given the South African mining industry's legacy of discrimination, appalling OHS performance, and victim blaming (Shaw, 2010; Stewart and Nite, 2017), researchers were surprised by the positive response of workers to statements used to reveal prevailing attitudes to OHS. The majority of workers stated they 'disagree' (79%) with the statement, 'Workers don't have the RRDW' (refer to Figure 1), which was reinforced by number of employees (84%) and contractors (83%) reporting feeling 'safe' at work. A third of the sample (35%), however, agreed with the statement 'Management is not serious on health and safety', which underlines why the 'Culture Transformation Framework' in the South African mining sector, with its commitment to transform legacy issues that encourage short cuts and risk-taking with respect to OHS, is pertinent. (Mine Health and Safety Council, 2011).

Although the majority of workers stated that they 'have the RRDW', over a third of workers (35%) agreed that 'workers use danger as an excuse' and that the RRDW is open to abuse. While the underlying reasons for the specific individuals saying this were not explored, the RRDW is cited in industrial struggles other than those associated with OHS (*National Union of Mineworkers & others v Chrober Slate*

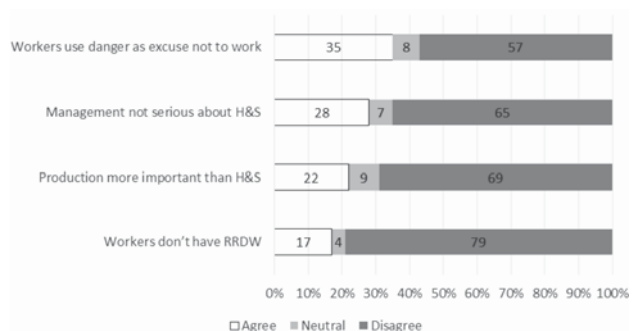


Figure 1 – Worker (n = 293) attitudes to the RRDW, OHS, and production

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(Pty) Ltd, 2008). The RRDW was used at the start of the 2012 platinum mineworkers' strike for wage increases (Chinguno, 2015; Moodie, 2016). In this instance, mineworkers invoked Section 23 to decisively slow down production in order to draw attention to their demands outside established industrial relations mechanisms. That the RRDW was used in this instance to leverage worker improvements, outside of OHS, supports workers' (35%) views noted in this study, that the RRDW is open to abuse.

RRDW procedure

Employer risk management underpins the MHSA and involves the identification of hazards, associated risk assessment, and the implementation of control measures – for which there is a hierarchy of options. Risk assessment under the MHSA is required as a baseline, is issue-based (where more in-depth assessment is required), and designed to be continuous (on a day-by-day or periodic basis). Ground conditions, gas emissions, airborne pollutants, and the condition of equipment are good examples of matters subject to continuous risk assessment. It is regarding the continuous risk assessments where the RRDW has most currency for workers. The interface between risk assessment, safety rules, and RRDW procedure was found in this study to be poorly articulated. Although workers (96%) understood there was a procedure for RRDW, as is required under the MHSA, in focus group discussions many workers could not articulate the steps of a RRDW procedure. Despite the requirement under the MHSA for a RRDW procedure to be developed on site in consultation with worker representatives as a component of the H&S collective agreement, workers reported being neither involved in the preparation of a RRDW procedure, nor able to state how a procedure had been developed. While it could be expected that any formulation of the procedure for the RRDW must be: to stop work, remove oneself, inform others of the danger, barricade the area, and report the incident, instead, when asked about RRDW procedure, workers cited general safety rules and procedures such as:

'1. Never enter an unsupported roof. 2. Never operate a machine without a licence. 3. Lock out and do not allow someone to enter a dangerous workplace. 4. Do not enter a place with no ventilation.' (worker)

'They say if the place is dangerous you must fix it first. It is one of the four steps. It says: Fix the place. Evaluate the material you are using to make sure that it is proper so as to prevent danger. The third one – stick to the process of safety. And the last one says you must fix it now.' (worker)

The RRDW applied to safety rather than the protection of health

Major hazards contributing to occupational disease must be considered within any risk management framework. However, improvements in occupational health (OH), especially related to silicosis and noise-induced hearing loss, have been slow in the South African mining sector (Murray, Davies, and Rees, 2011; Strauss *et al.*, 2012), only recently showing signs of improvement (Department of Mineral Resources, 2017). Qualitative research findings in this study suggested the RRDW is overwhelmingly embedded in the

safety culture of mines rather than health protection. Workers contextualized their commentary about RRDW with reference to specific safety hazards such as rockfalls.

'We talk about safety. We say we must respect danger and not work in a dangerous place. We say we must be cautious of places where we are working in. Let us look at the hangingwalls.' (worker)

Although excessive dust and poor ventilation were cited in some instances by respondents as grounds for exercising the RRDW, there was no mention of excessive noise or fatigue. In focus groups, workers described their experience of fatigue and its association with dangerous work practice, but not in conjunction with the exercise of the RRDW. Fatigue was attributed to the absence of team members, walking long distances carrying equipment, working long hours, hunger, or exposure to heat, but not cited as a reason to stop work.

'I would advise the mine to employ more people. We are short. You are forced to do many jobs alone and that is tiring.' (worker)

When asked in the quantitative survey about training on major hazards in the last 12 months, reported training related to dust was lower than that for either support standards or hangingwall conditions for underground gold and platinum employees (refer to Figure 2). This suggests there could be gaps in worker knowledge related to dust and respiratory disease. Researchers did not, however, review training materials and programmes related to worker preparation for the exercise of the RRDW and/or worker tuition related to the identification of major hazards to corroborate this. Another explanation for the disconnection between worker exposure to OH hazards and the exercise of the RRDW is the latency period between exposure to hazards such as dust and noise and the final onset of disease. Although over time, many more workers have suffered the consequences of occupational disease rather than occupational injury (Guild *et al.*, 2001), unless the trajectory of disease is well understood it is unlikely that workers see exposure to health hazards as life-threatening and meriting the exercise of the RRDW.

Individual responses of full-time employees and contractors to a dangerous workplace

Forty-five per cent of workers, represented by employees (48%) and contractors (34%), reported that they had personal experience of a dangerous workplace in which they did not want to work (refer to Figure 3), with 76% of these incidents having occurred in the last three years. It is

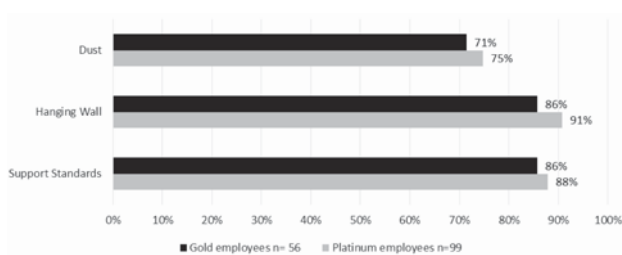


Figure 2—Training reported by underground employees in the last 12 months on the major hazards in gold and platinum, as reported by underground employees

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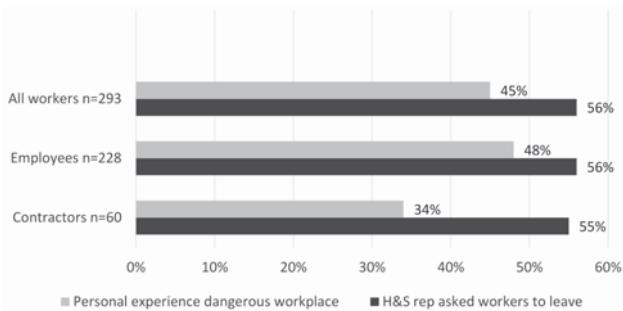


Figure 3—Workers, employees, and contractors who reported a personal experience of a workplace too dangerous to work in, and who had been asked to by an H&S representative to leave a dangerous workplace

noteworthy that contractors were less likely to report personal experience of a dangerous workplace than full-time mine employees, which suggested contractors were less equipped to make this call. Worldwide, it is well established that contractors are vulnerable with respect to workplace hazards OHS (Tucker, 2013; Gunningham, 2008), as has been reported on South African mines (Loewenson, 2001; Bezuidenhout and Kenny, 1999; Hermanus, 2007). As the employment of contract workers increases, specifically on South African platinum mines (Forrest, 2015), the finding that they are less equipped to respond to a dangerous workplace is of concern.

Of the 45% of workers ($n = 132$) who had identified a workplace too dangerous for work, 65% ($n = 86$) did not return to the unsafe workplace (exercising the formal RRDW) and 83% thought the RRDW procedure adequate. Figure 4 provides a description of those who successfully exercised the RRDW. Of note, the majority were underground workers (87%) and had more than 2 years' mining experience. Of the overall sample, of all workers ($n = 293$) it can be inferred that 29% of these had exercised the formal RRDW, by having not continued in a workplace they had judged to be dangerous.

Workers' experiences of management's response to the RRDW

Weighing up production pressure against working safely and 'feeling bad' because of lost production (and hence lost bonus earnings) were described by workers as part of their experience of the formal RRDW. The payment of production bonuses has a long history in South African mining and is a deeply entrenched practice (Moodie and Ndatshe, 1994). In fact, worker and supervisor self-interest in reaching production targets and securing production bonuses impacted on both 'formal' and 'informal' confrontation in response to a dangerous workplace because bonuses pitch production against safety. A culture of short cuts to overcome common obstacles to the production process is well described in the gold sector (Phakathi, 2002, 2018). Qualitative data revealed that when workers had exercised the RRDW, supervisors and management were either straightforwardly cooperative, or pushed back but complied. In both instances underlying concerns about money shaped the emotional response; workers, supervisors, and managers often felt 'bad' because workers lost bonuses, supervisors lost production (and bonus earnings), and managers faced additional expenditure.

'We the workers identified the hazard. As a team we took the decision to stop working... Both supervisors and the H&S representative made the decision and supported us to stop working. ...The safety officer recommended that the panel must be mined from another direction and the situation got resolved. The rock engineer was involved and workplace was made safe... there was a loss of production due to the incident. I felt bad because we lost production. They also felt bad - including the reps, the supervisors and managers.' (worker)

'I was working on Sunday... In the stopes there were misfires... we could not work, but the matter was taken to the Foreman who was very cross about our decision. He was forced to book us for another Sunday to come and perform the same job' (worker)

The role of the H&S representative in implementing the RRDW

Worker-elected H&S representatives are acknowledged globally to contribute to better OHS outcomes (Walters, 2006; Walters and Nichols, 2007). In keeping with this, 56% of workers reported they had been asked to stop work by an H&S representative, which was higher than those workers (48%) who reported a personal experience of a workplace in which it was too dangerous to work (refer to Figure 3) and higher than the workers (29%) who exercised the RRDW. However, the survey did not establish if workers, having withdrawn from a workplace under instruction from an H&S representative, went back only when they felt it was safe to do so. Qualitative data found that workers consistently referred to the workplace H&S representative before and after withdrawing from a workplace.

'If it is dangerous underground we talk to the safety rep and we take it from there. The safety rep is always with us underground.' (worker)

Although they were more likely to be asked to withdraw from a workplace under the instruction of an H&S representative, workers were then critical of the capacity of individual H&S representatives to challenge supervisors and to subsequently get workplaces made safe. Workers suggested that either the H&S representative lacked power and/or interpreted his or her role incorrectly.

'Before that when I was in a dangerous place I went to the waiting place. When he [the miner] saw me he



Figure 4—Workers ($n = 86$) who exercised the RRDW and did not return to an unsafe workplace

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started shouting at me. The safety rep was there, but he never said anything. He did not really care as they do not have powers.' (worker)

'However, there are times whereby the safety rep is not working properly. For instance, if there is a place that is not safe to work in, he will go to the Supervisor and report the matter after he has barricaded the place. The question is what if that place is not fixed for 6 months?' (worker)

As a consequence, hazards triggering the withdrawal of workers from the workplace appeared unlikely to be escalated beyond the immediate workplace.

Informal exercise of the RRDW (informal confrontation)

The formal exercise of the RRDW was not found to be the default position for mineworkers concerned about a dangerous workplace. Instead there were several commonplace impediments to the exercise of the right that in practice rendered worker responses to a dangerous workplace as instances of 'informal confrontation'. Most of these constraints to the exercise of the formal right were best described in the qualitative data. However, the survey revealed that of workers (45%) who reported experiencing a dangerous workplace that they had judged to be unsafe for work, almost a third (32%) ended up back in the workplace despite this. Possible explanations for this are that concerns about the disputed workplace were not resolved to the satisfaction of workers and not escalated beyond the immediate workplace, or that these workers experienced pressure (from other workers) or coercion (from supervisors) and returned unsatisfied to the workplace, having failed in their formal exercise of the RRDW. Such workers would then have faced a situation of informal confrontation. Qualitative data revealed a complex set of issues that arose with respect to exercising the RRDW. These issues focused mainly on stories of confrontations with supervisors and co-workers which had not been formally managed, and related to contextual factors in the workplace.

One such contextual factor was the difficulty of working in a production team. One respondent described how the team blurred his or her judgement by 'normalizing' a situation he or she had, in the first instance, judged to be dangerous.

'We refused, but then continued blasting maybe 10 of us in a crew ... you even forget you are in that dangerous place.' (worker)

More positively, another respondent answered that: *'Communication in the team facilitates RRDW.'* However, in the absence of effective communication, once a worker withdrew from the workplace he or she faced possible confrontation with other team members, either with or without the backing of a supervisor.

'I stopped working for 35–40 minutes waiting for the miner... they (my production team) were cross. One of the team was very cross and said he can't work like this.' (worker after exercising the RRDW)

The same worker said:

'No! They [other workers] wanted to leave, but after

discussion with the miner [supervisor] they had to carry on working ... I think the miner was not supposed to pressurize the operators. I don't know what would have happened if they refused to work.' (worker)

A second contextual factor was fear. Workers described being either too scared to report dangerous circumstances and/or were fearful of repercussions.

'Even if there is (Section 23) we are afraid to speak out. We are afraid because we might lose our jobs.' (worker)

Workers specifically described supervisor threats and vindictive behaviour that suggested worker fears were not unfounded.

'For instance, if you refuse to work the shift boss will tell you about his qualifications. Therefore, you are forced to go and work because he is more educated than you.' (worker)

'[If] I refuse and tell you that I cannot work in these conditions then he [the supervisor] will send for your colleague and your colleague will go and work. But he will victimize you because you refused and the treatment you get will be different from others. [If] You have a personal problem one day, he will not help you because of what you did the other day, that you refused to work in a dangerous place.' (worker)

In fact, the RRDW was described by one worker as being part of an impossible choice. It was often a case of either getting 'in[to] trouble' when exercising the RRDW or being 'at fault' in the event of a subsequent accident.

'Once you practice section 23 you are in trouble. But if you tell people to go and work in a dangerous place and something like an accident happens, you are at fault.' (worker).

Informal non-confrontation, consultation, and keeping quiet in a dangerous workplace

From the quantitative survey results it can be inferred that the informal non-confrontational approach to dangerous workplaces may predominate over confrontation, whether formal or informal. Of the workers (45%) who had a personal experience of a workplace that was unsafe for work, very few workers (4%) did not speak with anyone, which showed that almost all workers voiced their concerns.

When asked to mention everyone they spoke to, workers stated their supervisor (71%, which rose as high as 87% on gold mines), colleagues (58%), management (27%), their H&S representatives (32%), their union representative (33%), and 10% noted 'others' to whom they spoke (refer to Figure 5). This strongly suggested wide consultation, cooperation, and collaboration in the immediate workplace, especially with supervisors, which is not necessarily or inevitably confrontational when assessing workplace OHS issues in general, and the exercise of the RRDW in particular.

In the qualitative data, by way of contrast, a trade unionist noted that workers' earlier fears with respect to a specific worksite may only emerge once an accident has occurred. This suggests that in some instances workers also keep quiet about their concerns about a dangerous workplace, although in this case it does not preclude workers from engagement with colleagues.

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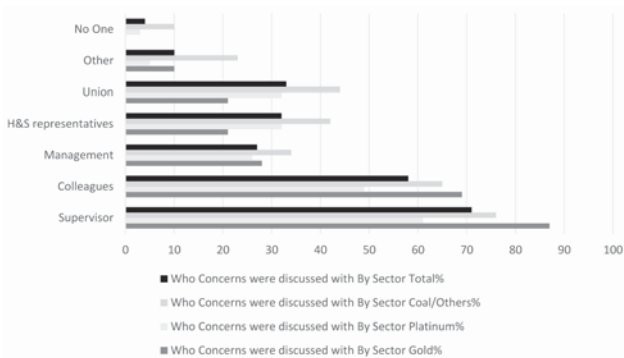


Figure 5—Who workers (n = 132) discussed their concerns with when faced with a dangerous workplace where they did not want to work

'It is when there is a problem of an injury is the time when you will hear workers saying we have seen that place is wrong, but we were afraid to report it.' (trade unionist)

Discussion

The RRDW is the only mechanism under law through which an individual worker can exercise direct control over health and safety in the workplace. This right underpins self-regulation in OHS for workers. While non-compliant OHS behaviours, such as choosing bonus-chasing over safety, stand out in the challenge to institutionalize worker self-regulation in the interests of zero harm, further research is required to establish the extent of consultative, cooperative and collaborative interactions at work. The evidence is clear that when considering implementing the RRDW, workers do not tend to do so without consultation, statistically speaking, first with their supervisors, then with colleagues and then only – in equal measure – with management and their H&S representative, all before approaching their trade union or speaking to any 'other' persons. Deciding whether the RRDW is justified or not is often complex, hence Gray's question as to when a safety refusal actually begins.

Given the spectrum of worker experience and perspectives of workplace refusals, Gray's typology provided a useful framework to consider why the formal expression of the RRDW is not the default position of South African mineworkers and why informal expressions of workplace refusal are commonplace. While this study was not designed to test Gray's typology, viewing the evidence through its lens prompted an interpretation of the gaps in our present understanding of the exercise of the right in South Africa by exposing the hidden aspect of the RRDW, namely that the non-confrontational approach almost certainly outweighs formal and informal confrontation. The application of the typology certainly provides a very useful framework for any future studies of the RRDW on South African mines and reveals new research questions.

Formal confrontation

This study found very high levels of awareness and ample evidence of worker resistance to an unsafe workplace, but which did not find full expression through the formal exercise of the RRDW. Twenty-nine per cent of workers reported a

formal experience of the RRDW and over a half (56%) reported having been asked to leave a dangerous workplace by an H&S representative. Thus the formal exercise of the right is very important for workers and worker H&S representatives made an important contribution to this.

However, the formal exercise of the RRDW on large mines faces three impediments. Firstly, the workforce is not homogenous; contract workers were less equipped to make this call. Secondly, workers were inadequately prepared to exercise the formal RRDW, since workers were unable to state the procedure for the RRDW and/or differentiate it from general safety rules and risk management. Moreover, the context for the exercise of the RRDW was found to be predominantly one of safety, and not occupational health. In short, workers had limited understanding of when, and how, the formal exercise of the RRDW had relevance. Thirdly, although the findings showed that workers were more likely to leave a dangerous workplace under the instruction of an H&S representative, workers also reported that representatives were not always able to escalate issues beyond the immediate workplace.

The fairly recent statutory 'Guideline' issued by the MHSI (Department of Mineral Resources, 2016) with respect to the RRDW and implemented in July 2016 was informed by the findings of this study and a desktop review of international legislative experience in Australia, Canada, Europe, and Zambia (Cooper, 2013). The Guideline addresses issues raised in this study and therefore seeks to strengthen the implementation of the formal right, specifically by emphasising the importance of training in relation to the RRDW procedure, and through the promotion of the exercise of the RRDW in relation to OH hazards. Furthermore the Guideline attempts to bridge the difficulties in escalating issues by advising that a workplace H&S representative should escalate a dispute to the full-time H&S representative, who if necessary should be given access to a technical adviser, with the support of management in order to reach a satisfactory resolution. (Annexure 3, RRDW guidance) (Department of Mineral Resources, 2016). Strengthening the direct relationship between workplace and full-time H&S representatives in a procedure may assist the escalation of issues beyond the immediate workplace, although to date, there is no empirical evidence available as to whether H&S representatives utilize the technical advice already available to them under Section 30 MHSI: *Powers and Functions H&S Representatives* (Masilo and Rautenbach, 2010). This study suggested that H&S representatives were unlikely to do this, either because they 'do not have powers' or are 'not working properly'.

International studies show that a supportive regulatory environment fortifies arrangements for worker self-regulation (James and Walters, 2002; Weil, 2007) and globally, neo-liberalism is accredited with an increase of management dominance over the arrangements for worker representation (James and Walters, 2002; Johnstone, Quinlan, and Walters, 2005). One reason for this is the rise of behaviour-based OHS management systems that emphasise worker compliance with mine standards and procedure rather than consultation with autonomous worker representatives (Gunningham and Sinclair, 2009; Quinlan, 2014; Walters *et al.*, 2016). A contention with the present MHSI guidance is that there is an

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undercurrent of management perspectives on the RRDW. The technical adviser, if appointed, assists both worker representatives and the employer to reach a decision in relation to a workplace where the RRDW has been exercised. However, in the event of this failing, then *'the employer must make a final decision on all issues on which there is disagreement after consultation with such technical advisor.'* (Annexure 3, RRDW Guidance) (Department of Mineral Resources, 2016) (paragraph 4.5). There is no recommendation that the H&S representative requests support from the MHSI, although Section 30 (MHSI Powers and Functions H&S Representatives) states that a representative can contact the Inspectorate and request an inspection. Without a shared commitment by all tripartite stakeholders to the RRDW as a critical component of worker self-regulation, the RRDW comes into sharp focus as the last control in the event of the risk management process failing. The manager who issued a card to 'demand' that workers exercise RRDW crossed a thin line, because the RRDW is not part of the employer arsenal for risk management. A management perspective on the RRDW, as opposed to that of an empowered and autonomous worker, confident of his or her rights, was reflected in the voice of the worker who commented that the exercise of the RRDW is often a case of an impossible choice, getting *'in[to] trouble'* (with management) when instituting the right by slowing the production process, or being *'at fault'* (with management and taking the blame for being in a dangerous workplace) in the event of a subsequent accident.

To avoid this criticism, management must consistently act in support of a worker who exercises the right, and make the *'demand'* that supervisors respect worker withdrawal from the workplace and provide support to workplace H&S representatives who wish to escalate an issue beyond the immediate workplace. Without adequate regulatory monitoring, as the data shows, management has stressed that workers need to exercise the RRDW. The RRDW is potentially compromised by this irony – this being that management and not labour representatives are pushing for, educating, and encouraging workers to exercise the RRDW. Under the present global regime of increased individualism and responsibility in OHS discourse (Gray, 2009), the question has already been raised in the South African context of workers being blamed for not having refused dangerous work.

'Might a worker be in breach of safety legislation in the event that they do not [emphasis in original] refuse to leave and continue to work in a dangerous place, and consequently be blamed?' (Stewart, 2017, p. 265).

Informal confrontation

In keeping with the Canadian study (Gray, 2002) the qualitative data revealed stories of *'informal confrontation'* that arose as workers responded to and resisted dangerous working conditions. This is an important finding as it confirmed that regular expressions of worker resistance to a dangerous workplace were occurring on South African mines, although this did not find expression and resolution in the formal exercise of the RRDW as intended in the legislation. Contextual factors such as incentivized production targets, working in a production team, peer pressure, supervisor

threats, and fear of repercussions and loss of earnings were all obstacles to the implementation of the formal right. Resistance to dangerous work was then resolved informally through peer pressure and/or supervisory coercion, resulting in capitulation by those workers who initiated, but failed to exercise, the RRDW – or who had their fears downplayed. Nearly one-third of workers who personally had experience of a workplace too dangerous for work continued to work there. The finding suggests that further studies should investigate informal, as well as formal, expressions of resistance to a dangerous workplace. Such a study would provide a more accurate measure of non-compliance with the RRDW. Given the dominant narrative of workers in the qualitative research, *'informal'* rather than *'formal'* confrontation may in fact be more commonplace.

Non-confrontational approaches

Gray suggested that the RRDW should be re-conceptualized to embrace a range of administrative and organizational procedures. Informal, non-confrontational approaches to addressing an unsafe workplace were not a specific focus of this study. Neither did workers spontaneously offer in discussions any other mechanisms they used to alert management to a dangerous workplace. A union representative suggested that only in the event of a safety incident will workers admit to their prior safety concerns. There is then scope for the *'private safety refusals'* and avoidance strategies described by Gray, as workers are certainly aware of problems but sometimes remain silent, which warrants further investigation. The more interesting finding, however, was that the highest proportion of workers addressed their concerns regarding a dangerous workplace to their supervisors, before even their colleagues, their H&S representative, or trade union. This indicates a very significant change in the OHS culture and climate in the South African mining industry given its difficult past. It is arguably within this normal, yet hidden, arena of routine day-to-day active consultation and collaboration at work and actual practice that models of optimal social relations and OHS compliance in the workplace may be discerned. A more mature OHS culture could be expected to support a decrease in informal confrontation and an increase in the formal exercising of the RRDW – predicated on a broader base of non-confrontational collaboration in the workplace.

Conclusion

In the event of a dangerous workplace, the evidence is that workers do voice their concerns often with supervisors. This suggests there is considerable consultation and co-operation regarding unsafe working conditions outside the exercise of the RRDW. The formal exercise of the RRDW on South African mines is not yet the default position of individual workers when faced with a dangerous workplace. Workers report they are more likely to have been asked to leave a dangerous workplace by an H&S representative than to make this call for themselves. Contract workers are the least likely to make this call.

The RRDW is a worker imperative and underpins worker self-regulation. The Guideline issued by the MHSI with respect to the RRDW only partially addresses the



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shortcomings found in this research. For the future, of specific concern is whether worker-elected H&S representatives can escalate OHS issues related to the RRDW to full-time H&S representatives, and whether a dispute resolution mechanism reliant on technical advisors appointed with the support of the employer can effectively support workers in realizing their right to a safe and healthy workplace. Arrangements for OHS self-regulation by workers are vulnerable to management perspectives in the absence of a strong regulatory environment from the MHSI. Yet legislation alone is no guarantee of enhanced worker safety. In what appears to be the predominant practice of consultation in the immediate workplace, much non-confrontational collaboration and cooperation takes place at the lowest level. It is surely here where new answers to health and safety in mining by cooperating autonomous individuals are to be found.

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