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The role of intersecting identities in career development and progression in the core disciplines of the South African mining industry

A Dissertation submitted to the Faculty of Humanities at the University of the Witwatersrand in partial fulfilment of the requirements for the degree of Master of Arts in the field of Diversity Studies

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15 February 2024

Declaration

I, the Patience Ntsoaki Mahobe, hereby declare that this research report is my original work.

No part of this report has been submitted in the past, or is being submitted, or will be submitted in the future for any degree or examination at any other university.



15 February 2024

SIGNED **DATE**

Ethics Clearance Certificate Protocol Number: DIV230817

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Abstract

The study sought to contribute to scholarship in the South African mining industry related to career development and progression in the core disciplines. Using qualitative research methods and applying intersectionality as a theoretical framework, the study examined whether, and how social identity plays a role on career development and progression in the core disciplines (mining & technical services, metallurgy, and engineering) of the South African mining industry. The study further examined whether there has been a change in the experiences of the different social identity groups related to career development and progression in the nearly thirty years since the promulgation of various pieces of legislation in South Africa in the mid- to late 1990s across industries and the mining industry in the early 2000s to transform the demographic profile across various occupational levels. The study lastly determined whether historical and current organisational, industry and societal systemic issues and dynamics impact career development and progression in these core disciplines. Thematic analysis was used to systematically identify and organise the data from the narratives of the participants provided through semi-structured interviews. This study confirms that intersectional identities have an impact on the career development and progression in core disciplines in the South African mining industry. The application of intersectionality as a theoretical framework brought to the fore different career development and progression experiences, challenges, and outcomes for the different social identity groups. Some progress in changing the demographic of the industry was noted, although progress is seen as being slow, particularly at executive level, with historical systemic issues related to entrenched ways of working and a leadership style that is not people-centric being the most difficult to change. The outcomes of the study and recommendations challenge the industry to think differently about transforming their cultures and ways of working, to create a focus on macro-level organisational systems and structures that continue to produce and reproduce unequal outcomes whilst also creating awareness and dealing with micro-level individual behaviour.

KEYWORDS: *Intersectionality, social identity, career development, career progression, mining industry*

Table of Contents

Declaration i

Acknowledgements ii

Abstract iii

CHAPTER 1: INTRODUCTION AND BACKGROUND TO THE STUDY 1

1.1 Context, background, and purpose of the study 1

1.2 Research Questions 5

1.2.1 Primary Research Question 5

1.2.2 Secondary Research Questions 5

1.3 Contribution of the Study 6

1.4 Limitations of the Study 7

1.5 Structure of the Research Report 8

CHAPTER 2: LITERATURE REVIEW 9

2.1 Introduction 9

2.2 Social identity and intersecting identities 9

2.3 Career development and progression along racial lines 12

2.4 Career development and progression of women 18

2.5 Career development and progression of women in male-dominated work environments 20

2.6 The intersection of race and gender in career development and progression 22

2.7 Impact of social class in making career choices 26

2.8 Historical and current context of the mining industry and its impact on career development and progression 28

2.9 Conclusion of the Literature Review 35

CHAPTER 3: RESEARCH METHODOLOGY 37

3.1 Research Design 37

3.1.1 Introduction 37

3.1.2 Qualitative Research 37

3.1.3 Intersectionality as a Theoretical Framework 38

3.1.4 The benefits of combining qualitative research, narratives, and an intersectional approach 39

3.2 Research Methods 39

3.2.1 Population and Sampling Methods 39

3.2.3 Data Analysis and Interpretation Techniques 42

3.3 Positionality and Reflexivity 44

3.4 Ethical Considerations 44

3.5 Conclusion 45

CHAPTER 4: FINDINGS 46

4.1 Overview 46

4.2 Background information on the participants and their choice of a career in mining 47

4.3 Themes and Findings 48
4.3.1 Enablers and Barriers of career development and progression 51
4.3.2 The impact of race 60
4.3.3 The impact of gender 64
4.3.4 The impact of the intersection of various social identities 72
4.3.5 The ways of working have an impact on family responsibility 76
4.3.6 Change is happening in the industry, albeit at a slow pace 80
CHAPTER 5: DISCUSSION AND RECOMMENDATIONS 96
5.1 Summary of key findings and recommendations 96
5.2 Implications of the study 102
5.3 Value of the study 103
5.4 Limitations of the study and recommendations for future studies 104
5.5 Conclusion 104
REFERENCES 106
ANNEXURE A: PARTICIPANT INFORMATION SHEET 127
APPENDIX B: CONSENT FORM 129
ANNEXURE C: RESEARCH QUESTIONNAIRE 131

List of Figures

FIGURE 1 Ducksworth's Wheel of Privilege/Marginalization 10

List of Graphs

GRAPH 1 Comparison of HDSA profile in Management between 2010 and 2022…… 4

GRAPH 2 South African Private Sector and Mining Industry representation in Top Management compared to the Economically Active Population…… 31

GRAPH 3 South African Private Sector and Mining Industry representation in Senior Management compared to the Economically Active Population…….. 31

GRAPH 4 South African Private Sector and Mining Industry representation in Middle Management compared to the Economically Active Population…… 32

List of Tables

TABLE 1	**Women representation in Management 2010 and 2022……..……...**	**1**
TABLE 2	**Private Sector representation in Top, Senior and Middle Management…….…….**	**14**
TABLE 3	**Profile of Participants Interviewed…….……**	**41**
TABLE 4	**Themes and sub-themes identified from the data……**	**50**

CHAPTER 1: INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Context, background, and purpose of the study

Although historically significantly contributing to the South African economy and continuing to do so, the mining industry was a bedrock of apartheid with exclusionary and discriminatory practices related largely to race and gender. Legislation promulgated since the advent of democracy sought to transform not only the economy of the country but also the profile of the workforce at various levels of public, private and government institutions. Given the history of the mining industry, other than legislation seeking to drive transformation across all sectors in the economy, additional legislation was promulgated in the early 2000s in the form of the Petroleum Resources Development Act No. of 2002 and the Broad-Based Socio-Economic Empowerment Charter for the South African Mining and Minerals Industry (also known as the Mining Charter) to accelerate transformation. These pieces of legislation, amongst other things, focus on skills development and employment equity, paying attention on the Historically Disadvantaged South Africans (HDSAs), including women.

The profile of the workforce within the mining industry started to change over the years with amongst others, the numbers of one of the groupings who were historically excluded by the industry (women) increasing gradually. The Minerals Council of South Africa reported women representation in the industry in 2021 being at 17%. The comparison of the Department of Employment and Labour's Commission on Employment Equity 2010 and 2022 reports also reveal Management level women representation profiles in the mining industry having increased as per Table 1 below:

OCCUPATIONAL LEVEL	2010	2022
Top Management	9.8%	20%
Senior Management	12.5%	23,4%
Middle Management	19.8%	28%

Table 1: Women representation in Management 2010 and 2022

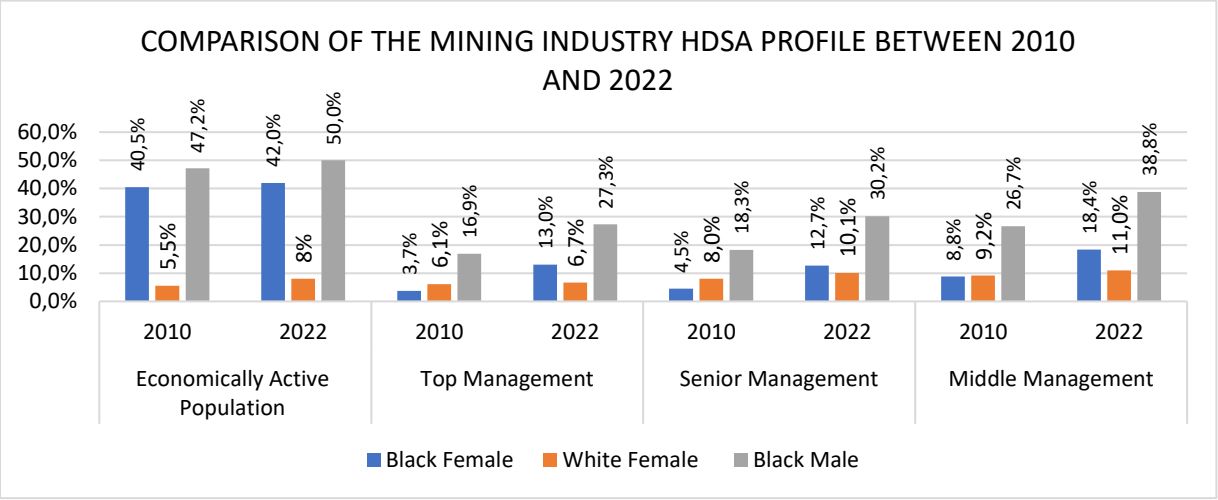
The President of the Minerals Council of South Africa also reported during her speech during the 2022 International Day of Women in Mining that the industry had three of the six Chief Executive Officers in the Johannesburg Stock Exchange listed Companies being women.

Whilst there is acknowledgement of some progress being made in overall numbers, similar progress has however not been seen in the core disciplines of Mining and Technical Services, Metallurgy and Engineering which are feeder disciplines for the key decision-making roles in the industry of Mine Manager, General Manager, and Executive positions in the core areas of the mining business. Part of the challenge is the lack of visibility of data on representation in these core areas as the South African Department of Labour's Commission on Employment Equity, whilst collecting data on core and support roles, does not publish such data per sector – they only publish total aggregate data on the various race and gender groups consolidated for both core and support roles. The Mining Charter, the first industry charter in the country which was first published in 2002, stipulated targets to be achieved by 2010 at 40% for Historically Disadvantaged South Africans (HDSAs) across all Management levels and at 10%, for women representation across all levels. Mining Charter II (2010) which was published following a review of progress on Charter I in 2009 kept the HDSA targets at the 40% level and required each occupational level from Junior Management to reach the 40% by 2015 but became silent on women representation targets. The next version, Mining Charter III was published in 2018 and moved a step forward by putting in place targets for women representation per occupational level but again neglected to split core disciplines and support services. When evaluating the profiles of the various major mining houses, one sees progress having been made with the representation of Black males in executive management roles and in some core roles from Chief Executives, Executive Committee roles and the next level of General Manager roles. In terms of women representation, one sees also some progress having been made with women representation overall, but limited progress on women representation in management levels within the core disciplines. This, therefore, begs the question as to whether there are differences in the lived experiences as well as the career development and progression of various social identity groups in the core disciplines within the mining industry that result in continued unequal representation of the various groupings. This is despite it being almost thirty years since the promulgation of various pieces of legislation to promote equity in the workplace in South Africa. It has also almost been thirty years since women were first allowed to work underground in the South African mining industry. The two key universities that produce the greatest number of mining engineers in the country (University of the Witwatersrand and the

University of Pretoria) have also significantly changed the profile of their student body, producing a minimum of 109 women mining engineering graduates out of the 633 between 1994 and 2010 (Cruise, 2011) and other universities having produced even more metallurgy and mechanical and electrical engineering graduates. The flow of graduates has also continued between 2010 and 2020, with the Wits School of Engineering having, on average, 79 students completing a mining engineering qualification. (Wits School of Mining Engineering – Biennial Review – 2019-2020).

This study therefore firstly seeks to explore the impact of intersecting social identities in career development and progression within the core disciplines of the mining industry focusing on the development and progression of candidates across various social intersecting identities who entered the industry after having completed a degree in either Mining Engineering, Metallurgical Engineering or Electrical/Mechanical Engineering. The basis for taking an intersectional perspective is the evidence of the change in the profile of the industry at management levels over the years that a focus on single identity marker at a time and treating a group like HDSAs as homogeneous, with the same lived experiences of marginalisation and privilege, does not produce similar outcomes for all groups. In particular, research on women in the industry also tends to generalise their experiences, not distinguishing the roles they occupy including whether they are in core or support roles. According to Heimann et al. (2023), "such simplications are problematic and may lead to further 'othering' of women working in the industry." Taking an intersectional approach is also important because lived experiences are not shaped by single axes of difference but by multiple ones interacting to create different positionalities and potentially leading to exclusion (Bowleg, 2008; Collins, 1998; Crenshaw, 1989). Evidence from the movement in statistics indicate that although the Mining Charter sought to deal with both race and gender from the onset in 2002 albeit separately and additively, initial focus was on HDSAs overall with the impact that race seems to have taken precedence over gender at management levels. This was largely driven by the initial overall target of women in mining in Mining Charter I of 10% being across all occupational levels whereas the HDSA in Management target was much more specific at 40% of the management levels. The construction of HDSA in legislation and relative progress being seen in the workforce profile under this definition has masked the lack of progress across-the-board, particularly related to women with various marginalised social identities. The result has been that the Black Male profile changed significantly up to 2010 and again by 2022 compared to the other groupings

also classified as HDSA with the number of white women also being significantly higher compared to their representation in the Economically Active Population (EAP) as per Graph 1 below:



Graph 1 – Comparison of the mining industry HDSA profile in Management between 2010 and 2022

The statistics above also set forth "the problematic consequence of the tendency to treat race and gender as mutually exclusive categories of experience and analysis" (Crenshaw, 1989), thus potentially erasing or making invisible identity categories like black females who have doubly marginalised by both race and gender simultaneously through equating race with black male and treating women as a homogeneous group without critically analysing their extent of marginalisation and historical and continuing access to opportunities and privileges. This privileging on one axis of identity therefore assumes that all members of the identity category share the same experiences (Grzanka, 2014).

With a huge focus on representation as well as legislative compliance at the various occupational levels, an opportunity has also been missed to properly interrogate the systemic issues still prevalent that prevent progress to be made beyond the numbers.

The study therefore further aims to combine the analysis of social identities with interlocking systems within the industry and society using intersectionality as a theoretical approach. The study will as a result, bring together both micro-level issues through the lived experiences of the participants, their social location, and identities (Sibbett, 2020; Nash, 2015) with macro-

level industry-related and societal interlocking systems (Collins, 1998) to test whether or not they create unequal outcomes and potentially drive marginalisation and privilege for the different social identity groups in as far as career development and progression are concerned. Crenshaw (1989) further highlights how our multiple identities connect in unique and complex ways to shape our experience and the importance of recognising how these identities may carry unearned advantages or disadvantages with them. At a micro level of the social identities of the participants, whilst acknowledging that there may be other identity markers that impact career development and progression, the initial focus of the study was to highlight how race, gender, social class, and family responsibility co-constitute rather than being the sum of independent effects (Hancock, 2007) to impact the career development and progression of the participants. In addition, during the study and interviews with the participants, age kept coming up as an important element of identity for consideration and its impact will also be discussed in the analysis of the research results.

1.2 Research Questions

1.2.1 Primary Research Question

The primary research question that the study seeks to answer is:
What role do intersecting identities play on career development and progression into managerial roles in the core disciplines of the South African mining industry?

1.2.2 Secondary Research Questions

The secondary research questions that the study seeks to answer are:
How do different social identities impact career development and progression in the core disciplines (mining and technical services, metallurgy & engineering) in the South African mining industry?

Have the experiences of groups with different social identities changed in nearly thirty years since companies started focusing on employment equity and legislation being put in place to drive the transformation of the demographic profile in the industry and women being allowed to work underground since 1996?

What historical and current organisational, industry (mining) and societal systemic issues and dynamics are at play and what is their impact on career development and progression in the core disciplines?

1.3 Contribution of the Study

With the withdrawal in 1996 of South Africa from the UN Convention No.45 of 1935, there have been several research studies focusing on the entry and progression of women in mining (Botha, 2016; Botha, 2018; Moalusi and Jones, 2019; Letlape, 2014; Mangaroo-Pillay and Botha, 2020; Mashiane, 2009). These studies, whilst adding to the body of knowledge about challenges facing women in the industry, the consequence of their findings is that questions related to the masculine cultures are only discussed from the perspective of the women involved in the studies and the men who are largely responsible for perpetuating and upholding historical and current structural and systemic issues that create barriers are not part of the conversation to effect change (Heimann et al., 2023).

Whereas employment equity legislation in general and the mining charter in particular, that was specifically promulgated for the mining industry sought to transform the workforce across all levels, including both the racial and the gender profile, little attention has been paid in researching how this profile has changed across the different social identities constructed as HDSAs in mining legislation. The various intersections of social identity have also received very little attention and therefore there has not been a measure of the impact of these intersections on career development and progression which in turn lead to changing the workforce profile across all levels, and in particular management levels. Similarly, as in other organisational settings that generate and replicate inequalities (Acker, 2006; Winker & Degele, 2011), the way in which organisational practices are implicated in the lived experiences of the intersectional identities of workers are seldom studied (Ruiz Castro & Holvino, 2016). Effort also seems to have been put on changing the numbers without focusing on how historical and current systemic issues impact the lived experiences of the various social identity groups, thereby determining whether they stay and pursue a career in the industry or whether they leave to find opportunities elsewhere.

The study therefore seeks to explicitly explore the role of intersectionality in career development and progression and how social identity impacts the experience and if and how the situation has changed since the advent of democracy (1994) and the following twenty-seven years. It is further anticipated that the study will assist to close the gap in the research which has mainly focused on barriers to the career progression of women specifically in the mining industry and add to the body of knowledge about enablers and barriers to career development and progression across different social identities in one of the most important industries within South Africa. It will do this by drawing comparisons between the various social identity groups and explicitly bringing to the fore the differences in the lived experiences relating to career development and progression. This is important because continuing to focus on only one identity marker without looking at the impact of the intersection of identities and neglecting to understand how both power and privilege continue to be produced and reproduced and the impact of historical and current systemic issues and dynamics will result in interventions like the ones that have been prevalent over the last thirty years since the advent of democracy in South Africa and which have not resulted in meaningful transformation, across-the-board.

1.4 Limitations of the Study

The study was conducted in one mining company in the coal sector, with the sample drawn from the three disciplines (mining and technical services (excluding geology and survey), metallurgy, and engineering) across the various mines within that company. With the study not including different companies and commodities within the mining industry, there is potential that the results may not necessarily apply across the industry. According to the Minerals Council of South Africa, the coal sector has become much less labour-intensive and has more opencast mines (53%) and even the underground mines are highly mechanised. The significance of this is that in other parts of the industry, particularly the hard-rock mines, the physical conditions create additional barriers that make navigating and developing a career more challenging.

The participants also all have a tertiary qualification which places them in a privileged position compared to most in the industry as there is generally a focus by the mining companies on their development as for most of them, the mining companies would have already spent hundreds of thousands of rands in bursaries putting them through universities or other tertiary institutions. The experience of those without a tertiary qualification on career development and progression

will be different as they do not necessarily get the same focused development attention. Further research on this topic is therefore necessary covering the whole South African mining industry and the experiences on career development and progression of employees who do not possess a tertiary qualification or are studying towards one on a part-time basis.

1.5 Structure of the Research Report

The research report is made up of five chapters.

Chapter One provides the background and context to the research study, as well as the research problem, research objectives, questions that the study seeks to answer, the contributions as well as the limitations of the study.

Chapter Two outlines literature already produced on the subject, covering the various aspects of social identity and how these intersect and produce outcomes of marginalisation or privilege within power relations. The next focus will be on both racial and gender lines as these are the primary social identity markers used in the study, with the impact of the intersection of race and gender also being a focus as the theoretical framework of the study. The chapter further delves into the impact of social class in making career choices; and concluding the chapter with the historical and current context of the mining industry and its systemic issues and how they impact career development and progression.

Chapter Three explains the research design and methods applied in the study including the participant sample, data collection and analysis techniques, as well as ethical considerations.

In Chapter Four, the findings of the research study are outlined, with a detailed analysis of the data derived from the narratives of the participants provided.

Chapter Five consolidates and synthesises the findings within the context of the purpose of the study, the research question and other available research, whilst also making recommendations to deal with the findings and revisiting the study's limitations.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This section highlights the relevant literature already produced on social identity as well as career development and progression. Areas covered include research defining social identity and how various aspects thereof intersect to produce lived experiences in an axis of marginalisation or privilege within power relations; career development and progression along racial lines; career development and progression of women; career development of women in male-dominated environments; the intersection of race and gender in career development and progression; and the history as well as the career and development specifics of the mining industry. The literature takes both a historical and current context based on the premise presented by Steyn, et al. (2021) that to deal with oppression in the present and work towards change, it is important to examine how a particular structure came into being. In covering each element, the enablers and barriers to career progression are also highlighted.

2.2 Social identity and intersecting identities

In the context of this research, it is important to understand how social identities and their interconnectedness result in particular outcomes related to career development and progression. According to hooks (2000), we all have identities such as race, gender, sexual orientation, and class, that coexist within us and shape the way we see and are seen by society. The interaction of different social locations like race, gender, class, sexuality, geography, age, disability/ability within a context of connected systems and structures of power like laws, policies shape us as human beings (Hankivsky, 2014). Social identity therefore matters in that it locates us in relation to other people in the world in ways that have huge consequences (Johnson, 1997) based on whether we are viewed favourably or unfavourably because of such identities and the proximity of such identities to power structures.

A good illustration of the impact of identity in shaping the way one is perceived by society is the wheel of power/ privilege by Sylvia Duckworth (n.d.). The closer one's interconnected

identities are to power, the more positively they are likely to be perceived and the further they are to power, they are more likely to be rendered invisible and therefore marginalised.

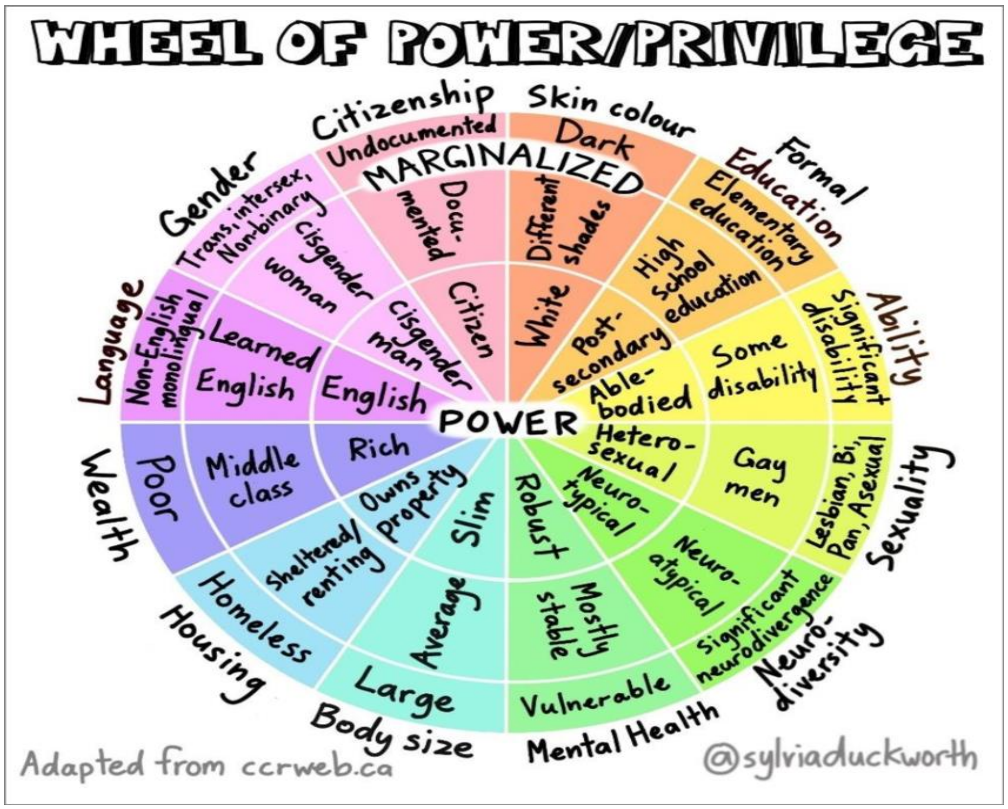


Figure 1: Ducksworth's Wheel of Privilege/Marginalization

Johnson (1997) emphasises how shifting one or more of the elements of one's social identity could have a dramatic effect on how they are treated by society and when this shift moves one closer to power, their life can change dramatically. Johnson (1997) further identifies the problem with difference between people as not being the difference itself but rather how difference is used to include or exclude, reward, or punish, credit or discredit, elevate or oppress, value, or devalue, leave alone, or harass. Based on membership of a group(s), individuals mentally create in-groups (groups and an individual feels they belong to) and out-groups (groups an individual does not feel they belong to) which results in the potential for the in-group to be favoured and the out-group to be discriminated against (Tajfel et al., 1979). Membership of one or multiple groups derived from identity therefore largely determines how one is likely to be viewed and treated.

Whilst some aspects of identity can change over time as they are fluid, some are difficult to change, not because they are biologically fixed but because they are social constructions, (Johnson, 1997; Butler, 1988; Zanoni, 2011). Difference is therefore always (inter)relational, inessential, incomplete, fluid, and destabilized (Steyn, 2015), meaning that depending on the situation, individuals can simultaneously hold both marginalized and privileged identities. (Crenshaw, 1989). A shift in one critical identity marker or a combination of identity markers can therefore have either positive or negative consequences on the outcomes for that individual.

Given that not one aspect of identity determines how one is treated in society, intersectionality has been used to explain the inter-connectedness of the various aspects of identity in determining lived experiences. Intersectionality was first coined and popularised by a black, anti-racist feminist Kimberlé Crenshaw in 1989 with the aim of exposing how oppression and privilege are shaped by the interaction of multiple social identities and to highlight that the combined experiences of black women related to race, gender and class cannot be explained using only one of the identity dimensions (Crenshaw, 1989; Collins, 1998). A key part of Crenshaw's (1989) argument was that looking at an issue from a single identity lens has the potential to hide the experiences of individuals who are discriminated against because of a combination of intersecting identities, such as race, gender, and class. According to Atewologun and Sealy, R. (2014), intersectionality expands simplistic categorical assumptions about identity, by forcing us to acknowledge the simultaneous nature of multiple group membership, enabling an understanding of how identities overlap with one another and with systems of power that oppress and advantage people in the workplace and broader community (Catalyst, 2020). As such, it reveals how class, gender, nationality, race, masculinity, sexuality, age, and disability are implicated in one another in different permutations and interactions (Steyn, 2015), shaping lived experiences. These social identity markers are therefore not operating independently of each other but are interconnected to create experiences of oppression [or privilege] on multiple levels in a social hierarchy (Lanehart, 2009).

Privilege and proximity to power therefore enable one to move through life without being marked as an 'outsider,' exceptional or 'other' to be excluded, or to be included but always with conditions (Johnson, 1997). What is however important to note is that privileged status does not necessarily determine a person's outcome, it is just an asset that makes it more likely that whatever talent, ability, and aspirations will result in something good for the individual with a privileged identity (Johnson, 1997). This view is supported by Steyn (2015) who states that not

all people are placed identically in relation to power structures as there are disparities that result in some people with privileged identities not benefitting equally from the privileges afforded by their identity, with some being in quite weak positions in relation to 'othered' groups. A critical review of the interconnectedness of various social identity categories, should therefore provide a view of how these intersect with organisational practices related to career development and progression and if, and how these sustain inequalities.

Having reviewed the literature on social identity and how various elements thereof interact to determine outcomes within an axis of privilege or marginalisation, and how identity is not fixed and can evolve over time and the consequences that such a change can have on how an individual is viewed in society, the next sections review the literature on the impact of the various aspects of social identity on career development and progression.

2.3 Career development and progression along racial lines

2.3.1 Historical account shaping the present

Various studies note that the economy of South Africa was historically constructed to support apartheid through centralising white superiority and excluding non-whites in key positions thereby resulting in the workplace complementing the structure of the apartheid system. (Carrim, 2018; Mokoena, 2020; Booysen & Nkomo, 2010). Naidoo, et al. (2014) note the uniqueness of the extent of racial discrimination in South Africa due to its length compared to other colonial economies who achieved independence in the 1960s when it intensified in South Africa through formalisation in legislation. According to Gradin (2018), legislation was enacted during apartheid like the colour bar, the Bantu Education Act of 1953 to ensure that black people are not only barred from achieving adequate levels of education to enter and progress in the labour market but were also relegated to unskilled work with skilled work and supervisory and management functions reserved only for whites. As such, racial hierarchical structures were developed which ensured that White supremacy is written and entrenched into laws that ensured that it was embedded and institutionalised (Mills, 1997).

The racial hierarchy that exists both in belief systems, structures and institutions still has a legacy in the present, and failing to acknowledge its existence is the reason why diversity,

equity, and inclusion programs fail to achieve what they set out to achieve (DiTomaso, 2021). Nkomo (2021) notes how race is and has always been constitutive of organisations even if the idea of race had not been explicitly acknowledged as being deeply embedded in the very core of management and organisation theory. Therefore, choosing to ignore the existence of such a racial hierarchy leads to what Mills (1997) refers to as racial contract, which is the epistemological ignorance of how the domination by Whites of Non-Whites and Whites being treated as the normative group continues to subordinate Non-Whites. According to Steyn (2015) "when we depoliticize the present by refusing a critical memory of the past, we render it impossible to understand the depth and scope of current challenges and delegitimize the realities of the recipients of egregious effects of the past and their struggles for redress." As such, Ndzwayiba, et al. (2016) contend that you cannot research transformation discourses in organisations and find meaningful solutions without revisiting the past events to understand the present to challenge and change it for the better. As such, seeing society as race-neutral without understanding the past results in a lack of understanding of present-day racial inequality (Gallagher, 2003).

The enactment of various pieces of legislation post-apartheid was aimed at not only changing the demographic profile of the workforce across all occupational levels, but also address historical socio-economic inequalities by removing discriminatory laws and practices which had resulted in disparities in employment. (Employment Equity Act, 1998; Broad-Based Socio-Economic Charter for the Mining Industry, 2018). Literature however reveals that these objectives have not been met largely due to the continued prevalence of the factors below.

2.3.2 Demographic representation

In spite the promulgation of legislation from the late 1990s aimed at changing the profile of the workplace, the 23rd Commission of Employment Equity Annual Report for the period 2022 to 2023 indicates the continued historical race and gender hierarchy in the private sector as follows:

	African Male	Coloured Male	Indian Male	White Male	African Female	Coloured Female	Indian Female	White Female	Foreign Male	Foreign Female	TOTAL
Economically Active	41,1%	4,0%	2,9%	6,1%	35,5%	3,2%	3,7%	3,2%	n/a	n/a	100%
Representation Top Management	8,4%	3,4%	7,8%	52,6%	5,4%	2,4%	3,8%	13,2%	2,5%	0,5%	100%
Representation Senior Management	12,2%	4,8%	8,3%	36,5%	7,8%	3,5%	5,0%	18,6%	2,4%	0,8%	100%
Representation Middle Management	19,3%	5,9%	6,6%	23,8%	15,5%	5,2%	5,2%	15,8%	2,0%	0,8%	100%

Table 2: South African Private Sector representation in Top, Senior and Middle Management

The numbers provide evidence that removing discriminatory legislation alone does not necessarily translate in the eradication of racial discrimination and segregation (Gradin, 2018).

From a career development and progression perspective, a study by Myeza and April (2021) found that the demographic composition of senior management to be a factor in career progression where the participants look at the demographic composition and see their prospects of reaching this level as being low as some positions appear to be reserved for certain races. They therefore see representation as being essential for emotional support, loyalty, and a sense of belonging to black employees which in turn improves their workplace experience.

Khoza (2022) notes how the segregation and therefore lack of interaction between black people and other racial groups resulted in 'white spaces' being created where black people are typically absent, not expected, or marginalised when present (Anderson, 2015). These continue to impact interactions in the workplace in the present and result in tense racial interactions ranging from what Allport (1954) rated in the scale of prejudice from antilocution (jokes or hateful speech about another group) which have the effect of harming the self-esteem and self-image of the impacted group; to avoidance which results in isolation and exclusion; to discrimination which results in denial of access to equal opportunities; to subtle attack; and in extreme cases, physical attack. As such, organisations must grapple with how to engage this diverse population in a common enterprise among disparate groups who "do not share a common history or culture" (Caproni, 2004). What tends to happen though is what Onwuachi-Willig and Alfieri (2013) refer to as definitions and rules related to corporate culture into which Black

professionals must assimilate because being professional is seen as being synonymous with "acting White" (Dickens, 2014). Biko (1987) also notes the difficulty of non-dominant and subordinated groups to express their personhood in ways that challenge or fall outside what is endorsed within societies, particularly in interactions with dominant groups or in public spaces. This has an impact not only on everyday interactions, but also on the processes that are essential for career development and progression because of the stereotypes associated with being and acting different to the norm.

2.3.3 Individual responsibility vs systematic change

Literature further suggests that organisations tend to make the problem of racism an individual problem rather than an organisational problem embedded in the systems and structures of the organisation. Management and organisational literature also tend to place a focus on micro-elements of diversity without giving a historical, structural, and institutional account of intergroup relations and views power as being at an individual psychological and interpersonal level while ignoring the power dynamics at an institutional level. (DiTomaso, 2021; Zanoni & Janssens; 2004). DiTomaso (2021) therefore stresses the importance of understanding that racial and other forms of inequality are not just about prejudice and discrimination but rather are the legacies of durable inequality embedded in institutions and reproduced through every day and often routine interaction.

From a diversity perspective, assuming that individuals compete for opportunities from the same base, ignores how the history has placed them in different locations in relation to power. As such, it presents us as living in a post-race society where people as individuals control and are responsible for their own destinies (Steyn, 2015) when there is still evidence to suggest the continued perpetuation of structural and epistemic injustices of the past (Steyn & Vanyoro, 2023).

2.3.4 Modelling of career development and progression

According to Smith and Nkomo (2021), what is known about executive career entry, advancement, and career paths largely reflects the realities of white men, with some attention given to white women. The dominant group is therefore presented as the standard or the

implicit benchmark, other groups must fit into the dominant culture where being professional was synonymous with "acting White." (Nkomo, 1992; Dickens, 2014). This modelling of requirements for entry and progression therefore results in biased outputs from processes like job analysis and definition of job requirements, hiring and promotion decisions where conceptions of what an ideal candidate looks like is based on these normative standards (Steyn and Jackson, 2014).

2.3.5 Language

Myeza and April (2021) also found the language to be an issue in corporate South Africa that impacts career progression and intersects with class to determine career progression outcomes. They identify communicating eloquently in English as being linked to intelligence, with a 'black accent' creating an additional disadvantage and one being more likely to be sidelined compared to those who attended Model C schools which are formally white only and better resourced and who are thought of to be 'better blacks' by both the black and the white community.

2.3.6 Developmental activities and interaction

Work by Thomas (1989) shows the positive impact of mentoring in helping people of colour "breakthrough" to senior levels within the organisation. Nkomo (1992) notes that people of colour may find it difficult to access mentors of any type and when they do, issues related to race, gender, job level, function/profession or organisational culture become further barriers. As such, understanding the intersection of race and mentorship is essential in the impact it has on changing the power dynamics and impacting the attainment of leadership positions within organisations (Caproni, 2004).

Isolation is another factor implicated in the lack of career progression by black professionals. A study by Myeza and April (2021) confirmed that most black professionals have, at some point in their career, been 'the only black' or 'the first black' within their organisations, especially in positions of leadership. They also found that black professionals sometimes turned down roles where they would be the only black even if it meant delaying their career progression. Isolation also presents itself in the form of the availability of networks internal to the organisations and

being part of the inner circle and the provision of opportunities by managers (Visagie & Koekemoer, 2014; Santos, 2016). As such, due to isolation and lack of support, Black professionals often seek support outside the organisations in the form of black networks (Mayiya et al., 2019).

The availability of meaningful development programs has also been identified in literature as another barrier to career progression. Participants in the study by Mayiya et al. (2019) indicated not being exposed to daily responsibilities of senior managers, thus lacking exposure to strategic duties, which can prepare them for senior management roles in the future. This study also found that whilst there were development programs in organisations where the participants were employed, they found these programs to be more relevant for junior managers and did not cater for the transitional needs of middle managers aspiring to move to senior management.

2.3.7 Personal Factors

Mayiya, et al. (2019) study also found personal factors that impact the career progression and development as not putting oneself forward for senior roles linked to fear of being viewed as over-ambitious, fear of being labelled a token, fear of not getting support and respect from white employees and self-doubt as well as fear of having to deal with racial challenges. The other personal factor that they identified is also related to self-doubt where black professionals believed that their success can be attributed to there not being enough black people to be selected for the roles that they are in, rather than them being the best talent available.

2.3.8 Agency

Despite these challenges, research shows that black professionals continue to display agency in taking responsibility for their career development and progression. Mayiya, et al. (2019) found that African Black senior managers in South Africa do not trust organisations with their career development and that they would rather take control of their own career development by moving from organisation to organisation to build their repertoire of skills and competence. This has led to incorrect perceptions about black people and their commitment to one workplace in the phenomenon identified as job-hopping. Ndzwayiba et al. (2016) criticise this stereotype attached to black professionals as disloyal, greedy, and unreliable, rejecting the non-critical review of the reasons why turnover of black people happens in organisations. They challenge

the dominant narrative that was being reproduced as it only focused on statistics whilst failing to focus on the primary issue related to corporate environments that are not welcoming and do not enable black professionals to contribute meaningfully as well as shifting attitudes across all professionals, irrespective of race, towards work.

2.4 Career development and progression of women

Literature on the experiences of women in the workplace is widely available both globally and within South Africa with, most of the enablers and barriers to women development and progression also being well recorded, most of which are also common within the South African labour market. Research on women experiences in male dominated workplaces has also been conducted within the South African workplaces with a large focus on the mining and the construction industries. The focus on these industries has been largely driven by their histories of women exclusion for many years, with South Africa only withdrawing from the UN Convention No.45 of 1935 which prohibited women from working underground in 1996. The South African labour market was also previously extremely gendered with more formal employment opportunities opening more for women after the first democratic election in 1994. This was because of the new government enacting legislation to drive fair treatment of all persons in the workplace, remove discrimination and drive skills development like the Employment Equity Act No.55 of 1998 as amended, and the Skills Development Act No. 97 of 1998.

According to Ketchiwou et al. (2022), in South Africa, women still have a skewed representation in the workplace and in management across all sectors of the economy. Botha (2017), also notes that although women's participation in the labour force has increased over the past thirty years, mainly due to expanding economic opportunities and equal employment opportunity legislation, the continued historical pattern of women being subjected to certain forms of discrimination in the workplace continues. According to the Statistics South Africa Quarterly Labour Force Survey for Quarter 2, 2021, the South African labour market is more favourable to men than it is to women with 69% of managerial positions occupied by men compared to 33.1% by women (Statistics South Africa, 2021).

One of the reasons implicating the continued under-representation of women is the masculine workplace culture that excludes female workers in favor of men and structural arrangements at industry and organisational levels that make it difficult for women to secure inroads into these fields (Harris and Giuffre, 2010). Acker (2012) refers to invisible processes in the lives of organisations in which gendered assumptions about women and men are embedded and reproduced, resulting in the sustenance of gender inequalities. Moalusi and Jones (2019) agree with this sentiment noting that jobs and organisations are structured in a manner that promotes disadvantages for women and advantages for men, resulting in policy failing to achieve its intentions.

The other commonly referred to discriminatory practices include limited access to support networks, skills development, mentors, and career sponsors that are essential for career advancement. A study by Ketchiwou et al. (2022) outlined the active promotion of women's skills development by the organisation through networking, learning and growth, leadership development, career management, sponsorship as being important for career progression and development. Coetzee (2017) also notes the positive impact of skills development in facilitating career development and progression. Mentoring, specifically, is identified as a powerful tool to achieve gender equality by facilitating the building of skills, developing networks, and creating exposure to opportunities (Ivey and Dupre, 2022). However, barriers identified include few women in executive roles who can serve as mentors and the available mentors lacking gender role identity and gender management characteristics needed to facilitate the mentee's social-exchange relationship (Tzinerr & Barsheshet-Picke, 2014).

Broadbridge (2015) and Herman (2015), identify traditional career models as being characterised by bureaucracy, vertical progression, rigidity, full-time employment, and uninterrupted careers. Due to these characteristics, these career models overlook an important aspect in women's lives of family responsibility and effectively exclude women from what Moalusi and Jones (2019) define as the 'ideal worker'. This exclusion is due to family-related demands, strains and time constraints putting pressure on the time that women can spend on work commitments in relation to family commitments (Ketchiwou et al., 2022) and are thus perceived to be not as committed to their careers. According to Sowjanya et al. (2017) the pressure that continues to be put on women by family and patriarchal social structures for them to play a primary role in family responsibilities like nurturing children, caring for in-laws and

being responsible for the family is the source of such pressure. Life stage was also found by Sullivan and Mainiero (2007) to put different challenges to women and their career development and progression. A further element related to family responsibility is found in a study by PWC (2018) that there is discomfort by women having a desire to start a family based on the potential impact this could have on their career and evidence of new mothers feeling overlooked for promotions and special projects on their return to work. The results of the McIntosh, et al. (2012) study confirm the negative and regressive detrimental effect of motherhood on the career progression of women, with women who have younger and school-age dependent children experiencing a more detrimental impact as well as those who take a break longer than two years to raise children seeing further restrictions on their careers. Overall, regardless of their career-life stage, the challenges faced by women related to family responsibility are not shared by their male counterparts (Moalusi & Jones, 2019).

Despite these pressures and contrary to the perception that women are less committed to their careers, research by McKinsey and LeanIn (2023) confirms that women remain just as committed to their careers and just as interested in advancing. The study by Ketchiwou et al. (2002) however also emphasised the need for women to take responsibility for their own careers, viewing effort, professional confidence, responsibility, and optimism as being vital for success.

2.5 Career development and progression of women in male-dominated work environments

In male-dominated environments, discriminatory practices and barriers towards the career development and progression of women play out in even more pronounced ways.

Martin and Barnard (2013) note that women who work in male-dominated occupations face challenges that differ from those who work in more gender-balanced and female-dominated occupations related to covert gender-discriminatory and biased organisational practices, as well as the unique physical, identity and work-life balance needs.

With white males having been at the helm of organisations, the white male behaviour has been used as a marker of the standard expected of all employees, particularly leaders (Reynolds-Dobbs et al., 2008). Pimpa (2019) using an example from the mining industry notes that in

addition to creating an ideal worker, an 'ideal woman' is further created who is expected to assume roles assigned within an embedded culture of masculine hegemony. Mathur-Helm (2006) identifies that the male model of career progression is a standard in these environments. Staying on the job longer than expected in order to impress managers (Harris and Guiffre, 2010) is having an impact on the work-life balance of women (du Plessis and Barkhuizen, 2012). According to Hochschild (2000), women must ward off the 'evil eye' of male coworkers by working long hours to prove they are deserving of their position and that their promotion was based upon merit and not 'luck.'

The gender norms and societal stereotypes, masculine corporate culture, and male-type behaviour particularly in male dominated workplaces also present themselves in ways that are much more salient than other workplaces. In such workplaces, women are expected to prove themselves as being able to behave in masculine ways while at the same time displaying 'feminine 'qualities (Martin,1996). According to Brock (2000), this leads to a double bind, which occurs when women try to emulate the leadership qualities expected of men and exhibit qualities typically perceived as masculine (e.g., ambitious, confident), even while also displaying qualities typically perceived as feminine (e.g., being nurturing, social, nice). The result is that women become conflicted in their roles and must choose between two unattractive options: exhibiting feminine qualities (at risk to their careers) or exhibiting masculine qualities (also posing risks to their careers). A further consequence that (McKinsey and LeanIn, 2023) identifies is what is known as self-shielding or self-monitoring, which are efforts to avoid or protect oneself from mistreatment by continuously modifying one's behaviors through code-switching, restricting self-expression or hiding aspects of one's identity.

In male-dominated environments, the likelihood of being 'the only' or one of very few women is still high. Smith and Nkomo (2021) identify that "a woman in solo status has her job performance scrutinised more, is highly visible for all the wrong reasons, and encounters hostility from male colleagues." A study by McKinsey and LeanIn (2019) also found that when women are the only ones, they are far more likely to have their judgement questioned and having to produce evidence of their competence on an ongoing basis, being mistaken for someone more junior and being subjected to unprofessional and demeaning remarks, with such treatment potentially leading to being overlooked for promotion. Such scrutinisation tends to be in the form of microaggressions which McKinsey and LeanIn (2023) defines as "demeaning or dismissive comments and actions – rooted in bias – directed at a person because of their

gender, race, or other aspects of their identity." A further dimension that adds to the scrutiny is what Harris and Giuffre (2010) refer to as the work-family conflict burden which is heavier for women in male-dominated occupations because the male perspective of complete devotion to work dominates the male-dominated organisational culture.

Catalyst (2023) research also found that across the globe, women working in male-dominated industries are more likely to experience sexual harassment than those working in other industries. These findings were confirmed by research in the mining industry conducted by Elizabeth Broderick & Co, (2022; 2023) on behalf of Rio Tinto and Goldfields assessing their organisational cultures, where it was found that women are more likely to experience sexual harassment than their male counterparts and that such acts start as incidents of everyday sexism that escalates to more serious incidents.

Pereira (2017) found that in a male-dominated environment, women who participate in training interventions are more likely to experience increased social networking activities, self-advocacy behaviours and enhanced positive psychological states.

It is therefore important to have a good understanding of the peculiar challenges that women face in male-dominated environments to be able to come up with fit for purpose interventions.

2.6 The intersection of race and gender in career development and progression

In line with the intersectional perspective from which this study is conducted and, in an effort, to avoid essentialising women and treating them as a homogeneous group, it becomes important that research on the experiences along race and gender lines as interconnected aspects of identity rather than being additive elements are recorded. This is important because "it is not gender alone that determines how women are developed and promoted, but the intersection of gender and race" (Smith and Nkomo, 2021) and identifying and understanding the criticality of the intersection of gender and race and the realities associated with these intersections is important in the advancement of all women. This is also important because the unique experiences of black women inequalities due to race, gender and social class are generally amplified (Scheepers & Mahlangu, 2022). Whilst women were generally subordinated to lower

levels roles during apartheid, Ngoako (1999), notes that white women had more privileges compared to black women (and other minority groups) and they were allowed to occupy administrative roles, whilst black women occupied other peripheral roles in most sectors in what Naidoo (l997) refers to as 'inequality within inequality' when referring to the difference and unequal representation of white and black females in management. Prekel (1994, as cited by Booysen, 1999) further states that, even if affirmative action were to be fully implemented with gender in mind, it would take decades for the effects of centuries of discrimination against black women, in terms of both gender and race, to be eliminated. Therefore, to properly evaluate how difference and oppressive identities have an impact (Crenshaw, 1989), an understanding of the intersection of race and gender is necessary to move forward in addressing the unique challenges faced by black women. This will further avoid lumping the voices and experiences of Black women together with those of Black males (Collins, 1998), or alternatively together with those of white women resulting in the important components of the intersection of race and gender impacting the lived experiences of Black women being missed. The struggles of Black women are unique and separate from those of white women because black women have and continue to experience oppression due to their race, gender, and class (Moyo, 2022; Pala, 2005), and the construction of groups as homogeneous has the negative effect of making invisible the historical and current oppressions (Mohanty, 2003). The result is that interventions that may be put in place will not necessarily change systems and processes that perpetuate discrimination.

2.6.1 Interaction between different social identity groups and impact on career development and progression

People tend to be attracted to, and likely to interact with those like them (O'Neill and Blake-Beard, 2002). Ting-Toomey (1999) states that individuals tend to experience "interaction predictability when communicating with culturally familiar others and interaction unpredictability when communicating with culturally unfamiliar others." This generally puts black women at a disadvantage because they neither share race similarity nor gender similarity with those in power as there are few black women in leadership positions. Such differences also play out in skill and competency development interactions critical to career development and progression in ways that may impact black women differently. In a study by Scheepers and Mahlangu (2022) evaluating perceptions of male executives on mentoring African women, they found that male executive participants stereotyped Black African women in terms of their

gender, by having an expectation for them to care about their teams and become communal leaders. They further found that they lacked insight into intersectionality and considered Black African and White women as having the same challenges. The study further revealed same-race, cross-gender mentoring relationships to be the most difficult, because of the cultural influence on Black African male mentors to perceive Black African females as dependent and subordinate to Black African males in terms of position in society. This stereotype was further linked to most of the participants' spouses being homemakers. An additional challenge for black women stems from the underrepresentation of Black women in managerial positions which makes it difficult for them to find mentors (Bell, 1990).

2.6.2 Response to discrimination, and agency in dealing with discrimination

Another difference between white women and black women identified in the study by Smith and Nkomo (2021) is that black women learned from their parents or through early life experiences to expect discrimination which is something that white women generally do not have to deal with in the early stages of their life. Flowing from that, they also found that white women were less vocal about injustices and thought they could just fit in by doing the right things and because of their commonality based on race to power, they find fitting in easier than their black counterparts.

2.6.3 Fitting in and identity negotiation

Dickens (2014) notes how black women must adopt identity negotiation techniques in an effort to adapt to these environments, whist still seeking to appease the black community. These techniques involve conforming to professional standards and dominant cultural values within the work setting, while also managing expectations, values, and roles in relation to the Black community (Bell, 1990). These techniques become particularly pronounced the more senior the black woman is in the organisation as there are junior and up and coming professionals looking up to them for ways to negotiate and manage similar situations. The result, according to Dickens (2014), is the pressure to assimilate to avoid being seen as 'uncivilized' (Kilomba, 2013) thereby having to compromise being authentic self to fit in. This pressure to assimilate has an impact on Black women's understanding of their race, class, and gender identities, all of which they navigate in the process of assimilation or resistance in forming what Bell (1990) refers to as bicultural stress where the black professional woman must suppress or diminish one part of their identity to exist in both the workplace and life in general.

In terms of negotiating race, gender and class, Dickens (2014) found that black women are 'stuck in the middle' because of their education status and social class, they are no longer fully part of their old community, but working in a predominantly white institution results in them not being fully accepted as well. Collins (1992) refers to this as an "outsider within" phenomenon where black women face a contradiction between their personal and cultural experiences and because of their outsider allegiances and frustrations with the system, choose to resist the full insider status and opt to remain an outsider within.

2.6.4 Sexual Harassment

Richardson and Taylor (2009) note that scholarly research on sexual harassment generally does not include race, and particularly the intersection of race and gender, as a critical component of sexual harassment processes and experiences resulting in little knowledge on how black women experience sexual harassment. Research on sexual harassment related to women of colour has found that due to their positions in organisations related to their dual categories of oppression (race and gender), they are more susceptible to trappings of power inequalities (Allen, 1995; Yoder & Aniakudo, 1997). These power inequalities play themselves in the form of racialised sexual harassment creating situations in which harassers view the sexual boundaries of women of color as loose (Buchanan & Ormerod, 2002). The other form that racialised sexual harassment takes its form in what Richardson and Taylor (2009) refer to as the code of silence which is culturally perpetrated in which a decision to report or not is based on the race of the perpetrator and where the perpetrator is black, black women may be reluctant to report as they may need the 'brother's' support in future. The result is that the victim being further oppressed and silenced. Calafell (2014) views this as a game of racial politics which asks black women to put aside their concerns about sexism for the greater cause of racial solidarity. This happens because policies and ways of thinking about sexual harassment are only constructed based on a single axis of gender (Crenshaw, 1989), neglecting the impact of race, the result of which is violence perpetrated based on the intersection of both race and gender. Race therefore becomes invisible as the act is only viewed from the perspective of gender. Many policies also ignore the impact of power relations.

2.7 Impact of social class in making career choices

In the context of this study and its focus on the career development and progression of professionals with various identities groups who have tertiary qualifications in mining engineering, metallurgical engineering, or electrical/mechanical engineering, the focus of this section of the literature review on social class is limited to factors that lead to decisions to studying towards a specific tertiary qualification.

Diemer and Ali (2009) define social class as a construct that represents an individual and/or group's position within a power hierarchy due to objective measures, such as income, wealth, education level, and occupational prestige. According to Smith and Nkomo (2021), social class therefore sorts out positions in society along a continuum of economic success and social privilege and creates multilayered locations, relations, and experiences that differ according to gender, race, and stage in the life cycle. It is therefore in this context that Smith and Nkomo (2021) critique the career choice definition of traditional career theory that assumes that one simply matches their assets and liabilities with the occupational needs in the environment and decide on career choices based on this. They argue that such theories are based on men whose gender supports active career involvement, with a wide range of career choices available to them. When one goes outside the normative group and reviews career choices based on class, the picture changes and amongst other things, Perry (2010) notes life context and socio-economic location having an impact.

Several studies support the view that some of the key influencers of career choice include parental support and teacher guidance as well as a school attended, with the prestige of the career also being a factor (Shumba & Nong, 2012; Maharaj, 2008, Bojuwoye & Mbanjwa, 2006). Kweyama (2016) notes little differences on the career aspirations of different ethnic groups but emphasises how this changes when factors such as socio-economic status, occupational stereotyping and parental or family pressures are considered. Stitt-Gohdes (1997) supports this view highlighting the importance of who we are and how we perceive ourselves fitting in the larger social and economic arena and indicated how self-concept, the sextyping of occupations as well as how race, gender and class also have an impact.

In as far as parental and family support are concerned, Shumba and Naong (2012) found that family and parents play a key role in the career choice of their children and note how students and young adults are often reluctant to pursue career possibilities without the approval of their parents. Kazi and Akhlaq (2017) note how ambitions are modified either positively or negatively based on parents' and peers' influence. The findings of a study by Myeza and April (2021) indicate that for the black senior managers, upbringing and the presence of parent figures who focused on the enforcement of education has played a key role in their determination to succeed.

In addition to parental guidance and support, teacher support has been found to be as important a factor in career choices. Perry (2010) emphasised the importance of teacher support as some youth may not have regular access to parental career support for a variety of reasons related to chronic poverty, negative life events, underemployment, and family stressors. However, issues related to stereotypical behaviour based on race, gender and socio-economic status by the teachers and their negative impact have also been raised in literature. Dusek (1983) found that teachers' first impressions of students in terms of race, gender and class influences how they perceive students based on those who are similar to them. In addition, Baron, et al. (1985) found that teachers had higher expectations of white students while also favouring middle class students.

The school's socio-economic positioning related to the lack of finances, career information, poor academic performance and unsatisfactory career counselling services were found by Bojuwoye and Mbanjwa (2006) to also influence career choice, with learners from traditionally African schools having more difficulty in choosing a career due to limited information and resources (Maharaj, 2008).

Financial limitations have also been noted by various studies as one of the key aspects impacting career choices, resulting in students having to change from their original choices and in some cases having to choose programs that do not require a long period of study (Bojuwoye & Mbanjwa, 2006; Maharaj, 2008; Shumba & Nong, 2012).

Gender stereotypes and different career choice processes for men and women have also been identified as resulting in gendered career choice behaviour and trajectories. (Degol et al., 2018; Rocha & Van Praag, 2020). The basis for these stereotypical beliefs is the sociocultural

expectations of the occupational roles of males and females (Makarova et al., 2016). A study by Madikizela and Haupt (2010) confirmed that that gender-based career stereotyping hinders the ability of young girls to make career choices or take contrary career decisions in opposition to the will of their parents. The result is that women steer away from professions that are perceived to be socially unacceptable (Haupt & Fester, 2012). A point to note is that when these gender stereotypes intersect with race and social class, they further impede the choice of careers, particularly in male-dominated environments.

In summary, Kerka (1998) notes career choice and development as being influenced by multiple factors: personality (including vocational interests); how individuals perceive themselves and the world (self-concept, racial/cultural identity, world view); socialisation; resources (financial, information, role models, social supports); experiences of sexism, racism, and classism; and the salience of various life roles and identity. They therefore call for career counselling to take place within the right cultural context, taking into consideration the issues of race, gender and class as well as avoiding essentialising individuals in a culture as having the same values, goals, and experiences.

2.8 Historical and current context of the mining industry and its impact on career development and progression

Providing the historical context of the mining industry is important because even though the industry has common characteristics with other industries in South Africa, there are distinct differences in the way in which it evolved which are key to understanding the current context.

2.8.1 Historical legislative environment producing a racialised industry

Research by the CJPME Foundation (2014) notes that pass laws that were introduced before diamonds were discovered in Kimberley and helped control Black men from remaining in the urban areas without work by obliging them to carry passes. They further note how the Mines and Works Act of 1911, amended in 1926 excluded Blacks from skilled work, how punitive hut taxes that induced African men to leave their farms to work in the mines, and how the Industrial Conciliation Act (1924) excluded Blacks from trade union membership.

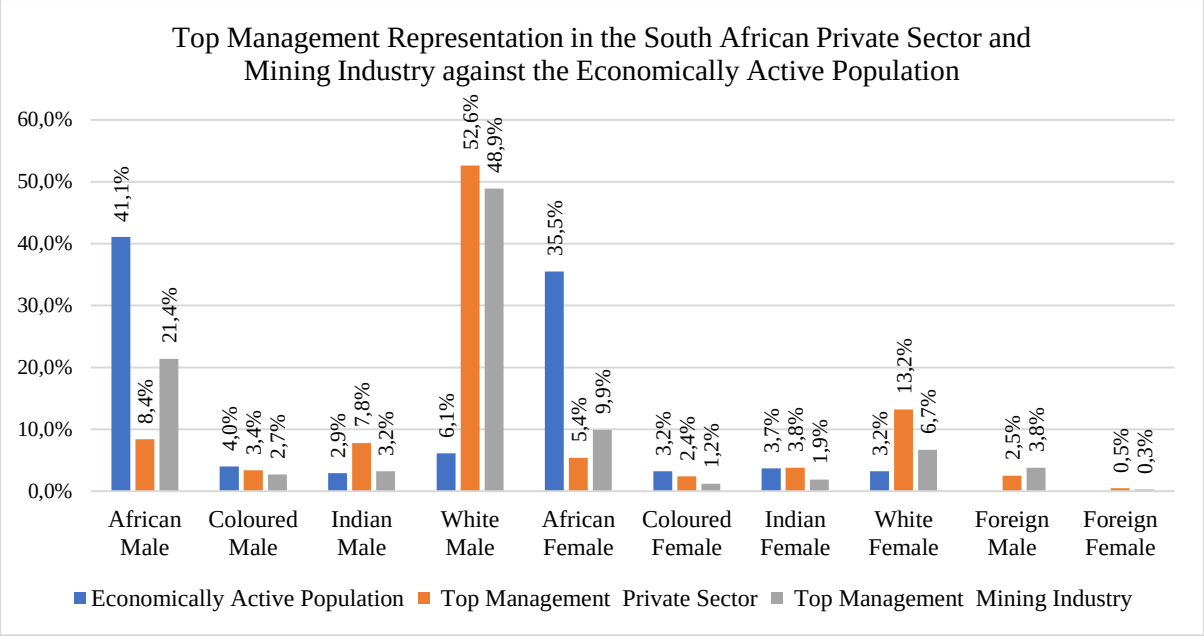
Op't Hoog et al. (2010) further singles out the Group Areas Act No. 41 of 1950 as having been the most noteworthy legislation causing racial disparities not only in the society where various racial groups had to live in designated areas but also had an impact in the workplace, polarising racial segregation and ethnic identity among workers. According to Wilson (2001), these laws regulated the supply of Black labour while other measures were to ensure that White workers got and kept the best jobs, and these laws enacted by the state at the behest of the Chamber of Mines. The result of all this legislation was that the upper echelons of mining in South Africa became what Cruise (2011) refers to as an 'all-White' bastion and the protection of skilled jobs was guaranteed. The "us" and "them" mentality created by these laws is still prevalent in South African society, workplaces and particularly the mining industry.

Given the economic significance of mining and its historical association with the legacy of apartheid, the newly elected democratic government saw transformation in South Africa as not going to fully happen without the transformation of the mining industry (Moraka, 2016) and the mining industry was thus seen as a natural starting point for this transformation objective (Rangasamy, 2022). As such, the industry was expected to not comply with the legislation that was put in place across all sectors including the Employment Equity Act No. 55 of 1998 as amended, but a special dispensation was put in place for the industry in the form of the Minerals and Petroleum Resources Development Act No. 28 of 2002, which in turn introduced The Broad-Based Socio-Economic Empowerment Charter for the Mining and Minerals Industry (also known as the Mining Charter), which was the first industry Charter in the country aimed at not only transforming the ownership structure of the industry but also, amongst other elements, the demographics of the industry across all occupational levels. By 2010, in a speech following the review of the implementation of the Mining Charter I, the Minister in the Department of Mineral Resources, Susan Shabangu, noted transformation as being disappointingly slow, highlighting the continued domination of White males in the industry.

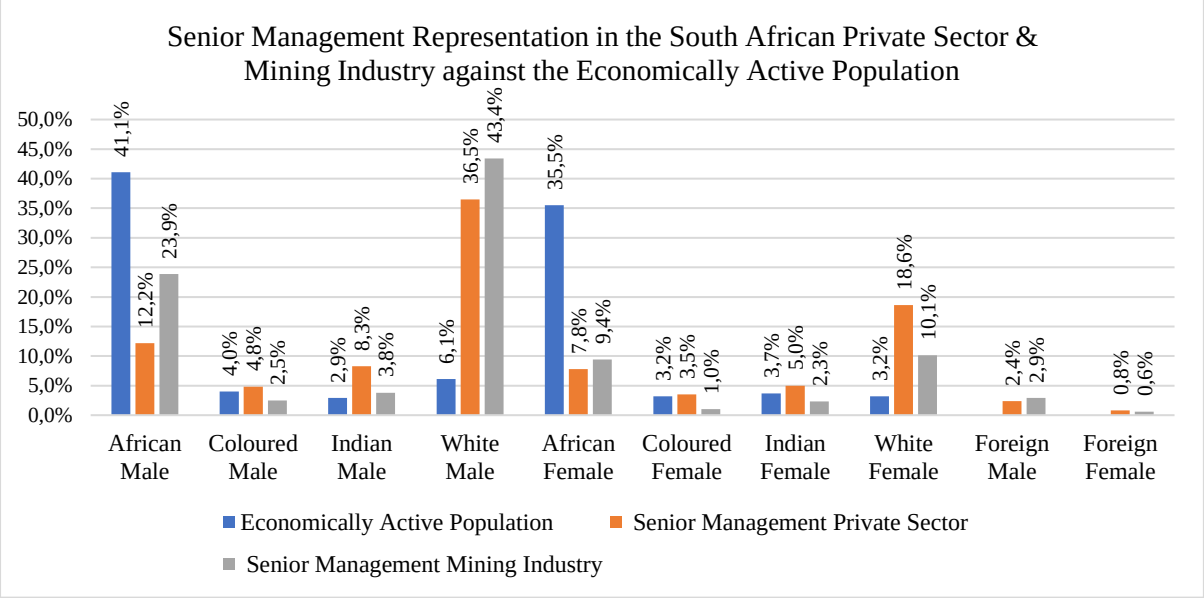
At a macro, industry level and working in collaboration with various stakeholders, the joint intent to transform the industry recorded in government and industry communications is noted. In 2010, whilst criticising the industry for the disappointingly slow progress of transformation, the Minerals Resources Minister, Susan Shabangu noted in a speech following the review of Mining Charter I that one of the differentiating attributes of the South African mining industry as being the unique ability of all stakeholders to tackle current and impending challenges as a

collective. In an article written for the 125th anniversary of the South African Institute of Mining and Metallurgy in 2019, the then Chief Executive Officer of the Minerals Council of South Africa, Roger Baxter, acknowledged that the mining industry in South Africa has not been without flaws, noting its involvement in hardship and injustice particularly during the apartheid years that cannot be overlooked. He further advised of the period of critical reflection and introspection that had resulted in the acknowledgement of the industry's legacy and a commitment to addressing this legacy proactively and permanently.

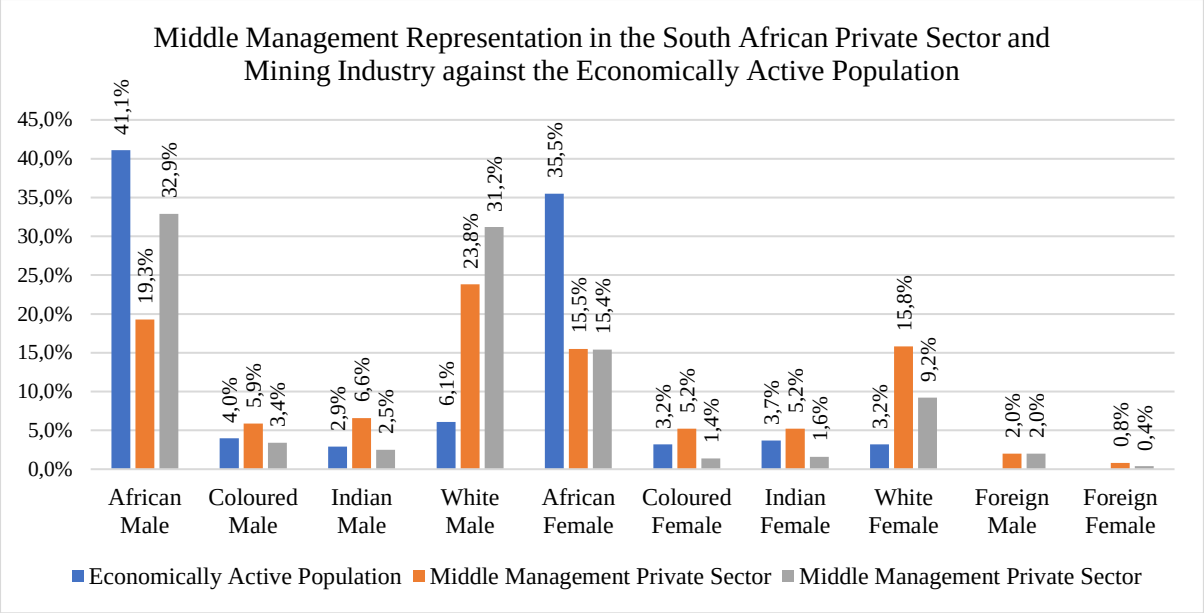
A study by Moraka (2016) also found that mining executives have a good understanding of the need to transform, and measures needed to include more than just numbers. The key findings of the study entail an understanding that transformation was about culture change and doing things differently; a mindset change and changing the way business is done including a mental shift and accepting that the imbalances of the past need to be addressed; the creation of opportunities and the equalising of rights; valuing diversity including dealing with the tensions that exist when people of different races work together and ensuring that belonging is fostered to create an industry to which employees feel they belong; being about social justice and doing the right thing given the past injustices and inequalities; and that transformation should be seen as a process that embraces whole culture change first. Whilst the legislation, the industry and the mining companies express good intent to transform, the Commission on Employment Equity's reports continue to reflect White men and women continuing to dominate top management and technical positions in the sector. Mining Charter II and III were subsequently introduced in 2010 and 2018 respectively to further drive transformation in the industry. The results of the 2022/2023 Commission for Employment Equity report show the mining industry's representation across the management levels as follows, compared to the rest of the private sector:



Graph 2: South African Private Sector and Mining Industry representation in Top Management compared to the Economically Active Population



Graph 3: South African Private Sector and Mining Industry representation in Senior Management compared to the Economically Active Population



Graph 4: South African Private Sector and Mining Industry representation in Middle Management compared to the Economically Active Population

From a race point of view, the above reflect continued domination of White males in top management. However, contrary to popular belief about the extent of transformation of the workforce profile in the rest of the management levels, the mining industry shows a much better representation of African males compared to the rest of the private sector.

From a women representation point of view, African female representation in top and senior management shows trends generally above the private sector. However, given the lack of visibility of data from the Department of Employment and Labour's Commission on Employment Equity reports, it is not clear the extent to which the incumbents in these roles occupy core mining or support service roles. The representation of White females across all management levels indicates over-representation compared to the Economically Active Population. Overall, though, the representation of women in the management levels reflect the steep challenge that the industry faces in achieving its own set target of working towards 30% to 40% women representation in the industry and 50% of women representation in management over the next decade (Minerals Council Women in Mining website, n.d.)

2.8.2 Historical and current context of women in the industry

Previous research notes how a male-dominated culture was constructed both within South Africa and globally through the prohibition of women from working underground and in the

plants by both the Minerals Act of 1911 as amended and the International Labour Organisation Convention No. 45 of 1935 (Mashiane, 2009; Cruise, 2011; Khoza, 2015). With "hegemonic language obfuscating the ways in which social control is being exercised, how powerful groups may be benefitting or how the options of others are curtailed" (Steyn, 2015), the exclusion of women in the industry driven by the Minerals Act was portrayed as "the altruistic view of that time, that women and children should not be exploited in the workplace" (Cruise, 2011). The continued exclusion of women in core mining occupations continued until 1996 when South Africa withdrew from the International Labour Organisation's convention.

As part of the effort to transform the industry from being male dominated, the industry was expected to comply not only with the Employment Equity Act No.55 of 1998, but industry also committed to achieving the targets in the Broad-Based Socio-Economic Empowerment Charter for the Mining and Minerals Industry, also known as the Mining Charter. The first iteration of the Charter (Mining Charter I) in 2002 set women representation targets across all occupational levels at 10% by 2010. Mining Charter II (2010) which was published following a review of progress on Charter I in 2009 was silent on women representation targets with Mining Charter III published in 2018 moving a step forward by putting in place targets for women representation per occupational level with the Executive level being at 20%, and Senior Management and Middle Management at 25%.

At industry level, in 2020 the Board of the Minerals Council of South Africa launched the Women in Mining initiative, with support structures being the Women in Mining Leadership Forum as well as the Women in Mining Task team consulting widely across member companies to come up with initiatives to drive women in mining representation and inclusion in the industry. The first female President of the Minerals Council of South Africa and Chairperson of the Women in Mining Leadership Forum, Nolitha Fakude, made a commitment in the Council's Women in Mining website to "work relentlessly and determinedly to ensure that the South African mining industry transforms to become a place where women lead and thrive."

Interesting statistics emerge from the Minerals Council of South Africa Women in Mining Gender Diversity and Inclusion Dashboard for 2022 that have important implications for this research. These include women accounting for 44% of bursaries provided by member companies. Other statistics that although don't necessarily cover career development and progression in management levels as a primary focus of this research but across all occupational

levels and are nevertheless telling is the lack of focus in driving women representation include the external appointment of women being at 20% of all appointments; the promotion of women at 23% of all appointments, against the turnover of women at only 9%. This means that opportunities resulting from turnover, particularly by males, are available for the appointment and promotion of women but these are not optimally utilised to drive gender transformation in the industry.

Several studies have focused on barriers across the various occupational levels in core mining areas which include the culture of male domination and masculinity, long hours impacting family responsibility; lack of support and focused skills development and exposure programs; (Mashiane, 2009; Botha and Cronje, 2014; Botha, 2016, Moalusi, K.P., & Jones, C.M., 2019). Similar findings were identified in the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development and the Mine of the Future Global Report (2023) which included working conditions that make it harder for women to have work-life balance to gender roles and gendered division of labour, masculine corporate cultures, health and safety concerns and fewer opportunities for careers.

From the review of the literature on women in mining, it is clear that entry and career development and progression of women in the industry remains a challenge. Literature and approaches by government and the industry tend to focus on women as a homogeneous group and fail to look at challenges and barriers faced from an intersectional perspective.

2.8.3 Evolution of Mining Education and Training in South Africa

In the context of this study, an understanding of career development and progression in the industry requires both a historical and current context of how mining education was and is currently structured.

Cruise (2011) notes the first formal mining engineering education beginning in 1896 at the School of Mines in Kimberly which then relocated to Johannesburg at the turn of the century in what was to become the forerunner to the University of the Witwatersrand. He further notes the next university to offer a degree in mining engineering being the University of Pretoria from 1961. Cruise (2011) further notes that the first Asian South African male registered at the University of the Witwatersrand in 1978 for a mining engineering degree, and the first woman registered in 1990. By 2010, the student body in the School of Mining Engineering had

transformed to 97% Historically Disadvantaged South Africans, with 33% being women. Between 2010 and 2020, the school was producing on average seventy-nine mining engineering graduates per annum with an average annual undergraduate student headcount of five hundred and eighty-nine (University of the Witwatersrand School of Mining Engineering Biennial Review – 2019-2020). At the University of Pretoria, by 2021 the student body had reached 83% black representation, with 32% being women (University of Pretoria Mining Engineering Department, 2021).

In addition, the Mines and Works Act of 1911, amended in 1926 and subsequently in 1956 excluded black workers from any form of skilled labour through barring them from obtaining any certificate of competency for skilled trades in the mines. The 'colour bar' laws were designed to prevent black workers from competing with white workers for the better-paid jobs (CJPME Foundation, 2014). This meant that career development and progression opportunities were effectively blocked for black employees as any progression into Miner, Supervisor, and Mine Overseer roles require a blasting ticket and progression into Mine Manager requires a Mine Managers' Certificate of Competency. According to Wilson (2001), by the start of the 1980s, the demands made by the newly recognised National Union of Mineworkers, increased the pressure on the mine owners to abolish all job restrictions culminating in the colour bar being abolished in 1988.

These statistics indicate that there is a sufficient pool of candidates with mining engineering degrees and other relevant qualifications to enter and develop their careers within the mining industry. These statistics do not even include candidates who obtain qualifications through the Universities of Technology.

2.9 Conclusion of the Literature Review

This chapter outlined research already produced relevant to this research study. Literature related to social identity within the context of intersectionality was reviewed. In order to contextualise other aspects impacting career development and progression within the mining industry, aspects related to career development and progression along racial and gender lines as primary social identity markers in this research were also explored, focusing on the historical

as well as the current context, followed by an intersectional review of how race, gender and class impact career development and progression. Given that mining remains a male-dominated industry, literature on women experiences in male-dominated industries was specifically focused on. With social class being one of the identity markers of focus in this research, literature on its impact in making career choices was also explored. In concluding the literature review, with the mining industry being the focus of the study, literature focusing on the historical and current context of the industry and how it impacts career development and progression was also evaluated. Overall, the various aspects of this chapter aim to bring together various elements in existing literature to form the basis for the gap identified that this research seeks to close in creating an understanding of how social identities impact career development and progression and whether there are differences in the lived experiences of the various social groups.

The next chapter focuses on the research design and methods applied in this study.

CHAPTER 3: RESEARCH METHODOLOGY

This section provides an overview of the research design and the methods that were employed in conducting the research. It further provides an overview of the participants who were targeted for the study and the sampling methods, how data was collected and analysed and the ethical considerations in conducting the study.

3.1 Research Design

3.1.1 Introduction

A qualitative and intersectional methodology focusing on narrative analysis was employed. The purpose was to get a comparative understanding on how social identities of employees in the core disciplines of the mining industry have on their experiences of career development and progression and the impact of historical factors and current organisational, industry and societal systemic issues and dynamics.

3.1.2 Qualitative Research

According to Esposito and Winters (2022),

> Qualitative researchers attempt to comprehend the role of cultural forces on individuals' and groups' (a) behaviours and interactions, (b) interpretations of those behaviours and interactions, and (c) values, beliefs, and attitudes. Thus, qualitative research concern lies in the depiction of the reality of social life in what some might assume is its "naturally" occurring state but also what seem to be patterns of social forces occurring in the setting.

It therefore relies on the direct experiences of the participants as agents who make meaning of their everyday lives (Ahmad et al., 2019). Within the context of this research study, as a researcher, I had to comprehend the interactions of the participants and their experiences with the system within which they were developing and growing their careers. The semi-structured, narrative format within which the interviews took place enabled the participants' own depiction of their lived stories in the context of career development and progression, whilst

taking a step back and mapping out the beginning of their careers from when they made a decision prior to, or during grade 12 to study engineering (mining, metallurgical, electrical/mechanical) to get a full picture that enables them to name systematic issues that have shaped their whole career experience from the decision to study within the engineering field to experiences at university, joining the industry and career development and progression since then. The narrative, semi-structured approach to the interviews further enabled the participants to share their feelings about race, gender, and social class without them feeling that they were being evaluated or judged (Smith & Nkomo, 2021).

3.1.3 Intersectionality as a Theoretical Framework

Esposito and Evans-Winters (2021) contend that "there is no way to separate theory from your research; this is partly because theory and experience are intermingled, and you need an understanding of both to conduct a research study". A theoretical framework includes "the ways that a researcher integrates and situates formal theories that contextualize and guide a study" (Ravitch and Carl, 2016). Intersectional research interrogates power while at the same time centering race and gender in its attempt at analysis of, and accounting for systems of oppression in what Collins (1998) refers to as a "matrix of domination" which sustains social inequality through continual interlocking and reinforcing of such systems. It therefore goes beyond the micro-level assessment of interrogating the social identities of the participants, it also goes further in interrogating power whilst putting further attention to the broader societal level (macro level) and accounts for systems of oppression and the influence of systems and processes of differentiation (Esposito, J and Evans-Winters, 2021; Wyatt et al., 2022).

Simply put, intersectionality researchers are charged with the responsibility of making the intersections between ethnicity, sex/gender, sexual orientation (to name just a few) and the social inequality related to these identities explicit (Bowleg, 2008).

Intersectionality as a theoretical framework has been applied throughout this study to understand the lived reality of participants and how the industry (mining) and societal interlocking systems have impacted the participants' career development and progression. In addition, recommendations in terms of approaches going forward, have also taken an intersectional perspective.

3.1.4 The benefits of combining qualitative research, narratives, and an intersectional approach

Qualitative research is concerned with how questions emphasise the reduction of meaning and how the production of everyday life is accomplished in each setting (Holstein & Gubrium, 1997). As such, the use of qualitative research, combined with an intersectional approach was selected to derive the value of the exploratory power of qualitative research whilst combining it with a method (intersectional) that is rigorous (Attride-Stirling, 2001). The purpose was to combine the methodology with a sound theoretical framework to determine if, and how normative discourses interlock and are intertwined with social identities (Attride-Stirling, 2001) to impact career development and progression.

A qualitative, intersectional approach and narrative analysis was also appropriate for this research because it raises questions about what it means to have intersecting identities (Wyatt et al., 2022), and provides a robust analytical approach to understanding and examining the interconnectedness of numerous socially constructed identities (e.g., race, gender, sexual orientation, class, etc.) and how they collectively shape the lived experiences of individuals and groups (Abrams et, al 2020). It further brings to the fore the reality of the matter that we are all located differently in society, and this influences our individual experiences and identities.

Having identified the methodologies to be used in the research, the focus now turns to research methods that have been used in conjunction with the identified methodologies.

3.2 Research Methods

3.2.1 Population and Sampling Methods

Esposito and Evans-Winters (2021) emphasise the importance of the deliberate selection of participants to join the study. As such, with the focus of the study on intersecting identities, purposeful sampling was used to identify participants. Professionals with different social identities within various core disciplines of mining & technical services (excluding geology and survey), metallurgy, and engineering meeting the following criteria were therefore selected:

- Entry into the industry starting from the mid- to late 1990s up to the period 2016. The periods were purposefully selected because the mid- to late 1990s was the period when various pieces of legislation to transform the economy of the country and the industry were introduced. The year 2016 is an indicative period in the career paths of most mining companies when the recently appointed (within the last year prior to the study being conducted) middle managers would have started their careers in the industry, after completing a three-to-four-year graduate development program and subsequently being appointed into a substantive supervisory-level role for a minimum of two years prior to being promoted as opportunities became available into a middle management role. The range in the twenty plus or so year sample was also aimed at determining whether there are different experiences based on when the participants entered the industry and whether there has been a change in the systemic processes related to career development and progression and related power relations.
- A 4-year degree (or equivalent) in Mining Engineering, Metallurgical Engineering or Mechanical or Electrical Engineering. These are the qualifications requirements for entry into professional roles in core disciplines in the mining industry. Most of the participants completed their degrees through a funded bursary provided by a mining company and/or undertook vacation work at a mining company to get work exposure and experience whilst studying towards a degree.
- Underwent a graduate development program or some kind of entry-level exposure program. This requirement is important as it provides the baseline for all the candidates to have started their careers from the same point in as far as qualifications are concerned with the relevant degree and acceptance for internship in a graduate or similar program. With them having a similar start in as far as qualifications are concerned, the study aims to bring to the fore any aspects of difference and systemic issues that would have enhanced or acted as barriers to career development and progression.
- Minimum 6 years' experience in the industry. This is generally the minimum years of experience required to get to a Middle Management role after a three to four-year graduate program and a minimum two years as a supervisor to gain exposure and experience in a substantive Junior Management role prior to progressing to the Middle Management level.
- Occupational level of Middle Management as well as Senior Management. These levels were chosen because this is where stagnation in career development and progression is most prevalent. When candidates enter the graduate development programs, there is generally a

lot of focus on their development to provide them with both the required technical skills as well as managerial and leadership skills. Their development progress is also assessed on an ongoing basis. When they get appointed to a substantive role, the focus becomes less on development and more on the delivery of outcomes and results required to be delivered in the substantive role.

- At least 50% representation of black participants to get a picture of the impact of race. With the focus on legislation since the mid-1990s being to drive representation across all occupational levels and those in management, it is important to understand the experiences of those who were previously marginalised and those who were privileged by race to determine whether meaningful transformation is happening.
- At least 50% women representation to get a picture of how gender impacts career development and progression. Since 1996 when South Africa withdrew from the International Labour Organisation Convention 45 of 1935 which prevented women from working underground, the focus of government, the industry and mining companies has been to increase the representation of women in the industry across all occupational levels and to change the work environment to be receptive of gender difference. Getting a balanced sample and data of the experiences of women and their other intersecting identities in career development and progression in these core disciplines is therefore important in understanding whether gender transformation is happening. Including women of different races was also important in assessing the impact of the intersection of race and gender in career development and progression outcomes.
- Each of the core disciplines represented. This is important to get to an overall understanding of the dynamics within all these core disciplines but to also get to a further level of granularity and identify if there are specific learnings and concerns related to any of these disciplines. With mining and technical services having a larger headcount compared to metallurgy and engineering, the sample of mining engineers was larger as per Table 3 below.

Core Discipline	**Black**		**White**		**Total**
	Female	**Male**	**Female**	**Male**	
Mining & Technical Services	5	2	1	1	**9**
Engineering		1	2	1	**4**
Metallurgy	2	2			**4**
TOTAL	**7**	**5**	**3**	**2**	**17**

Table 3: Profile of Participants Interviewed

The last three criteria were further aimed at ensuring that the sample is representative of participants with various social identities. Researchers often use this strategy to compare groups and ensure representation that will facilitate different perspectives (Robinson, 2014). In this research study, comparisons are important in uncovering whether there have been different experiences of career development and progression for the different social identity groups without necessarily marking any of the group's experiences as the norm against which to compare the other groups and thereby potentially masking significant differences (Cuadraz & Utall, 1999).

The sample was purposefully diversified to enable comparison of the experiences of the individuals and groupings with different social identities and between the various disciplines. The participants eventually interviewed compared to the initial target was based on both those who agreed to participate voluntarily and the availability of the participants who agreed to be part of the study to undergo the interview.

3.2.2 Data Collection

Storytelling enables people to construct their identities while understanding who they are and how they are positioned in the world (Esposito and Evans-Winters, 2021). To centre lived experiences of the participants and to give effect to narrative analysis/storytelling, semi-structured interviews were utilised as a data collection method. In addition, and in line with following an intersectional approach and Bowleg's (2018) advice, the narrative method enabled the respondents to talk about their experience without having to separate each identity. As such, participants were given room to narrate their experiences freely with follow up questions only used to close any gaps in the narratives already presented by the participants as was necessary. This therefore enabled the participants' experiences to be revealed and to understand their experiences within the context in which they were inserted (Muylaert, et al., 2014).

3.2.3 Data Analysis and Interpretation Techniques

According to Esposito and Evans-Winters (2021), your theoretical work should guide both your analytic choices as well as your techniques. It is for this reason that the intersectional lens continued to be utilised in the analysis of data. In addition, thematic analysis was used as a data analysis method, whilst utilising primarily the inductive approach but also adding the deductive

approach to coding. Thematic analysis was selected because it offers a method for systematically identifying, organising, and offering insight into patterns of meaning (themes) across a data set. By focusing on meaning across a data set, the researcher can see and make sense of collective or shared meanings and experiences. (Braun & Clarke, 2012). With a huge amount of data collected from the participants, it was important that a systematic process of making sense of the data is utilised.

The primary approach used for coding was the inductive approach. Using this approach primarily is important to put focus on analysing the lived experiences of the participants and make meaning of such experiences (Starks & Brown Trinidad, 2007 as quoted by Abrams et al., 2020). The inclusion of the deductive approach is based on the point made by Braun and Clarke (2012) that:

> It is impossible to be purely inductive, as we always bring something to the data when we analyze it, and we rarely completely ignore the semantic content of the data when we code for a particular theoretical construct – at the very least, we must know whether it is worth coding the data for that construct.

As such, balancing the narratives of the participants and continuing to apply the intersectional lens throughout the research, the narratives were read within the context of intersectionality to bring out codes and eventually themes that were implicit rather than explicit in the narratives from participants. The deductive approach draws on theoretical constructs from scholarship to render visible issues that participants did not explicitly articulate. (Braun & Clarke, 2012. As a result, implementing narrative intersectionality requires finding ways of exploring and analysing the material, structural and political realities that infuse and shape individual stories. (Chadwick, 2017). The deductive approach was therefore essential as a theoretical lens of intersectionality to identify the specific power relations that may be implicit in the narratives.

3.3 Positionality and Reflexivity

According to Foote and Bartell (2011), personal experiences are likely to influence what the researcher brings to the research process including the research encounters, choices made during the research and the interpretation of outcomes. As social beings, we cannot escape the epistemic effects of our identities than we can the process of identification itself and as embodied researchers, we undertake a research study in a particular historical, political, economic, and social moments (Moya, 2011; Esposito & Evan-Winters,2021). From the choice of the topic to how the research is conducted, there are therefore likely to be biases linked to the identity, personal experiences and power dynamics. As a researcher who has been in the mining industry as a human resources professional for well over twenty-nine years, as well as my identity as an African female, meant that I had to manage both the aspects of my identity and any power in relation to particularly the engagement with the research participants and how I interpret the results. With gender, ethnicity, class, and theoretical positions having a bearing on observations, analysis, and interpretations (Kawulich, 2005), it required of me to have ongoing critical consciousness and reflexivity throughout the research process on how my positionality and power relations with the participants as well as how knowledge was being produced and continuously being mindful of the ethics. (Bishop & Glynn, 1999 as cited by Fitzpatrick, 2013; Sultana, 2007).

3.4 Ethical Considerations

Due to the study requiring individuals to share their lived experiences, there were several ethical considerations necessary during the research. At the outset, the potential study participants were provided with a written and verbal briefing (Annexure A) outlining the purpose of the study, how the confidentiality of what they share would be managed, and the right to withdraw from the process and that they would be provided with the opportunity to ask questions and seek clarity on the study. Following that process, they were provided with a Consent Form (See Annexure B).

Confidentiality has been maintained by using pseudonyms and information anonymised in the report. The audio recordings of the interviews and transcripts have been stored in a password-protected computer.

With the participants relaying their lived experiences of career development and progression, there was also potential that the conversations could evoke negative emotions from recalling some of the negative experiences. The company where the research was conducted has an Employee Assistance Program with a third-party service provider. The service is available free of charge to employees and their family members. The participants were given assurance that where negative impacts of the narratives are identified, interviews would be stopped and postponed to a later date and the participant encouraged to contact the service provider. There were no incidents where this was necessary.

3.5 Conclusion

This chapter has provided an overview of the methods and methodology used in conducting the research which included the research design, the theoretical approach applied, the research approach, positionality, and reflexivity as well as ethics issues that had to be dealt with throughout the research. The chapter is important as it spells out how the research was undertaken in relation to the topic as well as the specific questions that the study seeks to answer.

The next chapter aims to outline and discuss the findings of the research.

CHAPTER 4: FINDINGS

4.1 Overview

The purpose of this section is to outline the findings of the research study by providing a detailed analysis of the data derived from the narratives of the participants. With the study focusing on the role of intersecting identities in the career development and progression within core mining disciplines within the South African mining industry, semi-structured interviews were conducted with seventeen participants from a coal mining company. The focus was on participants narrating their lived experiences of entry, career development and progression within the industry from when they decided to study towards a tertiary qualification relevant for entry in the industry. The secondary research questions that the study sought to answer were a) how different social identities impact career development and progression in the core disciplines within the mining industry; b) whether the experiences of groups with different social identities have changed in the nearly thirty years since companies started focusing on employment equity with legislation being put in place to drive the transformation of the profile within the industry and women being allowed to work underground since 1996; and c) what historical and current organisational, industry and societal systemic issues and dynamics are at play and their impact on career development and progression in the core disciplines.

Thematic analysis was used as method to systematically identify, organise, and get insight into patterns of meaning from the data, with the inductive approach being the primary approach followed to derive the codes and the themes from the content of the data whilst also applying the deductive approach to draw on constructs from intersectional scholarship (Braun & Clarke, 2012).

The chapter starts by providing background information about the participants and how they ended up starting and developing a career in the mining industry. This is important as it sets the context against which the findings are based. Following the background information on the participants, the themes and sub-themes identified in the study are outlined, followed by a detailed analysis of these themes and sub-themes using the participant narratives as a base.

4.2 Background information on the participants and their choice of a career in mining

The study was conducted in a mining company within the coal sector based in the Mpumalanga province of South Africa. Seventeen employees across four different mining sites participated in the study. The employees all have minimum tertiary qualifications that are classified in the South African National Qualifications Framework (NQF) at level 7 and above, that is a bachelor's degree level (or equivalent) in Mining Engineering, Metallurgical Engineering or Electrical/Mechanical Engineering. In terms of occupational level classifications by the South African Department of Employment and Labour, they are all in middle to senior management (Paterson Grading System D2 to E3). To ensure confidentiality and with the use of pseudonyms, these findings are presented in such a way as to not be able to associate any comments to any individual. As such, the occupational levels of the participants have not been disaggregated into middle management or senior management. Post completion of their tertiary studies, all the participants have undertaken some type of graduate development program in various companies within the coal mining industry in South Africa, except for one participant who started their mining career in the platinum industry. The participants are between the ages of twenty-four and forty-five. Fifteen of the participants are involved in direct production in either mining, coal processing, or equipment maintenance, with the remaining two in the technical services department.

An interesting finding derived from obtaining background information on how the participants got into the mining industry which is something the industry needs to focus on more going forward as part of not only its involvement with local communities but also as part of creating an interest in mining as a career is that of the seventeen participants, only two were deliberate at high school about choosing a career in mining or working in the mining industry. For most, mining was a second, third or no option with preference being for studying towards a medical degree and other options like accounting and other streams within engineering like civil, industrial, and electrical engineering. With most of the participants coming from working class backgrounds, they ended up choosing mining due to bursaries that are being offered by the industry as going for their first option would have meant that they could not find funding for their studies which in turn would mean they could not attend a tertiary institution. The other primary driver for the initial choices that the participants had made was a lack of career guidance at school and lack of exposure to the industry. Where participants chose a career in

engineering other than mining or metallurgical engineering, they also ended up in mining by default through getting bursaries from the industry. The importance of role models in the choice of a career was also highlighted in the narrative of one of the female mining engineers on how she ended changing from medicine to mining engineering:

> Participant PAF5: *"When I was doing matric, we were invited to a career fair and there was a lady who spoke about a career in mining. I was listening to her, and I was sold about a career in mining – from vacation work, graduate programs etc. All along, I wanted to be a doctor and had applied to the universities. That's when I wanted to be like her – this was in 2008 going into 2009 and there were not many women in the mining industry, and she provided statistics which were low which was even more motivation for me."*

The other positive element coming from the findings is that despite most of the participants having mining as a second, third or no option, all of them, except for one participant, indicated the love they have developed for mining, stressing that they are happy to have chosen a career in the industry.

The other key point for consideration by the industry and the mining engineering schools at the various universities is the initial exposure to the industry after commencing studies. Findings from the study indicate that the participants were not exposed to what a mine looks like until their first vacation work at the end of the first year and/or practical exposure for those who were required to do practical training as part of their studies. This means that while studying theoretical concepts during the whole first year of studies, they are unable to relate the concepts to the actual situation.

4.3 Themes and Findings

The themes and sub-themes in Table 4 and the detail are reflective of the data derived from the interviews, together with the application of the theoretical framework. The primary approach

applied was to amplify the voices of the participants, by supporting the themes and sub-themes identified with the relevant extracts from their narratives.

The themes identify firstly the career development and progression enablers and barriers. Race and gender as separate identity markers also emerge as having an impact on career development and progression, with the intersection of the various social identities having the most impact on career development and progression. The findings also suggest that change is happening within the company and the industry, albeit at a slower pace, particularly in aspects that matter to creating and sustaining visible transformation to the participants. As part of the review of the various themes, structural and systemic issues in the company and the industry that have a bearing on career development and progression were also tested for how they interact with the various social identities to create specific outcomes.

THEME 1 - CAREER DEVELOPMENT AND PROGRESSION ENABLERS & BARRIERS:

- Entry into the industry
- Organisational Systems
- Agency and taking responsibility for own career

THEME 2 - THE IMPACT OF RACE:

- Demographic representation
- Covert discrimination
- Being held to a different standard
- Representing all Black people

THEME 3 - GENDER

- Patriarchial norms and gender stereotypes
- Pregnancy and family responsibility
- Capability and technical ability
- Impact of policies and company systems
- Appreciation by men of the challenges faced by women

THEME 4 - THE INTERSECTION OF VARIOUS SOCIAL IDENTITIES

- Race and gender
- Race, gender and age

THEME 5 - INDUSTRY WAYS OF WORKING AND IMPACT ON FAMILY RESPONSIBILITY

THEME 6 - CHANGE IS HAPPENING IN THE INDUSTRY, ALBEIT AT A SLOW PACE

- Demographic profile at the various levels
- Age profile of management changing
- The extent to which organisational systems and processes drive change
- The need for culture transformation

Table 4: Themes and sub-themes identified from the data

4.3.1 Enablers and Barriers of career development and progression

4.3.1.1 Entry into the industry

Entry into the industry through graduate programs has been found by most participants as having been beneficial to their careers.

> Participant PAF3: *"Having companies that were invested in talent - the amount of effort put on graduates – you knew every quarter that you must present and was always conscious of something important that you had to do and say to the people who are in charge of the game in the graduate review sessions as they make decisions about your career going forward. I became aware of selling self in those platforms. We went on a lot of leadership courses as graduate trainees, we had a 'mommy' taking care of us from course bookings, travel claims and I found that friends in other mining houses did not have that, and they had to find their way and be part of the system."*

> Participant PAF7: *"The graduate training program was my greatest enabler - exposure to executives makes you think that you matter."*

Most of them however faced challenges of transitioning from being students to the work environment as they did not have an idea of what to expect; combined with a culture not accepting of difference; as well as being expected to work with people who have been in the industry for many years but do not have the qualifications to progress their careers and are threatened by the graduates coming in, whom they perceived to be coming in to take their jobs. Black graduates in particular would also hear comments of them having come in to take their [white employee's] children's jobs.

> Participant PAF7: *"There was a thing with graduates and perceptions that you are coming to take my job and some of them would not help you because of that perception. Others would have the fear that they*

help you and the next thing they would have to report to you. That was the one barrier that you had to overcome and get people to trust you by working with them and being hands on and go in the workspace and learn their tools and let them teach you rather than instruct – when I opened myself to learning from them, they started relaxing."

Participant PAF5: "*No one tells you that you will need to go underground and sweat and be dirty. You don't prepare yourself for it and you must come in and adjust. I think that we were lucky because I got exposed to a big site and talking to peers, I get the idea that they operate in small areas and starting in a big site meant one had to adjust very quickly. That has worked to my advantage in that it made me grow quickly and I can see that when I compare myself to my peers."*

Participant PAM2: *"The path is not necessarily easier but now you have more people to support you. Twenty years ago, you had no support and people were worried about you taking their job or their children's job."*

The intersection of race, gender and class also played a factor in the transition for some candidates as it was assumed that because they come from a tertiary institution setting, they should be able to transition into working life, understand the systems being used and know how to find accommodation in a town and province in which they had never been to, and more importantly afford to pay for such accommodation.

Participant PAF1: "*The company was not ready to have students, especially female students, and students from disadvantaged backgrounds. Navigating the whole thing – finding accommodation, transport – they did not consider that some families could not afford to provide for accommodation and had to make it work. They assume that you should know things like how your pay structure works, when payroll closes which impacts how you will be paid for the first month and when*

what you estimated does not realise you have to live in poverty whilst also trying to find accommodation."

Participant PAF 4: *"The work started and then you realise that the dynamics were nothing that I expected – in the space of race, age, gender – the reality started kicking in – in terms of class -there was a perception that you come from a better class – people were funny because they thought we were better – I was never put on a lower class because of education. Race, age, and gender were a lot to navigate. There were no people like me, especially not being on an entry level and not high even – being in the middle and trying to navigate life and trying to fit in in terms of age, gender, and race was difficult."*

4.3.1.2 Organisational systems acting as enablers or barriers

With the challenges that they faced during entry, most of the participants attribute their career development and progression to the mechanisms put in place by the companies that they worked for to support them.

Mentorship, coaching, and sponsorship are seen by the participants as the greatest enablers. Having at least that one person, and in some cases, multiple people who provide guidance on how things are done and more importantly, rooting for them in forums where they may not be present is seen as a key enabler.

Participant PAF2: *"Mentorship has been my greatest enabler. I can attribute a lot of my success to my original mentor when I joined the company as a graduate trainee. Having a mentor very early paves a way for you as you grow your career. He also sponsored and talked about how I was performing. My first mentor taught me the rules of the game, especially unspoken rules and playing the game. Not a lot of people are willing to tell you about the norms – you must find out yourself – rules, decision makers and what and who makes the place*

tick. Even at times when I did not have a formal mentor, I always had someone to ask for an opinion."

Participant PAM3: *"When I started as a graduate trainee, I was allocated a mentor. He was very committed to mentoring, not only at work but also on finances and how to carry oneself as a brand – even today, I don't wear a t-shirt to work. Three years of focused mentorship completely changed the game for me – it genuinely reformed what I thought was this industry. It also reformed my aspirations for myself within this space."*

Participant PAF1: *"Without having someone who believed in me, I would not be where I am. I did show up and put in the work, but it also takes someone believing that you can do it. I was therefore fortunate to have people who believed in my abilities."*

Formal training and continuous education programs have also been found by participants to be beneficial to their career development and progression.

Participant PAM4: *"The space of having access to education and that for me has been a big tick – as I was considering leaving, the educational support was a big retainer and knowing that the company would support me to attend study blocks was a game changer. To be in the company that encourages you to study and supports you in that regard – you don't get that anywhere. When you are there, you start realising that a lot of the classmates don't have the same opportunity and don't come from companies that embrace development. Others had to change and not attend full blocks because they don't have enough annual leave. For me personally, that is key and am trying to develop myself and will push to accomplish what I want to achieve".*

Participant PWM2: *"There were opportunities which I thought were good for me, including being given the opportunity to go for further studies and further development. Such programs gave me a different perspective that leadership is greater than just mining – it's about the people and other resources in general and that to achieve things you must do it through people."*

Participant PWM1: *"I do believe that our company does a lot more in terms of development. I have been sent to study and got to attend other soft skills programs. Career development and progression discussions are also held."*

Those who had opportunities to move between various operations and mines have seen a further benefit to their careers. Such moves are seen as beneficial, whether they are for promotion or as lateral moves. This is because exposure to a different environment than that which one is already familiar with in terms of people you work with as well as operating conditions that could be different present new challenges for one to navigate, thus broadening experience.

Participant PAF5: *"The knowledge that I acquired and having to move from one operation to another and get a different perspective, different cultures, different pits, and different mining challenges – it's a privilege to get different exposure, even if I must move laterally. What is important is the exposure – for me it is about making the most of what I have now."*

Participant PAM1: *"I was also lucky to have a great opportunity to work elsewhere in the business and that gave me a stronger and bigger understanding of my discipline."*

Participant PWF2: "*I learnt a lot from moving from one mine to the other - everywhere you go you get new exposure, that is just a given."*

Some of the participants also expressed a barrier affecting their careers negatively by being stuck in one role for too long. In this case, the participants do not mean it in terms of being promoted from one level to another but even being moved from one section or area of responsibility within the mine to another for greater exposure. This, they view as being driven by candidates in that role doing a good job and therefore the company being hesitant to put a new person or alternatively the company not wanting to take risks by moving them elsewhere as they (the company) may not have the confidence in the individual replicating the performance in that different role. This feeling of being stuck in one role for too long seems more pronounced in the narratives of female participants.

Participant PAF3: "*My career was from the start on track and in the last year and a half, it's been lagging. Whilst it works for the greater organisation to keep me in the role that I am in, it is not where I would have wanted to be."*

Participant PAF5: *"We can continue to give people exposure and not box a person into one area. The seniors are more comfortable in putting you in your area of comfort. They should take more chances and groom well-round professionals rather than specialists. Being a specialist limits my overall exposure."*

Participant PAF6: *"I think the company could have one's immediate supervisor listen more – one becomes so good in a specific job that the company sees keeping them there for the longest time beneficial. The mentality of why change something that is already working is limiting my progression."*

The level of tolerance for mistakes and more importantly the reaction following the mistake is identified by some participants as having had an impact on their career development and progression. The different narratives indicate how the reaction to mistakes being positive or negative has an impact on the self-perception of own capability and observations of opportunities being seen to be withheld subsequently.

Negative reactions create perceptions of being blocked for opportunities following the mistake.

> Participant PAF5: *"Also failing once, like being given an acting opportunity and an incident occurs, you are not given another opportunity. It is important to give people a second chance and not write them off after failing once."*

> Participant PWM2: *"I felt held back and not advancing because of an event that happened."*

Positive reactions and a corrective approach are seen as resulting in learning not only for oneself, but also extending that learning to others who are likely to make the same mistake.

> Participant PAF7: *"When we make the mistakes, it's about the reaction and corrective action. When I made a mistake as a graduate trainee, my manager was gracious about it. I never saw a negative reaction even though he was in trouble. I was properly coached, and I learnt that when we have graduates or any type of learners, we must treat them with some level of grace and take time to coach them through the process and impacts on production."*

> Participant PAM3: *"I have seen how when people are allowed to make mistakes they learn. The default of the stick makes the carrot to sit and rot in the corner."*

Participants also reflected on the struggles of transitioning from one level to the next, particularly transitioning from being an individual contributor to a line function requiring the management of people as being particularly challenging. The major contributing factor is that while there is a great focus on equipping candidates with technical skills throughout their career from entry into the industry, there seems to be less focus on people management skills.

> Participant PWF1: *"Transitioning to people reporting to me. Moving from being an individual contributor to managing many people who are also diverse, makes it difficult. The biggest barrier has been the soft skills – one can sit in a classroom but doing it in practice is quite difficult. The company needs to focus more on soft skills. For people who are going to a management role, some more assistance in the beginning of the journey, particularly in people management – like managing conflict and discipline. On the technical side, there is no problem, we get the exposure. Now I must worry about people – are they happy – coaching on the HR side on how to manage people and conflict is necessary."*

> Participant PAF6: *"When you are appointed into a substantive role after the training program, now you are legally responsible and on your own without the assistance received in the training program. I got appointed as a supervisor and everything ran smoothly until I had to act as a production superintendent and that was a game changer, including seeing the boardroom for the first time and having not entered the 3.1's [Mine Manager – legal appointment in terms of South Africa's Mine Health and Safety Act] office. Acting as a superintendent was challenging and came with the big responsibility of everything lying with you – a lot of sleepless nights and at times there would be so much anxiety and the number of times that the phone would ring."*

4.3.1.3 Agency and taking responsibility for own career

Taking into consideration the challenges that they have faced in entering and progressing in the industry, together with the support mechanisms provided by the companies they have worked for, another element that stands out in the participant narratives as an enabler is agency or taking responsibility of one's career.

> Participant PAF1: "*Even with the challenges, the first six months I was focused on making it work. I tried to show up as much as possible. From there, it has been always about showing up, learn as much as possible if I am given an opportunity, I deliver."*

> Participant PAF6: *"I have been my own enabler – not realising at the time but looking back I see different parts of self that have been growing. I believe you can navigate the barriers through commitment and putting the work and hours."*

> Participant PAM2: *"You can also choose to supplement your disadvantage and use it to your advantage. Development is not just about promotion, it's about first being good."*

These narratives indicate that there are some structural barriers to career development and progression in the industry. The lack of proper onboarding from when candidates apply and are accepted for bursaries in the industry on what to expect creates a culture shock not only when the candidates first come out to the operations for vacation work but also when they start as graduate trainees following the completion of a tertiary qualification. Despite the barriers, the narratives also indicate the industry having put some effort in ensuring that individuals who start with graduate training programs become successful by putting in place mechanisms to drive their development through formal programs, mentorship, coaching and to some extent sponsorship. The informal parts of everyday work in terms of engagement with those who may view individuals in graduate training programs and those who have progressed their career through various levels of management as being given preferential treatment seem to be the

biggest barrier that they face, as well as what is seemingly poor mechanisms to help individuals transition from one level to another. What is however encouraging is the resilience of the participants in wanting to grow and develop a career in mining and thriving and developing their careers even with the challenges.

4.3.2 The impact of race

4.3.2.1 Demographic Representation

The first way in which participants, particularly black participants view the impact of race in career development and progression is whilst acknowledging that there is change happening in the composition of teams across the business at various occupational levels and this having a positive impact on career development and progression prospects, the same is not happening at executive level.

> Participant PAM4: *"When I sit in meetings, and I look at this team and I like what I see and the space that I find myself in. Even though you feel that you are not being represented on top, but in my space, there is equity, diversity, various opinions, and I think that for me that is what is key is that as a business we are in the right direction and the space that I am in as a person who is black, I feel that I am in the right space*."

> Participant PAM1: *"There are still racial issues at corporate executive level, I don't see much of a change. Making a change at senior executive level seems to still be a challenge."*

Because of the lack of representation when participants look at the executive team, this is viewed as the company being slow in accepting change.

> Participant PAM3: "*When looking at the hierarchy, I still see much of the past. In studying the different leadership styles it's said that the seniors promote those who look and behave like them. Seeing only one African person in top management makes them stand out because of their skin colour and gender. It is a sign of the company being slow to accept change."*

Participants were also of the view that there is comfort with keeping individuals who look the same and that due to the composition of the executive team, the types of decisions made are likely to be biased based on the worldview of the majority who may be thinking in the same way. The impact could be that the culture change that is supposed to be driven from the top may not consider the diversity of views and experiences of the different groupings within the organisation.

> Participant PAM1: "*The power of having people who look like you make you comfortable with them. Those who do not look like you, you work with them."*

> Participant PAM2: *"If you are a team that is making decisions – like Exco – the voices saying something are always more than others – which could change the culture and direction being followed – it depends on inclusion but if you are diverse, you will almost always go the right direction."*

4.3.2.2 Covert Discrimination

From the analysis of systems put in place by the company in advancing career development, progression, and equity in theme 1 above, it seems that even though some of these systems are effective in dealing with discrimination, alternative ways are found to treat others differently, whether consciously or unconsciously. Participants find themselves questioning experiences that leave them with a sense of not being sure whether these occur because of their race, whilst

not being able to exactly pinpoint the exact basis for their experience of being treated differently.

> Participant PAF8: *"I don't think there are unequal opportunities – but the instances that I think that if I was not a black person, I would have had access to information from knowing the right people."*

> Participant PAM4: *"There is still that element of not being sure how you are being looked at as a black person – is there an element of doubt? These are things that we must still overcome but they are facts of life that we see every day and you wonder whether certain things happen because you are black."*

4.3.2.3 Being held to a different standard

The other major aspect where the black participants felt continues to perpetuate race issues is related to educational requirements for middle management+ roles. Whilst understanding of the historical context within which some of the incumbents of roles ended up in those roles without qualifications because of different requirements when they started in those roles and therefore being grandfathered, the view is that there is no real effort by the company and the individuals to improve their qualifications. In addition, the black participants are of the view that those without qualifications not only block progression opportunities for those with qualifications below them but are also resistant to change and different ways of working.

> Participant PAF7: "*The ones who don't have qualifications in terms of race, they act as a barrier – you have to be resilient as they are generally not supportive."*

> *Participant PAM3: "Controversial as it may be and sitting here with a degree in mining engineering and having counterparts without even a*

blasting certificate [certificate of competency issued to a competent person who can be appointed legally to perform duties of a miner or a blaster at a South African mine as stipulated in the Mine Health and Safety Act] is problematic – I understand that some of the things are grandfathered."

There is also a view that qualifications and experience are not always necessarily considered in making career progression decisions and those with minimum qualifications and experience sometimes get progression opportunities ahead of those with higher qualifications and experience.

Participant PAM2: *"You don't expect to get every promotional opportunity but sometimes you feel that you are overlooked when you compare qualifications and experience – you just soldier on and trust that another opportunity comes."*

Another way in which being held to a different standard and capability as a black person seems to be determined by how well you can speak English whereas white counterparts are assumed to be competent, even when the way in which they express themselves in English may not be up to standard. As such, black participants have an additional burden of always being conscious of how they present themselves in English and the impact that this has on them being viewed as competent and capable.

Participant PAM 3: *"Stop equating English to intelligence – it has no bearing on one's capability – a lot of talent is lost because of this. You see a lot in meetings and because a black person is slow, and because they have verbal crutches, they are seen as not capable. This goes back to the assumption of competence that goes with skin colour – when white people walk in, and it's assumed that they are intelligent, even though they may not speak English well. I don't always have the assumption of*

correctness even though I am privileged because of the way I speak, and someone else does not have the same privilege."

Participant PAF5: *"It's not necessarily about confidence lacking but sometimes when you go into a room with senior people, you start to question yourself – that becomes a massive barrier and self-questioning on whether you are good enough to do this – is your English good enough?"*

4.3.2.4 Representing all black people

PAM3 further narrated the work that comes with your own performance not being measured as yours alone but seen as representing all black people, particularly when you fail. As such, they constantly must ensure that their behaviour and performance is not viewed as not being up to standard as there is a tendency to cluster black people as a group and not as individuals with different attributes and capabilities and this has the potential to limit opportunity for those who come after them.

Participant PAM3 *"Unfortunately we get put in the boxes that people see us in – when I do something wrong, it's a stain on the people who identify like me. Not messing things up for the next generation – is a burden – or maybe not a burden but work, because the reality is that we all have a role to play in changing perceptions."*

4.3.3 The impact of gender

With the mining industry still being male dominated, several stereotypes resulting in women in management being treated differently are still prevalent. A lot of these have to do with structural issues in the industry that was constructed with males in mind and patriarchal norms, a masculine culture, and stereotypes that remain the order of the day. Change is also difficult to entrench through formal policies as, like with race, the behaviour mostly presents itself

covertly rather than directly making it difficult to pinpoint. Whilst the participants have also reported personal characteristics related to confidence, these are inflated by the culture and environment which also exacerbates self-doubt.

4.3.3.1 Patriarchal Norms and Gender Stereotypes

Patriarchal norms present themselves firstly through disrespectful and condescending attitudes by both the peers and subordinates of the female managers, including sometimes not being consulted when decisions are being made. Participants shared experiences where they issue instructions, and the response that they get which is not the same response as their male peers, and an attitude of testing their technical competence and knowledge being prevalent.

> Participant PWF3: "*My fellow colleagues who are males request something and it gets done. I believe that I do not get the same respect*."

> *Participant PAF4: "When I started acting in a higher acting role, that became quite interesting how you are treated by fellow colleagues who are middle managers. It was very rough – there would be people who would be very condescending, when you give an instruction, they would ask whether you have checked the procedure. I would also compare how they treat the males in similar roles as well as others acting, and I could experience the difference and the subtle disrespect. Due to the disrespect being subtle, it was hard because it would present itself as if you are incompetent and you would realise that you are not."*

> Participant PWF3: *"My last and current superior have been women, and they are overlooked when certain decisions are made. Luckily, my current manager is good at identifying discrimination and does not tolerate it."*

Other women demonstrated how these undermining attitudes linked to patriarchy impact their approach to leading as they are forced to adopt and assimilate the very masculine styles prevalent in the industry or alternatively must utilise organisational systems to get respect from both subordinates and peers.

> Participant PWF3: "*I have reached a point where I must get people's commitment on paper and if they don't comply, I take action. Because some people see being soft-hearted as a weakness, my previous manager told me to leave my heart at the gate and I have had to change as a person, especially after being promoted to be harder."*

Whilst acting harder might be seen as a solution to address disrespect, it further puts a burden when one is not acting in an authentic way just to survive.

In some instances, women have had to overlook potential misconduct and disrespectful behaviour to achieve targets and objectives whilst finding alternative ways to take control of the situation.

> Participant PAF2: *"If they don't like you, they won't help you, especially with the physical stuff – in a lot of situations, you had to buy face and that sort of restricted you in terms of maintaining discipline – all you wanted to do was to achieve the targets. You therefore need to have technical skills to take control and achieve some level of respect."*

> Participant PAF4: *"Employees would also test you and stop production to check if you can do certain things. Having taken my own time when working night shift and over weekends to spend time in the pit while my colleagues were in the office or off, I could earn their respect from being seen that I could do the job. I needed to get my power back and be less reliant on employees – I took my power back by learning in my own time, and it worked."*

The expectations in terms of gender roles also present themselves in how women are both expected to behave as well as reactions to their behaviour.

> Participant PAF4: *"Leading males as a supervisor was a challenge in terms of gender roles with them having certain expectations of how you should be leading them and talking to them."*

> *Participant PAF8: "I have had to keep my emotions in check because as a woman you are labelled as emotional and strangely enough when I check, everyone is emotional."*

One of the central tenets of patriarchy is the role of women as reproducers and custodians of the family and taking primary responsibility for most of the housework and childcare (Finnemore & Cunningham, 1995). This, together with the mining industry still structured and managed in ways that generally do not support the family responsibility and the expectations of society from women, puts an additional burden on women to cope with the demands of both work and family.

The reproductive role also still carries with it the most salient stereotype that women must endure related to pregnancy, with women continuously being suspected of being pregnant and when one reports being pregnant the negative response thereto.

> *Participant PAF4: "Being female and the perceptions that you are going to be pregnant and other biases. That stereotype is still there. Males can get away being absent but when you are sick, you can't do so in peace, and you get calls checking that you are not pregnant. When you are sick, you are treated differently and eventually had to make peace with it – had to make it a joke each time I get a call and start with confirming that I am sick but not pregnant."*

The narratives have however portrayed some positive responses of select professional women in key scarce and critical roles receiving support during pregnancy which is encouraging and demonstrating examples of seeing a long-term view of career development, progression, and contribution by women beyond the time that they take out to have children. This positive outlook is also potentially related to the education privilege specific to the participants in this study and the scarce skills that they possess in a market where experienced women in core disciplines at management levels remain in high demand.

> Participant PAF2: *"I fell pregnant, and that was a scary time as I thought that I messed up. I however got so much support and for the duration of the pregnancy I was placed in the technical department doing planning. When I returned from maternity leave, I progressed from there*."

> Participant PAF3: *"I got one of the promotions while being highly pregnant."*

However, because of the stereotype associated with pregnancy and still being seen as not being serious about your career when you do fall pregnant, as women progress with their careers and reach higher levels seniority and responsibility, the fear of losing opportunities or lagging in career progression as a result is real.

> Participant PAF2: *"I have not had another child based on the fear that if I have a child, someone is going to overtake me as I can't do what I must do whilst being pregnant. This is a significant point for women in mining as they think that if they take time to have children, they will lose out or take longer to progress. I see how colleagues are looked at when they fall pregnant - it is looked at is being not serious about a career and it does impact family life and one must make different choices. I*

choose my career first and there are things that impact family life like multiple calls at night and those things do annoy partners."

These narratives reflect the difficult choices that women must make between a career and starting and growing a family. For the women in production roles, pregnancy also means that they must move to alternative support roles due to health and safety risks. When they do choose to have children and take care of other family responsibilities, the challenges that come with that, combined with work expectations, create serious barriers for the career development and progression of women in core occupations.

Participant PAF1: *"There is no consideration for family structures and when you don't have the luxury of support, you end up paying for just about everything. Things changing is unlikely to happen and I don't want to be the one who constantly brings up family dynamics and there is no thinking about looking at different dynamics."*

Participant PAF5: *"Your family responsibility is impacted, especially if you are a single parent. When you have a sick child, trust issues emerge. You also want to build a profile of being reliable and a dedicated person. It therefore becomes difficult to be a present mom and balance that with this career. Most of the time, you move the responsibility to the nanny because you need to be at work. So, you end up convincing yourself that it's about building a career and that things will be fine one day – the struggle is real. I find that female managers are more understanding and help you to find alternatives."*

Participant PWF2: *"I have a support structure, but you can still never totally say you hand over the responsibility for you children to someone else – homework must still be checked, and other things organised. I do not believe that it is the company's responsibility to create a support*

structure for women but if there is something they can do it can help. Single moms have it much more difficult as sometimes they have to choose between the child and work."

The other stereotype that women encounter is related to their perceived capability, especially technical ability and therefore as a result being put in a box in terms of which jobs they can do.

Participant PAF5: *"The other stereotype is from senior management themselves believing that a woman cannot do certain jobs – if a vacancy is in a specific section, you will be overlooked just because you are a woman. Not having faith because you are a woman and labelling certain roles as not being for women is problematic."*

Participant PAF4: "*When I got appointed as a production supervisor before we were allocated to superintendents, I was employed under a specific section and the superintendent looked at me and thought I was not going to make it and unfortunately for him I was already employed, and he pushed me to a different section. I have also had experiences in my current role where I am expected to do the administrative work which I have had to resist."*

The result is that women do not get full exposure to the various aspects of the mining environment which, as they progress with their careers are essential as the more senior roles are expected to manage all the aspects.

The focus on women in mining issues within the industry and companies resulting in policies being put in place to address issues affecting women seem to also have gone some way in changing the experiences of women and in ensuring that overt forms of gender discrimination are curbed.

> Participant PWF1: *"In terms of gender, I don't feel that I have been discriminated at all. People do have their own opinions, but they keep such to themselves – change is difficult and it's happening. Most of the people I have worked with as a graduate and now in my current role, it was not easy for them to accept but having said that I have not been treated disrespectfully*."

Another encouraging element is the appreciation by male participants in the study on the challenges that women face with their career development and progression in the core disciplines.

> Participant PAM3: "*How much we don't like change – the resistance to women joining the workforce has to do with prejudices and not ability. We still make jokes about people who are different from us. It's easy to push out differences instead of creating spaces where we value difference. As a man, when I talk in technical terms, I am taken seriously but the female counterpart is not taken seriously because we are sticking to the way things were and the idea that someone who is different cannot be competent in the space is heartbreaking."*

> Participant PWM2: *"I can maybe see barriers for women in terms of how things have always been done which would have prevented them from getting to where they want to be."*

> Participant PWM1: *"Women are still seen as not being capable of doing a physical job. In the positions I have been in, ladies have surprised me in how they have performed."*

The challenge remains how this appreciation is leveraged to drive culture transformation on the ground such that where these male participants and other males lead and within their spans of

control, they go beyond appreciation of the challenges that women face, but also drive allyship and display zero tolerance to the different treatment of women whilst empowering them as valuable contributors.

Despite the challenges that women face, the patriarchal norms, a masculine culture, and stereotypes being entrenched in both society and in the workplace, the narratives demonstrate agency by the women in challenging them and finding coping mechanisms that motivate them to remain and develop and grow their careers within the core disciplines of the industry.

4.3.4 The impact of the intersection of various social identities

Whilst the issues of race and gender as separate identity markers were identified in the narratives of the participants, the lived experiences of the participants indicate the intersection of various social identities on their own and with organisational systems as having the most salient impact on career development and progression.

With the industry being male-dominated and gender playing a key role in how women are accepted and treated, when this identity marker intersects with race, it produces different outcomes for white women compared to black women. The experiences of white women seem more muted, with experiences of both overt and covert direct discrimination and being disrespected not being as distinct.

> Participant PWF1: *"I don't feel that I have been discriminated at all. People do have their own opinions, but they keep such to themselves – change is difficult and it's happening. Most of the people I have worked with as a graduate and now in my current role, it was not easy for them to accept but having said that I have not been treated disrespectfully."*

> Participant PWF2: *"I worked underground during vacation work and people treated me well. There were no people who did funny or nasty things or prevented me from doing what I could do both underground and in the opencast. When I started working underground and having*

to do the shifts for the blasting ticket and other tickets and working as a miner and shift boss, I had easy teams. I have heard stories also from men who left the industry because of the rough environment, especially where you must work with difficult teams."

For black women, the intersection of race, gender and age appear to be more prominent, with the effects and the toll that they take being more pronounced.

Participant PAF1: *"It also had to do with age, race, and gender – what you would always hear is that people have done it for 20 years and you had to work extra hard to find your voice or even be asked what you think. Bottom up, there are many people who have been in the industry for many years, the idea of being led by a woman, a young woman, is foreign to them."*

Participant PAF2: *"Race, gender and age are still a barrier – when you have a conversation with someone, especially more high-level white males, you can see sometimes that they do not take you seriously."*

Participant PAF4: *"Being black, female, and young means not getting respect and recognition. On top of that age is also a factor that makes people not to take you seriously."*

In addition to the impacts of race, gender and age, women with a small body stature identified this as an additional stereotype that is assigned to their perceived lack of capability.

Participant PAF2: *My physique and height still play a role in how I am perceived. I have therefore ensured that I develop the technical skills to prove people wrong."*

> Participant PAF4: *"In this industry, there are things that you can't do because of physical strength and that gives males power over you."*

In addition to the stereotypes related to body stature, participant PAF5 has had to also manage stereotypes and marginalisation related to ethnic identity.

> Participant PAF5: *"There is still a lot of undermining - I am short, a woman and from a previously marginalised ethnic group. I have had to do a lot to show my capability. Tribalism is another aspect –as a graduate trainee, supervisor and superintendent sometimes you have to address employees to get their buy-in. There are still issues of tribalism and gender stereotypes where some employees verbalise that they can't be led by a woman from a specific ethnic group."*

In addition, most of the women must also cope with a further intersection of these various social identities with family responsibility in an industry that has put in place systems that demand long working hours, leaving little room to fulfil these responsibilities.

The result of the intersection of these various elements with organisational and industry systems means that these women must work extra hard to gain acceptance and to prove their capability as their actions are always under the microscope and they are being held to a different standard. They further carry the additional burden of protecting the integrity of not only their reputation and career prospects but of ensuring that future generations of those who look like them and identify similarly to them are given a chance, which takes its toll on the overall wellbeing.

> Participant PAF3: "*You become aware that you are a black woman in this industry and don't see others and a lot coming up – you cannot fail. It is demanding but you realise that if you fail, you would have failed everyone. With the industry being so small, others will know – you work yourself to the bone because you cannot afford for your reputation to be tarnished and end up being hard and critical to yourself and even if it's stuff that others also get wrong as you don't think you have support*

or a 'father' in the mining industry. Where you realise that you are on your own and must do it not only for yourself but also for others in order to represent, you have no choice but to work hard and do it also for others. There are exceptions of people who support you, but you are also cautious that there are critics – maybe it's fictitious – but you become aware of the noise – whilst having cheerleaders, you are also aware of the noise of others wanting you to fail and this makes it difficult to truly enjoy your career and avoid breaking yourself in the process."

Participant PAF4: *"I have had to work hard and there is no room for error for someone who looks like me. I have had to spend weekends studying procedures to ensure that I understand how things work. Before responding to a WhatsApp, I make sure that I have double-checked. Going to the boss' office, I must practice, think of technical terms and the others just go in there and 'wing it'. For people like me, it means that I must always be above board to advance."*

The intersection of race and gender also plays out in males feeling that because of particularly their gender, they have fallen in the priority hierarchy resulting in reverse discrimination and them not always being considered for positions. This happens across the race spectrum and is seen as a barrier or a limitation to their career progression pace.

Participant PAM4: *"We are looking at equity and maybe indirectly creating a limitation to the boy child and a man. I look at gender and see that the priority is women and there are good males and sometimes feel a bit awkward and wonder how we move forward. Some of them you look at the business and see the good course and thinking about the historical injustice. Back to the historical context, the white people looking at themselves, they don't see a chance for progression and sometimes when you look at yourself as a male you start doubting*

whether it is a limitation or not. It is facts on the table and depends on how leadership looks at it. Such things may be becoming barriers. We always look at one aspect at a time and forget about others and that has been a barrier itself in the evolution of transformation – there are other social aspects that we should be looking at and neglected to the point that we only realise too late to do anything about it. How we are approaching the project is important and not being one-sided and ensuring that we don't lose other aspects that we should be managing concurrently."

Participant PWM1: "*There have been instances where I have applied for positions and being told I don't meet the employment equity criteria and now white people are not being preferred and makes it difficult especially if they don't know you."*

Participant PWM2: *"A few times I went for interviews in my career and my peers get promoted and I sometimes wonder if the legislation is a barrier for progression. You think it and sometimes you don't always know. In most cases, I however thought that the people who got promoted deserved to be promoted as well."*

The narratives indicate that the intersection of various social identities does play a role in the career development and progression. The experiences of the various social identity groups vary significantly with those of white females being fairly muted and those of black women being very pronounced, with some males narrating experiences of perceived reverse discrimination.

4.3.5 The ways of working have an impact on family responsibility

The results of the study show that the 'always on' culture of production environments within the mining industry that presents itself in the expectation to work long hours, being available

after hours and on weekends to take calls and /or come out to the mine as may be required, has an impact on family responsibility.

The first interesting dynamic from the participant data is how male views are changing in both the role that they should be playing in terms of family responsibility and the acknowledgement of their privilege relative to women as having an impact on their career progression and development.

The longer-serving male participants shared how when they were younger, they focused mainly on the career and could afford to do so because of the support structure within the family that did not assign the primary family responsibility role to them. However, with maturity, there is a realisation that they have already lost so much and now try and find ways to create more of a balance. What also stands out in their narratives is the support that they are getting from their managers in trying to create this balance.

> Participant PAM1: "*Challenges that come with family responsibility are enormous. I used to go for work first and family just had to support me as I was working hard for the family. I then started seeing that my family suffers the most, especially when I am going through hard times at work. My wife even started calling me to wake me up as I tended to respond more to phone calls that than to her. With time you realise and start seeing that while work is important, family comes first – you don't want to be the one who just funds everything but is not there. I get support from my boss whenever I have family responsibilities to attend to. The biggest challenge has been to make time for my kids. If you do not prioritise things that are important, you will end up with the career and no support structure – balance remains a challenge, but support is there."*

> *Participant PWM2: "When you are younger and ambitious, you tend to neglect the family side because of ambition. Later, you realise that you should have been there for certain events and chose to be on the mine. Talking about change, I think about the need for coaching and guidance*

for younger graduates and managers to manage the balance between family life and career. At the end of the day, you can't get that time back when you missed out on important family events. We need that recognition and guidance that it's okay to recognise the family and that it's not just about the job. I am receiving encouragement and support from my manager to attend important family events."

The younger male participants seem to have realised earlier on the impact that the structure of the industry and the long hours have on their family responsibility, observing the greater demands of transitioning from being single to being married and starting a family.

Participant PWM1: *"Getting married and having kids changes your perspective. Now that I have my own family, the family is more important and there are people who do not realise that you also need to spend more time with the family, and you find yourself having to spend many hours at work. When you are not married you don't have a care in the world as you want to show your capability and that changes your priorities."*

The intersection of family responsibility with gender results in a disadvantage for women and the pace with which their career then progresses. Franks, et al. (2006) identify the traditional roles that continue to be assigned to women by society as including the home-centred functions related to the nurturing of children, caring for the elderly and the sick as well as the unpaid housework that they must try and integrate with paid work. The challenge therefore remains the gender roles that women are expected to fulfil. Whereas men can play a secondary role in most aspects of family responsibility, with the societal expectation that women must play a primary role, their careers are impacted in that they are perceived as unreliable when they prioritise family responsibility, which in turn negatively impacts their prospects for career development and progression.

> Participant PAF1: *"In terms of family responsibility, it is very difficult for me to find balance in the space that I am in. There is a lot that is required and there is minimal consideration. Things like getting to work on a weekend is seen as the norm – you can have conversations well in advance about school closure and being available for your children, but when the time comes, this is not considered.*"

> Participant PAF4: "*The identity of being a mother is like a barrier because if you identify like that, it's seen as a hindrance – when you say that your child is sick, they say that women are never at work. I had to keep that in check, fortunately my child is not sickly which is playing in my favour."*

To avoid negative perceptions that may dent their careers, women try to manage and balance family responsibility with the career by moving into support rather than core production roles, which in the long term has limited career prospects because of fewer opportunities available.

> Participant PAF3: *"I wanted a role in which I could raise my young kids and so I stayed in planning."*

> Participant PAF2: *"I know a lot of women who have had to move to technical services when they have small children. There is unfortunately not space for everyone, and growth opportunities are limited."*

The males in the study were also cognisant of the impact of gender and family responsibility intersecting with the structural expectation of the 'always on' culture in the industry in creating different outcomes for women which impacts their career development and progression.

Participant PAM4: *"As a man, being family orientated, it does not limit me, but when I look at my wife, I feel that it may limit her. I sometimes feel responsible for creating a delay in my wife's career."*

Participant PAM2: *"Being male is an unfair enabler – you can focus on your career without worrying about the kids. Being available and being able show up whenever you are required to, gives a sense that you are dependable."*

The structure and ways of working in the industry was therefore seen by most participants as having an impact on family life. Whilst the impact continues to be more pronounced for women, there is a growing realisation amongst male participants of the impact on them and the bigger impact as well on women in core occupations.

4.3.6 Change is happening in the industry, albeit at a slow pace

4.3.6.1 Demographic profile of the industry

4.3.6.1.1 Demographic representation at various levels of the organisation

There was an observation of change in the demographics of other levels of the organisation except top management/executive level. The benefits that come with difference were also observed and concerns raised that the same benefits were not being derived at executive level because of the lack of change in the composition of that team.

Participant PAM4: *"When I sit in meetings, and I look at this team and I like what I see and the space that I find myself in. Even though you feel that you are not being represented on top, but in my space, there is equity, diversity, various opinions, and I think that for me that is what is key is that as a business we are in the right direction and the space that I am in as a person who is black, I feel that I am in the right space*."

Participant PAM1: *"There are still racial issues at corporate executive level, I don't see much of a change. Making a change at senior executive level seems to still be a challenge."*

Participant PAM3: "*When looking at the hierarchy, still see much of the past –in studying the different leadership style it's said that the seniors promote those who look and behave like them. Seeing only one African person in top management is blaring because of skin colour, gender etc. It's a sign of the company being slow to accept change."*

These narratives also reflect a concern that if change is not happening at the top, it is seen as a sign of not accepting change and wanting to keep the status quo. Up and coming talent tend to model themselves around those in positions that they are developing towards. Concerns around the composition of top management in this study were solely raised by black participants. For them, the lack of role models of people who look like them, particularly in the core areas of top management creates doubt that such opportunities are open to all and that they have prospects to develop their careers to this level.

4.6.3.1.2 Age profile of management

The age profile of appointment into management levels is changing, but it still comes with challenges of being accepted as knowledgeable. Because of qualifications and more structured career paths, employees with tertiary qualifications progress at a faster pace in the industry than it was the case in the past. The challenge for them comes with employees reporting to them working in the industry for many years tending to be sceptical of younger people managing them. In placing individuals into these roles, they are generally placed because of their competence and proven track record coming through the ranks. The people management challenges that come with their accelerated development and progression and how they are perceived and equipping them with the skills to manage this is not always considered.

Participant PAM 4: "*As a supervisor and when you are always the youngest, people would not listen to you, and you would get comments that you know the books and here we do it like this. This is still a prejudice that graduates get."*

Participant PWM1: *"When I started in my current middle management role and being the youngest to be appointed in that role, when I was introduced to the team, they look at you and you can see that they think you are young and what do you know – that made me want to prove a point around competence."*

Participant PAM2: *"In my career, I have always been managing way older people and it is even more difficult to manage older people and you are 29 already at senior management and thinking about how you manage them. In my discipline, it was a taboo being black and the youngest."*

4.3.6.2 The extent to which organisational systems and processes drive change

4.3.6.2.1 Acceptance of difference - race

The observation from participants is that there has been a change in terms of racial discrimination, particularly overt discrimination. There are however observations of incidents of covert or indirect racial discrimination and in some areas the lack of racial integration.

Participant PAM2: "The path is not necessarily easier but now you have more people to support you. Twenty years ago, you had no support and people were worried about you taking their job or their children's job. Race still matters - you can see that some people have different standards for people with different social identities."

Participant PAM4: Moving from the space where we had really conservative people and where we are now, you can see the difference. There is still that element of not being sure how you are being looked at as a black person – is there an element of doubt – these are things that we must still overcome but they are facts of life that we see every day and you wonder whether certain things happen because you are black."

Unlike overt discrimination, covert discrimination is difficult to make sense of when people experience it as they are not always sure whether what they are experiencing is real or their own suspicions as it is difficult to pinpoint what the real issue is when you are treated differently relative to others.

Being treated differently and being held to a different standard also comes up, with the intersection of race and gender for white males and the associated perceptions of reverse discrimination playing out in ways that makes them protect each other.

Participant PWF3*: I will make it a colour thing because it is a colour thing. What I notice is that white males don't want to see other white males fall. There are incidents where a white male gets away with things and it's because the other one is his biggest supporter. You see a black supervisor doing the same thing, but you see him being treated differently."*

4.3.6.2.2 Acceptance of difference - gender

The change in the demographics of women representation across levels and in management are observed. The organisational systems and programs that have been put in place to facilitate entry and progression are noted as helping to make a difference.

Participant PWF1: "*In terms of gender from when I started to now, a lot has changed. As a student doing vacation work and later as a graduate trainee, I did not see a lot of female artisans, supervisors and let alone*

engineers. Now, I see a lot of how that has progressed. It is much easier to progress in the mining field even from five to ten years ago."

Participant PWF2: "*It's good that it is changing and there are women in mining rules, and at the time I accepted that the mining world could not change for me as I made the choice to be here. I could not complain about anything as I made the choice to be there. When I was starting out and having to work shifts, I could not eat or drink everything largely because I could not use the toilet facilities due to health and safety issues related to going to the madala side [mined out areas underground] – I could not take the risk."*

Differences are however noted where the lived experiences of black women seem different based largely on not only their gender being the only determinant, but are complicated by the intersection with race, with a further intersection associated with their age adding a further dimension.

Participant PAF1: *"You must consistently find your identity. You must be firm still and some of the terms like "mntanami" [my child] mean different things that a person of a different gender and race does not have to deal with. You must be firm because the meaning of such words in the work context is different – it means I cannot give you an instruction. Both at the bottom and top, you are constantly surrounded by people who marginalise you."*

Participant PAF2*: "In this industry, as a young black female, no one will trust you to be their General Manager if they have not worked with you as they are not sure how you will handle things."*

The marginalisation for black women results in them being sandwiched in the middle. With most of the workforce reporting in the structures they lead being black, there is an expectation for them to behave in a certain way that reflects the cultural norms of respect not only for their elders but also how black women should behave in society. The use of words like 'mntanami' [my child] suggests drawing the line that even though you are assigned authority by your role, the fact that you are a young black woman, I still see you as a child. On the other end of the spectrum, the doubts associated with the competency of a black woman means that their skills and competencies cannot be tested through a normal selection process that candidates go through – their competence must be tested on the field over a period before they are trusted. This has a limiting impact on career mobility beyond the people that they have worked with and know them.

The differences in the experiences of white and black women in relation to the change in the industry reflects the importance of not essentialising social identity groups. The response to dealing with women issues in the industry has assumed that all women, irrespective of race, occupational level, social class, education, experience similar challenges and therefore attempting to change industry and organisational systems and structures has relied on tackling women challenges based on this premise. Taking an intersectional perspective, reveals differences that require different approaches and possible solutions.

4.6.3.2.3 Acceptance of change – harassment and bullying

An encouraging aspect in the narratives of the women is the observation of change particularly with regards to sexual harassment and some level of respect towards women and derogatory comments and behaviour being seen to be reducing. The systems put in place to create awareness seem to be making some difference. Awareness of the policies, mechanisms to report as well as observing action being taken against perpetrators of sexual harassment seem to be starting to curb negative behaviour.

> Participant PAF1: *"Then we did not have systems to prevent these things – now the graduates have the tools and policies to fall back on. Now it's different. Sexual harassment was a norm, and they would look at you as a foreign thing that they can look at anyhow and say whatever."*

> Participant PAF4: *"Because of the past and how things used to be, there has been a big change as males know that there are things that they cannot do and say. I don't think it's an industry thing but more this company's thing that people don't make advances. In the industry it's still prevalent, and for me particularly at this company, it's a great advancement."*

The level of these women in the organisation and the power they hold in the hierarchy may have something to do with them being respected in this regard and their experience may not necessarily translate to all the women across all organisational levels. The extent to which these experiences can be generalised across different levels of the organisation in which the study was carried out and across the industry for both the similar population within the study and across various occupational levels will have to be tested.

4.6.3.2.4 Leadership style

In this study, the longer serving participants note a change in the leadership style. Some of the factors observed as driving the change is the workforce that challenges the ways in which they are being managed and led as well as organisational systems that create mechanisms for employees to report bad treatment. With the educational profile of the workforce also changing, it means that their skills set is different, and they have more career options to explore.

> Participant PAF3: *"The industry has changed since I joined and now – the industry was very abrasive and one had to get recognition that way – people had to fall in line and in the past three to four years, people are resistant and as leaders we must adapt – the softer skills are more of a commodity. You now need to lead with finesse, skill and tact and convince people to follow you as people have choices to go to other industries. We are no longer leading people without skills and this calls*

for a different type of leadership – productivity and leadership are intertwined."

Younger participants however expressed sentiments of the leadership style that is still not transformed, with a militaristic leadership style still being observed in certain areas, and different styles of leadership that focus on engagement and being soft-spoken viewed as a sign of weakness that does not deliver results.

Participant PAM3: *"The militaristic way of doing things is engrained and because we get largely trained on the job, you get to learn that to get things done, that's the style. When you come with the soft, modern way of doing things, people do not respond, because they do not know how to. When you are soft-spoken, you are seen as weak, and weakness is seen as not for this industry. We need to accept that aggression is a response and not a management style – you can achieve the same drive and hard work from the workforce from motivating them rather than from fear."*

Participant PAF4: "*It seems like we have a certain character – to command respect, talk loud and people don't have to be like that. You can still get things done by leading differently – let's enhance their strong points and let people be different and be themselves."*

These participants propagate for a change in leadership style from a disrespectful, fear-driven approach to a more collaborative approach which understands and accepts differences in people and the contributions of this difference as well as the opportunities that come with leveraging this difference.

4.6.3.2.5 Language and tone

The mining industry worldwide is known for a harsh culture that has for a long time enabled the use of abusive language to be normalised. With the change in the workforce and employees understanding their right to be treated with respect, they are increasingly challenging these normative language practices. From some of the narratives, it is observed that the use of abusive language may be entrenched in some areas that some employees believe that the company focusing on changing the language and putting in place mechanisms that enable employees to challenge such behaviour is a waste of time that could have been spent on other business issues.

> Participant PAF8: "*The biggest issue we deal with are the rights of employees – the use of words and language that was acceptable in the past is now an issue. I believe we should be spending our time on other business issues."*

The extent to which the language is entrenched also plays out in those not using it being seen as outsiders who do not belong. There is however recognition by some on the need to change and employees starting to challenge this behaviour.

> Participant PAM 3: "*Language – we speak a different language – mining has its own language and unless you speak the language, you sound foreign. We are not always kind to each other – e.g. please and thank you – the word toxic flies around. When you manage differently, you are seen as the outsider -we are very harsh and punitive."*

> Participant PWF1: *"We went from a white male dominated environment to a very diverse environment – you should not keep the practices as they were – as an example, being comfortable about the language and swearing in the name of it being 'mining language.' Employees, particularly women are starting to challenge this behaviour."*

4.6.3.2.6 Ways of working

The historical practices and ways of doing things continue to be perpetuated. The key aspects of the ways of working that were of concern to the participants included resistance to change as well as the long working hours.

Participants notice resistance from the longer-serving employees in their structures to changing the ways in which things have previously been done which presents a challenge in managing them.

> Participant PWF1: "*We still sit with people with many years of service who are stuck in their ways. People are set in the way they do things – I have another person who reports to me and has been at the same mine for more than twenty years and always states we have been doing it this way and is not willing to change. These practices are entrenched."*

Whist there is understanding that the nature of the industry and related legal appointments that require physical presence and visibility on the mine, some of the participants' view is that there is resistance to exploring different and new ways of working, with some participants having accepted the status quo and seeing no possibility for change linked to the 'we have always done it this way' mentality discussed in the previous sub-section.

> Participant PWF1: *"The long hours and the phone ringing all night is it just the way things are. The reality of the situation is that top management wants an understanding of the previous day's production figures early in the morning. We need to understand the production reports and what happened particularly during the previous night before reports are submitted. If we don't start early, then we can't report on time and we can't expect anything different as people want to start the day understanding what the previous day looked like and the further down the line you are the earlier you must start. Competence further down the line also impacts the level of involvement needed and therefore starting, ending time and how many times you get contacted during the night is just one of the things you must accept."*

Participant PAM4: *"Because of the nature of our business in mining I have never misunderstood that you are physically required to be there as you manage human behaviour. When we discuss issues like the hybrid – from the first take I don't think it's practical for all levels as I have learnt I would not be at peace having a mine overseer managing people from home. However, we need to be flexible for certain activities– as an example, we have meetings that we have been doing on MS Teams which we have now been brought back to face to face, and I wonder why. Sometimes I see it as a limitation and when someone wants to raise it, we look at them differently and the remark is always that 'this is not a chocolate factory' and we start labelling and doubting these people's commitment and that creates limitations."*

Participant PAF1: *"We should be engaging about change – as an example, hybrid working. The blanket rules about core staff not being allowed at all to work from home means that you don't have time to get to administrative work like emails or alternatively on top of the long working hours, you must invest more time on getting to them otherwise they sit for days unattended. Some days we have full day meetings and can no longer do them on MS Teams. The face of management and mining is changing, and we also need to change – by keeping the status quo, we indirectly communicate a message that we don't want the face of management to change."*

From one of the narratives, it seems that the source and problem with working long hours is not only is the expectation to deliver reports at a specific time, but also the competence of the various management levels in the line who either do not bring their part or do not have the skills to do so, thus putting pressure further up the line.

4.6.3.2.7 A career in mining is demanding, with little focus on wellbeing

Given the culture and ways of working that are not transforming at the required pace, there is a call from participants for a greater focus on the impact that this has on employee health, wellbeing and negatively impacts family life.

> Participant PAM4: *"Working long hours has become normalised - the health aspect of employees is something that we are not addressing."*

> Participant PWM1: *"Because as an industry we are target- and performance-driven, there is a perception that people are just enablers. You are here to do a job and we don't care about what else you need to do outside. The way in which the industry works, and the number of meetings being held is a lot compared to other industries - the number of things expected from one person compared to other industries is very different. There is a lot expected of people in the mining industry and sometimes it feels that everything else in your life must take a back seat."*

> Participant PAF5: *"We can focus more on re-emphasising more on just a person as being capable and strong, we need to also tap into their overall wellbeing. When it comes to mining, there is a gap in terms of dealing with employee wellness and wellbeing and how people are doing – we often focus on the numbers, production, safety. We need to check more on how people are doing spiritually, financially and their overall wellness – things like celebrating birthdays – having playing days and team building activities. We are always formal; we need an opportunity to relax and be well-rounded and do things in a relaxed atmosphere and get to know people for who they are – it enhances team building and makes you to be more supportive and understand how people react in a certain way. Because of the gap in checking wellness,*

we tend to respond that people are too emotional/angry and labelling people because we do not understand their circumstances."

4.6.3 Culture transformation is necessary and timely

The findings of the study indicate that if meaningful and sustainable change is to be made, there is a need to focus at an organisational level on transforming the culture and the way of doing things. The changes and policies that have been implemented by the company and the industry have gone some way in addressing the inequalities, but from the narratives, it is clear that individuals continue to find loopholes in the current organisational systems that still enable different treatment based on difference. Transformation therefore needs to happen at an organisational level, focusing on various cultural elements that drive the exclusion and marginalisation of those who are different. At the specific company where the study was undertaken, participants were very encouraged by the culture transformation journey that the company had embarked on. The participants generally believed that it would go a long way in changing not only issues related to diversity, equity, and acceptance of difference. In addition, with the focus on the values of the company and the focus on the appreciation of difference, putting in place mechanisms to create access to opportunities for those who are underrepresented as well as growth and advancement, and having the behaviours associated with these having been jointly developed through focus groups by various employee and management levels of the company has ensured that there is greater buy-in. Also, with the expected behaviours being discussed continuously, participants believed that it makes it easier for employees to identify behaviours that are contrary to what has been agreed upon and more importantly, through creating platforms for employees to raise issues of bullying, harassment and other behaviours that may not be in line, the participants hope that greater change will be delivered and sustained.

Participant PAF2: "*Things like the culture transformation drive will also assist if we really take it on, it should help to drive dealing with and accepting difference. Looking at the managers appointed recently, they are allowed to be themselves and the company has not sought to put the typical person in the roles. If we are going to make that something that we live by, that can be part of the tools that we use to assist with change."*

Participant PAF4: *"The culture transformation program seems to have a formula that we expect, and we need to clear our minds and ensure that we accept people for who they are irrespective of gender, sexual orientation and we need to be more accepting of difference. The culture is too big to deal with it at an individual level – there is a saying that culture eats strategy for breakfast – it's at the strategic level that culture must be addressed – nothing will work if there is no intentional leadership, and we make it a norm and entrench it in the system irrespective of who is there."*

Participant PAM4*: "I must say that with our introduction of the culture change program, we are moving forward. I look at it and think that this resonates with a lot of individuals who think that our company is not strong in that aspect and that is encouraging. I can see that even the graduates and middle management appreciate this. You can see the vibe and from where I am sitting, people are able to talk more, and they have an umbrella that they can refer to if they feel excluded or treated differently. As a business we are in the right direction and the space that I am in as a person who is black, I feel that I am in the right space."*

Participant PAM1: *"The culture change program is an eye opener as people are starting to understand themselves – previously biases were so vivid, and I had to think twice about saying certain things. It's still there but it's not as apparent as it was – those things that restrict you from contributing positively, sometimes you know the answer and think about it as not being worth it to talk about it, now I feel more confident to speak up."*

Change at a structural and systemic level is therefore viewed as being critical to drive change and behaviours across the organisation. With a clear articulation of what behaviours are not

acceptable and employees being given platforms to challenge such behaviours and where there is no change, report them, it not only creates awareness for individuals on behaviours that they may have embarked on in the past either consciously or unconsciously, but those who are being marginalised are gradually gaining the confidence to raise issues as they have a system to which they can fall back on when they experience discrimination, bullying and harassment or being treated differently.

In this section, the narratives of the participants reflected six key themes. In addition to indicating that most of the participants entered the industry by default because of not having funding to attend their first choice of a career, they nevertheless remain committed to building a career in the industry. Having had both good and bad experiences with entering the industry, they believe that them having access to a graduate development program has had a positive impact on their career development and progression, especially the support offered by the companies from the start of their careers through mentorship, coaching and sponsorship as well as the continuing education and training support that they continue to be exposed to even though there are gaps in some elements like the managerial, leadership and conflict resolution skills. Challenges have been narrated, particularly by black participants related to covert racial issues still being prevalent, with the negative experiences of black women being more salient compared to their white counterparts, driven by the intersection of race, gender and age. The ways of working of the industry were presented as having a negative impact on family responsibility. Even though the impact continues to be greater for women, the narratives of male participants also reflected the impact that long hours have on family life. Change was experienced, particularly by those participants who have been in the industry longer as happening, even though the pace was slow. Specific areas of concern relate to the slow pace of change linked to the demographic at top management not changing; the ways of working that impact family responsibility, with the intersection of various social identities continuing to present further challenges. Structural and systemic changes related to the profile of the workforce below top management were also observed, with organisational processes having an impact and discrimination not being as overt as it was previously, with improvements noted on the prevalence of sexual harassment incidents as a result of the awareness programs that were put in place. Participants were further encouraged by the culture transformation program that the company had embarked on, viewing it as going to facilitate change.

This section has shown that whilst some progress has been made to change the profile of the industry through bursaries and enabling entry into the industry by candidates with different social identities in the core disciplines of the mining industry, as they progress through the ranks, they experience several challenges largely related to the structural and entrenched systems and ways of working in the industry. Whilst some of the challenges may be similar across the various social identity groups, the narratives have shown that when you bring in intersectionality, different levels of marginalisation are exposed. This therefore calls for a move from generic responses for everyone to specific interventions that take into consideration the different challenges.

The next section consolidates and synthesises the findings within the context of the purpose of the study, the research question and other available research, whilst also making recommendations to deal with the findings and outlining the study's limitations.

CHAPTER 5: DISCUSSION AND RECOMMENDATIONS

5.1 Summary of key findings and recommendations

The study sought to determine whether intersecting social identities have an impact on the career development and progression in the core disciplines of the South African mining industry. Where the impact was determined, the study further sought to determine how this happens; further exploring whether the experiences of the different groups have changed over a period of time in the last twenty to thirty years since the promulgation of various pieces of legislation in South Africa to drive change and women being allowed to work underground since 1996; and finally to determine the role that historical and current organisational, industry (mining) and societal systemic issues and dynamics have. Participants from the core disciplines of mining and technical services (excluding geology and survey), metallurgy, and engineering in middle and senior management levels (Paterson grading system grades D2-E3) in a coal mining company were invited to share their lived experiences of entering and growing their careers within the industry.

The first interesting and striking element that emerged from the narratives of the participants as part of understanding their backgrounds and how they entered the industry was that most of them had very little knowledge of the industry and therefore no interest in pursuing a career in the industry. For most of them, because of their social class, they had to choose mining because of the bursaries that were offered by the mining companies. This is consistent with various studies that confirm that financial limitations are one of the key aspects impacting career choices, resulting in students having to change from their original choices (Bojuwoye & Mbanjwa, 2006; Maharaj, 2008; Shumba & Nong, 2012). What is however encouraging is that for all of them except one, do not regret entering the industry and remain committed to continuing to build a career in the industry.

Entry into the industry through some form of a graduate program has been beneficial to their career progression. The greatest benefits relate to the programs being structured, with the mentorship, coaching and sponsorship that they received from entry in the industry that has continued throughout their careers. Having someone aiding on how the business and industry

works and advocating for them was seen as the most beneficial aspects. Formal training and continuing education support that they continue to receive is seen as setting them apart from others in the career stage that they are in, even though the need for more soft skills and managerial and leadership skills and skills to transition from one role to the next was identified as a gap.

The narratives of participants having an opportunity to study at tertiary institutions irrespective of their class status is testament to the amount of investment that the industry has made over many years in tertiary education. The significant change in the demographic of the student body, particularly mining engineering in the key two universities that offer a degree in mining engineering (University of the Witwatersrand and the University of Pretoria) to predominantly black students with female representation increasing over the years also means that the pool of available graduates has become more diverse particularly since 1994 (Cruise, 2011; Wits School of Mining Engineering, 2020; University of Pretoria Mining Engineering Department, 2021). There is also evidence that the industry has done some good work in putting in place structured graduate development programs that ensure that graduate trainees have a base from which to grow and develop their careers. Support in the form of mentorship and other guidance has been viewed by almost all the participants as critical in their career development and progression post studying. These findings are corroborated in a study by Moraka and Jansen van Rensburg (2015) who attest to the work done by the industry in offering bursaries, graduate development programs and management development programs.

There is however a need for the industry, in collaboration with the relevant faculties in the various universities, to review the approach to recruiting and offering bursaries for school leavers to enter the mining industry and findings ways to provide them with exposure to the industry prior to entering tertiary education and while they are studying so as to ensure their proper onboarding into the industry to avoid the culture shock that results from transitioning from being a student to a graduate trainee/employee.

Although mining companies have increasingly focused on local recruitment, (close proximity to the communities where their operations are based), those without family members who can provide them with a background on what career opportunities there are in the industry still do not have sufficient information to make an informed decision about the industry. This, combined with limited career guidance programs in the disadvantaged schools from which the industry seeks to recruit bursary candidates, further contributes to mining not being the first

choice for these learners. In addition, a study by EY Top 10 business risks and opportunities for mining and metals in 2024 report identifies one of the workforce risks as "the sector's poor brand and lack of trust as hampering the ability to recruit and attract the workforce of the future." Keeping the industry attractive for future talent therefore requires a focused effort from the industry to create interest before learners make career choices.

The analysis of the data and the themes from the narratives that emerged enabled the critical analysis of various social identity players within the organisation and how these identities intersect within themselves and with organisational structures and systems to produce privileged or marginalised positions in relation to career development and progression. The findings highlight that participants may from time to time question their experiences based on individual markers of race, gender, age, or family responsibility. However, what is more salient in their experiences is the intersection of these various social identity markers which simultaneously interact with company, industry, and societal structural systems to create different career development and progression experiences.

The race dynamic was seen as changing over time. Whereas in the past, experiences of discrimination based on race were explicit, participants reported experiences of being treated differently based on race as changing and taking a subtle tone, leaving them having to question whether what they would be experiencing is driven by their race. Several organisational policies have also been put in place to deal with the issues related to discrimination. The existence of these policies potentially hinder expressions of direct discrimination, leaving an opportunity for individuals to bypass these policies by being subtle in the way they treat those who are different from them. This view is consistent with Lennazrt et al's (2019) findings that the effectiveness of equal opportunity policies can promote covert forms of discrimination due to them being less visible and difficult to link to prejudices resulting in them being overlooked and not covered by policy. In addition, they leave the individual who is a victim of the discrimination wondering on the reason for the treatment they received as the cause is unclear in their mind (Jones et al, 2017). This is an important point to note because there is generally an assumption that when policies are put in place and they seem to be working largely based on the demographic of the organisation changing, that the acceptance of difference is also a given.

From a race and representation point of view, whilst change is happening in transforming the profile of management levels and the representation of women across different occupational levels, the fact that black participants do not see those looking like them in core top management roles is a cause for concern and makes them question the company's and the industry's commitment to transformation and whether achieving this level of management is within their reach for them as a career progression aspiration. Similar sentiments were found elsewhere in the industry in the Goldfields Expert Independent Review into Workplace Culture conducted by Elizabeth Broderick & Co. (2023) where Black South African respondents commented on the racialised hierarchy which reflected lack of diversity in senior leadership. This is something that the company and the industry must openly engage on to create an understanding of the reasons for the slow pace of change at this level and what is being done about it as silence on this matter enables perceptions to be created based on the reality that people observe.

In terms of gender, there is an observation that some of the organisational systems that have been put in place have enabled increased participation of women in the industry. A view has also been expressed that career progression opportunities are greater than they were previously with facilities having been put in place to accommodate the needs of the women. A review of the narratives of white women and black women however reveal differences in their expression of experiences, with black women narrating not only experiences related to the impact of their gender, but also experiences related to their race and age. The questioning of their capability and therefore their roles as leaders is also being expressed by both the workforce and from their leaders, therefore making it difficult to find their place in both the eyes of the workforce and leaders. Patriarchy and expectations of gender and age roles are implicated in their narratives as contributing to the way they are being received and expected to behave. These narratives are consistent with the findings of a study by Smith and Nkomo (2021) of black women managers not having both race and gender privilege in organisations, struggling to claim their professional identity, and being subjected to a particular form of sexism shaped by racism and racial stereotyping.

The women in the study however remain committed to continuing to grow their careers in the industry despite the challenges that they face. The narratives demonstrate even with the

patriarchal norms and stereotypes having endured for many years both in society and in the workplace, women find coping mechanisms and ways of challenging these norms and stereotypes. This is testimony to the assertion by Steyn, et al. (2021) that "while these systems of oppression are durable, they are also contingent on historical developments and may be resisted and reframed." This however comes at a price as the women in these roles must always be on the alert and spend time and energy challenging and/or learning beyond what is expected of their male counterparts due to being held to a different standard.

The intersection of various social identity markers with organisational systems further reveals that whilst some organisational systems and processes have been put in place to deal with discrimination and inequity, these have largely been focused on dealing with individual elements of identity like gender rather than taking an intersectional perspective of how various elements of social identity interact to create unequal outcomes. Taking an intersectional perspective is important because evidence does show that for an example, women do not constitute a homogeneous group and that their subordination is still interwoven with race and class differences. (Naidoo, 1997). The result is that what could be good intentions to transform become negated as the lived experiences are not based on individual elements but by the interaction of various elements of social identity with the company and industry structural and systemic processes. Naidoo (1997) therefore further calls for historic social and economic inequalities to be acknowledged, understanding that different groups start in different places and require differential treatment for equality of opportunity to be attained.

The use of language particular to the industry which has largely been disrespectful has coexisted with a particular leadership style and culture where the primary focus is the delivery of business results. The big focus on safety in the industry has highlighted the importance of the human element, emphasising amongst others, the right of employees to leave a dangerous working place and putting in place mechanisms to report this in line with Section 23 of the Mine Health and Safety Act No.29 of 1996 as amended. Over the years, this has led to an extended focus on other ways in which people are treated. A focus on human rights and sustainability has also resulted in particularly the big mining companies who have committed to meeting certain requirements based on their voluntary membership in organisations like the International Council on Mining and Metals (ICMM). The reports on workplace culture focusing largely on

issues of discrimination, bullying and harassment in the mining industry following assessments conducted by Elizabeth Broderick & Co. (2022; 2023) on behalf of two mining companies - Rio Tinto and Goldfields across their operations globally as well as the Enough is Enough report on sexual harassment against women in the FIFO (fly in fly out) mining industry in Western Australia (2022) all brought to the fore the prevalence of discrimination, harassment and bullying practices in the industry and such behaviour being normalised. These reports put a renewed focus across the industry on these issues with conversations being held in various forums across the industry and at company level.

In addition, the change in the profile of the industry, together with the challenges that the industry faces going forward also call for a change in the leadership style. The EY Top business risks and opportunities for mining and metals in 2024 report identifies the challenges that mining organisations face on several fronts related to environmental, political, social, technological, and other challenges which require a new lens on leadership. Focus areas include inspiring the workforce by uniting leadership on purpose and vision; shifting leadership style from 'me' to 'we'; building a culture where opinions are embraced and encouraged; empowering the workforce with clear roles and decision-making authority; technology-driven skills development and building a culture of inter-dependent teams.

The finding of male professionals feeling left behind because of the strong focus on women in mining is consistent with the finding by Botha (2016) that male participants feel that because of legislative requirements, women are fast-tracked, and it is easier for them to qualify for promotions, and this leads to frustration by males in relation to their career development and progression prospects. With the men still dominant in the industry, particularly at decision-making levels that impact career development and progression of others, it becomes important that they are drawn into the conversation on the need to transform the industry as well as the importance of accepting and driving difference across the various levels of the of industry and disciplines. Such change needs to be driven from the top of the organisation addressing not only biases at an individual level which has become the common approach to addressing difference in programs like unconscious bias training which address the individual, whilst leaving organisational systems and structures that drive this bias and discrimination not being tackled. The change needs to also be driven at company and industry level. Programs that

promote allyship and advocacy for women's issues and dealing with difference in general in the workplace whilst also providing resources for the organisation to take action at a systemic level to change practices (Catalyst, 2021) are necessary. This finding also challenges the industry to look at transformation holistically and not deal with it one element at a time as the focus on one element, results in other elements being neglected.

The ways of working in the industry, particularly long hours and what has been termed the 'always on' culture where managers in the core areas are expected to always be available has been shown to have a significant impact on not only family life but also on general wellness and wellbeing. Women were found to be particularly impacted by the ways of working due to the continued social expectations related to their family responsibility. Men were also found to be more conscious of the impacts of these ways of working on their family life, with the older male managers reflecting on how much they have missed out on family life and the younger male managers expressing the negative impact of the ways of working on family life. This is consistent with the findings of the McKinsey and LeanIn (2023) that men are also prioritising both life and career with roughly 60% of the men in the study taking more steps to prioritise personal lives, whilst being just as ambitious as women in progressing their careers. If the industry is to continue to attract and retain a diverse workforce in terms of race, gender, and age, there is a need to review its ways of working and culture. This review should not only consider the individual elements of identity but take an intersectional view and how these intersectional identity markers further interconnect with organisational and industry systems to bring to the fore impacts that may not have been considered previously.

5.2 Implications of the study

Abenov, et al. (2023) notes miners as having a reputation for doing things the same way (especially in the front line) for the last 20 years which holds them back from delivery on major change coming to the industry. This, together with the challenges identified in this study call on mining companies to think differently about transforming their cultures and ways of working to create a focus both at a macro- and micro-level to ensure that organisational systems and structures are continuously reviewed for biases and areas of both overt and covert discrimination, instead of only focusing on trying to change individuals through bias training when organisational systems remain unchanged and continue to produce and reproduce

discriminatory outcomes. Culture transformation where a supportive work environment that embraces diversity and change is encouraged was also found by Moraka and Jansen van Rensburg's (2015) study as an area that seemed to have been neglected by the industry. Creating awareness across organisational levels on behaviours that are acceptable and not acceptable, putting in place mechanisms to report and deal with such behaviours and more importantly doing something when such behaviours are reported is essential to creating change. It is against this background that the participants in the study were encouraged by the change that they were starting to see in the culture transformation program that was introduced by the company.

5.3 Value of the study

The current findings add to a growing body of literature on intersectionality in organisational settings. More importantly, it highlights the importance of looking at multiple forms of identity and how they intersect with industry/organisational practices to produce or reproduce outcomes that either privilege or marginalise certain groups. The research has also highlighted the importance for the mining industry to change its approach of dealing with issues of transformation and marginalised groups focusing on one diversity element at a time, whilst essentialising the previously marginalised groups. Furthermore, power relations within the industry need to be further interrogated as focusing only on individuals and groups without changing the power structures and systems lead to inequality continuing to be produced and reproduced. The base laid by the industry in terms of foundational measures for dealing with issues related to, for an example, women in mining are encouraging. However, to render them effective, a thorough intersectional analysis is necessary. As an example, the Stop Women Abuse campaign (Minerals Council of South Africa, 2022) views women in the industry as a homogeneous group with similar challenges. However, critical literature on the subject and an intersectional analysis of the challenges faced, for an example, by black women, reveals that black women face more challenges in dealing with harassment and bullying based on their dual oppression related to both race and gender (Allen, 1995; Yoder & Aniakudo, 1997) and the reluctance to report incidents perpetrated by fellow black colleagues (Richardson & Taylor (2009).

5.4 Limitations of the study and recommendations for future studies

With the study having been conducted in one company within the coal sector which has less difficult mining conditions means that the findings of this study cannot necessarily be generalised across the whole mining industry. With the study also focusing on participants with tertiary qualifications who had the privilege of being accepted to graduate development programs and therefore had at the onset of their careers been part of largely structured development and exposure programs with most of them moving straight into junior management (supervisory) roles and then progressing into middle management within six years of starting their careers means that their experiences and the findings of this study cannot necessarily be replicated to the career development and progression of other entrants to the industry without a tertiary qualification. Further intersectional studies are also necessary as previous studies on career development in the industry have largely focused on single identity markers like gender and where intersectionality was added, it was not the primary focus of the study. Interventions to address areas of discrimination and marginalisation by the industry have also largely taken one element of social identity marker at a time, and within that identity marker, the approach has been to essentialise that group and treat it as homogeneous, neglecting the impacts of intersectional identities.

5.5 Conclusion

This study confirms that intersectional identities have an impact on the career development and progression in core disciplines in the South African mining industry. The application of intersectionality as a theoretical approach brought to the fore different career development and progression experiences, challenges, and outcomes for different groups. Some change is noted as having taken place over the last thirty or so years since the focus on employment equity both in the country and the industry and the promulgation of related legislation and greater opportunities for historically disadvantaged South Africans to acquire qualifications for entry into the industry, development, and career progression support. The change is however observed to be slow, with top management structures remaining largely white-dominated, particularly in core areas. Continued systemic and structural issues in the industry as well as ways of working that have an impact on wellbeing and family life continue to prevail. Even

though overt racial and gender discrimination are not as prevalent, historical systems of the industry characterised by a culture of unequal power relations, harshness, disrespect, lack of psychological safety and speaking up against discrimination and bullying do not seem to have changed much, requiring a different approach with a focus on culture transformation.

The study has therefore raised consciousness on the need to take an intersectional view on not only career development and progression, but also on understanding the different challenges that different social identity groups face in crafting their professional identity in the core spaces of the mining industry. The urgent need to review long-standing industry practices and systems to keep the industry attractive for current and future diverse talent, particularly in the core production spaces has also been emphasised.

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ANNEXURE A: PARTICIPANT INFORMATION SHEET

Dear …….

My name is Sisi Mahobe, and I am currently undertaking a Masters in Diversity Studies at the University of the Witwatersrand.

I am conducting a research study on the experiences of employees with different intersecting social identities and the impact of these social identities on their career development and progression in the core disciplines (Mining and Technical Services, Metallurgy and Engineering) of the mining industry. The research aims to determine whether employees have different experiences based on their social identities. It further seeks to understand whether employees who joined the industry between mid-1990s and 2016 and are now in Middle and Senior Management roles have had different lived experiences.

The primary question that the research seeks to answer is: *What role, if any, do intersecting identities play on career development and progression into managerial roles in the core disciplines of the South African Mining Industry?*

The secondary questions that the research seeks to answer are:

- *How do different social identities impact career development and progression in the core disciplines (mining, metallurgy & engineering) in the mining industry?*
- *Have the experiences of groups with different social identities changed in nearly thirty years since companies started focusing on employment equity and legislation being put in place to drive transformation of the profile in the industry and women being allowed to work underground since 1996?*
- *What historical and current organisational, industry and societal systemic issues and dynamics are at play and what is their impact on career development and progression in the core disciplines?*

You have been selected as a person who is developing/has developed a career in one of these core disciplines within the industry and can contribute to the study. I will greatly appreciate your participation and contribution to building knowledge on career development and progression through this study.

If you choose to participate in this study, your involvement will include a semi-structured interview with myself that will take about 45 minutes to an hour at a time and location that will best suit you during the months of October or November 2023.

If you choose to participate, your consent and confidentiality will be held with great respect and your identity will remain completely anonymous throughout the research process and report. Your participation is completely voluntary, and you can choose to not answer any questions which may arise during the interview, and you may withdraw from the study at any time which will not result in any penalties.

The results of the study will be used for my academic dissertation and will be made available online through the University of the Witwatersrand database. Furthermore, the research report will be made available to your employer and a copy thereof will be provided to you on request. Audio recordings will be kept only by myself, and the transcripts will be password-protected.

If you have any questions, comments or concerns about the research study or your participation please feel free to contact me or my supervisor through the contacts listed below. I sincerely thank you for taking the time to read this letter and consider participating in this study.

Research Supervisor: Dr Sayan Dey, sayandey89@yahoo.com

Yours Sincerely,

Sisi Mahobe
MA Candidate in the field of Diversity Studies
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APPENDIX B: CONSENT FORM

Thank you for considering participation in this research study. Please read the following carefully and answer accordingly:

I have read the letter provided by the researcher, Sisi Mahobe, which outlines that research study is about the impact of intersectional social identities in the experiences of career development and progression in the core disciplines of the mining industry:

YES		**NO:**	

I understand that my participation will include taking part in an interview which will last no longer than an hour:

YES		**NO:**	

I understand that my participation is entirely voluntary, and I can opt-out of answering any. questions or withdraw entirely from the study at any time without repercussions:

YES		**NO:**	

I understand that the interview will be audio recorded:

YES		**NO:**	

I understand that my identity will remain anonymous using a pseudonym and all potentially identifying factors will be changed in the research report to protect my anonymity:

YES		**NO:**	

I understand that my participation in this study will result in a research report which will be available online through the University of the Witwatersrand database:

YES		**NO:**	

I understand that audio recordings and transcripts of the interview will be saved on the researcher's password-locked computer:

YES		**NO:**	

I consent to participating in this study through a semi-structured interview:

YES		**NO:**	

I consent to the researcher's use of direct quotes from the interview:

YES		**NO:**	

I consent to being audio recorded during the interview:

YES		**NO:**	

Name : _____

Signature : _____

Date : _____

ANNEXURE C: RESEARCH QUESTIONNAIRE

The interview is semi-structured, with the participant given the space to narrate their experience with career development and progression in the companies that they have worked for in the industry. The questions are not meant to follow a sequence - they will be asked organically as the conversation unfolds to cover key aspects that the participant may have missed in their narrative that are important in answering the research question.

SECTION A: BACKGROUND INFORMATION

1. How do you define your social identity (Researcher to explain what is meant by social identity to ensure that the participant looks at it holistically and avoid being additive)?

2. How do you think your background and upbringing as well as role models that you had as you were growing up have influenced the career that you decided to pursue?

SECTION B: CAREER AMBITIONS AND PROGRESSION PACE

3. What were your ambitions when you first started your career after graduation and over what time frame did you think you would achieve these ambitions?

4. Please give an indication of how long you have spent at each of these levels and what helped you to progress from one level to another and what were the barriers that you experienced and what were the enablers?

LEVEL/ PATERSON GRADING	**ROLE, TIME FRAME, SUCCESS ENABLERS, BARRIERS**
Graduate Trainee	
Supervisory Level	
D-Lower Level	
D-Upper Level	
E-Lower Level	
E-Upper Level	

5. Did your career development and progression follow the traditional route in the industry or did you at any point deviate and take another route either deliberately or due to circumstances? Please explain.

6. Alternatively, were you exposed to different experiences outside the traditional career route? Please explain how you were able to get access to the different experiences.

7. Can you tell me about an experience where you did not apply to be considered for a promotion or you applied but was not successful? What were the circumstances for you not applying and reasons where you were not successful?

8. Do you consider your career development and progression as being on track, lagging, or having progressed faster than what you had initially planned and what have been the contributing factors?

SECTION C: CAREER DEVELOPMENT AND PROGRESSION ENABLERS AND BARRIERS

9. What other assignments/experiences/developmental opportunities were you provided with by the company/companies that you worked for that have deepened your experience and enabled you to get to where you are today?

10. Were there any individuals who took an active interest in you and supported your career within the companies that you worked for? How senior were they in the company relative to you and how did this interest impact your career?

11. Have you had a mentor(s) during your career who was/were provided by the company/ companies that you worked for? How similar or different were they in terms of social identity and did they assist with your career development and progression?

12. Do you have a network of professionals that you interact with professionally and bounce off ideas and seek advice from both internally and externally to your company?

13. How diverse is this network (professionally and in terms of social identity) and how is it assisting you to achieve your career development and progression goals?

14. What role does your primary personal relationships (partner/ family / immediate support structure) and demands of family life play in supporting and enhancing or negatively impacting your career development and progression objectives?

15. Can you tell me about a time when you experienced some real challenges with work demands that affected your home and/or private life?

SECTION D: OVERALL CAREER REFLECTIONS AND FUTURE OUTLOOK

16. Looking overall at your journey so far overall, what has/ve been the greatest enabler(s) of your career development and progression?

17. What did the companies that you have worked for done well to positively influence your career development and progression experience?

18. Looking at your journey so far overall, what has/ve been the greatest barriers to your career development and progression?

19. Reflecting on the positive influences and barriers that influenced your career development and progression experience, what do you believe was the impact of historical and current organisational, industry and societal and systemic issues linked to your social identity?

20. What could the company/companies that you have worked for done differently to make your career development and progression experience more positive?

21. Compared to when you started in the industry, how has the situation improved/ regressed for the career development and progression of people like you?

22. Have your aspirations changed over the years - how and why?

23. If you were to map out your future career prospects, what would they look like and what do you estimate as time frames?

24. Given where you are currently, what do you and what does the company need to do to assist you to get to the next level?

Thank you for your participation.