

**POLYGRAPH TESTING IN THE WORKPLACE IN
SOUTH AFRICA**
WITH REFLECTIONS ON THE
**INTERNATIONAL LABOUR ORGANIZATION STANDARDS,
UNITED STATES OF AMERICA AND
FEDERAL REPUBLIC OF GERMANY**

by

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DECLARATION

I hereby declare that the thesis for the degree of Doctor of Philosophy at the University of Cape Town hereby submitted, has not been previously submitted by me for a degree at this or any other university, that it is my work in design and execution and all the material contained herein has been duly acknowledged.

Signed by candidate

Anne Scheithauer

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ABSTRACT

This thesis deals with polygraph testing in the South African workplace, which is used in the hiring, disciplining and dismissing of workers. Since the mid-1990s, South Africa's industry has experienced extensive use of polygraph testing, and the trend continues to grow. Polygraph test results are accepted as evidence in labour disputes. The law also permits polygraph testing in some parts of the public sector.

This study analyzes the theoretical and scientific basis of polygraph testing in the employment context. It then investigates the legitimacy of such testing in terms of international labour law, before dealing with the United States of America and German jurisdictions, which have different approaches to protection from polygraph testing. Finally, it considers the main focus of the study, South Africa's law of evidence, labour legislation and case law.

The thesis argues that polygraph testing does not have a sound theoretical and empirical foundation, in particular when used in the employment context. In South Africa, many unqualified examiners carry out the tests and a supervising statutory body does not exist. Therefore, it is submitted that employers should not use polygraph testing, nor should the results be admissible evidence in labour disputes.

Further, existing international labour standards do not support the use of polygraph testing in employment. In particular, it can amount to unfair discrimination. Failing a test or simple refusal to submit to one does not constitute a fair reason for dismissal for misconduct. The ILO states explicitly that polygraph testing should not be used under any circumstances.

The United States of America experienced a similar situation in the 1980s, with about two million tests administered on employees every year. That finally led to the enactment of the Employee Polygraph Protection Act of 1988 to regulate the use of polygraph testing in the private sector. Civil and criminal courts are generally reluctant to admit polygraph test results. On the other hand, Germany has always demonstrated a general rejection of polygraph testing, and there is no known use in employment. In Germany, the constitutional rights of employees have priority over the employer's interests in protecting its business. The experiences of both countries could be helpful in finding solutions to South African problems.

In South Africa, polygraph testing is extensively applied in private employment but its use is not at all regulated. Currently, an employer can require its employees to undergo testing at any time for any purpose. Employees are disciplined and/or dismissed because they fail an examination or simply refuse to take one, while job applicants are not employed. It is submitted that polygraph testing constitutes a form of psychological testing in terms of section 8 of the Employment Equity Act, and that legislation must be amended to ensure better employee protection.

Key terms

Polygraph testing, accuracy, reliability, employee screening, privacy and dignity, labour law, ILO standards, unfair discrimination, misconduct, substantive fairness, employee data protection, United States of America, Germany, South Africa, Employment Equity Act

Employment Equity Act 55 of 1998
Health Professions Act 56 of 1974
Intelligence Services Act 65 of 2000
Labour Relations Act 66 of 1995
Law of Evidence Amendment Act 45 of 1988
National Strategic Intelligence Act 39 of 1994
Promotion of Equality and Prevention of Unfair Discrimination Act 4 of 2000
South African Police Service Act 68 of 1995

United States of America

Federal legislation

Americans with Disabilities Act of 1990 (42 U.S.C. §§ 12101 – 12213)
Employee Polygraph Protection Act of 1988 (29 U.S.C. §§ 2001 – 2009)
Federal Rules of Evidence of 1975
National Labour Relations Act of 1982 (29 U.S.C. §§ 151 – 169)

State legislation

Alabama Code of 1998
Alaska Statutes of 1998
Maryland Code of 2004
California Labor Code of 1971
California Government Code of 1971
Connecticut General Statutes of 1983
Delaware Code Annotated of 1979
District of Columbia Code Annotated of 1981
Hawaii Revised Statutes of 1976
Idaho Code of 1977
Illinois Compiled Statutes of 2006
Iowa Code of 2001
Kentucky Revised Statutes of 2006
Maine Revised Statutes Annotated of 1979

Massachusetts General Laws Annotated of 1982
Michigan Polygraph Protection Act of 1981
Minnesota Statutes of 1999
Mississippi Code of 1972
Montana Code Annotated of 2005
Nevada Revised Statutes of 2005
New Jersey Statutes Annotated of 2007
New York State Consolidated Laws
Oregon Revised Statutes of 2005
Pennsylvania Consolidated Statutes
Revised Code of Washington of 2006
Revised Statutes of Nebraska of 1943
Rhode Island General Laws of 1979
Tennessee Code Annotated (Polygraph Examiner Act of 1978)
Texas Government Code of 1997
Vermont Statutes Annotated of 2006
Virginia Statute of 1977
West Virginia Code of 2006
Wisconsin Statutes Annotated of 1995

Germany

Arbeitsgerichtsgesetz (Labour Courts Act)
Betriebsverfassungsgesetz (Works Constitution Act)
Bundesseuchengesetz (Federal Epidemics Control Act)
Bürgerliches Gesetzbuch (Civil Code)
Grundgesetz (Basic Law)
Kündigungsschutzgesetz (Protection against Dismissal Act)
Strafprozessordnung (Code of Criminal Procedure)
Zivilprozessordnung (Code of Civil Procedure)

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- BGH, 09.05.1989 - VI ZR 268/ 1988 (NJW 1989, 2948)
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- AG Demmin, 7.9.1998 - 94 Ls 182/98
- LG Düsseldorf, 9.10.1998 - IV 14/98 (StV 1998, 647)
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LIST OF ABBREVIATIONS

AG	Amtsgericht (Magistrate's Court)
APA	American Polygraph Association
ArbGG	Arbeitsgerichtsgesetz (Labour Courts Act)
AU	African Union
BAG	Bundesarbeitsgericht (Federal Labour Court)
BCA	Bargaining Council Arbitration
BCI	Bargaining Council for the Entertainment Industry
BGB	Bürgerliches Gesetzbuch (Civil Code)
BGH	Bundesgerichtshof (German Supreme Court)
BetrVG	Betriebsverfassungsgesetz (Works Constitution Act)
BVerfG	Bundesverfassungsgericht (Federal Constitutional Court)
CC	Constitutional Court
CCMA	Commission for Conciliation, Mediation and Arbitration
CIA	Central Intelligence Service
CPEA	Civil Proceedings Evidence Act
CPS	Computerized Polygraph System
CQT	Control or Comparison Question Test
DLT	Directed Lie Test
DOD	Department of Defense
DOE	Department of Energy
EEA	Employment Equity Act
EPPA	Employee Polygraph Protection Act
ESC	European Social Charter
EU	European Union
FBI	Federal Bureau of Investigations
FRE	Federal Rules of Evidence
GG	Grundgesetz (Basic Law, German Constitution)
GKT	Guilty Knowledge Test
GS	General State countermeasures
HPA	Health Professions Act

HPCSA	Health Profession Council of South Africa
IC	Industrial Court
ILO	International Labour Organization
IMSSA	Independent Mediation Service of South Africa
ISA	Intelligence Services Act
KSchG	Kündigungsschutzgesetz (Protection against Dismissal Act)
LAC	Labour Appeal Court
LAG	Landesarbeitsgericht (Federal Labour Court)
LC	Labour Court
LG	Landgericht (District Court)
LRA	Labour Relations Act
MEIBC	Metal and Engineering Industries Bargaining Council
MRIT	Modified Relevant Irrelevant Test
NSIA	National Strategic Intelligence Act
OLG	Oberlandesgericht (Regional Appeal Court)
OTA	Office of Technology Assessment
PASA	Polygraph Association of South Africa
PAVSA	Polygraph & Voice Stress Association of South Africa
PEPUDA	Promotion of Equality and Prevention of Unfair Discrimination Act
POT	Peak of Tension
PwC	PricewaterhouseCoopers
RIT	Relevant Irrelevant Test
SAPPA	South African Professional Polygraph Association
SAPS	South African Police Service
SP	Specific Point countermeasures
StPO	Strafprozessordnung (Code of Criminal Procedure)
US	United States
USA	United States of America
UN	United Nations Organization
MGQT	Modified General Question Technique
ZCT	Zone Comparison Test
ZPO	Zivilprozessordnung (Code of Civil Procedure)

TABLE OF APPENDICES

Appendix A **International Labour Organization: Code of practice on the protection of workers' personal data of 1997**

Appendix B **United States of America: Employee Polygraph Protection Act of 1988 (29 U.S.C. §§ 2001 – 2009)**

CHAPTER ONE: INTRODUCTION

*'For as long as human beings have deceived one another, people have tried to develop techniques for detecting deception and finding truth.'*¹

1.1 Introductory statement

Polygraphs are used for the psycho-physiological detection of deception, what is called the lie-detection and psycho-physiological credibility assessment or truth verification respectively.² There has been always disagreement as to the polygraph's ability to detect a lie; proponents of the machine are able to 'prove' that it is highly accurate while opponents will contend that it is not. It is however certain that polygraph instruments do not measure deception or lying directly, but merely physiological reactions such as changes in respiration or changes in perspiration. The polygraph examiner then draws an inference from these recorded responses.

Many South African companies experience economic crime, in particular theft of company assets by their employees, which causes them significant financial losses. Certain types of business are particularly at risk such as banking, mining, or courier services as they require high levels of trust and security. Employers usually detect the crime accidentally. Recovering the lost assets turns out to be difficult. In job interviews and on curricula vitae many prospective employees fraudulently represent themselves in terms of their criminal records, qualifications such as matriculation or university degrees, or driver's licences. This shows the importance of proper pre-job screening procedures. In South Africa, many employers, including the government, rely on the polygraph because it has proved to be a money- and timesaving tool. It is also highly efficient. Apparently, less than 0.5 per cent of the subjects refuse to undergo testing and many of them confess to a crime after being confronted with the test results.³ An industry that specializes in polygraph testing is therefore well-established in the country. Polygraph testing in employment is administered to prevent and detect crime

¹ US National Research Council (2003), *The Polygraph and Lie Detection*, 1.

² Honts, 'The psychophysiological detection of deception', in Granhag and Strömwall (eds), *The Detection of Deception in Forensic Contexts*, 103.

³ www.btimes.co.za/97/0413/btmoney/money7.htm (accessed on 27 September 2005).

occurring in the workplace. As economic crime increases in South Africa, polygraph testing in employment continues to grow as well. According to recent crime surveys, 83 per cent of South African companies experienced economic crime between 2003 and 2005, compared to 71 per cent between 2001 and 2003.⁴

In South Africa, employers frequently submit polygraph evidence before the Commission for Conciliation, Mediation and Arbitration (CCMA) and the bargaining councils.

Companies make use of the polygraph in pre-employment screening of job applicants, the periodic vetting of current employees, and specific investigations into misconduct or crime in the workplace. The polygraph test has become part of the selection procedure as companies seek to protect their property and therefore hunt for honest employees. In this context, the polygraph is used to examine a person's character and personality, to verify information disclosed in a curriculum vitae or in an interview, in order to identify potential risks. It is evident that a company will not employ an applicant who fails or refuses to submit to an examination.

Some companies have introduced periodic polygraph vetting of their staff to prevent potential crime or they request tests in order to establish an employee's general honesty or dishonesty and therefore promoting honesty and deterring dishonesty, for the purposes of promotion or demotion respectively. Many employment contracts contain a polygraph clause so that the company may request submission to a test at any time.⁵ Also during employment, employees are tested in connection with ongoing investigations into unresolved incidents or misconduct of employees in favour of the employees to prove their innocence. If the employee fails the test, he/she is usually dismissed. Refusal to submit to the test causes suspicion of the employee so he/she is also likely to be dismissed because suspicion is seen to be counter-productive in the employment relationship, which requires trust. However, if theft or fraud occurs in a company, it is difficult for the employer to find the perpetrator, as a number of employees are generally capable of committing the alleged crime. The employer has often only circumstantial evidence. In this case, blanket testing of a group of employees will be administered. Those employees who had access or were at work at the time

⁴ PricewaterhouseCoopers' (PwC) Global Economic Crime Survey 2003 (South Africa) and PwC Global Economic Crime Survey 2005 (South Africa).

⁵ See, for instance, *Smith v Canoa Eastern Cape*, [2000] 12 BALR 1436 (CCMA).

when the theft occurred, often the entire staff in smaller businesses, are subjected to the test. The employee who fails the test will be questioned at the disciplinary hearing, many of them confess to the crime, and is dismissed.

Polygraphs are used worldwide not only in employment but also as an investigation tool by the police, as evidence in criminal proceedings, in family law proceedings in allegations of sexual abuse of one's own child, in connection with the release of an inmate on parole, as a condition of probation, and as part of sexual offender therapy. Many foreign criminal courts have considered the admissibility of polygraph evidence. Therefore, it is instructive to look at some of the cases.

This thesis will deal with the use of polygraph testing for employment purposes in South Africa in an international and comparative context: how do the relevant international labour standards and some foreign experiences reflect on the current South African situation? The current situation in South Africa is not unique. Other countries have experienced similar extensive industrial use and some responded with the enactment of specific regulations on polygraph testing in employment.

The introductory chapter outlines the context of the research, the significance of this study, the aims of this research, the nature of methodology and the location of data collection, limitations, and finally it shows how the thesis is organized.

1.2 Context of the research

It appears that only a few authors have dealt with the use of polygraphs in South Africa for employment purposes.

Christianson considered the issue in three articles between 1998 and 2000.⁶ At that time, it was not clear what approach the dispute resolution bodies were going to take in the future. There has been an immense increase in cases since then. Another article, written by Tredoux and Pooley, was published in 2001.⁷ In addition, two articles were

⁶ Christianson, 'Truth, lies and polygraphs: Detecting dishonesty in the workplace', [1998] 8 : 1 *CLL* 1 – 10; Christianson, 'The testing of employees: The selective prohibition of medical, psychological and other testing in terms of the Employment Equity Act', [1999] 9 : 2 *CLL* 11 – 16; Christianson, 'Polygraph testing in South African workplaces: "Shield and sword" in the dishonesty detection versus compromising privacy debate', [2000] 21 *ILJ* 16 – 38.

⁷ Tredoux and Pooley, 'Polygraph based testing of deception and truthfulness: An evaluation and commentary', [2001] 22 *ILJ* 819 – 839.

written by Cilliers and Martin in 2002 and in 2003.⁸ The former briefly considers the use of polygraph testing in the private industry while the latter deals with its use in criminal investigations. However, these articles do not address legal issues, particularly those arising in the context of South African employment law, in a substantial way.

Delvo considers the use of polygraphs in the USA and Germany but focuses on the admissibility of polygraph evidence in criminal proceedings.⁹ He wrote the book in 1981, therefore prior to the enactment of relevant labour legislation in the USA as well as some important judgments in both the German and US courts.

Tredoux and Pooley, both with backgrounds in psychology, consider the scientific research, in particular, the theory and validity of the polygraph and the scientific acceptability of employment screening. They find polygraph tests not to be reliable and valid and therefore recommend the enactment of a Polygraph Act in South Africa that will prohibit testing of employees. They do not discuss the relevant legal issues in any substantial way.

Christianson, a legal scholar, raises various legal issues but does not decide whether section 8 of the Employment Equity Act 55 of 1998 (EEA) applies to polygraph testing. It also appears that Christianson agrees with the use of polygraphs as long as such use complies with the standards set out in the American Employee Polygraph Protection Act of 1988 (EPPA). She argues that:

‘Within the legislative framework and the general rules of evidence, the question really is how much weight will be accorded to polygraph test results, and the answer to that is probably dependent upon the type of test used, and qualifications and experience of the individual examiner’.¹⁰

Christianson also says that it would be necessary to balance the rights and obligations of employees and employers in relation to a polygraph test on a specific event. Further, she states:

⁸ Cilliers and Martin, ‘The polygraph: Friend and ally of private industry yet cautious guest of the criminal justice system (1)’, *Acta Criminologica* 15(3) 2002, 134 – 140; Cilliers and Martin, ‘Utilisation of the polygraph in the criminal justice system (2)’, *Acta Criminologica* 16(1) 2003, 94 – 107.

⁹ Delvo, *Der Lügendetektor im Strafprozess der USA: eine Auswertung und kritische Würdigung der U.S.-amerikanischen Fachliteratur zum Thema ‘Wissenschaft der Polygraphie’, der Rechtsprechung und der juristischen Literatur in Hinblick auf eine mögliche Verwertbarkeit des Polygraphen im Strafverfahren der Bundesrepublik Deutschland*, 1981.

¹⁰ Christianson, [2000] 21 *ILJ* 16 at 34.

'We have within our law the existing controls and protections needed for all stakeholders, with the possible addition of a Code of Good Practice for Polygraph Testing. Legislation such as the EPPA should therefore be unnecessary and possibly undesirable, as it would accord too great an importance to a technique'.¹¹

However, the current South African employment law does not provide sufficient protection from polygraph testing to employees and job applicants. Furthermore, employees are practically forced to take a polygraph test if the employer requires one.

Christianson does not adequately consider some important legal issues in respect of polygraph testing. We also disagree with some of her arguments. Polygraph results should not be admissible evidence, either as sole or as corroborative evidence. The accuracy of the polygraph does indeed depend on the examiner's qualifications and the applied test format but most importantly, it is subject to inherent limitations.

First, it is imperative to deal with the scope of section 8 of the EEA, as the provision specifically regulates psychological testing and prohibits invalid and unreliable tests. Polygraph testing has psychological aspects: the theory suggests that an emotional condition - lying - produces physiological changes such as increased sweating.

The courts and authors always refer to a specific accuracy rate when considering the evidential value of the polygraph. However, a highly doubtful theory underlies polygraph testing. A polygraph examiner draws an inference, lie or truth, from the measured physiological reaction. There is, however, no specific lie response. A particular physiological reaction can be caused by other emotional stress and is not necessarily limited to lying. People also react differently to emotional stress. Existing empirical studies have been unable to show the reliability and validity of polygraph tests, in particular if used in the employment-screening context. Most scientific research is done in criminal cases, but the employment context is different and this study will examine the differences between the two situations. The introduction of computerized polygraph systems has done little to make the method more accurate. A scientific method must be also standardized and objective so that it can be applied fairly to all examinees. Both fairness and equity are important concepts in the post-apartheid South Africa. The polygraph lacks both standardization and objectiveness.

¹¹ Christianson, [1998] 8 : 1 *CLL* 1 at 10.

In many cases, the CCMA has accepted the testimony of the polygraph examiner as expert evidence. In this regard, it is necessary to consider the standards of admissibility of evidence, particularly the relevance of polygraph evidence and its admissibility as expert evidence. However, it will be argued that there are a number of reasons why polygraph evidence should not be accepted. These include the fact that even reliable and valid evidence is not automatically admissible in court. Evidence which is unreliable and invalid cannot be admitted in court. There is also a lack of trained polygraph examiners in South Africa. Further, did the employer submit the test results as evidence regarding the credibility of the employee? It is principally the responsibility of the court to assess the credibility of a witness.

The South African Constitution guarantees fair labour practices in section 23(1). In terms of the Labour Relations Act 66 of 1995 (LRA), the employer must show the substantive and procedural fairness of a dismissal. Is it fair to dismiss an employee because he/she has appeared to be deceptive in a polygraph examination? The court must determine whether the employer has demonstrated that the dismissal was fair. However, the cases indicate a rather inconsistent approach regarding the admissibility and probative value of polygraph evidence. For instance, in *Mudley v Beacon Sweets & Chocolates* the CCMA did not accept the test as admissible evidence,¹² whereas in *ECCAWUSA obo Rosy Nhlapo - Siphso Busakwe v Miladys - Anna Hoodhouse* it was held that 'the polygraph test only serves to corroborate other more conclusive evidence'.¹³ In *PETUSA obo Van Schalkwyk v National Trading Co*, the CCMA stated:

'If the above was the only evidence to be taken into account I would be of the opinion that, despite some suspicion, the respondent had failed to establish that the applicant was guilty. The above situation means that it is necessary to consider the admissibility and reliability of the polygraph evidence'.¹⁴

Another issue which is not treated consistently is dismissal due to the employee's refusal to undergo polygraph testing. The CCMA held that it was unfair to dismiss an employee simply because he/she had refused to submit to a polygraph examination.¹⁵

¹² *Mudley v Beacon Sweets & Chocolates*, [1998] CCMA, KN 4084.

¹³ *ECCAWUSA obo Rosy Nhlapo - Siphso Busakwe v Miladys - Anna Hoodhouse*, [1998] CCMA, GA 30036.

¹⁴ *PETUSA obo Van Schalkwyk v National Trading Co*, [2000] 21 ILJ 2323 (CCMA).

¹⁵ For instance, in *Kroutz v Distillers Corporation Ltd*, [1999] 8 BALR 912 (CCMA), *Jacob, Paul Keith v Unitrans Engineering*, [1999] CCMA, KN 21921 and *SACCAWU obo Masele v Makro SA*, [1999] CCMA, EC 11555.

However, in some cases the CCMA regarded the refusal as an aggravating factor.¹⁶ In this regard, it is necessary to consider the EEA which prohibits invalid and unreliable tests on employees in order to prevent unfair discrimination. It is submitted that polygraph testing is included in the ambit of section 8 of the EEA. What is the position of the dispute resolution bodies in this regard?

Despite a fragile theoretical foundation and the absence of empirical proof, a number of South African statutes permit the use of polygraph testing in employment. This work will analyze the relevant provisions.

In order to get a better understanding of the current South African employment law, it is very instructive to look at the relevant international labour standards and at foreign jurisdictions with similar experiences regarding the use of polygraph testing in the workplace. In fact, South Africa's dispute resolution bodies must consider international labour law and are encouraged to consider foreign law when interpreting the provisions of the Constitution and employment law.¹⁷

South Africa rejoined the International Labour Organization (ILO) in 1994, having earlier withdrawn from the organization in 1966. This study will consider the relevant conventions, recommendations and codes of the ILO, particularly the concepts of unfair discrimination of employees and fair termination of employment. The ILO Code of practice on the protection of workers' personal data of 1997 explicitly addresses the use of polygraph testing in both private and public employment.¹⁸ How does South Africa comply with international standards?

South Africa is compared with the USA and Germany, which have different approaches to protecting from polygraph testing. Why is polygraph testing banned in some jurisdictions? Prospective and current employees need to be protected from being subjected to polygraph tests because there is no scientific proof of its accuracy, particularly if used for employment purposes. International labour law prohibits polygraph testing of employees. The inconsistent and doubtful approach by the CCMA makes it necessary to look at foreign jurisdictions. In the USA, it is generally prohibited but its use is allowed in certain situations. The USA experienced extensive use of

¹⁶ For instance, in *Armoed, Elton K v Gray Security Services*, [1999] CCMA, EC 9809 and in *CEPPWAWU obo W A Francis v Thermopac*, [2000] CCMA, WE 33153.

¹⁷ Section 39(1) of the South African Constitution, sections 1 and 3 of the Labour Relations Act 66 of 1995, section 3(d) of the Employment Equity Act 55 of 1998.

¹⁸ Appendix A.

polygraph tests in private employment in the 1980s, which eventually led to the enactment of the Federal Employee Polygraph Protection Act of 1988 (EPPA).¹⁹ However, the EPPA does not completely ban the use of polygraphs in employment. In terms of its exceptions, the CCMA appears to use the EPPA as a guide. Most US states have statutory provisions on polygraph testing of employees. Initially courts consistently discarded polygraph evidence on the basis that it was not admissible.²⁰ In recent cases, however, federal courts rejected the *per se* ban on polygraph evidence.²¹

In Germany, the polygraph is not used in employment. It is not regarded as adequate evidence and therefore not accepted in criminal and civil court cases except for a few family court instances. In a decision of the Federal Labour Court (BAG), polygraph evidence was rejected. It was also rejected in the Supreme Court (BGH) as well as the Federal Constitutional Court (BVerfG).²² The police do not use the polygraph as an investigative tool.

1.3 Significance of the study

The theory underlying polygraph testing is inherently flawed. Existing scientific research does not show how valid and reliable polygraph testing is and the majority of research studies examine criminal cases. It is possible to beat the polygraph by means of countermeasures. Moreover, there is a lack of sufficiently qualified and experienced examiners in South Africa. The rules of evidence do not support the admissibility of polygraph evidence. Section 8 of the EEA prohibits the use of polygraph tests on prospective and current employees. Therefore, the outcome of a polygraph test should not be admissible evidence in labour disputes.

However, CCMA cases show an inconsistent approach with regard to admissibility and assessment of evidence. The main approach is, however, that test results may be admissible as corroborative evidence. Therefore, the results often make the employer's version more probable. One should be aware of the fact that polygraph tests are mostly conducted in cases where other evidence is not sufficient. Decisions where the polygraph evidence is held to be admissible are based on a nearly 100 per cent accuracy

¹⁹ Appendix B.

²⁰ *Frye v U.S.*, 293 F. 1013 (1923).

²¹ *Daubert v Merrell Dow Pharmaceuticals*, 509 U.S. 579 (1993).

²² BAG, NZA 1998, 670; BGH, JR 1999, 379; BVerfG, NJW 1982, 375.

rate of the polygraph.²³ The Polygraph Association of South Africa (PASA) submits an accuracy rate between 85 per cent and 98 per cent and says that the polygraph cannot be beaten but merely disrupted.²⁴ Furthermore, the employee is not obliged to submit to a polygraph test. However, refusal causes suspicion. Many companies also include a polygraph clause in their employment contracts.

The number of polygraph tests used by companies for the purpose of employment and pre-employment screening and for investigations into specific incidents continues to grow, which consequently has led to an increase in the number of cases brought before the CCMA and the Labour Courts. According to a statement of PASA in 2000, approximately 20,000 polygraph examinations are conducted per annum.²⁵ Having interviewed a polygraph examiner, we believe that the number of tests conducted in South Africa is actually much higher. There are a number of companies in South Africa which specialize in polygraph testing, while many others offer it as additional service. The police use the polygraph for their investigations but have their own polygraph examiners and therefore rarely use external examiners. It was however not possible to establish figures for the annual number of tests conducted for alleged misconduct, pre-employment and employment screening.

Job applicants enjoy less protection than current employees do. They are not included in the ambit of the LRA.²⁶ The EEA applies to applicants in the case of some testing. Yet, if the prospective employee refuses to undergo a test, which some companies require as part of their pre-employment screening, it is very likely that he/she will not be employed. Section 8 of the EEA prohibits polygraph testing on job applicants. In the public sector, the law allows polygraph testing for screening purposes despite the absence of validity and reliability studies.

²³ For example: *Mvemve & Another v Evertrade 77 (Pty) Ltd*, [2003] 7 BALR 766 at 776 (BCI): The examiner stated that the test 'correctly identifies 100% innocent examinees and 99.5% of guilty examinees excluding inconclusiveness'. *SEAWU obo Mdhuli v Controlled Chatterbox Services cc*, [2001] CCMA, GA 121311: 'In his experience and expert opinion the results of polygraph testing are almost 100% accurate and reliable'. *Mncube v Cash Paymaster Services (Pty) Ltd*, [1997] 5 BLLR 639 at 643 (CCMA): 'A final aspect warranting attention is that of the computer results of the testing. Mr. Roberts testified that he used software ... which indicated that the probability of deception was greater than 99% in this case'.

²⁴ PASA, at www.pasa.co.za (accessed on 15 October 2005).

²⁵ See Tredoux and Pooley, [2001] 22 ILJ 819 at 821.

²⁶ Except for section 5 of the LRA, which protects the right to freedom of association.

1.4 Research aims

Polygraph testing plays an important role in South Africa's workplaces as employers seek to protect their business against dishonest employees. Workers are disciplined or dismissed based on the outcome of such exams, and test results are accepted as evidence in labour disputes.

This study attempts to contribute to national policy and to benefit current and prospective employees in both the private and public sectors. In discussing the current approach of the CCMA, the results of the empirical studies, international labour standards and two comparative jurisdictions, namely the USA and Germany will be used. This work hopes to contribute to the improvement of the interpretation and application of the relevant South African law.

In particular, the research aims to examine the theoretical basis of polygraph testing as well as existing empirical studies. It will show that both are weak, the latter particularly in the employment context, and therefore test results should not be admissible evidence in CCMA proceedings.

Further, the issue is considered with reference to the ILO standards and in this regard, the study attempts to highlight the possibility of unfair discrimination. The study also examines valid reasons for dismissal as well as the requirements for the collection of employee data.

The aim of this work is to demonstrate that the current framework of South African employment law prohibits polygraph testing of current and prospective employees to a certain extent, and in particular to show that section 8 of the EEA applies to polygraph testing.

1.5 Nature, methodology and location of data collection

In 2001, the author submitted in partial fulfilment of the requirements for the degree of Master of Laws at the University of Cape Town a dissertation entitled 'The Use of Polygraph Test Results for Employment Purposes'. In the research, the South African constitutional and legal standards for employees as well as the pertinent case law were considered. That work was an inspiration to proceed with a broader comparative enquiry, in particular to look at a number of foreign jurisdictions as well as at

international labour standards relevant to the subject. In addition, this study also considers the theoretical approach to polygraph testing, its reliability and validity, as well as its admissibility as expert evidence in labour disputes.

Reports and articles on the theory underlying lie-detection, the scientific research including laboratory experiments and field studies, the statements of proponents and opponents of polygraph testing, and the different polygraph questioning techniques are examined. The relevant international labour instruments such as ILO conventions and recommendations are considered. Statutory provisions and case law of the US and German jurisdictions, which indicate different approaches to the prohibition of polygraph testing are assessed. Pertinent South African statutes, in particular employment law, as well as CCMA and Labour Courts judgments are evaluated.

The data was collected in South Africa and Germany and mainly gathered with the help of various internet databases such as IR Network, Butterworths, Jutastat Publications, LexisNexis and the World Legal Information Institute. In terms of the German data, it is noted that court cases are quoted in a different way. Instead of the parties' names, the deciding court is cited, followed by the name of the periodical and the year of publication.

It was indicated previously that an attempt was made to gather some empirical evidence regarding the actual use of polygraph testing in South African companies, but it was generally difficult to obtain information because most institutions did not wish to cooperate due to confidentiality. There was not any response to various approaches, particularly e-mails. Further, the researcher took a polygraph test in April 2005 and interviewed the examiner to see how the test is conducted. The purpose of the interview was to obtain information on the number of tests that are conducted on employees in South Africa per annum and for what purpose/disciplinary action companies administer tests, in particular screening or event-related examinations. The media was also reviewed, for instance, the IOL website²⁷ and the Cape Times. E-mail enquires were sent to KPMG, PricewaterhouseCoopers, and the Crime Information Analysis Centre of the South African Police Service to gain statistics on economic crime, particularly regarding asset misappropriation in the workplace because most polygraph tests are conducted in connection with theft and fraud. The Professional Board for Psychology at

²⁷ www.iol.co.za.

the Health Profession Council of South Africa (HPCSA), which classifies psychological tests, was contacted in May 2005. Letters were also sent to the Polyinstitute, one of the largest companies in South Africa that offers polygraph services, as well as to the two local polygraph associations, the South African Professional Polygraph Association (SAPPA) and the Polygraph Association of South Africa (PASA) to obtain statistics. While SAPPA and PASA did not respond, the Polyinstitute did not wish to provide any information due to confidentiality.

1.6 Limitations of the study

This study is subject to a number of limitations.

The upper limit of a thesis imposed by the university's Doctoral Degrees Board is 80,000 words.

This study focuses on polygraphs. Other lie-detection devices such as the voice-stress analyzer, which is not accepted in South Africa because it shows an accuracy rate of a mere 30 per cent and is also a monograph, or methods such as the P300 wave,²⁸ which also indicate a very low accuracy rate in laboratory experiments, are not included in this study. Regarding its accuracy, the polygraph test is often compared with other forensic evidence which is not entirely accurate such as fingerprints and DNA. This study will only deal with the problem of polygraph evidence.

Only the main question techniques and those formats that are used in South Africa are considered. There are many other modified formats.

This study will not consider how the polygraph device itself was developed except for the computerization of polygraphs.²⁹

The law stated is current as at July 2007.

1.7 Organization of the study

The remainder of this study is organized into six chapters and a bibliography in the following manner.

²⁸ The P300 is an involuntary electrical signal in the brain, which occurs when a person lies but can also have other reasons. It happens within 300 milliseconds, that it is impossible for the examinee to fake a response.

²⁹ For some information see, for instance, Cilliers and Martin, *Acta Criminologica* 15(3) 2002, 135.

The polygraph's accuracy has always been a subject of controversy. Chapter two delineates contemporary and historical debates on the validity and reliability of the polygraph. First, we scrutinize the theory underlying polygraph testing and bring its inherent weaknesses to light. This chapter also presents the results of some studies that were administered on both the validity and reliability of polygraph testing. Special attention is given to its accuracy in the employment context. Computerized polygraph systems, introduced to make the polygraph more accurate, are also examined. The chapter is a prerequisite for the discussion on the admissibility of polygraph evidence in court.

The relevant international labour standards are evaluated in chapter three. The chapter examines ILO instruments, in particular the Discrimination Convention 111 of 1958, the Termination of Employment Convention 158 of 1982 as well as the Code of practice on the protection of workers' personal data of 1997. The Code appears as Appendix A.

Chapter four examines relevant statutes and case law of the United States of America with the main focus on the Employee Polygraph Protection Act of 1988 and its impact on the use of polygraph testing in the private sector. The Act appears as Appendix B.

The German jurisdiction is considered in chapter five. Courts have always rejected polygraph evidence, though for different reasons, and as a result, the polygraph is not used in the German industry.

The situation in South Africa is described in chapter six, which constitutes the major focus of this study. The chapter undertakes a critical analysis of the current framework of employment law with regard to the employee's rights. Considerable attention is paid to the Employment Equity Act. The chapter assesses the arguments of the dispute resolution bodies when dealing with the admissibility and probative value of polygraph evidence. Regulations which explicitly allow the use of polygraph testing in the workplace are examined.

Chapter seven contains conclusions about the research. Links between the findings are established, and recommendations are made for South Africa. The work concludes with a description of its usefulness for practice as well as with some recommendations

for future research and legal reform. In particular, the need to amend the South African employment law or to enact a South African Polygraph Act is considered.

CHAPTER TWO: THEORETICAL AND SCIENTIFIC FOUNDATIONS OF POLYGRAPH TESTING

*'I don't know anything about polygraphs, and I don't know how accurate they are, but I know they'll scare the hell out of people.'*¹

2.1 Introduction

The introductory chapter provided the context of the thesis and a literature review. This study was justified on several grounds, most importantly, the absence of sufficient consideration of South Africa's Employment Equity Act 55 of 1998 (EEA) in previous studies. The research further examines the issue of polygraph testing in an international labour law context. In South Africa, despite the ongoing debates about the polygraph's accuracy, current and prospective employees are increasingly subjected to polygraph testing on a frequent basis as part of companies' screening procedures and internal investigations. The CCMA accepts polygraph test results as evidence. Chapter one further explained the aims of this study, followed by its methodology and limitations. Finally, the outline of this study was provided.

In this chapter, we examine the theoretical foundation and the state of empirical research on polygraph testing in order to establish whether it is accurate, in particular when used in the employment environment. Most of the research which has been done is in the context of criminal cases, which is helpful and sufficient to a certain extent. For the purpose of this study it is, however, more important to look at the research that has been conducted in labour law cases, in particular in the context of pre-employment and employment screening.

If an employee is disciplined based on the outcome of a polygraph test, the test should be accurate to some degree. Expert evidence, which lacks accuracy, does not assist the court. Further, the relevant section 8 of the EEA, which is considered later in chapter six, requires a psychological test to be scientifically valid and reliable. For that reason, it is essential to consider first whether polygraph testing is scientifically

¹ U.S. President Richard M. Nixon during a White House Oval Office conversation in 1971

well-founded and accurate when used in the employment environment, before dealing with the legitimacy of polygraph testing and the admissibility of the evidence, particularly in South Africa. The ILO has considered the adoption of regulations to impose a minimum degree of accuracy.² The US Congress enacted the Employee Polygraph Protection Act in 1988, due to the widespread misuse of polygraph testing and the lack of accuracy.³ In Germany, the polygraph is generally not considered accurate, and this is why courts refuse to admit it as evidence.⁴ In South Africa, polygraph examiners who testified in proceedings before the CCMA submitted accuracy rates of more than 90 per cent, sometimes even 100 per cent.⁵ The CCMA usually accepts polygraph evidence if it is supported by other evidence.

This chapter will demonstrate that polygraph testing is based on a weak theory, and its accuracy is overestimated. The existing empirical studies cannot show if the test is accurate and reliable, especially when used in the employment environment.

2.2 Theoretical foundation and test administration

Any scientific method needs to be based on a sound theory. The theory which underlies polygraph testing is particularly crucial and hence demands intensive consideration. In this regard, we also look at the instruments which comprise the polygraph and how the test is administered.

The instruments used for polygraph testing are an ordinary blood pressure cuff, called the cardiograph, two electrodes attached to two fingertips, known as the galvanograph, and finally two pneumograph tubes placed around the abdomen and the chest, which is the pneumograph.⁶ The blood pressure cuff measures the blood pressure and the heart rate while the two pneumograph tubes measure changes in respiration. Women usually show more movement in the chest, men in the stomach. The two electrodes, so-called galvanic skin response plates, are attached to the

² See chapter three *infra*.

³ See chapter four *infra*.

⁴ German Supreme Court (BGH), *JR* 1999, 379; see for more details chapter five *infra*.

⁵ See, for instance, *Khumalo & Another v Cash Paymaster Services*, [2003] 1 *BALR* 48 at 60 (CCMA); *Mvemve & Mahashe v Galaxy World/Evertrade 77 (Pty) Ltd*, [2003] 7 *BALR* 766 at 776 (BCI) and *SEAWU obo Mdhluli and Controlled Chatterbox Services cc*, [2001] CCMA, GA121311.

⁶ Iacono and Lykken, 'The scientific status of research on polygraph techniques: the case against polygraph tests', in Faigman, Kaye and Sanders (eds), *Modern Scientific Evidence: The Law and the Science of Expert Testimony* (1997), 582.

fingertips in order to determine variations in the electro-dermal response or electrical conductance of the palms' skin surface caused by sweating.⁷ The data provided by the instruments was previously recorded by means of several pens writing lines on a moving sheet of paper or the graph, the so-called polygraph chart.⁸ Nowadays computerized polygraph systems such as the Lafayette System are used. The physiological responses are converted to digital form and supply the computer. Software is used to process and analyze the data.

The polygraph instruments and how they are fitted to the examinee is shown in figures 1 and 2 below:



Figure 1: Equipment fitted

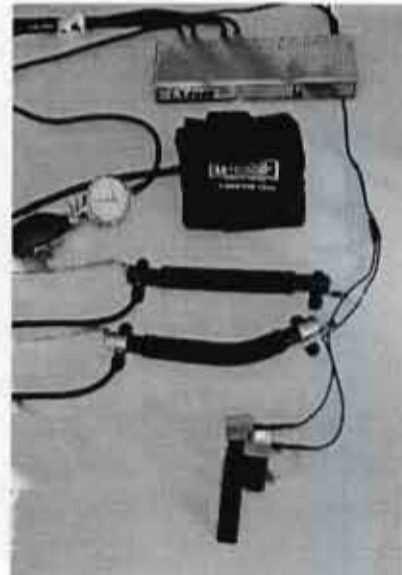


Figure 2: Instruments from front to back; two electrodes for fingers, two pneumograph tubes for abdomen and chest, blood pressure cuff and the Lafayette System⁹

During the test, the examinee is asked different types of questions, relevant and others, while attached to the instruments. The theory underlying polygraph testing suggests that all three physiological channels respond and show changes if the examinee is concerned about a specific question. When the suspect lies, he/she fears

⁷ US National Research Council (2003), *The Polygraph and Lie Detection*, 12 - 13. The U.S. Department of Energy (DOE) requested the National Academy of Sciences in 2003 to assess the DOE's extensive use of polygraph testing to determine potential and actual security risks.

⁸ Ibid. at 13. The name 'polygraph' derives from the Greek word 'poly' which means 'many' as the instruments measure several physiological responses.

⁹ Polygraph Truth Investigations at www.honesty.co.za (accessed on 13 April 2005).

detection. The instruments will therefore measure an increase in blood pressure, an accelerated pulse rate, a higher electrical conductance at the skin surface, and suppressed or hard breathing. A psychological or physical stimulation causes involuntary and uncontrollable physiological responses generated in the autonomic nervous system.¹⁰ The polygraph instruments record merely the changes in bodily responses; they do not measure deception or truth directly. The examiner draws a conclusion from the responses as to whether the subject has answered to the relevant test questions truthfully or not. The responses are used as indirect indicators of deception.

Polygraph testing requires that the examinee must be aware that he/she is lying in order to be concerned about the relevant test questions. The examinee must understand the unlawfulness of his/her conduct, which he/she is trying to hide at the examination. This is the reason why minors, mentally ill people and drug addicts cannot be tested.¹¹ However, not every person realizes that he/she has committed a crime, for example, in the case of sexual abuse of children by close relatives.¹² Some cultures appear to have different understanding of, for example, sexual abuse and theft. The examiner must be aware of the problem. The test might have to be culturally adjusted in order to be accessible to all examinees. Proper test questions are necessary to ensure that the examinee fully understands the content of the question. In any case, cultural differences and the effect on polygraph testing require further research.

A typical polygraph examination comprises three phases: the pre-test interview, the actual test when the examinee is attached to the instruments, and the post-test interview. A pre-test interview is administered to provide a general administrative and legal introduction. The examiner explains that the test is voluntary and the examinee may terminate it at any time. The test questions are formulated together with the examinee to ensure that he/she understands them. The same questions are asked in the test but in different order. The interview is also used to determine the suitability of the subject for testing because not every person is suitable to undergo a

¹⁰ Raskin and Honts, 'The Comparison Question Test', in Kleiner (ed), *Handbook of Polygraph Testing*, 3.

¹¹ See chapter 2.3.4.5 *infra*.

¹² This was argued by German scholars. See chapter five *infra*.

polygraph examination.¹³ There are a number of factors which can reduce accuracy. The examiner must therefore determine the examinee's general mental and physical condition prior to the test. In this regard, the examinee is asked, for instance, about any heart diseases, low or high blood pressure, breathing abnormalities, psychiatric treatment, medication, and whether the examinee slept in the last 24 hours. During the interview the examiner must also find out whether the examinee is under the influence of alcohol or drugs. Smoking apparently reduces the sweating of palms.

During the pre-test interview, the examiner further asks about the examinee's previous jobs, why he/she has left the previous job or about his/her current financial situation. A person is attached to the polygraph instruments in order to find out whether he/she is telling the truth or not. Therefore, it seems that in the pre-test interview the examiner trusts the examinee to tell the truth. But, if the examinee is intending to lie during the polygraph examination, why would he/she tell the truth in the pre-test interview?

Prior to the actual test, a stimulation test is administered because the examiner must know how the examinee reacts, in particular whether he/she is calm or nervous about taking the test. The standard data of each examinee is therefore individually determined and the sensitivity of measurements is adjusted accordingly. The stimulation test is usually a number or card test, in which the examinee is asked to pick one number or card and is directed to lie about it. The physiological response increases as the chosen number or card approaches in the question sequence and decreases when it has passed. The purpose of such a test, although its actual impact is not confirmed by studies, is to demonstrate the polygraph's ability to detect the deception in order 'to maximize the likelihood that examinees experience the expected focus of concern'.¹⁴

During the actual test, the examinee, while attached to the instruments, is asked a series of 'yes' and 'no' questions. The examiner asks relevant questions, related to the issue under investigation, as well as general comparison or control questions, which are similar to the relevant issue, to compare the physiological responses to each. The theory suggests that a guilty subject responds strongly to the relevant test questions, whereas the innocent examinee shows stronger reaction to the control

¹³ Mitchell, 'The Pre-test Interview: A preliminary Framework', in Kleiner (ed), 183.

¹⁴ Ibid. at 184 and 185.

questions.¹⁵ One question set is one chart and the set is repeated at least three times, but with the questions asked in a different order.

The examiner uses specific terms such as 'positive' and 'negative' to categorize the test results. 'Positive' implies deceptive results whereas a 'negative' outcome indicates truthfulness. Therefore, the term 'true positive' is used if the polygraph correctly classifies a guilty subject as being deceptive, whereas the term 'true negative' refers to the correct classification of an innocent examinee as being truthful. If an innocent person is falsely identified as guilty the result is called a 'false positive' and a 'false negative' result describes the wrong classification of the guilty suspect as innocent.

A polygraph test concludes with the post-test interview. The examiner explains the test results to the examinee. The examinee has the opportunity to elucidate certain physiological reactions. Many examinees confess after being confronted with deceptive results.

In some tests, the examiner is assisted by an interpreter. For instance in *MEWUSA obo Mbonami v S Bruce CC t/a Multi Media Signs* the examiner was accompanied by an interpreter during the test but the examinee had agreed to speak English.¹⁶ The Health Professional Council of South Africa (HPCSA), which is responsible for classifying and legalising psychological tests, states that 'fair testing practices entail administering tests in the language in which the test-taker is sufficiently competent'.¹⁷ The examiner may be assisted by a person who is fluent in an African language but then the onus rests on the examiner 'to ensure that the assistant is suitably trained to be able to assist with giving the test instructions, recording and subsequently translating verbal test responses, and generally assisting during the test administration process'.¹⁸ In terms of polygraph testing, it appears that there is no research on whether and how the use of an interpreter or assistant affects the accuracy of the test. The examiner asks the test questions, which the interpreter translates. If the examinee understands some English, he/she is likely to respond to

¹⁵ Raskin and Honts in Kleiner (ed), op. cit., 3.

¹⁶ *MEWUSA obo Mbonambi v S Bruce CC t/a Multi Media Signs*, [2005] 14 MEIBC 6.10.2, MEKN 855.

¹⁷ HPCSA at www.hpcsa.co.za (Form 208: Policy on the classification of psychometric measuring devices, instruments, methods and techniques, under D Notes); accessed on 2 August 2005.

¹⁸ HPCSA at www.hpcsa.co.za (Form 208); accessed on 2 August 2005.

the examiner's questions as well as to the translated questions. Without the interpreter there might be a lack of understanding, which can also have an impact on the test outcome.¹⁹

2.3 Scientific research

The polygraph test is assessed by psychological tests standards. The general requirements and challenges when conducting quality empirical research, in particular field research, are considered before dealing with the studies administered on the individual polygraph question formats.

This section explains the concept of reliability, validity or accuracy respectively, standardization, and objectivity. Then the study looks at two forms of research - laboratory experiments and field studies - both of which have their advantages and disadvantages. These issues include the independent criterion of truth, the examiner's qualifications, the problem of sampling bias, and the so-called friendly examiner syndrome. The impact of countermeasures on polygraph testing is examined as well as whether the examiner is able to recognize and avoid countermeasures. Furthermore, computerized polygraph programs have been developed to improve the accuracy of polygraph testing, but it will be shown that computerization has not brought about significant improvement.²⁰

2.3.1 Validity and reliability

The test must be applicable in identical ways in various situations and to different people and therefore, it must be standardized, objective, reliable, and valid. To illustrate the problem in terms of polygraph testing, examinees and examiners can be either 'calm or nervous, alert or sleepy, relaxed or under time pressure, male or

¹⁹ See, for instance, *SACCAWU obo Chauke v Mass Discounters*, [2004] 6 BALR 767 at 769 (CCMA): The examinee challenged the accuracy of the test because it was done in English. The examiner 'denied that there might have been a problem with language during the test because he made sure he understood him by asking questions to test his understanding'. The CCMA was satisfied with the way the test was administered.

²⁰ See, for instance, *Mncube v Cash Paymaster Services (Pty) Ltd*, [1997] 5 BLLR 639 at 641 (CCMA) where the commissioner recalled the *Mahlangu* case of 1985 (which constitutes the first South African labour court case on lie detection) with regard to reliability of polygraph testing but noted that the 'technology might have changed since'. See also *NUMSA obo Nqukwe & Others v Lowveld Implement & Farm Equipment (Life)*, [2003] 8 BALR 909 at 914 (CCMA): The commissioner found it 'important to recognize the development in science and technology' since *Mahlangu*. All decisions are discussed in chapter six.

female, from the same or different cultural backgrounds, in the laboratory or in the field'.²¹ Two independent examiners, each conducting a polygraph test on one examinee about one particular issue, must come to one and the same conclusion. In other words, all examinees must be assessed equally and fairly. Otherwise, the testing can amount to unfair discrimination.

It is important to distinguish first between the reliability and validity of a scientific method, because both concepts are often confused with each other. A test must be reliable in order to be valid. However, reliability does not automatically mean that the test is also valid.²²

Therefore, we first look at the concept of reliability, which requires that the test results are 'consistent and reproducible' in terms of the evaluation of different cases or different examiners scoring the same case.²³ There are two ways of evaluation: test-retest reliability and inter-scorer reliability.²⁴ Test-retest reliability signifies that the same suspect is tested twice on the same issue using the same format but two polygraph examiners conduct the examinations. To determine inter-scorer reliability merely one test is administered but two examiners evaluate the charts.²⁵ Inter-scorer reliability is not very useful as it 'relates to just one source of measurement error – errors in chart scoring and interpretation'.²⁶ There are not many studies on reliability and unfortunately the existing studies have used the second approach.²⁷ If the testing is about the same incident there should be reliability across different examinees as, for example, in the case of blanket-testing of a group of employees. However, test-retest reliability is also problematic due to the inherently subjective nature of the test procedure, even if a computerized polygraph system is used.²⁸

The test must also be valid. Validity signifies accuracy and requires 'the presence of a theory of how and why the test works' and knowledge about the influencing factors so that the test will also work with examinees and situations that

²¹ US National Research Council (2003), *op. cit.*, 30.

²² Kircher and Raskin, 'Computer Methods for the Psychophysiological Detection of Deception', in Kleiner (ed), 289.

²³ Iacono and Lykken, *op. cit.*, 589.

²⁴ US National Research Council (2003), *op. cit.*, 30.

²⁵ Iacono and Lykken, *op. cit.*, 590; this happened for instance in *PETUSA obo Van Schalkwyk v National Trading Co*, [2000] 21 ILJ 2323 at 2327 (CCMA).

²⁶ Ben-Shakhar in Kleiner (ed), *op. cit.*, 117.

²⁷ *Ibid.* at 117 – 118.

²⁸ See chapter 2.3.4.6 *infra*.

have not been tested.²⁹ This is referred to as the theoretical concept of construct validity, which requires a method to measure what it is supposed to measure.³⁰ In terms of polygraph testing, the examiner must therefore be able to say precisely when a person is lying or not, by merely evaluating the bodily responses. The scientific basis of polygraph testing has inherent limitations:

‘There is only limited correspondence between the physiological responses measured by the polygraph and the attendant psychological brain states believed to be associated with deception – in particular, that responses typically taken as indicating deception can have other causes’.³¹

In other words, there is no specific lie response, no absolute connection between a specific physiological response and an emotional state which can be associated solely with deception.³² The polygraph instruments can only record physiological changes, showing that a person responds more to one type of question than the other. A polygraph cannot however provide reasons for the changes which may include fear of being caught in a lie, fear of being unjustly accused of lying, fear of losing one’s job, embarrassment or anger at being tested, surprise, noise or the pain of the pressure of the cardio cuff.³³ There is moreover no research on these different physiological states. Research is more focused ‘on the application without advancing the basic science’.³⁴ Polygraph testing ‘cannot be used to determine why a person responds differentially to certain questions’.³⁵ Moreover, individuals react differently to the three mechanisms as well as ‘to various kind of stress, and even to identical stress. To some people, breathing may be the most sensitive indicator of emotion, while for others it may be blood pressure’. Studies do not show that cardiovascular and electro-dermal activities are constant across examinees.³⁶ Studies have also indicated that subjects of various ethnic groups respond differently to stress.³⁷

²⁹ US National Research Council (2003), *op. cit.*, 32.

³⁰ Anastasi and Urbina, *Psychological Testing*, 8.

³¹ US National Research Council (2003), *op. cit.*, 101.

³² De Clue, *The Journal of Psychiatry & Law* 31/Fall 2003, 365.

³³ Raskin and Honts in Kleiner (ed), 5; see *Mahlangu v CIM Deltak*, [1986] 7 ILJ 346 at 352 (IC), where the expert witness testified that ‘it is theoretically possible that a person who is psychopathic may in any event not show any emotional change of lying ..., a labile person will tend always to be the ‘guilty’ party on such tests’.

³⁴ US National Research Council (2003), *op. cit.*, 92.

³⁵ *Mallard v The Queen*, [2003] WASCA 296.

³⁶ US National Research Council (2003), *op. cit.*, 82.

³⁷ See Christianson, [1998] 8 : 1 CCL 1 at 3.

In terms of employment screening, which is designed to be event-free, the examiner must be able to predict a person's future tendencies based on test questions about his/her past behaviour. This is discussed further in the sections on the individual questions formats and the accuracy of polygraph testing in the employment context.

Further, the empirical concept of criterion validity requires the existence of scientific evidence supporting the theory, which includes studies on a specific population that show how well the polygraph can actually detect deception and truthfulness among examinees.³⁸ In this regard, an accuracy rate of a mere 50 per cent does not provide any evidence in the scientific sense.³⁹ Accuracy and measuring accuracy can vary between sectors of the population, such as criminal suspects, truthful examinees, employees or scientists, and situations such as criminal investigations, employment or pre-employment screening.⁴⁰ Therefore, each population sector needs to be researched. Furthermore, one must always consider the institution that conducted the research, in particular whether it was the proponents or the opponents of a certain theory. According to a study of the American National Research Council in 2003, research literature is biased in that polygraph-supporting reports usually get published. It further established that those agencies that use and rely on the polygraph mainly administer and fund the research.⁴¹ Therefore, it is not surprising that the supporters of polygraph testing often submit higher accuracy results than its opponents.⁴² The same applies to the research on countermeasures whether they affect the test results or not.⁴³ The polygraph's validity is indeed highly contentious. While most proponents of the polygraph suggest an average accuracy rate of between 80 and 90 per cent, or even nearly 100 per cent, depending on the test

³⁸ Iacono and Lykken, *op. cit.*, 590; see Ben-Shakhar, 'A critical Review of the Control Questions Test (CQT)', in Kleiner (ed), 114.

³⁹ Tredoux and Pooley, 'Polygraph based testing of deception and truthfulness: An evaluation and commentary', [2001] 22 *ILJ* 819 at 819.

⁴⁰ US National Research Council (2003), *op. cit.*, 31.

⁴¹ US National Research Council (2003), *op. cit.*, 118 and 119; Fiedler, Schmid and Stahl, 'What is the current truth about polygraph lie detection?', *Basic and Applied Social Psychology* 2002, Vol. 24 No. 4, 313 at 313.

⁴² For instance, the American Polygraph Association (APA) states that scientific research shows the high validity of polygraph testing, at www.polygraph.org (accessed on 15 July 2005). On their website it is said that conducted laboratory experiments have shown an average accuracy rate of 80 per cent, whereas field studies even indicated an average accuracy rate of 98 per cent. The Polygraph Association of South Africa (PASA) supports APA's statement at www.pasa.co.za, see under 'research' (accessed on 15 July 2005).

⁴³ See chapter 2.3.4.5 for more details.

format, its opponents argue that it is actually not more accurate than 50 per cent or 'merely flipping a coin'.⁴⁴

2.3.2 Standardization and objectivity

Validity and reliability require that the testing procedure is both standardized and objective, in particular the selection of test questions during the pre-test interview and the test phase itself, and the interpretation of the test results, which involves the additional problem of the original and the blind examiner.⁴⁵ The evaluations should be based only on the physiological data, and the evaluators, therefore called a 'blind' examiner as opposed to original examiner, should not have access to other case information such as criminal records or the examinee's behaviour during the test to prevent 'contamination' of the test outcome.⁴⁶ However, the examiner must have comprehensive knowledge about the examinee and the crime at issue in order to design proper test questions. Studies on tests administered by the original examiner show higher accuracy rates.⁴⁷

A standardized procedure is essential so that the test can be applied equally to any situation. All examinees must undergo the same experience. A standardized procedure also allows comparison between the different examinations.⁴⁸ Standardization requires the same procedure for all tests and the same score by different examiners. If a technique or method is not standardized, it is not possible to state an accuracy rate in general terms as the results are inconsistent and differ among different examinees and examiners. Objectivity is the other essential part of a test. It requires that administration, scoring, and interpretation 'are independent of the subjective judgment of the particular examiner'.⁴⁹ Computer algorithms were

⁴⁴ Tredoux and Pooley, [2001] 22 *ILJ* 819 at 819; see, for instance, Raskin and Honts in Kleiner (ed), op. cit., 32 (table 1.9): In terms of CQT, Honts' (who advocates CQT) field study in 1996 indicates a correct classification of 83 per cent with 17 per cent inconclusive results. On the other hand, a study conducted by Patrick and Iacono (who are against the use of CQT) in 1991, shows results of merely 30 per cent correct, 24 per cent wrong, and 46 per cent inconclusive. The rate regarding the correct classification of guilty suspects was 100 per cent in the Honts study, which was higher than the study reported by Patrick and Iacono, which shows 92 per cent. In their report (same table), Raskin and Honts however combine all studies on CQT and refer to this result as the accuracy rate.

⁴⁵ Raskin and Honts in Kleiner (ed), op. cit., 1.

⁴⁶ Ben-Shakar in Kleiner (ed), op. cit., 111 – 112.

⁴⁷ Raskin and Honts in Kleiner (ed), op. cit., 33.

⁴⁸ Ben-Shakar in Kleiner (ed), op. cit., 109.

⁴⁹ Anastasi and Urbina, op. cit., 7.

introduced to achieve standardization and objectivity and are discussed later in this chapter.⁵⁰

2.3.3 Laboratory studies

Scientific research on a method's accuracy and reliability can be conducted in form of laboratory experiments and field studies as indicated earlier in this chapter. Both types have their advantages and disadvantages. It is evident that not all studies that have been conducted are useful to establish a representative accuracy rate of polygraph testing.⁵¹ It is further notable that most of the research was done on the validity of polygraphs. Only a few reliability studies exist, and these have used the approach of inter-scorer reliability.⁵² Hence, there is no adequate research on reliability. The following remarks are therefore confined to the validity of polygraph testing.

In laboratory experiments, a crime situation is simulated, so the examinee knows he/she is not doing a real-life test. The examiner randomly assigns the subjects to the roles of truth-teller and liar. The test person is asked to commit a 'crime' and then to hide it during the polygraph examination. The innocent examinees are merely told about the nature of the crime and do not commit it. All subjects are motivated to produce correct outcomes, usually by the offer of a cash bonus.⁵³

There is scientific control over the situation in laboratory experiments. The examiner can control the investigated issues and types of tests that are used. Laboratory studies show consistency in test administration and interpretation. The subject population can also be specified. There is control over the skill and training of the examiner and, particularly important, an absolute verification of the accuracy of the test results. The examiner can tell precisely who is lying and who is not.⁵⁴ However, because the subjects are volunteers, the laboratory studies lack realism, in

⁵⁰ See chapter 2.3.4.6 *infra*.

⁵¹ See US National Research Council (2003), *op. cit.*, 13 – 14: After extensive review of several studies, the National Research Council concluded that not a single field study met the minimum standards of high-quality research, although it already excluded those studies that did not show an independent criterion of truth. According to the Council, field research shows a moderate methodological strength and is furthermore contaminated by biases and the use of original examiners that have certain expectations of the test outcome instead of blind examiners (at 115).

⁵² See Ben-Shakhar in Kleiner (ed), *op. cit.*, 117.

⁵³ Raskin and Honts in Kleiner (ed), *op. cit.*, 28.

⁵⁴ Raskin, Honts and Kircher, *op. cit.*, 571.

particular, the emotional and motivational aspects.⁵⁵ The 'guilty suspect' does not fear detection. The 'innocent' does not have anxiety about being incorrectly classified as deceptive. Thus, there is actually no deception in the conventional sense. The only motivation might be the cash bonus at the end of the experiment. However, the subject has nothing at stake.

The results from laboratory experiments cannot be made applicable to real-life applications and therefore rather provide an indication.⁵⁶ In the subsequent discussion on the individual question formats, the results from laboratory experiments are briefly considered. Field research, which is considered next, is more significant.

2.3.4 Field studies

Field studies analyze actual cases where suspects underwent polygraph tests in criminal investigations or employees underwent tests in connection with employment or pre-employment screening. The advantage of field research is that it is a real-life situation where the subject fears detection.

However, quality field research faces a number of challenges in terms of its methodology, which is the subject of this section. First, it requires a representative group of examinees, which should consist of the actual population of subjects, criminal suspects or employees, in which research shall be done as opposed to sampling bias. The examinees should be also sampled by a random process.⁵⁷ Properly trained and experienced examiners should assess the scores. An external, from the polygraph test independent criterion of the credibility of the subject is required in order to determine whether the examiner's evaluation was right or wrong in a particular case. Furthermore, the so-called 'friendly examiner syndrome' as well as the impact of countermeasures and computerization on accuracy are discussed.

2.3.4.1 External independent criterion of truth

Unlike in the laboratory experiments the examiner has no scientific control over a real-life situation. Thus an external criterion of guilt or innocence, which must be

⁵⁵ Raskin and Honts in Kleiner (ed), op. cit., 29.

⁵⁶ Iacono and Lykken, op. cit., 601.

⁵⁷ Raskin, Honts and Kircher, op. cit., 574.

independent from the polygraph examination, is required to confirm the outcome of the test.⁵⁸ The quality of this criterion is the central issue of field research. Other evidence could be the confession of the suspect or other individual, a panel of legal experts, court judgments or any other proper evidence such as witnesses, documents, expert testimonies. In this regard, it becomes evident that 'if there had been strong proof of guilt or innocence in the actual cases, polygraph tests would probably not have been conducted'.⁵⁹ Polygraph tests are usually administered due to the lack of strong evidence.

We first deal with the value of a confession of the examinee.⁶⁰ A confession is problematic because it is usually made during the post-test interview when the suspect is told that he/she has failed the test. The test is especially used to induce confessions.⁶¹ The suspect is then told that a confession may reduce the punishment. If there is a causal relationship between failing the test and the confession, the confession does not constitute an external criterion. Confessions should be treated with caution at all times, since studies have shown a high rate of 'false incrimination', meaning that a false positive test result led to a false admission.⁶² Nevertheless, some scholars argue that confessions are the 'best and most common method' because in between 30 and 80 per cent of polygraph test cases, subjects have confessed.⁶³ In this regard, validity must be however distinguished from utility. A polygraph test is without doubt a useful tool to extract a confession from the examinee as indicated by U.S. President Nixon's statement at the beginning of this chapter. Yet in many cases the admission does 'not depend on validity, but rather on examinees' beliefs that the polygraph will reveal any deception'.⁶⁴ Therefore, admissions immediately made after failing a polygraph test are not necessarily evidence of validity although they are often used as such. They rather show its utility unless the credibility of the confession is otherwise confirmed. Apparently 75 per cent of the job applicants confess.⁶⁵

⁵⁸ Raskin and Honts in Kleiner (ed), op. cit., 30; Ben-Shakhar in Kleiner (ed), op. cit., 115.

⁵⁹ Raskin, Honts and Kircher, op. cit., 571.

⁶⁰ Confessions of witnesses or victims are not considered in this regard. Victims are very likely to fail the test due to their anger and indignation. In most employment cases, the employee who is suspected of misconduct or crime is subjected to the test. See Honts and Raskin in Kleiner (ed), op. cit., 36.

⁶¹ Iacono and Lykken, op. cit., 604.

⁶² Ben-Shakhar in Kleiner (ed), op. cit., 116.

⁶³ Raskin and Honts in Kleiner (ed), op. cit., 30.

⁶⁴ US National Research Council (2003), op. cit. 55.

⁶⁵ Harrington, 'The Power of the Polygraph', *Case & Comment* Volume 88 No. 1, 1983, 4.

Further, court judgments or panels of legal experts who review the case facts may provide external independent criteria.⁶⁶ However, both are no more than presumptions as to the accuracy of test results. The polygraph examination should actually improve the reliability of court judgments. The panel's decision is not more than 'an educated guess, it is [also] subject to error ... whenever the polygraph result differs from the judgment of the panel, it is not known which was wrong'.⁶⁷ Therefore, court judgments and panel decisions are not sufficient criteria for the verification of test results.

2.3.4.2 Qualification of examiner

In field research, it is not possible to say how representative and valid the selected cases are because there is no control over the skill and training of the examiner unlike in laboratory experiments.

The polygraph instruments record the examinee's physiological responses during the test very accurately, but obviously they do not directly measure his/her emotional state, in particular, whether he/she is lying. This aspect of polygraph testing is not a matter of debate. It is the polygraph examiner who draws inferences from the measured responses as to whether the subject lied in response to the relevant questions or not. Hence the examiner plays a crucial role in the administration of polygraph testing but also constitutes one possible source of error. Although the problem lies mainly in the weak theoretical foundation,⁶⁸ the level of accuracy of a particular polygraph examination varies according to the skill, training and experience of the examiner, in particular his/her competence to determine whether the examinee is suitable to undergo the test, to create an appropriate test environment, to use the right question format, to ask appropriate questions and to evaluate the charts correctly. Apparently, only 20 per cent of examiners in South Africa have the necessary qualifications.⁶⁹

⁶⁶ Raskin and Honts in Kleiner (ed), op. cit., 30; BGH, *JR* 1999, 379 at 382.

⁶⁷ Raskin and Honts in Kleiner (ed), op. cit., 30.

⁶⁸ See chapter 2.3.1 *supra*.

⁶⁹ See Cilliers and Martin, 'Utilisation of the polygraph in the criminal justice system (2)', *Acta Criminologica* 16(1) 2003, 104 and see also statement of PASA, reported on 28 June 2001 (IR Network).

As far as the suitability of the examinee is concerned, his/her mental and physical state is important as the test does not work with mentally ill persons and drug addicts. This means that the polygraph examiner should have some psychological and medical training. However, most polygraph examiners are not qualified psychologists or physicians who could recognize or assess the suitability of each examinee. Not every abnormal physical or mental condition is easily recognizable. In Germany, polygraph evidence is not admissible although qualified psychologists administer the test.⁷⁰ In the USA, the required qualifications are regulated in the Employee Polygraph Protection Act of 1988.⁷¹ In South Africa, the former Industrial Court required a qualified psychologist to carry out the test in *Mahlangu*.⁷² The CCMA is satisfied with a trained polygraph examiner.⁷³

However, qualification is said to be a big problem in South Africa. Training and test administration are not standardized. Examiners are not registered with a statutory body. There are three organizations, the Polygraph Association of South Africa (PASA) and the South African Professional Polygraph Association (SAPPA), a divisional member of the American Polygraph Association (APA), and the Polygraph & Voice Stress Association of South Africa (PAVSA).⁷⁴ SAPPA and PASA have different standards in terms of examiner training, such as minimum time period of training, as well as regarding the test administration as to the number of sets per chart. Membership is not mandatory. All three organizations are neither statutory bodies nor accredited associations.⁷⁵ Even PASA admits that unqualified and inexperienced examiners constitute the biggest challenge to polygraph testing in the country, and therefore reliability and accuracy of those tests is very doubtful.⁷⁶ According to PASA, the number of examiners increases at least 50 per cent every year, which indicates that the number of administered polygraph tests in South Africa

⁷⁰ See, for instance, District Court (LG) Wuppertal, *NStZ-RR* 1997, 75; Supreme Court (BGH), 24 June 2003 – VI ZR 327/02.

⁷¹ The EPPA requires a valid and current licence according to the regulations of the individual states.

⁷² *Mahlangu v CIM Deltak, Gallant v CIM Deltak*, [1986] 7 *ILJ* 346 at 352 (IC): *Mahlangu* is South Africa's precedent on lie detection in the workplace. Although a voice analyzer was used in the case at issue, the court held that any lie detector test must be carried out by a psychologist. Otherwise, the test is not scientific, ethical, valid and legal.

⁷³ See, for instance, *Mncube v Cash Paymaster Services (Pty) Ltd*, [1997] 5 *BALR* 639 (CCMA).

⁷⁴ SAPPA, at www.polygraph.org.za (accessed on 19 August 2005); PAVSA, at www.pavsa.co.za (accessed on 24 April 2007).

⁷⁵ Christianson, [2000] 21 *ILJ* 16 at 23.

⁷⁶ See statements given by PASA in 1997 (www.btimes.co.za/97/0413/btmoney/money7.htm, accessed on 27 September 2005) and 2001 (reported on IR network).

is also increasing.⁷⁷ Apparently, there have been discussions with the government about the establishment of a licensing authority.⁷⁸ In the USA, state laws require licences and regulate qualifications. The APA screens its members and administers tests to polygraph school graduates to ensure an established level of competency. It further requires standard test protocols in terms of the administration of tests. Members who do not follow the rules are sanctioned.⁷⁹

2.3.4.3 Sampling bias

Research must include a representative sampling of situations and subjects. In terms of field studies, special attention must be paid to the problem of sampling bias. This means that only certain cases are included in the research while others are not. Why is that so and what does it consequently mean for the validity of those studies?

The German Supreme Court (BGH) dealt with the issue of sampling bias in a criminal case in 1999.⁸⁰ The accused sought to submit the results of a polygraph test to demonstrate his credibility, in particular that he did not commit the crime under investigation. The court however refused to admit the results as evidence and stated that the high accuracy rate of polygraph testing as shown in field studies is based on a sampling bias. It held that research on the accuracy of polygraph testing does not consider all conducted polygraph examinations.⁸¹ Only those cases where for instance the subject confesses to the crime or misconduct after being told that he/she failed the polygraph examination are normally included in the studies.⁸² In other cases, there might be evidence such as a witness's testimony or a court judgment which concurs with the outcome of the test. What about the situation where an innocent person fails the test or the guilty person passes it?⁸³ Both could question the validity of the test. Are they considered in the accuracy studies? In the latter case it is very unlikely that the guilty suspect will make a confession or that police will look for other evidence. Regarding the former case, other evidence would have to be

⁷⁷ Statement by PASA, reported on 28 June 2001 (IR network).

⁷⁸ See *PETUSA obo Van Schalkwyk v National Trading Co*, [2000] 21 ILJ 2323 at 2327 (CCMA)

⁷⁹ See *US v Posado*, 57 F.3d 428 at 434 (5th Cir 2003).

⁸⁰ BGH, JR 1999, 379.

⁸¹ BGH, JR 1999, 379 at 381; see also Fiedler, Schmid and Stahl, op. cit., 313.

⁸² Ben-Shakar in Kleiner (ed), op. cit., 115.

⁸³ Fiedler, Schmid and Stahl, op. cit., 313.

obtained to show truthfulness. Therefore, both cases are unlikely to be found in empirical statistics.

This leads to overestimating the accuracy of polygraph testing, but this problem 'has been often overlooked and rarely realized completely ... the crucial point is that verification of guilt is more likely to be obtained, or to become visible, than verifications of innocence once the defendant has failed on the polygraph, for pragmatic reasons.'⁸⁴ Therefore, field studies merely reflect a panel or group probability. The obtained accuracy rates have little probative value and statistically are not of much use.⁸⁵

2.3.4.4 Friendly examiner syndrome

Some scholars are concerned about the validity of a so-called friendly examination, as indicated earlier on, which means that only test results that are favourable to the examinee will be submitted as evidence. An examinee should always be aware that not only positive results will be used as evidence in court. If a polygraph test result is, however, offered as exculpatory evidence by the defence, it is argued that such evidence has little validity because of what is known as the 'friendly examiner syndrome'.⁸⁶

Just telling a lie does not cause the different physiological responses. It is rather the fear of the detection of this lie that is responsible for the responses, as experiments have shown.⁸⁷ Consequently, if a guilty examinee has little at stake and little to fear, significant physiological responses will not occur. The 'friendly examiner syndrome' is based on the assumption that a guilty suspect 'is more likely to pass the test if it is confidential and requested by the defence attorney than if the subject is informed that adverse as well as favourable results will be disclosed to prosecution'.⁸⁸

Apparently research has not confirmed the truth of this syndrome, in terms of the Control or Comparison Question Technique (CQT). According to a field study on

⁸⁴ Ibid.

⁸⁵ BGH, *JR* 1999, 379 at 381.

⁸⁶ See Raskin and Honts in Kleiner (ed), op. cit., 35.

⁸⁷ Frister, 'Der Lügendetektor – Zulässiger Sachbeweis oder unzulässige Vernehmungsmethode?', *ZStW* 106 (1994), 303 at 311.

⁸⁸ Raskin and Honts in Kleiner (ed), op. cit., 35.

confidential defence tests, only 44 per cent of the examinees were able to pass the test.⁸⁹ As discussed before, the weakness of field research is the absence of an independent criterion of truth so one cannot ensure that only guilty suspects took such a confidential test. In order to pass a CQT the subject must show a greater or equal response to the control questions. In theory, this can be caused by a reduced concern about the relevant questions, leading to less reaction to those questions.⁹⁰ In terms of Guilty Knowledge Test (GKT), assuming that the guilty subject does not fear his/her detection, he/she should show nearly the same responses to all alternatives, which would indicate that he/she is truthful. Yet the GKT becomes inappropriate as soon as the suspect is informed of the charges against him/her.⁹¹ Both test formats are considered later in this chapter.⁹²

In any case, the results of a private examination arranged by the accused or his/her attorney should be treated with great caution because the accused will only submit evidence in court that shows favourable results. If he/she fails such an arranged test he/she can still undergo another polygraph examination until he/she gets a favourable outcome.

2.3.4.5 Countermeasures

Another important issue to consider in this regard, due to its impact on the polygraph's accuracy, are countermeasures, which are applied to produce non-deceptive test outcomes. Guilty suspects are wrongly classified as truthful. Some innocent examinees also use countermeasures to increase their chances of passing the test. However, studies showed that those examinees can be incorrectly identified as deceptive.⁹³ It is controversial whether countermeasures are easy to learn or whether they require some training.⁹⁴

There are General State (GS) countermeasures and Specific Point (SP) countermeasures. GS countermeasures are applied during the entire examination and can be drugs, exhaustion, or hypnosis. SP countermeasures are only applied at certain

⁸⁹ Ibid. at 36.

⁹⁰ See chapter 2.5.1 *infra*.

⁹¹ See chapter 2.6.1 *infra*.

⁹² See chapter 2.5 and 2.6 *infra*.

⁹³ US National Research Council (2003), *op. cit.*, 140.

⁹⁴ See Ben-Shakhar in Kleiner (ed), *op. cit.*, 114; Krapohl, 'The Polygraph in Personnel Screening', in Kleiner (ed), 227.

stages of the test.⁹⁵ Drugs can reduce and even obstruct the physiological responses.⁹⁶ In terms of CQT, it would result in an inconclusive test outcome. In a GKT examination, it means the examinee has no knowledge of the crime if he/she does not respond strongly to any item. However, the impact of drugs requires more research as only a few laboratory experiments exist.⁹⁷ A trained examiner might spot the use of drugs as it can cause certain reactions such as the heart beating erratically. In terms of SP countermeasures, there are physical and mental countermeasures. Physical countermeasures are, for instance, deep breathing, biting the tongue and flexing the toes.⁹⁸ Respiration, as one of the three recorded physiological channels, can be controlled easily by the examinee. Changes in breathing do not only influence the respiration recordings, they also cause variations in the electrodermal and cardiovascular measurements.⁹⁹ Employing mentally demanding arithmetic exercises such as counting backwards or thinking of something exciting to elicit anger or fear falls within the group of mental countermeasures.¹⁰⁰ The problem with mental countermeasures is that the examiner is unable to detect them, whereas it is said that physical countermeasures are more effective.¹⁰¹ The polygraph examiner can detect some countermeasures by observing the subject's behaviour in terms of physical countermeasures or by interpreting the charts. The examinee is videotaped and is also asked not to move during the test. He/she sits on a so-called Peizo seat plate, which detects any movement. There is however very little research in form of laboratory experiments on the detection of countermeasures.¹⁰² Therefore, it is difficult to say whether the influence of countermeasures is greater in real-life polygraph examinations or whether its impact is overestimated. Existing studies do not investigate the processes by which countermeasures might affect the detection of deception. It is for instance important to investigate whether specific countermeasures produce specific physiological responses and what countermeasures

⁹⁵ Honts and Amato, 'Countermeasures', in Kleiner (ed), 251.

⁹⁶ *Ibid.* at 254.

⁹⁷ US National Research Council (2003), *op. cit.*, 138.

⁹⁸ *Ibid.* at 139.

⁹⁹ *Ibid.* at 83.

¹⁰⁰ Iacono and Lykken, *op. cit.*, 595; Kircher and Raskin in Kleiner (ed), *op. cit.*, 320.

¹⁰¹ Ben-Shakhar in Kleiner (ed), *op. cit.*, 114; US National Research Council (2003), *op. cit.*, 143; Honts and Amato in Kleiner (ed), *op. cit.*, 258: In 1996, Honts reported for the GKT that physical countermeasures showed a rate of 90 per cent, while mental countermeasures were less effective with 60 per cent.

¹⁰² Honts and Amato in Kleiner (ed), *op. cit.*, 261.

are more effective in which settings.¹⁰³ Examiners must be also trained to detect them. There is some research, which however cannot show a higher accuracy, as to whether countermeasures can be avoided.¹⁰⁴

2.3.4.6 Computerized polygraph system

Finally, in terms of quality field research, this section examines whether the computerized interpretation of polygraph charts helps to obtain standardized, objective and reliable test results. If the evaluation of a test depends on the examiner's judgment, its accuracy 'is adversely affected by bias, drift, inexperience, and incompetence' and in terms of polygraph testing, the problem also lies in the complexity of the physiological reactions and the lack of generally accepted methods for evaluation of test charts.¹⁰⁵

There are three interpretation methods: global, numerical and computerized evaluation. The global method constitutes the most subjective method because the decision of the examiner is based on test results as well as case facts. The numerical evaluation is based solely on the charts by using specific scoring rules. With computerized evaluation one would actually expect more reliable and precise scores. Computer programs were developed with the help of polygraph tests administered in criminal cases, whose results were apparently confirmed by external independent evidence. Several scoring programs are currently available such as the Computerized Polygraph System (CPS), developed by the University of Utah in 1991 as well as the Axciton and Lafayette systems, both introduced in the early 1990s, which record the different physiological channels.¹⁰⁶ The Polyscore, developed at the Applied Physics Laboratory, Johns Hopkins University, was the original scoring algorithm for the Axciton and Lafayette. Apparently, it shows a higher accuracy rate than the results from field studies but information about the whole development process including

¹⁰³ US National Research Council (2003), op. cit., 143 – 144.

¹⁰⁴ See Ben-Shakhar and Elaad, 'The Guilty Knowledge Test (GKT) as an Application of Psychophysiology: Future Prospects and Obstacles', in Kleiner (ed), 97 and US National Research Council (2003), op. cit., 160 – 161 where it is suggested that use is made of event-related potentials, which refer to the event-related changes in the electroencephalogram measuring the brain electrical activity, instead of autonomic measures. The former is based on a repeated rapid presentation of the items. Brain electrical signals occur within milliseconds.

¹⁰⁵ Kircher and Raskin in Kleiner (ed), op. cit., 287.

¹⁰⁶ Ibid. at 300 and 308.

the database of field cases was not provided.¹⁰⁷ AXCON, Chart Analysis, and Identifi are recently-introduced scoring algorithms.¹⁰⁸ The components of the computer system are hardware and software. Physiological reactions are converted into digital form and supplied to the computer for additional processing and analysis.¹⁰⁹ The software consists of an automatic editor of the charts with regard to occurrence of body movement,¹¹⁰ a feature extraction and feature standardization,¹¹¹ an index of differential reactivity,¹¹² a discriminant analysis,¹¹³ and a calculation of the probability of deception.¹¹⁴

Existing research on computerized evaluation, in particular when using the CPS algorithm, shows that, in most cases, its accuracy rate was negligibly higher than that of the numerical evaluators.¹¹⁵ The studies show similar rates for both truthful and deceptive subjects, which can be an indication that CPS is not biased.¹¹⁶ In terms of field studies, the considered cases must be different from those that were used for the development of the computer programs.

The computerized polygraph system is subject to inherent limitations. First, the data used to develop the programs was obtained from criminal cases. Some of the test results were 'confirmed' by confession.¹¹⁷ The underlying data lacks standardization according to the National Research Council.¹¹⁸ As far as the present

¹⁰⁷ US National Research Council (2003), op. cit., 196.

¹⁰⁸ Kircher and Raskin in Kleiner (ed), op. cit., 298.

¹⁰⁹ Ibid.

¹¹⁰ Ibid. at 301.

¹¹¹ Ibid. at 303: Feature extraction includes identifying peak amplitude, number of responses, response latency, and half recovery time. The problem is that the extracted features are measured on different scales.

¹¹² Kircher and Raskin in Kleiner (ed), op. cit., 305: This refers to the mean standard scores from the different reactions to comparison and relevant questions, subtraction of the latter from the former; a negative difference indicates deception.

¹¹³ Ibid. at 306: Measurements from the same physiological reaction are correlated, therefore select variables such as skin conductance amplitude, amplitude of increases in the baseline of the cardiograph, respiration.

¹¹⁴ Ibid. at 306: two likelihood functions meaning partially overlapping normal curves.

¹¹⁵ See Ibid. at 310, Table 11.1: Six laboratory studies, using the CPS algorithm, indicated the following accuracy rates: 79 per cent of the guilty subjects were correctly classified and 9 per cent of them incorrectly. 12 per cent of the results were inconclusive. With regard to the innocent examinees, 78 per cent of them were correctly identified, 6 per cent incorrectly, and 16 per cent of the cases showed an inconclusive test outcome. The results of the field research suggest an accuracy rate of 75 per cent, with 5 per cent of being wrongly classified as deceptive, and 20 per cent inconclusive outcomes. 72 per cent of the truthful subjects were correctly classified, 8 per cent incorrectly, and 20 per cent had an inconclusive test result.

¹¹⁶ Ibid. at 310 – 311.

¹¹⁷ See chapter 2.3.4.1 *supra* for the validity of a confession.

¹¹⁸ US National Research Council (2003), op. cit., 304.

study is concerned, there is no indication whether data from employee polygraph testing, in particular screening, was used for the development of computerized scoring algorithms. Second, even the computerized polygraph system is not completely objective. The computer input requires properly collected data. Hence, it remains dependent on the examiner's competence.¹¹⁹ Polygraph testing also involves the examiner's 'interaction with the instrument and the examinee', which developed programs fail to address.¹²⁰ Further, the computer cannot recognize deep breathing and physical countermeasures.

In terms of polygraph testing, different question formats exist, which vary regarding theory and test administration as well as validity. They are discussed individually in the subsequent sections. The Relevant-Irrelevant-Test (RIT) is briefly considered, and the emphasis will be on the CQT¹²¹ and the GKT.¹²² The selection of a specific technique depends on the subject matter under investigation, whether the issue is specific, for instance, investigation of theft in the workplace, or of a general scope, as in pre-employment and employment screening. We now turn to the individual questioning formats.

2.4 Relevant-Irrelevant Test

We first consider the RIT. Although the least accurate and rarely used in criminal investigations, the RIT is applied particularly in the working environment.

2.4.1 Theory and test administration

A pre-test interview is conducted which is 'confrontational' because the examiner seeks to obtain confessions from the subject.¹²³ During the test phase, several relevant and irrelevant questions are asked if the RIT is used in a criminal investigation. The relevant questions are related to the crime or misconduct under

¹¹⁹ Gianelli, 'Polygraph Evidence After Daubert', (1997) 49 *Hastings L.J.* 895 at 922.

¹²⁰ US National Research Council (2003), *op. cit.*, 197.

¹²¹ The Directed Lie Test (DLT) is not considered. The technique derived from the CQT to overcome the weaknesses implied with the CQT but there is only one laboratory study, done by Horowitz in 1994 and one field study on DLT, conducted by Honts and Raskin in 1989. See Raskin, Honts and Kircher, 'The scientific status of research on polygraph techniques: the case for polygraph tests', in Faigman, Kaye and Sanders (eds), *Modern Scientific Evidence: The Law and the Science of Expert Testimony* (1997), 573 and 575 (Table 2).

¹²² The GKT is also called the Concealed Information Test (CIT).

¹²³ Raskin and Honts in Kleiner (ed), *op. cit.*, 3.

investigation, while the irrelevant questions are neutral, referring to ‘innocuous issues unlikely to be of much concern to anyone’.¹²⁴ Irrelevant questions may include: ‘is today Monday?’ or ‘are you sitting down?’ The examinee is asked to answer ‘yes’ or ‘no’. The questions are usually repeated once in a different order. The theory underlying RIT is that a stronger response to relevant questions is caused by the guilty suspect’s fear of deception. If there is only little difference or no difference in reaction to both groups of questions, the suspect is seen to be truthful because he/she answers all questions truthfully.¹²⁵ The responses to the irrelevant questions do not figure significantly in the interpretation of the test results. These questions are designed to give the examinee a break ‘in what would otherwise be a long series of psychologically draining relevant questions. The interpretation of this test depends more on how the responses to the different relevant questions compare to one another’.¹²⁶

Polygraph testing in employee screening is different from an examination administered into a specific criminal investigation. For screening purposes, the RIT is structured to be event-free in order to determine the general behavioural characteristics and tendencies of a current employee or a job applicant. Questions can be about different types of crimes or misconduct such as theft from previous employers, use of drugs or abuse of alcohol, leakage of confidential information, and lying on the job application form. It is assumed that the question that causes the largest response indicates the employee’s tendency to commit a certain crime or misconduct.¹²⁷

It is evident that the RIT is based on the ‘naive and transparent’ theory that a larger response to a relevant question indicates deception.¹²⁸ Strong reactions to the relevant questions can be caused by reasons other than fear of deception, such as stress, anxiety, arousal or the question refers to an issue of obvious concern. More importantly, the irrelevant test questions do not cause any emotional concern and therefore do not provide proper “control” for the psychological impact of being

¹²⁴ Raskin, Honts and Kircher, *op. cit.*, 583.

¹²⁵ Raskin and Honts in Kleiner (ed), *op. cit.*, 3 – 4.

¹²⁶ Iacono and Lykken, *op. cit.*, 584.

¹²⁷ *Ibid.*

¹²⁸ Raskin, Honts and Kircher, *op. cit.*, 567.

asked the relevant question'.¹²⁹ The RIT is also not standardized with regard to pre-test interview, question sequencing and assessment of the test results.¹³⁰

2.4.2 Scientific studies

The technique has a weak scientific foundation. Existing research shows a very high rate of incorrect classification of the truthful suspects because they were nervous about being accused of a crime.¹³¹ In addition, it would be very easy for any examinee to identify the relevant questions and apply countermeasures.

2.5 Control Question Test¹³²

In practice, the CQT is generally used in criminal investigations but also in civil proceedings, national security screening and post-conviction assessment.¹³³

Initially, comparison questions were included in the test format to overcome the weaknesses of the RIT, which became the so-called Reid CQT also known as the Modified General Questions Test (MGQT). The Zone Comparison Test (ZCT) is a modification of the MGQT.¹³⁴ Both formats are briefly discussed at the end of the section because they are widely used in South Africa.

2.5.1 Theory and test administration

A pre-test interview is administered.¹³⁵ The different types of relevant, control or comparison questions and irrelevant questions are composed and discussed with the examinee. An example of a typical CQT is the following:

1. Irrelevant question: Is today Monday?
2. Relevant question: Have you stolen the money from A?

¹²⁹ Iacono and Lykken, *op. cit.*, 584.

¹³⁰ Raskin and Honts in Kleiner (ed), *op. cit.*, 5.

¹³¹ Raskin, Honts and Kircher, *op. cit.*, 567 – 568.

¹³² There are a number of modified question formats of the CQT. They will not be discussed here except for the ZCT and the MGQT. For more details see Raskin and Honts in Kleiner (ed), 5.

¹³³ Raskin and Honts in Kleiner (ed), *op. cit.*, 5; The latter is particularly used in the USA.

¹³⁴ *Ibid.* at 6 and 10.

¹³⁵ See chapter 2.2 *supra*.

3. Control question: Before today, did you ever take something that did not belong to you?

4. Relevant question: Did you take the money out of the safe?

5. Control question: Did you ever tell someone a lie?

Relevant questions relate to a specific event or crime under investigation. Control questions are very general and refer to non-specific criminal behaviour in the examinee's past, unknown to the examiner, which is similar to the relevant issue. It is assumed that most people have taken something that did not belong to them at some stage or have lied about something but do not want to admit to it. Control questions are designed to cause doubt about the truthfulness of the answer, so the innocent examinee is usually more concerned about these questions because he/she is lying on the control questions but is truthful on the relevant questions.¹³⁶ The irrelevant questions deal with neutral issues in order to 'absorb the initial orienting response evoked by any opening question and to enable rest periods between the more loaded questions'.¹³⁷

The theory submits that guilty subjects are more concerned about the relevant questions while innocent subjects worry about the control questions.¹³⁸ Therefore, the examinee is classified as innocent if he/she shows greater or equal reaction to the control questions whereas a larger response to the relevant questions indicates deception. During the test phase, between 10 and 12 questions are asked while the physiological reactions are continuously recorded. The question series are repeated at least twice.¹³⁹ The examinee is asked to answer 'no' to all questions to ensure he/she lies at some stage. The CQT relies on the premise that the examinee cannot recognize whether he/she is asked a relevant or a control question.¹⁴⁰ The physiological

¹³⁶ Kleiner, 'Physiological Detection of Deception in Psychological Perspectives: A Theoretical Proposal', in Kleiner (ed), 128.

¹³⁷ Ben-Shakhar in Kleiner (ed), op. cit., 104.

¹³⁸ US National Research Council (2003), op. cit., 70.

¹³⁹ Kleiner in Kleiner (ed), op. cit., 128.

¹⁴⁰ The technical memorandum of the Office of Technology Assessment (OTA) of the United States Congress, chapter 2: Varieties of Polygraph Testing and Uses, at www.fas.org/sgp/othergov/polygraph/ota/varieties.html (accessed on 6 March 2006); The technical memorandum presents the results of the OTA's review and assessment of the scientific evidence on the validity of polygraph testing. The review was conducted at the request of the House Committee on Government Operations in order to assist the committee in its considerations on proposed changes in the use of polygraph testing by the Federal Government.

responses to the control questions are then compared with the reactions to the relevant questions.

CQT is not based on plausible assumptions. The control questions show a lack of equivalence to the relevant questions and therefore provide no control in the scientific sense. It would in fact require the existence of two similar crimes, both containing a serious accusation, with one having a known truthful response, so that the case at issue can be compared with it.¹⁴¹ Again the increase in physiological activity can be caused by reasons other than deception. Field studies show a high rate of false positive errors, with innocent suspects being classified as guilty. Most examinees are more concerned about the relevant questions as they relate to a particular serious crime, rather than about the general, non-specific control questions.¹⁴² It is also possible that a 'control question may have special significance to an examinee' not known to the examiner.¹⁴³ The American Psychological Association expresses serious concerns about the scientific basis of the CQT.¹⁴⁴

The method further lacks standardization and objectivity. The selection of the test questions during the pre-test interview depends on the particular case and especially on the examiner's 'intuition, and the relationship that forms between him and the examinee'.¹⁴⁵ By limiting the examiner's choice of questions some standardization can be achieved. Achieving standardization is however complicated 'because elements of the interaction are integral to creating the expectations and emotional states in the examinee that are said to be necessary for accurate comparison of responses to relevant and comparison questions'.¹⁴⁶ The evaluation of the charts is also subjective and moreover it involves the danger of 'contamination' which can lead to interpretation biases like the 'confirmation bias' where the evaluation is not only based on the measured physiological reactions.¹⁴⁷ The 'confirmation bias' refers to the situation where the examiner has certain expectations because of information he/she has necessarily obtained prior to the polygraph examination, such as the subject's criminal records or case facts, and this

¹⁴¹ Tredoux and Pooley, [2001] 22 *ILJ* 819 at 828; *Mallard v The Queen*, [2003] *WASCA* 296.

¹⁴² See Kleiner in Kleiner (ed), *op. cit.*, 128.

¹⁴³ *Mallard v The Queen*, [2003] *WASCA* 296.

¹⁴⁴ See Raskin and Honts in Kleiner (ed), *op. cit.*, 27.

¹⁴⁵ Ben-Shakhar in Kleiner (ed), *op. cit.*, 109.

¹⁴⁶ US National Research Council (2003), *op. cit.*, 91.

¹⁴⁷ Kleiner in Kleiner (ed), *op. cit.*, 127.

may affect the way in which the questions are presented to the examinee and the results are interpreted in order to support these expectations.¹⁴⁸ Consistent results cannot be achieved due to the lack of standardization. Therefore, the mentioned accuracy rates are merely an indicator but do not provide evidence of the accuracy of the CQT.¹⁴⁹

The CQT can be beaten.¹⁵⁰ Countermeasures lead to an increase of false negative errors. In order to beat the CQT, the subject must understand the principle on which the test is based and be able to identify the control questions in order to increase the responses to them. Countermeasures cannot reduce the reactions to the critical items.¹⁵¹

2.5.2 Scientific studies

Raskin and Honts reported nine laboratory experiments between 1978 and 1997.¹⁵² The studies show an average accuracy rate of 78 per cent of correct classification of guilty subjects and 82 per cent of innocent examinees. In 1983, the Office of Technology Assessment (OTA) of the United States Congress conducted a comprehensive review of laboratory experiments and concluded that there was not even elementary evidence to sustain the use of polygraph testing. The results show a classification of 64 per cent true positive and a mere 58 per cent true negative.¹⁵³

Compared to laboratory experiments, field studies on CQT show a higher detection rate of guilty suspects. However, they also indicate a high rate of false incrimination of innocent examinees. Raskin and Honts reported four different studies between 1988 and 1994.¹⁵⁴ According to the studies, the average accuracy rate of detection of deception is 89 per cent. The studies show a very low detection rate of innocent subjects of a mere 59 per cent, which is much lower than the rate indicated in the laboratory experiments. However, the research is based on a very small number of polygraph tests and some of the studies included test outcomes that

¹⁴⁸ Ben-Shakhar in Kleiner (ed), op. cit., 111.

¹⁴⁹ *Mallard v The Queen*, [2003] WASCA 296.

¹⁵⁰ See Ben-Shakhar in Kleiner (ed), op. cit., 114.

¹⁵¹ US National Research Council (2003), op. cit., 141.

¹⁵² Raskin and Honts in Kleiner (ed), op. cit., 29 (table 1.8).

¹⁵³ OTA, at www.fas.org/sgp/othergov/polygraph/ota/ (accessed on 2 March 2006).

¹⁵⁴ Raskin and Honts in Kleiner (ed), op. cit., 32 (table 1.9).

were confirmed merely by confession.¹⁵⁵ The OTA concluded after its assessment that the CQT correctly classified 86 per cent as deceptive and 76 per cent as truthful.¹⁵⁶ The high rate of false negatives speaks against the admissibility of exculpatory polygraph evidence as advocated by some German scholars.¹⁵⁷ Moreover, employers or examiners often argue that they conduct polygraph testing to show that the examinee is innocent.¹⁵⁸

Next we consider the MGQT and the ZCT. Both are modifications of the CQT and widely applied in South Africa.

2.5.3 Modified General Question Test

The MGQT is used for specific investigations as well as screening purposes. The examiner can ask multi-issue relevant questions. The test can be arranged as follows:

1. Irrelevant question (to get an initial response)
2. Sacrifice question (to absorb the impact of being suspected of a crime, it is not included in the chart evaluation): Are you going to tell me the truth today?
3. Control question: Did you ever steal anything in your life?
4. Relevant question: Did you tell the truth on your job application?
5. Control question: In the last five years did you steal any money from previous employers?
6. Relevant question: Did you graduate from a college?
7. Control question: Did you lie to any of the questions during the job interview?
8. Relevant question: Have you ever had your driver's licence suspended or revoked?

The MGQT is based on the same inherent limited theory as the CQT. There is also no clear difference between relevant and control questions. Therefore, innocent

¹⁵⁵ Iacono and Lykken, *op. cit.*, 608.

¹⁵⁶ See Kleiner in Kleiner (ed), *op. cit.*, 129 (table 5.1).

¹⁵⁷ For instance, Schwabe, 'Rechtsprobleme des "Lügendetektors"', *NJW* 1979, 576 at 580; Delvo, *Der Lügendetektor im Strafprozess der USA*, 215; Undeutsch, 'Die Untersuchung mit dem Polygraphen ("Lügendetektor") – eine wissenschaftliche Methode zum Nachweis der Unschuld', *FamRZ* 1996, 329 at 331; see also chapter five *infra*.

¹⁵⁸ See, for instance, Cape Argus: 'Polygraph examiner threatened to kick me', 21 November 2006.

examinees might be more concerned about the relevant questions, guilty examinees more about control questions.¹⁵⁹ The MGQT is not standardized and objective due to a vast variability in the pre-test interview, and it also lacks scientific evidence.¹⁶⁰

2.5.4 Zone Comparison Test

The application of the ZCT is restricted to investigations into specific crime or misconduct.

The test consists of three basic zones: the red zone (relevant questions), the green zone (probable-lie or comparison questions) and the black zone (outside issue). Outside issue questions refer for instance to any involvement in other crime. The ZCT can be set up as follows:

1. Irrelevant question: Is today Wednesday?
2. Sacrifice relevant: Regarding the issue at hand, do you intend to answer each question truthfully?
3. Symptomatic (outside issue): Do you trust me to ask you only what we have already discussed?
4. Control: Probable lie (1), about misconduct in the past
5. Relevant: Did you steal that laptop?
6. Control: Probable lie (2)
7. Relevant: Did you steal that laptop from A?
8. Symptomatic (outside issue): Afraid I will ask you something else even though I told you I would not?

The theory submits that each zone raises someone's concern and depending on the examinee, one particular zone is more threatening than the other two.¹⁶¹ There are only two relevant questions, which are basically identical. The comparison questions are too specific, increasing the risk of false positive errors. The outside issue

¹⁵⁹ OTA, chapter 2: Varieties of Polygraph Testing and Uses, at www.fas.org/sgp/othergov/polygraph/ota/varieties.html (accessed on 6 March 2006).

¹⁶⁰ Raskin and Honts in Kleiner (ed), op. cit., 10.

¹⁶¹ US National Research Council (2003), op. cit., 255.

questions have no considerable impact on the accuracy of the test. Further, it lacks the support of scientific research.¹⁶²

2.6 Guilty Knowledge Test

Finally, we consider the GKT and the Peak of Tension (POT). Both formats are similarly designed and can only be used for investigations into a specific incident. The GKT has the stronger theoretical foundation but lacks scientific evidence.

2.6.1 Theory and test administration

In the pre-test interview the examiner explains the testing procedure and discusses the test questions and alternatives. Several series or questions with one relevant, crime-related alternative and several neutral alternatives are composed. Typical GKT questions sequences may be, for instance:

1. Where did you kill A? Did you kill A in the
 - a) garden,
 - b) kitchen,
 - c) lounge, or
 - d) bedroom?

2. How much money did you take from B? Did you take
 - a) R 100,
 - b) R 2500,
 - c) R 700, or
 - d) R 50?

The more questions and alternatives that are included, the more accurate the technique.¹⁶³ Depending on the number of alternatives, a more accurate estimate of false positive errors can be given prior to the test provided that there is no leakage of relevant case details. The estimate of false negative errors is, however, much more complicated as the guilty suspect has to remember the relevant knowledge facts.¹⁶⁴ The examinee is asked to answer 'no' to each item and the series are repeated several

¹⁶² Raskin and Honts in Kleiner (ed), op. cit., 11 – 13.

¹⁶³ Ben-Shakhar and Elaad in Kleiner (ed), op. cit., 94.

¹⁶⁴ Iacono and Lykken, op. cit., 611.

times in different order.¹⁶⁵ His/her physiological activity is continuously recorded. The GKT requires that the person who designs the test questions knows the correct response to each item, but it must be unknown to all examinees except of course the perpetrator. The theory claims that guilty knowledge implies a consistently greater response to the crime-related alternative while innocent subjects show nearly the same response to all alternatives.¹⁶⁶

Compared to the other above-mentioned test formats, the GKT is based on a more plausible theory. The theory constitutes a 'cognitive approach' as it aims to detect the examinee's knowledge about a crime or misconduct rather than his/her emotions such as fear of deception.¹⁶⁷ However, simply guilty knowledge cannot cause changes in physiological responses. As with the other test formats, the guilty examinee must be concerned about the detection of relevant information and therefore lies in response to the correct item. Again, there may be reasons other than lying for the physiological reaction. Yet, depending on the number of items, the chance becomes minimal that an innocent person gives his/her strongest response to the correct item. The GKT can be further based on a standardized and objective procedure because the choice of alternatives does not depend on the pre-test interview with the examinee.¹⁶⁸ Alternatives can be formulated before the test and can be used for all suspects. A 'blind' examination can be realized as the examiner who conducts the actual test does not have to know the relevant alternative to each question. The interpretation of the results can be designed to be objective. However, it is difficult to formulate proper test questions due to the problem of identifying the relevant features of an event which, on the other hand, the guilty examinee must also remember. The guilty examinee must be able to remember details of the crime. It is furthermore not easy, although it is essential, to prevent leakage of the relevant aspects of the crime to the innocent suspects.¹⁶⁹ Leakage leads to false positive errors, meaning the innocent examinee responds more to the relevant items in about 50 per cent of the cases, according to studies.¹⁷⁰ The examinee must be provided with the opportunity to explain from where he/she obtained the information, for instance

¹⁶⁵ Kleiner in Kleiner (ed), op. cit., 139.

¹⁶⁶ US National Research Council (2003), op. cit., 35 and 70.

¹⁶⁷ Ben-Shakhar and Elaad in Kleiner (ed), op. cit., 89.

¹⁶⁸ Ibid. at 91.

¹⁶⁹ Ibid. at 93.

¹⁷⁰ See Honts and Amato in Kleiner (ed), op. cit., 259.

from the media. For the above-mentioned reasons it is, however, more difficult to conduct a GKT than a CQT, which extremely limits its field applicability. In fact it is believed that the GKT can be applied in only 13 to 18 per cent of all cases.¹⁷¹

Like CQT, the GKT can be easily beaten with the help of physical and mental countermeasures.¹⁷² It should be even easier for the guilty suspect to pass a GKT than a CQT examination because only one item is relevant while the others are neutral. The guilty suspect can identify without difficulty relevant and neutral alternatives due to his/her knowledge of the incident.

2.6.2 Scientific studies

In terms of empirical research, the GKT shows a high accuracy in laboratory experiments particularly in terms of the correct classification of truthful subjects. Studies suggest an accuracy rate ranging from 81 per cent of deceptive subjects to 98 per cent of truthful subjects.¹⁷³

There is however only minimal field research due to the GKT's limited applicability to real-life situations. Elaad reported two field studies in 1990 and 1992, which show a low detection rate of guilty suspects as opposed to the results of the laboratory experiments.¹⁷⁴ Only 47 per cent of them were correctly classified, which means no accuracy in the scientific sense. The reasons for this are the inherent difficulties in conducting a quality GKT examination and the GKT's very limited application.¹⁷⁵ On the other hand, 98 per cent of innocent examinees were correctly classified.

The GKT lacks scientific evidence but appears to provide better protection for innocent examinees. However, the GKT produces a high rate of false negative results. From the legal perspective, innocent suspects must be sufficiently protected but on the other hand, polygraph is actually used to detect deception.

¹⁷¹ Raskin, Honts and Kircher, *op. cit.*, 576; Ben-Shakhar and Elaad in Kleiner (ed), *op. cit.*, 93.

¹⁷² See chapter 2.3.4.5 *supra*.

¹⁷³ Raskin, Honts and Kircher, *op. cit.*, 573 (table 1); Ben-Shakhar and Elaad in Kleiner (ed), *op. cit.*, 87 – 88.

¹⁷⁴ See Raskin, Honts and Kircher, *op. cit.*, 575 (table 2); Elaad used merely two questions, which makes the studies not very representative although it was argued that even a single question can be sufficient if repeated several times in an examination.

¹⁷⁵ *Ibid.* at 576.

2.6.3 Peak of Tension

The POT, which is applied in South Africa, is similar to the GKT but here the questions are in an easily recognizable order. For instance, the examinee is asked: How much money did you take from A? Did you take a) R 100, b) R 200, c) R 300, or d) R 400? While GKT provides an alternative to CQT, the POT supplements the CQT or is used as an investigation tool.¹⁷⁶ It can only be applied to single-issue investigations.

There is the Known POT and the Searching POT. The former includes a series of similar type of questions with only one relevant question known to the examiner. The critical item is usually asked in the middle of the series. The theory submits that the physiological response of the guilty suspect increases as the correct number or card approaches in the question sequence and decreases when it has passed, similar to the simulation test.¹⁷⁷ The guilty examinee knows however exactly when the critical item is presented and therefore can apply countermeasures.

The Searching POT contains sets of questions wherein the relevant question is not known to the examiner. This format is used only as an investigation aid to identify suspects or accomplices and to locate evidence.¹⁷⁸

2.7 Polygraph testing in employment

After considering general aspects of the individual questioning techniques, we now look at their applicability to the employment context. This section also deals with the empirical research on the validity of polygraph testing in the employment context. Most studies however focus on criminal cases.

Polygraph testing is administered for different purposes in the workplace. The polygraph test is used for employment and pre-employment or pre-clearance screening as well as for investigating specific crime or misconduct in the workplace. The test provides information that is not available from other sources such as interviews or curriculum vitae. Then the interviewer will focus on certain issues in post-test questioning. Apparently applicants are more honest in the application

¹⁷⁶ OTA at www.fas.org/sgp/othergov/polygraph/ota/varieties.htm (accessed on 26 August 2005).

¹⁷⁷ US National Research Council (2003), *op. cit.*, 258; see chapter 2.2 *supra*.

¹⁷⁸ *Ibid.*

process if they face a polygraph test, which is again an indication of its usefulness but not its accuracy.

The GKT can only be used for event-related investigations. It cannot, therefore, be used in employment and pre-employment screening because in order to conduct a GKT examination, it is essential that the examiner has detailed knowledge of a specific incident.¹⁷⁹ Despite its naive theory and weak scientific foundation, the RIT is used in employment and pre-employment screening because it is structured as event-free. The responses to the different relevant questions are compared instead of comparing the physiological activity to relevant and irrelevant questions. For instance, a larger response to a question about theft is used as an indication of deception, although there is no control provided.¹⁸⁰ The CQT is used for both specific investigations and screening.

The accuracy of polygraph testing when used in the workplace must be individually researched due to the differences between the employment and criminal contexts.

2.7.1 Specific incident

Polygraph testing is used as part of an employer's investigation into a specific crime or misconduct that has occurred in the workplace. Therefore, results obtained from the research on criminal cases may only apply to specific incidents in the workplace where the event-related CQT is used. However, these studies have shown a high rate of misclassification of innocent suspects.

2.7.2 Employment screening

The findings from the research on criminal cases do not, however, apply to employment screening because of two different situations. Hereby the CQT is also event-free used. The polygraph testing for screening purposes is a multiple-issue examination to reveal any undetected crime or misconduct. Issues such as drug use, job satisfaction and commitment might be investigated. There is no specific event being investigated of which the examiner knows. Therefore the relevant questions must be more general in scope.¹⁸¹ Relevant questions may be for instance: 'Are you

¹⁷⁹ See chapter 2.6.1 supra.

¹⁸⁰ Iacono and Lykken, *op. cit.*, 584.

¹⁸¹ Krapohl in Kleiner (ed), *op. cit.*, 218.

relatively satisfied with this job now?', 'Do you intend to stay with this employer?' or 'Is there a particular person at the store that is responsible for damaging merchandise?' The relevant questions, which 'do not refer to specific past events, are more similar to comparison questions than are the relevant questions that can be asked in an event-specific investigation ... it is inherently more difficult to discriminate deception from truthfulness'.¹⁸² It is also possible that the examinee is hesitant about his/her personal guilt or innocence due to the control questions' wide range of behaviour.¹⁸³ It is further assumed that questions about specific described events cause more intensive physiological reaction than general formulated questions. In terms of the latter, the psychological difference between relevant and control questions is smaller.¹⁸⁴ A less intensive reaction, however, also implies a lower accuracy. Finally, a lack of standardization was also evident as there was 'no indication of a clear and stable agreement on criteria for judging answers to security screening polygraph questions in any agency using them'.¹⁸⁵

2.7.3 Pre-employment screening

Pre-employment screening becomes even more complicated because polygraph testing involves 'inferences about future behavior on the basis of information about past behavior'.¹⁸⁶ Here the CQT is event-free used to reveal any dishonest behavioural tendencies. Relevant questions may be for instance 'Did you tell the complete truth on your job application?', 'Have you withheld information from your job application?', 'Have you ever been fired from a job?', 'Are you seeking a permanent position with this company?', 'Did you graduate from college?', 'In the last five years did you steal any money from previous employers?', 'In the last five years did you take part in or commit any serious crime?' or 'Have you ever had your driver's licence suspended or revoked?' However, polygraph testing cannot predict future behaviour, assess attitudes, or determine suitability.¹⁸⁷ It can only provide some information about previous behaviour, which is quite different in kind. The problem with the CQT in this context lies in the composition of adequate control

¹⁸² US National Research Council (2003), *op. cit.*, 23.

¹⁸³ *Ibid.* at 130.

¹⁸⁴ *Ibid.* at 80.

¹⁸⁵ *Ibid.* at 2.

¹⁸⁶ *Ibid.*

¹⁸⁷ Krapohl in Kleiner (ed), *op. cit.*, 222.

questions. In order to detect general dishonesty 'enhanced physiological reactions to the typical control question are now taken as an indication of deception ... but to make such inferences, one must compare the responses to those new relevant questions with the responses to equivalent control questions'.¹⁸⁸ These new control or comparison questions must however relate to other hypothetical crimes of similar importance.

Pre-employment screening typically has a very low base rate, meaning that only a few people with criminal tendencies apply for a job where a polygraph test is requested as part of the recruitment procedure. The vast majority would normally be honest applicants. Consequently, the error rate would be very low, even if all deceptive applicants were employed. Say, for example, there are 1000 job applicants and 10 of them are liars: the error rate is only 1 per cent.¹⁸⁹ A polygraph test must therefore be 100 per cent accurate to achieve an even better result. Yet, it is not and any validity rate less than 100 per cent would be less accurate than the hiring decision. Usually there are, however, more applicants than job positions available. Therefore, the management will rather choose not to employ an applicant who is wrongly classified as a liar than employ someone who was not identified as dishonest. The employer rather tolerates 'false positives to minimize false negatives' due to lower costs.¹⁹⁰ It is assumed that the base rate is somewhat higher in South Africa where a large number of applicants misrepresent themselves on their job applications.¹⁹¹

2.7.4 Scientific research

Polygraph testing for screening purposes was probably used for the first time by a bank in Chicago in 1931 in connection with unresolved thefts in the workplace. The RIT format was applied.¹⁹²

The accuracy rate varies according to the purpose of a particular test because the criteria for assessing validity are different in each case. In terms of specific investigations, the relevant issue is easy to define. If the polygraph is used for

¹⁸⁸ Ben-Shakhar in Kleiner (ed), op. cit., 121.

¹⁸⁹ Krapohl in Kleiner (ed), op. cit., 229.

¹⁹⁰ Ibid. at 231.

¹⁹¹ See chapter six infra.

¹⁹² Krapohl in Kleiner (ed), op. cit., 219.

employment screening there is usually a large variety of events that can be relevant to the test. Pre-employment screening is conducted in order to predict future tendencies of an employee. In order to assess the polygraph's accuracy, one needs to include cases where the applicants passed the test, but later during the course of employment they committed a crime or misconduct, and vice versa. However, job applicants who failed the test and appear to show negative tendencies, are not employed. Thus pre-employment screening has the problem of sampling bias and it also lacks an independent criterion of truth. The decision of the employer does not verify the test outcome; it is merely the consequence of it. Yet, one must distinguish between the validity and the utility of the polygraph, and the latter does not provide evidence of the former.¹⁹³

In the employment context polygraph testing can have a deterrent effect. For instance, dishonest people are likely not to apply for a position that requires them to undergo a polygraph test. Current employees who fear the adverse consequences of a negative test outcome will choose to resign rather than submit to an examination. The deterrent effect only relates to utility. The same was also already said for the use of polygraph to elicit confessions from the employee. Both cases do not contribute to the validity of the test and therefore cannot be used to assess the accuracy of polygraph testing as they merely relate to 'people's beliefs about validity'.¹⁹⁴

It becomes evident that the administration of adequate field studies is highly complicated. The empirical research on employment screening is indeed very weak.¹⁹⁵ Most of the studies refer to event-specific examinations. In terms of polygraph screening, the available research consists mainly of laboratory experiments using the RIT format and a small number of examinees. However, laboratory studies typically show a narrow range of issues as a matter of methodology although a wide range of issues actually characterizes employment screening.¹⁹⁶ Hence, they rather analyze specific events and therefore do not have much external validity. The accuracy rates of laboratory experiments vary between 30 and 100 per cent of true positives and between 41 and 100 per cent of true

¹⁹³ See chapter 2.3.4.1 *supra*.

¹⁹⁴ US National Research Council (2003), *op. cit.*, 57.

¹⁹⁵ Krapohl in Kleiner (ed), *op. cit.*, 218, 222, 227.

¹⁹⁶ US National Research Council (2003), *op. cit.*, 132; The Council concluded that the studies are biased because they ignored mostly true positives and false positive errors.

negatives.¹⁹⁷ Only one field study on pre-employment screening has been conducted so far. However, the studied cases used the invalid RIT format.¹⁹⁸ The results indicate a low accuracy rate of 66 per cent of deceptive examinees and 76 per cent of innocent subjects.

The accuracy rate varies according to the purpose of the test because of the great uncertainty for the examinee arising from screening testing as opposed to specific-event examination.¹⁹⁹ Examinations for screening purposes are therefore less accurate than tests conducted in connection with a specific crime or misconduct in the workplace. However, no proper research exists to show the validity of polygraph testing used for employment screening.

2.8 Conclusion

The chapter has illustrated that existing studies cannot show how well the polygraph works, and that its accuracy is over-estimated.

Research rather focuses on the application of polygraph testing and its ability to distinguish between truth and lie than on the basic science itself, which deals with the processes underlying the physiological responses, the variety of variables, or mechanisms linked to deception. To a great extent polygraph research has even ignored the major advances in psychology, physiology, and measurement that could probably also improve the validity of polygraph testing and strengthen its underlying theory.²⁰⁰ Polygraph testing lacks an adequate theoretical and scientific foundation. There is no specific lie response. It is upon the individual examiner to interpret the test results in order to determine why the examinee was breathing harder, why his/her pulse rate increased and why sweating increased. If a technique is not standardized, it is not possible to state its accuracy in general terms. Even if polygraph technique and interpretation were to improve in the future, the validity will not increase significantly due to inherent limits. Accuracy is confounded habitually with utility, for example, in cases where the test is used to elicit a confession from the subject. There is no doubt that polygraph tests have a great

¹⁹⁷ See Krapohl in Kleiner (ed), op. cit., 228 (table 7.3).

¹⁹⁸ See US National Research Council (2003), op. cit., 131; Krapohl in Kleiner (ed), op. cit., 228 (table 7.3).

¹⁹⁹ US National Research Council (2003), op. cit., 4.

²⁰⁰ Ibid. at 92.

utility in criminal and civil cases, but this leads to people overestimating their accuracy.

Research is mostly limited to the accuracy of polygraph testing but should be extended to the critical issues that may influence the accuracy such as sleeplessness, the effect of drug use, individual differences between the examiners in the ways they conduct tests, certain expectation of examiners and examinees, or stigma. There is minimal research on countermeasures in the form of laboratory studies. Representative research on reliability does not exist. The concepts of reliability and validity are often confused with each other. Most research literature is biased.

Laboratory experiments do not provide scientific evidence of their probative value in a court case due to the different, non-realist situation. Laboratory studies tend to overestimate accuracy as laboratory conditions vary little. There is a lack of high-quality field research. As far as the field studies are concerned it is methodically naive to state an accuracy rate because of the absence of an adequate validity criterion.

There is little research on the validity of polygraphs in the context of employment and pre-employment screening. Most of the studies involve event-specific tests. The screening situation is however quite different to that of crime-specific investigations, so the research results of the latter cannot be used to determine the validity of the former. Polygraph screening appears to be less accurate than specific-event testing. Pre-employment screening further suffers inherently from sampling bias and the lack of an external criterion of truth, as far as innocent job applicants that did not pass the test are concerned. There is no valid and adequate test format that can be used in employment and pre-employment screening as there is no specific incident under investigation. Both CQT and GKT are structured to be event-related. The event-free RIT is generally seen to be scientifically invalid, yet it is applied in the employment context.

As far as CQT is concerned, it is not based on a sound theory, is not standardized, subjective, and susceptible to 'contamination', shows a high risk of false positive errors, and does not have empirical proof of its reliability or validity. The GKT is based on a more plausible assumption and it can be conducted in a

standardized and objective manner. However, due to its very limited applicability, the GKT is not sufficiently researched yet.

Computerized polygraph systems have not resulted in any considerable improvement. Studies have shown that a computerized evaluation is not much more accurate than an ordinary numerical evaluation. Even a computerized interpretation is not completely objective, since the computer input requires data that is collected by the examiner. The CQT also entails a personal interaction between the examiner and the examinee in the pre-test interview in order to find suitable test questions. The computer cannot detect physical countermeasures.

In addition, accuracy must be determined for each individual test result. In this regard, the court must assess comprehensive and time-consuming supplementary issues such as the qualifications of the examiner, the administration of the test, as well as the evaluation of the polygraph charts. In addition, the results require other conclusive corroborating evidence.

Therefore, the polygraph's inherent limitations need to be appreciated, and it should not be used in the workplace. The test outcome should not be admissible evidence in court and, in particular, in CCMA proceedings.

In the following chapter we look at international labour standards, before considering the individual jurisdictions of the USA, Germany and South Africa.

CHAPTER THREE: INTERNATIONAL LABOUR STANDARDS

Polygraphs, truth-verification equipment or any other similar testing procedure should not be used.¹

3.1 Introduction

Chapter two examined the empirical research on polygraph testing. The chapter showed that the theory underlying polygraph testing is severely flawed. It further showed that there is no empirical evidence to show how accurate the polygraph is particularly when used in the employment environment, and that in South Africa a great number of practising polygraph examiners are not in fact adequately qualified.

Chapter three considers the legitimacy of polygraph testing in terms of international labour law. In this regard, the chapter examines whether the relevant international standards have an obligatory effect on South Africa and how these provisions are implemented in the national legislation. South Africa's compliance with international labour law in terms of polygraph testing is the subject of chapter six.

Why do we have international labour standards? International labour standards are established at the international level and serve as benchmarks in comparative law. They also help to adapt national labour legislation even in countries which have not ratified them, and help to provide fair work conditions, particularly in developing countries.² Furthermore, international labour standards have an impact on national policies and judicial decisions. In South Africa, international law plays a particularly significant role. Courts, tribunals and forums must consider international law when interpreting the Constitution and employment law.³ The current South African employment legislation takes cognizance of ILO ideals, probably more so than any other legislation enacted in other jurisdictions in the last two decades.

¹ Clause 6.10 of the ILO Code of Practice on the protection of workers' personal data of 1997.

² Valticos, *International Labour Law*, 17; Servais, *International Labour Law*, 19.

³ Section 39(1) of the South African Constitution, sections 1 and 3 of the Labour Relations Act 66 of 1995, section 3(d) of the Employment Equity Act 55 of 1998.

There are various sources of international labour law with different legal characteristics. Some instruments are legally binding upon ratification while others merely guide national action. The Conventions and Recommendations of the International Labour Organization (ILO) are considered 'the main source of international labour law'.⁴ This chapter therefore focuses on the labour standards adopted by the ILO. The ILO has various detailed instruments such as its constitution, conventions, recommendations, declarations, and resolutions. The chapter analyzes the Discrimination (Employment and Occupation) Convention 111 of 1958 in order to find out whether the use of polygraph testing in the workplace constitutes unfair discrimination under the Convention. We then look at the Termination of Employment Convention 158 of 1982, which protects employees against unfair dismissal. Is it fair in terms of the Convention to dismiss an employee because he/she has failed a polygraph test or has refused to undergo an examination? Finally, in terms of the ILO, the Code of Practice on the protection of workers' personal data of 1997 deals with data collection in terms of employment and contains a specific provision on polygraph testing. Public employment is also included in this chapter.

Other organizations such as the United Nations Organization (UN), the African Union (AU), the Council of Europe, and the European Union (EU) have also adopted legislation to prohibit unfair discrimination,⁵ ensure fair dismissals⁶ and to protect employees' personal data.⁷ South Africa joined the UN in 1945 and is also a member of the AU. The instruments established by regional institutions supplement the universal international standards, but do not replace them.⁸ They deal with labour issues in a more general sense and in terms of human rights, and therefore are not discussed in this chapter.

⁴ Servais, op. cit., 63; Valticos, op. cit., 43.

⁵ Article 7 of the 1948 Universal Declaration of Human Rights; Article 26 of the 1966 Covenant on Civil and Political Rights; Regional instruments: Articles 2 and 3 of the 1981 African Charter on Human and People's Rights; Article 14 of the 1950 European Convention on Human Rights; Article 4(3) of the 1961 European Social Charter (ESC); Article 1 of the European Union Council Directive 2000/78/EC; Article 24 of the 1969 American Convention on Human Rights and Articles 3 and 7(a) of the 1988 Additional Protocol to the American Convention on Human Rights. For more information, see Waas, *The Legal Consequence of Discrimination against Workers in Germany, the European Union and the Council of Europe*, 63 - 146.

⁶ Article 24 of the ESC.

⁷ For instance, the Council of Europe adopted the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data in 1981.

⁸ Valticos, op. cit., 49.

The chapter will further examine the extent to which job applicants are protected by international labour law. This is relevant as in South Africa an increasing number of prospective employees are subjected to polygraph tests as part of the pre-employment screening procedure.

3.2 International Labour Organization

This section examines the labour standards adopted by the ILO, which are relevant to polygraph testing in employment. The ILO is briefly introduced, and general aspects, such as the legal character of the different instruments, are discussed, before dealing with the pertinent instruments in detail.

3.2.1 General aspects

The ILO, founded in 1919, is the specialized agency of the UN for labour and social issues. The ILO seeks to promote social justice as well as internationally recognized human and labour rights.

In terms of its constitution, the ILO is primarily a legislative institution. At the International Labour Conference held once a year, member states draft, discuss and adopt Conventions and Recommendations. The ILO is 'obliged to provide minimum working and living standards with the assistance of internationally applicable provisions, further to provide social security to all employees as well as to protect fundamental human rights worldwide'.⁹ The ILO Conventions and Recommendations constitute the 'the main source of international labour law' because of their number, comprehensive character and broad scope.¹⁰

The ILO does not only establish international labour standards, it also monitors their application in order to promote the fundamental rights of all workers. According to article 405 of the Treaty of Versailles, the national law of the member state must conform to the ILO standards that the member state has ratified and therefore may not be less favourable to employees than the Convention.

⁹ Däubler, Kittner and Lörcher, *Internationale Arbeits- und Sozialordnung*, 183.

¹⁰ Servais, *op. cit.*, 63; Valticos, *op. cit.*, 43.

South Africa was a member of the ILO from 1919 to 1966 and rejoined the ILO in 1994.¹¹ South Africa has not ratified all ILO conventions. The Discrimination Convention 111 of 1958, which is relevant for this study, has however been ratified. The ILO identified the Discrimination Convention as a fundamental human rights convention.

The ILO guarantees basic labour rights such as freedom of association, the right to organize, collective bargaining, abolition of forced labour, equality of opportunity and treatment, and other standards regulating conditions across the entire spectrum of work-related issues. ILO instruments generally do not define the term 'worker' and therefore leave the definition to the national action of the member states.¹²

The legal character of the individual instruments differs. Conventions are legally binding international treaties, but as a general rule do not automatically bind the member states.¹³ The binding effect only comes with the ratification in terms of which the member state agrees to implement the convention. A convention normally comes into force one year after requisite ratifications have been registered.¹⁴ The ratifying member state needs to adapt its legislation in terms of the convention as well as submit annual reports on the implementation process to the ILO. Recommendations are not binding and are not subject to ratification but involve procedural obligations.¹⁵ They provide social and labour law guidelines and suggestions for national governmental policy, legislation and administration. Recommendations often supplement conventions. They provide more detail to the more general conventions or even go beyond the minimum requirements of a convention.¹⁶

The ILO also adopts codes of practices to reduce the amount of legislative text.¹⁷ A code seeks to maximize flexibility by avoiding binding prescription. A code contains guidelines instead and does not replace national law or international standards.¹⁸ It provides employers and employees with the basis for rules to be

¹¹ ILO, at www.ilo.org/ilolex/english/mstatese.htm (accessed on 29 September 2006).

¹² Union Network International: *Protection of workers' Personal Data - ILO Code*, at www.union-network.org/uniibits.nsf/0/ccd3dd0117d23f3dc1256bd700487482?OpenDocument (accessed on 30 September 2006).

¹³ Valticos, *op. cit.*, 44.

¹⁴ Däubler, Kittner and Lörcher, *op. cit.*, 183.

¹⁵ Valticos, *op. cit.*, 44.

¹⁶ Däubler, Kittner and Lörcher, *op. cit.*, 184.

¹⁷ Servais, *op. cit.*, 98.

¹⁸ See ILO Code of Practice on the protection of workers' personal data of 1997, purpose in clause 2.

designed by them so that they can ‘shape the code according to their own expectations and needs.’¹⁹

The ILO further provides technical assistance primarily in the fields of vocational training and vocational rehabilitation, employment policy, labour administration, labour law and industrial relations, working conditions, management development, cooperatives, social security, labour statistics and occupational safety and health. The ILO also promotes the development of independent employers’ and employees’ organizations and provides training and advisory services to those organizations. Within the UN system, the ILO has a unique tripartite structure, with workers’ and employers’ organizations participating as equal partners with government representatives in the work of its governing organs.

3.2.2 Discrimination Convention 111 of 1958

The ILO declared workers’ right to non-discrimination in employment and occupation as one of the four core international labour standards, which are ‘fundamental to the rights of human beings at work’.²⁰ In its Constitution of 1919, the ILO recognized ‘the principle of ensuring opportunities for development and equitable economic treatment for all.’²¹ The principle of non-discrimination was further established in the Declaration of Philadelphia of 1944, which provides equal opportunity in work and education and vocational training for all people ‘*irrespective of race, creed, or sex*’. The ILO subsequently adopted more specific regulations on discrimination such as the Discrimination (Employment and Occupation) Convention 111 of 1958.

The focus of this section is on the Discrimination Convention.²² South Africa ratified the Discrimination Convention in 1997 and adopted various relevant laws.

¹⁹ Commentary on the Code, at www.ilo.org/public/english/protection/condtrav/pdf/wc-code-97.pdf, 9 (accessed on 02 November 2006).

²⁰ US National Research Council (2004), *Monitoring International Labor Standards: Techniques and Sources of Information*, 17.

²¹ 1996 ILO Committee of Experts General Survey on Equality in Employment and Occupation (Introduction) at www.ilo.org/ilolex/english/iloquery.htm (accessed on 06 October 2006).

²² The Convention came into force on 15 June 1960 and is supplemented by the Recommendation 111 of 1958.

3.2.2.1 Definition of unfair discrimination

This section first considers how unfair discrimination is defined before it examines whether an employer's disciplinary action based on the outcome of a polygraph test or on the employee's refusal to submit to a test constitutes unfair discrimination under the Convention.

During the course of employment, the employer must ensure fair selection procedures when considering certain employees for action such as promotion, demotion, transfer, or dismissal. Job applicants must undergo a fair recruitment procedure. Fairness is particularly crucial in the latter case when candidates are requested to submit to testing and are selected for employment or rejected according to the outcome of such a test.

Generally speaking, discrimination means to differentiate or to treat a person differently but it does not necessarily constitute *unfair* discrimination.²³ It amounts to unfair treatment if a person is treated less favourably on one of the grounds listed in the Convention itself or specified by national law. The Convention itself defines discrimination in article 1(1)(a) as '*any distinction, exclusion or preference made on the basis of race, colour, sex, religion, political opinion, national extraction or social origin, which has the effect of nullifying or impairing equality of opportunity or treatment in employment or occupation*'. The Convention does not exclude any kind of employment or occupation, and therefore it applies to both private and public employment. The list of grounds is not exhaustive and in terms of article 1(1)(b) of the Convention, the member states may also address discrimination on additional grounds. Discrimination on any of the listed grounds is *prima facie* unfair. If differentiation took place on any other ground, the employee must show unfair discrimination.²⁴ Discrimination can be direct and indirect, as for instance explicitly provided in section 6(1) of South Africa's Employment Equity Act 55 of 1998 (EEA).²⁵ Direct discrimination means that an explicit preference or exclusion is given, while in the case of indirect discrimination, a differentiation criterion appears to be

²³ Du Toit et al, *Labour Relations Law*, 577.

²⁴ Dupper et al, *Essential Employment Discrimination Law*, 58.

²⁵ Section 6(1) of the EEA reads as follows: '*No person may unfairly discriminate, directly or indirectly, against an employee, in any employment policy or practice, on one or more grounds, including race, gender, sex, pregnancy, marital status, family responsibility, ethnic or social origin, colour, sexual orientation, age, disability, religion, HIV status, conscience, belief, political opinion, culture, language and birth.*'

neutral, but has a discriminatory effect on a certain group or category and is irrelevant to the job.²⁶

Section 9(4) of the South African Constitution explicitly provides that persons may not be unfairly discriminated against on '*grounds including race, gender, sex, pregnancy, marital status, ethnic or social origin, colour, sexual orientation, age, disability, religion, conscience, belief, culture, language and birth*'. Further, the Constitution provides for '*the right to fair labour practices*' in section 23(1). Chapter VIII of the South African Labour Relations Act 66 of 1995 (LRA) prohibits unfair dismissal and unfair labour practices. In terms of section 187(1)(f) of the LRA, if the reason for dismissal was unfair discrimination, then the dismissal is automatically unfair. Unfair discrimination was addressed in item 2 of schedule 7 of the LRA, and this item broadly prohibited discrimination '*on any arbitrary ground including, but not limited*' to the grounds listed. This provision was replaced by the EEA. Section 2 of the EEA states that the purpose of the Act is to eliminate unfair discrimination '*by promoting equal opportunity and fair treatment in employment*'. Section 6(1) of the EEA is similar to article 1(1)(a) of the Convention but defines more explicit grounds for unfair discrimination. Furthermore, the Promotion of Equality and Prevention of Unfair Discrimination Act 4 of 2000 covers a wide range of practices and sectors, including employment, and applies to areas which are not regulated by the EEA.

The Convention requires '*equality of opportunity or treatment in employment*', which entails fairness in terms of an employee's selection for purposes of promotion, demotion, or transfer. The employer may decide which qualifications and requirements are needed to hire, transfer or promote a person but may not discriminate against others. Section 6(1) of the EEA prohibits unfair discrimination '*in any employment policy or practice*', which includes, according to section 1 of the EEA, '*recruitment procedures, advertising and selecting criteria*', '*appointments and the appointment process*', '*performance evaluation systems*', '*promotion*', '*transfer*', '*demotion*', and '*disciplinary measures other than dismissal*'. In this regard, the employee must demonstrate that his/her selection or non-selection was the result of unfair discrimination. Performance evaluation systems might include pre-employment and employment polygraph screening, which are conducted to determine whether a

²⁶ Tomei, Discrimination and equality at work: A review of the concepts, *International Labour Review*, Vol. 142 [2003] No. 4, 401 at 402 – 403.

person is generally truthful. In terms of promotion, the employee must show that he/she was not selected due to unfair failure or refusal to promote, and that the employees who were appointed were given preference on irrelevant criteria and not related to their qualifications and experience.²⁷ Demotion is not allowed under the common law without the employee's consent, except for some instances, such as demotion 'as a disciplinary penalty imposed for a valid reason and after a fair procedure'.²⁸ Transfer can amount to constructive dismissal unless it brings little or no inconvenience.²⁹

In article 1(3), the Convention includes '*access to employment*' in the definition of '*employment*'. Hence, job applicants are protected against discrimination as well. Although it is in the employer's discretion to employ whom he/she wants to employ, the employer may not discriminate and courts may consider whether the job applicants underwent a fair recruitment procedure. Applicants may challenge their non-selection and claim that the employer failed to select or consider them for appointment because of unfair discrimination.³⁰ Section 1 of the EEA defines '*employment policy or practice*' to include '*recruitment procedures, advertising and selection criteria*'. The qualifications required for certain jobs, must correspond to the objective characteristics of those jobs and be in proportion to those specific characteristics.³¹ In terms of pre-employment testing, it is required that the test indeed helps in assessing whether the candidate is suitable for the job.³² The LRA does not apply to job applicants. They are however included in the scope of EEA in terms of unfair discrimination according to section 9. Hence, unfair discrimination is prohibited under section 6 of the EEA.

Not every '*distinction, exclusion or preference*' constitutes unfair discrimination under the Convention. According to article 1(2), it is not discrimination to differentiate '*on the inherent requirements*' of a particular job. The phrase '*inherent*' indicates that the possession of a specific personal characteristic must be essential for the performance of a job, and so the very nature of the job requires differentiation. The term '*inherent*' refers to a particular job and hence may not apply to an entire

²⁷ Grogan, *Workplace Law*, 264.

²⁸ Ibid.

²⁹ Ibid. at 277.

³⁰ Du Toit et al, *op. cit.*, 576.

³¹ Servais, *op. cit.*, 148.

³² Du Toit et al, *op. cit.*, 577.

sector of employment.³³ Article 4 of the Convention refers to measures which relate to activities prejudicial to the security of the State. The provision prevents discrimination claims from persons who were convicted or suspected for acts undermining state security and therefore may not work in certain employment or occupation.³⁴ Article 4 is therefore not relevant in this context. Article 5 of the Convention states that measures which provide special protection or assistance to certain categories of persons are not deemed to be discrimination. Other ILO instruments or national legislation determines the protection of certain groups of people. For instance, in terms of section 6(2)(a) of the EEA, affirmative action does not constitute unfair discrimination. Article 5 therefore allows discrimination that is in favour of the employee and does not serve the interests of the employer.

3.2.2.2 Equality in terms of polygraph testing

This section examines whether different treatment based on the outcome of a polygraph test constitutes unfair discrimination under the Convention. None of the seven grounds listed in article 1(1)(a) of the Convention applies directly to polygraph testing. The provision refers to personal characteristics of a person, which are deemed irrelevant to the job. The catalogue in article 1(1)(a) is not exhaustive and where different treatment took place on any other than the listed reasons, in particular on polygraph test results, it is upon the employee to demonstrate unfair discrimination. In terms of the repealed item 2(1)(a) of schedule 7 of the LRA, but not included in the wording of section 6(1) of the EEA, any 'arbitrary' decision of an employer could amount to unfair discrimination.³⁵ In this regard, South Africa's Constitutional Court as well as the Labour Courts took a different approach and held that 'there will be discrimination on an unspecified ground if it is based on attributes and characteristics which impair the fundamental dignity of persons as human beings or affects them adversely in a comparable way' to the listed grounds.³⁶ Thus, the mere unreasonable

³³ Nielsen, 'The Concept of Discrimination in ILO Convention No.111', *The International and Comparative Law Quarterly*, Vol. 43, No. 4 (Oct. 1994), 827 at 846.

³⁴ 1996 ILO Committee of Experts General Survey on Equality in Employment and Occupation: Measures not deemed to be discrimination, at www.ilo.org/ilolex/english/iloquery.htm (accessed on 21 October 2006).

³⁵ Except for automatically unfair dismissals in terms of section 187(1)(f) of the LRA, which requires in this regard 'that the employer unfairly discriminated against an employee, directly or indirectly, on any arbitrary ground, including, but not limited to' the listed grounds.

³⁶ *Harksen v Lane*, 1998 (1) SA 300 at 322 (CC); *Ntai & Others v SA Breweries Ltd*, [2001] 22 ILJ 214 at 227 (LC).

actions of an employer do not constitute discrimination. The employee must show the existence of a 'close link, based on dignity, between the two groups of grounds' and must also show that the differentiation on the unlisted ground was unfair.³⁷

The exclusion of an employee or applicant based on his/her criminal record can amount to unfair discrimination.³⁸ Current or prospective employees are not obliged to mention previous convictions and an employer may not ask about them. This follows from the employee's right to privacy. Questions about previous crimes are only admissible if a specific crime is relevant to a particular job.³⁹ For instance, where an individual is employed as a driver, the employer may ask about previous drunk driving convictions. The questions at a polygraph test are similar to those questions asked in the ordinary job interview. In terms of pre-employment and employment screening, the polygraph test is conducted to reveal a person's criminal activities or work-related misconduct committed prior to the current employment, in order to detect those candidates who are likely to commit crimes during the course of employment. Previous behaviour or misconduct is examined in order to predict future tendencies. If the test was carried out on current employees, it is likely that the employer then conduct further investigations into the crime or misconduct indicated in the polygraph test. As far as job applicants are concerned, it is improbable that persons who have failed a polygraph test will be employed, because they will probably be a risk to the business. In polygraph employment screening, the test questions are designed event-free and therefore cover different types of crime, of which some are not related to the current job position. The employer may not ask questions in a polygraph test which would not be admissible in a job interview. The employee may refuse to answer without fearing adverse disciplinary action and further is not obliged to give truthful answers to questions which the employer may not ask.⁴⁰ In terms of event-related polygraph testing, for instance by using the CQT, the control questions refer to a criminal behaviour in the examinee's past, which is similar to the relevant current issue. Again, the employer must demonstrate a sufficient interest in the questioning about previously committed crime or misconduct.

³⁷ Dupper et al, *op. cit.*, 65.

³⁸ 1996 ILO Committee of Experts General Survey on Equality in Employment and Occupation: Scope of the instruments as regards individuals, definition and grounds of discrimination, at www.ilo.org/ilolex/english/iloquery.htm (accessed on 21 October 2006).

³⁹ Halbach et al, *Labour Law in Germany*, 49.

⁴⁰ *Ibid.* at 49.

According to article 1(1)(b), member states may specify grounds in addition to those specified in the Convention. South Africa has included additional grounds in the EEA, particularly in chapter two, which addresses unfair discrimination. According to section 3(d), the EEA must be read together with the Convention. Section 6(1) of the EEA lists additional grounds upon which an employer may not discriminate against an employee or applicant. The EEA further requires equal treatment in terms of employee testing. In this regard, the statute protects both current employees and job applicants against unfair discrimination.⁴¹

At an international level, 'medical and psychological testing have long been contentious because of their potential' for indirect unfair discrimination through the imposition of unjustifiable or unreasonable requirements on employees or job applicants.⁴² For instance, when employment is denied because of pre-employment testing, the testing must be job-related or relevant to the job, in particular the 'applicant's ability to do the job or to the requirements of the effective performance of the job'.⁴³ Some jurisdictions have adopted provisions to protect employees against discrimination, for example, the USA where pre-employment medical testing of disabled applicants is prohibited.⁴⁴ In Germany, medical examinations may be administered only if the law requires them, for instance, in the food sector in terms of section 18 of the Federal Epidemics Control Act. Comprehensive personality tests are not permitted. Testing requires a person's explicit consent and must be restricted to the scope and demands of the particular job.⁴⁵

The EEA does not only protect certain categories of people, it prohibits any form of unfair testing. In particular, the EEA prohibits testing of an employee in order to determine his/her HIV status, and restricts any other medical testing (section 7) and psychological testing (section 8). Section 8 of the EEA and its application to polygraph testing will be examined in chapter six, which deals with South African employment law. For the purposes of this chapter, section 8 of the EEA does however indicate the general requirements of fair employee testing. The section provides that a test must be scientifically '*valid and reliable*' and '*can be applied fairly to employees*'

⁴¹ Section 9 of the EEA.

⁴² Du Toit et al, op. cit., 619.

⁴³ Van Niekerk, 'Discrimination in selection and recruitment: An applicant's right to equality of treatment', [1995] Vol. 4 No. 10 *CLL*, 105 at 111.

⁴⁴ Americans with Disability Act of 1990 (42 USC 12112).

⁴⁵ Halbach et al, op. cit., 50.

and *'is not biased against any employee or group'*. Section 11 of the EEA requires that the employer must demonstrate that the applied testing meets all requirements and that it was fair.

As discussed in the previous chapter, there is no empirical evidence to show that polygraph testing is accurate and reliable, particularly in the employment-screening context. Chapter two also illustrated that polygraph testing lacks standardization and objectivity. Section 8 of the EEA requires that a scientific method must produce consistent results throughout different situations and examinees in order to apply equally to all examinees. Without a sound theoretical foundation and empirical evidence, test results cannot be more than speculation. If a test is not valid and reliable, the same situation might be treated differently and the applied method has a high potential for unfair discrimination, in particular if a disciplinary action was based solely on the outcome of a polygraph test. Where there is no objective justification for the differentiation, the distinction is said to be arbitrary and not based on a relevant ground.⁴⁶ In terms of polygraph testing, it means that those examinees are discriminated against who answered truthful but the polygraph test incorrectly identified them as liars or 'false negative' respectively. As shown in chapter two, the test has a high rate of erroneously classified innocent examinees. According to the outcome of the test, it entails different disciplinary action against the employees. For instance, the one examinee fails, hence it indicates misconduct so he/she is demoted or dismissed. While another employee passes the test, he/she is promoted. However, different test results do not justify different treatment. It can also constitute unfair treatment if all applicants or employees are required to undergo a polygraph test for employment screening or blanket testing. It appears to be fair and equal if the test is applied to all employees or applicants but in fact, it is discriminating against a certain group of people, in particular the falsely identified innocent employees. Studies have also indicated that people from different ethnic groups show different stress responses.⁴⁷ Therefore, the use of polygraph testing could also amount to indirect unfair discrimination based on a listed ground, namely 'race'. A test needs to be adjusted if used on members of different cultural groups.

⁴⁶ Grogan, *op. cit.*, 281.

⁴⁷ See chapter 2.3.1 *supra*.

In this regard, it makes no difference that some employment contracts contain a polygraph clause, according to which the employee agrees to submit to testing if the employer so requires. This does not imply that the employee has waived the right to claim discrimination, because his/her consent is irrelevant in this regard. The employee has only agreed to undergo the test; the employer must still always ensure and show that the employee is not subjected to unfair discrimination. Hence, the employee can still claim discrimination.

Employees are also disciplined merely because they have refused to take a polygraph test, as happened in *Polkey v Transtecs Corporation* and in *CEPPWAWU obo W A Francis v Thermopac*.⁴⁸ The employee is entitled to refuse, so he/she must claim that the refusal constitutes an irrelevant ground for differentiation, which amounts to unfair discrimination. Where the employment contract contains a polygraph clause, the employee should challenge the validity of such a clause.

As mentioned briefly before, some differentiations do not amount to discrimination under the Convention, for example, where the inherent requirements of a job make the distinction or exclusion necessary. In this regard, the differentiation 'served a legitimate employment goal of the employer' that the employer must demonstrate.⁴⁹ Section 6(2)(b) of the EEA has the same wording as the Convention. Can a specific job therefore necessitate the administration of a polygraph examination? The employer may argue that a particular job requires an employee to have specific personal characteristics such as general reliability and honesty. This is essential for jobs which require a high level of trust, for instance, positions within security services or banks. However, polygraph testing cannot determine the general honesty or future tendencies of a person. It would therefore be difficult for the employer to show that the administration of polygraph testing in the workplace is justified.

Whether the EEA applies to polygraph testing, particularly section 8 of the EEA, remains to be examined in chapter six. However, due to the lack of empirical proof, the method has obvious potential for unfair discrimination in terms of the Discrimination Convention.

⁴⁸ *Polkey v Transtecs Corporation*, 404 F.3d 1264 (11th Cir. 2005); *CEPPWAWU obo W A Francis v Thermopac*, [2000] CCMA, WE 33153. Both cases are considered in chapters four and six.

⁴⁹ Du Toit et al, op. cit., 605.

3.2.3 Termination of Employment Convention 158 of 1982

In a number of South African labour disputes, employees were simply dismissed because they did not pass a polygraph examination or refused to undergo one.⁵⁰ Therefore, this section examines the Termination of Employment Convention 158 of 1982.⁵¹ The Convention obliges ratifying states to establish, in conformity with the instrument, grounds upon which a worker's employment can be terminated. The Convention further provides a number of grounds upon which the employee may not be dismissed.

According to article 2(1), the Convention applies to all sectors and employees but in terms of article 2(2) member states may exclude certain types of employment, such as specified period of employment, probation, and casual work. The Convention also covers public employment. Yet, under article 2(4) of the Convention, national legislation may exclude public employees from general labour provisions and subject them to special arrangements, which must however *'provide protection at least equivalent to the protection afforded under the Convention'*. Section 2 of the LRA provides that the LRA does not apply to members of the National Defence, the National Intelligence Service, the South African Secret Service, and the South African National Academy of Intelligence. Their employment is regulated in specific statutes, which are discussed later in chapter six.

3.2.3.1 Valid reason

The Convention provides in article 4 that the employer may not terminate employment unless it can demonstrate a *'valid reason'*.

The definition of valid reason is left to the implementation of the individual member state. Valid reason constitutes the Convention's most important requirement. Otherwise, the employer could dismiss an employee for any reason. Under the provision, specific reasons must be related to the worker's capacity or conduct or the dismissal is based on the operational requirements of the company. Misconduct may include inadequate job performance such as neglecting duties, violation of work rules, or disobedience of legitimate orders, or improper behaviour such as assault, or acts of

⁵⁰ For detailed discussion see chapter six *infra*.

⁵¹ The Convention came into force on the 23 November 1985 and is supplemented by the Recommendations 119 of 1963 and 166 of 1982.

dishonesty, for instance, fraud and theft.⁵² The employer must prove misconduct as provided in article 9(2)(a) of the Convention. Operational requirements refer to the economic, technical, structural or similar aspects of the employer's business.⁵³ They do not therefore relate to the employee's behaviour, and the fault does not lie with the employee.⁵⁴ Yet, as an exception to 'no fault' dismissals, the employee can be retrenched due to economic reasons when he/she is employed in a position of trust and an employee's conduct has led to a breakdown of trust, which falls under 'similar needs of the employer'.⁵⁵

Articles 5 and 6 of the Convention list a number of reasons which do not constitute a valid reason for dismissal, such as union membership, race, age, or sex. The list is however not exhaustive. The individual state may provide additional reasons to protect employees.⁵⁶

Although South Africa has not ratified the Convention, it has adopted similar provisions. Section 23(1) of the Constitution respects the employee's fundamental right '*to fair labour practices*', which implies for instance fairness in terms of dismissal. Other relevant provisions can be found in the LRA. Section 188(1)(a) of the LRA requires that the dismissal must be based on a '*fair reason*', consistent with the wording of the Convention. The onus is upon the employer to show that the dismissal was fair. An employee may claim automatically unfair dismissal in terms of section 187 of the LRA, similar to articles 5 and 6 of the Convention. The *Code of Good Practice: Dismissal*, which is in schedule 8 of the LRA, provides guidelines for a fair dismissal due to an employee's conduct or capacity. The LRA also contains a Code of Good Practice on Dismissal based on Operational Requirements.

⁵² ILO, General Survey by the Committee of Experts (1995), Protection against Unjustified Dismissal: Obligation for termination of employment to be justified by a valid reason, at www.ilo.org/ilolex/english/iloquery.htm (accessed on 01 June 2006).

⁵³ See Part III of the Recommendation 166 of 1982 and section 213 of the LRA.

⁵⁴ See item 2 of the Code of Good Practice on Dismissal based on Operational Requirements (Labour Relations Act 66 of 1995).

⁵⁵ Basson et al, *Essential Labour Law*, 150.

⁵⁶ ILO, General Survey by the Committee of Experts (1995), Protection against Unjustified Dismissal: Obligation for termination of employment to be justified by a valid reason, at www.ilo.org/ilolex/english/iloquery.htm (accessed on 01 June 2006).

3.2.3.2 Polygraph test result

For the purpose of this study, it is necessary to determine whether the employer may terminate employment simply because the employee has failed a polygraph test or has refused to submit to a requested test. Both grounds must constitute valid reasons under the Convention. Polygraph testing is administered to assist the employer in investigating specific misconduct or a crime that has occurred in the workplace, which in many cases results in the dismissal of the alleged perpetrator.⁵⁷ The employer must however show, on the balance of probabilities, that the employee is indeed guilty of misconduct. Polygraph test results cannot supply satisfactory evidence, particularly in the employment context in the case of periodic screening of staff members, as established in the previous chapter. Due to the lack of a strong theoretical rationale and empirical evidence, the test results cannot result in more than mere suspicion. This is particularly true if the employee was dismissed solely because he/she failed the polygraph examination. Where dismissal is based on the test outcome and other evidence such as a witness, it must be treated with great caution. In particular, the other evidence should not be assessed in the light of the results of the polygraph test.

In respect of dismissal due to the employee's refusal to undergo testing, one could argue that an honest person has nothing to hide and therefore would agree to the test. This statement certainly applies to a number of cases. However, some people simply refuse because they fear a negative outcome although they are innocent, or they have doubts about the polygraph's accuracy. A person is not obliged to take a polygraph test. The situation might be a different one where the employment contract contains a clause in terms of which the employee agrees to submit to periodic polygraph testing. In this regard, the employee's insubordination, breach of contract, might constitute the misconduct. It is questionable whether such a clause is actually legitimate. The employee's improper behaviour must be also sufficiently serious⁵⁸ '*and of such a gravity that it makes a continued employment intolerable*', as stated in item 3(4) of schedule 8 of the LRA. Moreover, dismissal should be the last resort of

⁵⁷ For instance, in *Govender v Container Services*, [1997] CCMA, KN4881; *Singh, Dhumal v First National Bank*, [1999] CCMA, KN33299.

⁵⁸ ILO, General Survey by the Committee of Experts (1995), Protection against Unjustified Dismissal: Obligation for termination of employment to be justified by a valid reason, at www.ilo.org/ilolex/english/iloquery.htm (accessed on 02 June 2006).

disciplinary action. According to the ILO General Survey by the Committee of Experts in 1995, refusal to take a polygraph test can amount to an invalid reason for termination if the member state provides so.⁵⁹ In South Africa, there are divergent CCMA judgments on the issue. In some cases, the commissioner held that refusal could not be used as an indication of guilt.⁶⁰ Chapter six contains a comprehensive discussion in this regard.

A person who fails a test or refuses to take one is regarded with suspicion. Hence, the question arises whether suspicion can be a '*valid reason*' for dismissal in terms of the Convention. The employer may argue reasonable suspicion of misconduct, or that the employee might do so in the future, and therefore may argue that the 'mistrust is counter-productive to the operation of the business'.⁶¹ The breakdown of trust between the parties would constitute the fair reason for dismissal based on operational requirements, particularly the 'similar needs' of the business. This however requires that the employee is employed in a position of trust and the employer must have a strong and valid suspicion that the employee has committed the misconduct at issue.⁶² In this context, the nature of the business is therefore relevant. Some jobs require a high degree of honesty and integrity from its employees, such as jobs in banking, the post office or the mining industry. Where the employee is placed in a high security environment, a relationship of trust between both parties is essential. Thus, the employee can be dismissed due to an operational reason if this relationship of trust is destroyed and the employer has shown that it has done everything possible to resolve the issue.⁶³ However, it seems to be highly questionable whether the mere refusal to submit to a polygraph testing can constitute reasonable suspicion since the employee's refusal is not necessarily an indication of guilt. Where an employee did not pass the test, it is also doubtful whether this result provides a strong and valid basis, which is more than mere suspicion about the employee's involvement in the incident, particularly in the case of periodic screening, as the polygraph examiner might not have correctly classified the employee. In any case, the dismissal on

⁵⁹ Ibid.

⁶⁰ For instance, in *Mnguni, Zepjania v Oryx Security*, [1998] CCMA, KN17731 and *Jacob, Paul Keith v Unitrans Engineering*, [1999] CCMA, KN21921 as opposed to for instance *Armoed, Elton K v Gray Security Services*, [1999] CCMA, EC9809 where refusal was considered as an indication of guilt.

⁶¹ Basson et al, op. cit., 150.

⁶² *Census Tseko Moletsane v Ascot Diamonds (Pty) Ltd*, [1993] 2 ICD 310 at 311 (IC).

⁶³ *National Union of Metalworkers of SA v Atlantis Diesel Engines (Pty) Ltd*, [1993] 14 ILJ 642 at 648 (LAC).

suspicion of misconduct 'is not, it should be clear, an exemption to the rules governing dismissal for misconduct: it is the application of the rules governing dismissal for operational reason'.⁶⁴ One must also bear in mind that any misconduct puts a strain on the relationship between employer and employee. That is why the employer may always maintain operational reasons.

Both the refusal to take a test as well as the failing of a polygraph examination do not provide valid reasons for dismissal in terms of the Termination Convention 158 of 1982. Where suspicion of misconduct constitutes the ground for dismissal due to operational requirements, it is necessary to examine each individual case carefully, to determine whether the real reason for dismissal was in fact misconduct, which the employer has simply failed to prove.⁶⁵

3.2.4 Code of Practice on the protection of workers' personal data of 1997

This section looks at the ILO Code of Practice on the protection of workers' personal data of 1997.⁶⁶ It appears to be the only international labour instrument which explicitly addresses the use of polygraph testing in the workplace. In particular, clause 6.10 of the Code specifically deals with polygraph testing. Several other provisions of the Code are also relevant in this regard.

Personal employee data is collected for various reasons: to assist the employer in selecting individuals for employment, training and promotion, and to protect the employer's property. The different techniques used to gather information about an employee '*illustrate the need to develop data protection provisions which specifically address the use of workers' personal data*' to protect the employee's right to dignity and privacy.⁶⁷ The term '*personal data*' includes any information about an individual employee.⁶⁸ The Code does not only address current employees but also includes job applicants in its scope, according to the definition in clause 3.4, as well as former employees 'since the processing of personal data has implications for job applicants,

⁶⁴ Brassey and Cheadle, *The New Labour Law: Strikes, Dismissals and the Unfair Labour Practice in South African Law*, 97.

⁶⁵ *Steynberg v Coin Security Group (Pty) Ltd*, [1998] 19 ILJ 304 at 310 (LC).

⁶⁶ The ILO Code of Practice on the protection of workers' personal data of 1997 is included in Appendix A.

⁶⁷ Preamble of the ILO Code of Practice on the protection of workers' personal data.

⁶⁸ Clause 3.1 of the ILO Code of Practice.

current workers and former workers'.⁶⁹ Further, the Code applies to both public and private sectors in terms of clause 4.1(a).

An employer may not gather any information in which he/she is interested. Clause 5.1 of the Code requires that the processing of personal data is directly relevant to the employment of the worker. The employer must have a legitimate interest in the collection of employee data in terms of the employment relationship. The collection of personal data is therefore the exception which needs to be justified. It is not the worker's duty to inquire why certain information is wanted or to explain a refusal to provide it, but rather the employer's duty to indicate the reasons and to process only as much personal data as is necessary.⁷⁰ The data must relate to the employee's qualifications, professional experience and so forth. Both the amount and the type of information which can legitimately be gained vary according to the type of employment. The employer is obliged to be transparent so that the employee knows why the information is being processed.⁷¹

The Code contains general principles and regulations on the process of data collection. The collection of sensitive personal data is prohibited unless the information is directly relevant to the employment and allowed under national law.⁷² For instance, in terms of clause 6.5(1)(c) the employer may not collect data regarding criminal convictions except where a particular type of crime is relevant to the job. In this regard, it is doubtful whether an employer may administer pre-employment or employment polygraph screening in order to determine a person's general honesty or dishonesty respectively. Both situations are event-free as discussed in the previous chapter, which is why the relevant test questions refer to a wide range of misconduct or crime, as opposed to a polygraph investigation into a specific incident. Hence, a polygraph test may reveal previous criminal behaviour, which is actually not relevant to the specific employment. Although applicants and employees are generally expected to provide truthful information, in terms of clause 6.8 they may refuse to answer questions that are incompatible with the Code, without fearing disciplinary measures.

⁶⁹ Commentary on the Code, at www.ilo.org/public/english/protection/condtrav/pdf/wc-code-97.pdf, p. 10 (accessed on 02 November 2006).

⁷⁰ Ibid. at 12.

⁷¹ Ibid. at 13.

⁷² Clause 6.5(2) of the ILO Code of practice.

The Code further supports correct evaluation of data and therefore rejects an entirely mechanical decision-making process. The Code requires individualized evaluation of employees.⁷³ Clause 5.5 provides that '*decisions concerning a worker should not be based solely on the automated processing of that worker's personal data.*' The term 'solely' indicates that the provision does not reject *per se* the use of automated procedures, and employers may use them to assist them in making decisions.⁷⁴ In the context of polygraph testing, this means that the employer may not dismiss an employee solely because he/she failed the test.⁷⁵

Clause 6.10 provides that '*polygraphs, truth-verification equipment or any other similar testing procedure should not be used.*' It is evident that polygraphs should not be used at all because, unlike in the case of the collection of medical personal data in clause 6.7 or in terms of the clauses 6.5, 6.6, 6.12 and 6.13, the Code does not provide any exemptions for the use of polygraph testing.⁷⁶ In particular, clause 6.10 does not state, as in other instances of testing under the Code, that polygraph testing can be admissible in terms of national legislation. Employers may not even use polygraph testing as an assisting tool in terms of clause 5.5. Employees and applicants are entitled to refuse to undergo a polygraph examination. The ILO seeks to protect the employee's right to human dignity. However, 'many types of tests administered in the workplace to assess the physical or psychological aptitude of workers, or to verify their honesty, offend against worker dignity if they are overly intrusive, or assess for characteristics unrelated to the work'.⁷⁷ Moreover, one must bear in mind that:

⁷³ Commentary on the Code, *op. cit.*, 14.

⁷⁴ *Ibid.*

⁷⁵ So happened, for instance, in *Govender and Chetty v Container Services*, [1997] CCMA, KN 4881.

⁷⁶ Clause 6.5 deals with the collection of personal data regarding an employee's sex life, his/her political, religious or other beliefs, and criminal convictions. Clause 6.6 concerns the collection of personal data on employee's trade union activities, while clauses 6.12 and 6.13 address genetic and drug testing respectively.

⁷⁷ See Roth, 'The International Labour Office code of practice on the protection of workers' personal data', [1998] *PLPR* 33, see at www.austlii.edu.au/au/journals/PLPR/1998/33.html (accessed on 26 January 2005).

[in terms of pre-employment testing] the ability of workers to withhold consent is most constrained, so that the marketplace and the parties' relative bargaining positions principally determine whether testing is to take place. There may, however, be a larger societal interest in imposing controls on certain kinds of testing which are intrusive, demeaning, or of dubious relevance or reliability, particularly as the workers who tend to be affected most by such practices are those with the least power to refuse to submit to them.⁷⁸

At the ILO Meeting of Experts on Workers' Privacy in 1996, where workers' and government representatives met to discuss the draft Code on the protection of employee data, it was found that the use of 'lie detection equipment was invasive' and it was further suggested that:

[legislation should be adopted to] impose minimum standards on their use: strict principles would need to be adhered to in respect of their use, which include a minimum degree of reliability and validity; administrators of the test should be qualified; and the details of the test results should not to be disclosed, only whether the person was suitable for the job or not.⁷⁹

The ILO Code of Practice on the protection of workers' personal data is not binding on the member states of the ILO. According to clause 2, the Code provides guidance and does not replace national legislation. Hence, national law may allow polygraph testing in terms of the Code. The Code aims to assist national legislation, collective agreements, policies and practical measures to conform to international labour standards and makes recommendations on the issue. The ILO did not adopt an internationally binding instrument on employee data protection for several reasons. No agreement could be reached at the Meeting of Experts in 1996 about the adoption of international labour standards on data protection.⁸⁰ Codes are also preferred to internationally binding instruments 'when the subject matter is not, or not yet, suitable for sophisticated standard-setting action' such as with employee data protection.⁸¹ The adoption of a more formal instrument in the future is rather 'unlikely because the ILO is in fact moving in the opposite direction, having recently adopted a general policy of

⁷⁸ Ibid.

⁷⁹ Ibid.; Paragraph 36 of the *Report of the Meeting of Experts on Workers Privacy* (MEWP/1996/5), Geneva, 1-7 October 1996.

⁸⁰ Report of the Meeting of Experts on Workers' Privacy (Geneva 1996), see at www.ilo.org/public/english/standards/relm/gb/docs/gb267/gb-6.htm (accessed on 10 October 2006).

⁸¹ Servais, *op. cit.*, 98.

targeting and consolidating certain existing core standards for greater impact' in response to the proliferation of international instruments.⁸²

The Code standing on its own cannot provide sufficient protection. It therefore requires the existence of specific national regulations or regulations at international level.⁸³ For instance, the Council of Europe adopted the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data, which however is of a general scope and does not address employment specifically,⁸⁴ as well as the Council of Europe Recommendation on the Protection of Personal Data used for Employment Purposes.⁸⁵ The EU adopted Directive 95/46/EC on the protection of individuals with regard to the processing of personal data and on the free movement of such data, which applies to the employment context. However, because of its general scope, the Directive cannot adequately address all issues arising from the specific employment relationship.⁸⁶ South Africa does not have specific legislation which regulates the collection and processing of personal employee data, except in the public sector. In terms of security screening in certain public employment, polygraph testing may be administered to confirm information gathered about an employee.⁸⁷ Article 14 of the Constitution provides a general right to privacy, which includes the right to privacy in the workplace. This right protects not only the right to physical privacy, but also the privacy of personal data, which the employer may have access to in the employment relationship.

⁸² Roth, *op. cit.*; *The ILO, Standard Setting and Globalization: Report of the Director General*, International Labour Conference, 85th Session (Geneva 1997), 35-48.

⁸³ Simitis, 'ILO Code wants stronger protection of employee data', [1998] *Privacy Laws and Business International Newsletter* 21, at www.worldlii.org/int/journals/PLBIN/1998/21.html, accessed on 30 November 2005.

⁸⁴ European Treaty Series No. 108, Strasbourg, 1981.

⁸⁵ The Recommendation No. R (89) 2 of the Committee of Ministers to Member States on the Protection of Personal Data used for Employment Purposes states for instance in paragraph 4.2: '*Personal data collected by employers for employment purposes should be relevant and not excessive, bearing in mind the type of employment as well as the evolving information needs of the employer.*' Paragraph 4.3: '*In the course of the recruitment procedure, the data collected should be limited to such as are necessary to evaluate the suitability of prospective candidates and their career potential.*' Paragraph 12.3: '*When an employee is faced with a decision based on automatic processing of data held by an employer, he/she should have the right to satisfy himself/herself that the data have been lawfully processed.*'

⁸⁶ There are other Directives, which address data protection in specific sectors: the Directive 97/66/EC of 15 December 1997, concerning the processing of personal data and the protection of privacy in the telecommunications sector and the Directive 2002/58/EC of 12 July 2001, concerning the processing of personal data and the protection of privacy in the electronic communications sector.

⁸⁷ See chapter six *infra*.

Although it is a member state's responsibility to regulate the use of polygraph testing in employment, the ILO Code indicates the need to adopt national regulations on employee data protection, particularly when dubious technology is widely applied in workplaces to collect such data. It also shows that the ILO aims to ban polygraph testing completely from workplaces, as the Code provides no exception for its use in the employment context.

Even though the Code does not have a binding effect, South Africa's dispute resolution bodies might nevertheless be required, due to the country's membership of the ILO, to consider the Code, because it constitutes international law, when interpreting the provisions of the LRA and the EEA, as already indicated in the beginning of this chapter. In this regard, the following needs to be clarified. Sections 3(c) of the LRA and 3(d) of the EEA refer to the '*international law obligations of the Republic*'. Does the term 'obligations' refer only to international labour legislation that South Africa has ratified or, more broadly, to South Africa's obligations as a member state of the ILO? It appears that recommendations and not ratified conventions do not impose obligations upon South Africa by virtue of its membership to the ILO.⁸⁸ On the other hand, customary international law is directly binding on South Africa without ratification, as provided in section 231(4) of the Constitution, which states that '*the rules of customary international law binding on the Republic ... shall form part of*' national law. Although the fundamental ILO conventions constitute customary international law,⁸⁹ the Code does not qualify as a customary rule.

3.3 Conclusion

This chapter has shown that international labour standards, especially the ILO instruments, do not support the use of polygraph testing in employment.

In particular, the administration of polygraph examinations in the workplace can amount to indirect discrimination under the Discrimination Convention 111 of 1958, if the employer's decision is based on the test outcome or the employee's mere refusal to undergo the test. The Convention is binding upon South Africa and applies to

⁸⁸ Du Toit et al, op. cit., 68.

⁸⁹ Ibid. at 71.

current and prospective employees in both the private and public sectors. South Africa complies with the instrument as it has passed similar laws, namely the EEA and PEPUA.

Further, it was shown that the test outcome cannot prove misconduct and therefore does not provide a valid reason for dismissal in terms of the Termination of Employment Convention 158 of 1982. An employer may not dismiss an employee simply because the employee has refused to undergo a polygraph test, because refusal does not constitute a valid reason for termination of employment. Although the Convention has no binding effect upon South Africa, the LRA contains similar provisions. South Africa has also adopted specific regulations for certain public employment, for instance, the National Defence and the National Intelligence Service.

As far as polygraph screening is concerned, the employer must show its relevance to the particular job. The employer may not question the employee about misconduct during previous employment unless the type of misconduct or crime makes a person unsuitable for the job.

In terms of the ILO Code of Practice on the protection of workers' personal data of 1997, polygraph testing should not be used at all in the workplace. However, the Code is not binding international labour law and therefore cannot provide adequate protection. Hence, national action is required to provide comprehensive protection against polygraph testing in the employment environment. South Africa does not have specific legislation on employee data protection except where it allows the collection of data by various means of polygraph testing in certain public employment. If South Africa however wishes to eliminate unfair discrimination and to promote equal opportunity in the workplace, it needs to address the issue of polygraph testing in employment and in this regard the collection and processing of personal employee data, if necessary in the form of legislation.

This study will now consider the jurisdictions of the United States of America and Germany in the following two chapters, before looking at South Africa.

CHAPTER FOUR: THE UNITED STATES OF AMERICA

'An Act to prevent the denial of employment opportunities by prohibiting the use of lie detectors by employers'¹

4.1 Introduction

The previous chapters showed that there is not sufficient scientific evidence on the accuracy of polygraph testing when used for various employment purposes. It was further established that international labour standards do not support its application in the workplace. Despite existing concerns regarding the polygraph's accuracy, the device was used extensively, if not to say misused, in employment in the USA. This situation finally led to the enactment of the Employee Polygraph Protection Act of 1988 (EPPA).

The USA was selected for this research for several reasons. First, there are numerous regulations on polygraph testing in employment, including a federal polygraph statute, the EPPA.² In the context of this study, the EPPA constitutes a very important piece of legislation because the CCMA appears to use the EPPA for guidance.³ Moreover, most states have specific provisions restricting the polygraph testing of employees. Secondly, there are a large number of court cases on the subject. Thirdly, since the mid-1990s South Africa has been experiencing a similar situation to that of the USA, regarding the extensive and still increasing use of polygraph testing in both the private and public sectors. Some authors have therefore recommended the enactment of a South African polygraph act similar to the EPPA.⁴

This chapter commences by examining the situation prior to the enactment of the EPPA. A number of questions will be addressed. How did the courts decide? Did it constitute an unfair labour practice if an employer took action based on test results? In

¹ Employee Polygraph Protection Act of 1988.

² The EPPA (United States Code Title 29, Chapter 22, Sections 2001 – 2009) is included in Appendix B.

³ More detailed in chapter six infra.

⁴ For instance, Tredoux and Pooley, 'Polygraph based testing of deception and truthfulness: An evaluation and commentary', [2001] 22 *ILJ* 819 at 839.

this regard, the chapter will also look at the reasons for the enactment of the Act. Next, the chapter will consider the impact of the EPPA on the actual use of the test in the employment setting. Has its use decreased? How have the courts decided since 1988? The chapter will further provide a brief overview of relevant state legislation. Some regulations are more restrictive than the Federal EPPA. This chapter then looks at the standards that the courts developed with regard to the admissibility of expert evidence over the years. Initially the courts consistently rejected polygraph evidence on the basis that the evidence was not admissible. However, in more recent cases, after the standard of expert evidence was reconsidered, federal courts have abolished the *per se* ban on polygraph evidence.

Besides its use in employment, the polygraph is a very popular police investigation tool. The decision to prosecute or withdraw a charge often depends on the outcome of a polygraph test.⁵ If the suspect passes the test, he/she will definitely not be prosecuted.⁶ The polygraph is also used in connection with the release of inmates on parole,⁷ as a condition of probation,⁸ or as part of a mental health or sexual offender therapy.⁹

4.2 Employee Polygraph Protection Act of 1988

In this section, we look at the situation before the enactment of the EPPA, the provisions of the EPPA, and its effect on polygraph testing.

In the USA, companies suffer losses of an estimated US\$ 40 billion due to dishonest employees each year.¹⁰ The private industry has greatly increased its use of polygraph testing since 1978 to about two million tests in 1989.¹¹ Polygraph testing started with investigations into specific incidents but continued with periodic testing

⁵ *U.S. v Wong*, 334 F.3d 831 (9th Cir. 2003); *Burns v Reed*, 500 U.S. 478 (Supreme Court, 1991); *Oregon v Bradshaw*, 462 U.S. 1039 (Supreme Court, 1983): The accused had confessed to committing the crime after he failed the polygraph examination.

⁶ Prittowitz, 'Der Lügendetektor im Strafprozess', *MDR* 1982, 886 at 887.

⁷ *Himes v Thompson*, 336 F.3d 848 (9th Cir. 2003).

⁸ *U.S. v T.M.*, 330 F.3d 1235 (9th Cir. 2003).

⁹ *U.S. v Antelope*, 395 F.3d 1128 (9th Cir. 2005): therapy as condition of probation. *U.S. v Taylor*, 338 F.3d 1280 (11th Cir. 2003): supervised release on condition of mental health or sexual offender treatment, which includes submission to test.

¹⁰ Thau, *Labour Law in the USA*, 4.2.3.2 Lie detectors.

¹¹ Koontz Sening, 'Heads or Tails: The Employee Polygraph Protection Act', [1989] 39 *Cath. U.L. Rev.* 235 at 235.

and pre-employment screening.¹² About 70 per cent of the examinations were pre-employment screening, 15 per cent were periodic tests, and merely 15 per cent constituted specific investigations.¹³ The government, for instance the U.S. Department of Energy (DOE), the Department of Defense (DOD), the Federal Bureau of Investigation (FBI) and the Central Intelligence Agency (CIA), uses polygraph testing extensively as part of its security-screening programme in order to detect spies and saboteurs among its applicants and current employees, or any other national security threats.

4.2.1 Situation before the EPPA

Before the EPPA came into force, employers were entitled to establish under the National Labour Relations Act of 1982 'in-house rules', for the use of polygraph testing without committing an unfair labour practice.¹⁴ If management required an employee to be tested it had the duty to negotiate with the union as part of bargaining in good faith as the test would affect the terms and conditions of employment. Yet, the employer's duty to bargain did not protect job applicants from being tested because mandatory collective bargaining excluded this situation.¹⁵ The so-called 'at-will' doctrine allowed employers to terminate employment at any time, without advance notice and for any reason.¹⁶ For instance, in *Swope v Florida Industrial Commission Unemployment Compensation Board of Review*, the employer introduced a rule which required its employees to undergo periodic polygraph testing. The court held that the employer was entitled to do so and so the employee's refusal constituted misconduct, namely violation of an employer's rule, and a valid reason for dismissal.¹⁷

In respect of public employment, especially positions such as police officer and fire fighter, the courts have held that the employer may dismiss an employee for

¹² Ibid. at 235 and 236.

¹³ University of Virginia Law School, at www.lawnotes4.law.virginia.edu/pells/employment%20law%204.nsf/719d4a582e96e615852567490077634b/b3a36d8bda0ec239852568cd005b5d24?OpenDocument (accessed on 24 January 2006).

¹⁴ Koontz Sening, op. cit., 237.

¹⁵ Ibid. at 238.

¹⁶ Chin, 'Protecting employees and neglecting technology assessment: The Employee Polygraph Protection Act of 1988', [1990] 55 *Brooklyn L. Rev.* 1315 at 1328.

¹⁷ *Swope v Florida Industrial Commission Unemployment Compensation Board of Review*, 159 So.2d 653 at 654 (District Court of Appeal of Florida, 1964): In the present case, the employee had claimed unemployment compensation. The court held that the refusal did not constitute misconduct in terms of the Unemployment Compensation Act.

refusal to undergo a test because the employee is required to submit to a polygraph examination. However, the test questions must relate to the performance of the employee's official duties and he/she may not be required to waive immunity from a prosecution based on the results of the examination. Thus, the answers may not be used against the employee in future criminal proceedings.¹⁸ In this context, most decisions assess refusal merely in terms of insubordination to a superior's order and do not deal with the validity of the polygraph. In *Arthur Farmer v City of Fort Lauderdale*, the court held that the same unreliability and invalidity which prevents admissibility in court should preclude the dismissal of the employee for refusal to take the test.¹⁹ There appears to be no case law as to whether failure of a test can justify dismissal. In *Martin v Citibank*, a black employee claimed that her selection for polygraph testing constituted discrimination based on race.²⁰ The court however held that Martin failed to establish a prima facie case of racial discrimination. The person who selected the employees for testing did not know their race. The selection was also not random: The polygraph examinations were part of investigations into theft in the workplace, and employees with access to the areas in which the items disappeared were chosen.

By 1988, most states had enacted regulations to restrict the use of polygraph testing in the workplace, which will be discussed later in this chapter. These regulations were however not beneficial because of the fact that they provided too little scope and entailed weak enforcement mechanisms. There was confusion as to the different existing state legislation, as well as jurisdictional and interpretative conflicts between the state and federal courts. An example of this can be found in the licensing requirements and qualifications of examiners, which varied from state to state. The EPPA aimed to establish uniform regulation. The Act however does not pre-empt more restrictive state law.

Concerns about the accuracy of the polygraph and its widespread use and in particular misuse in the private sector eventually led to the enactment of EPPA in 1988. It was discovered that many employers based their decisions on inaccurate or unfounded test results.²¹ The Senate report on the EPPA noted that 'probably between

¹⁸ *Gulden v McCorkle*, 680 F.2d 1070 at 1075 (5th Cir. 1982).

¹⁹ *Arthur Farmer v City of Fort Lauderdale*, 427 So.2d 187 at 190 (Supreme Court of Florida, 1983).

²⁰ *Martin v Citibank*, 762 F.2d 212 (2nd Cir. 1985).

²¹ *Mennen v Easter Stores*, 951 F. Supp. 838 at 849, footnote 17 (N.D. Iowa, 1997).

100,000 and 300,000 fewer individuals will be wrongfully denied employment opportunities solely due to the inaccuracy of the testing procedures'.²² The EPPA was an attempt to find a balance between an employee's dignity and privacy interests on the one hand and employer security interests on the other.²³ The content of the new statute was subject to great debate, which then resulted in an Act that does not completely prohibit polygraph testing.²⁴ The employee may request a test for exonerating purposes.

4.2.2 What does the EPPA provide?

This section gives an overview of the general provisions of the EPPA and then proceeds to consider the instances under which a private employer may still administer polygraph testing in terms of the statute.

Section 2001(3) includes any type of lie detector device such as the '*polygraph*'.

Generally, section 2002 of the EPPA prohibits most private employers from using polygraph tests either for pre-employment screening or for random testing during the course of employment. An employer may not '*directly or indirectly, to require, request, suggest, or cause any employee or prospective employee to take or submit to any lie detector test*' according to subsection 1. The section has a very broad scope and applies '*even where the test is ultimately not administered and no adverse employment action is taken as a consequence*'.²⁵ Section 2002(2) states that it is also unlawful '*to use, accept, refer to, or inquire concerning the results of any lie detector test of any employee or prospective employee*'. Therefore, the employer may not even use the results of a polygraph test that was conducted by the police.²⁶ Subsection 3 contains a special prohibition from disciplining, discharging, or discriminating against any employee or applicant based on the test results or refusal to undergo testing.

²² See *Wiltshire v Citibank*, 653 N.Y.S.2d 517 at 519 (Supreme Court of New York, 1996).

²³ Christianson, 'Truth, lies and polygraphs: Detecting dishonesty in the workplace', [1998] 8 : 1 *CLL* 1 at 7.

²⁴ The court in *Mennen v Easter Stores*, 951 F. Supp. 838 at 851 stated that 'apparently persuaded by the employer/polygraph proponents' argument that the threat of a polygraph examination would serve as a deterrent to employee theft in the workplace, Congress allowed a narrow exception to the statutory protection'. The provided exemptions are discussed supra.

²⁵ *Polkey v Transcecs Corporation*, 404 F.3d 1264 at 1268 (11th Cir. 2005).

²⁶ *Mennen v Easter Stores*, 951 F. Supp. 838 (N.D. Iowa, 1997), see below; likewise the Department of Labour regulation 801.4(b): The purpose of the Department of Labour regulations 29 CFR 801 was to carry out the provisions of the EPPA (section 801.1(a); interpretation of the provisions).

According to section 2007(a), refusal to undergo testing may only be considered together with '*additional supporting evidence*'.

In *Mennen v Easter Stores*, the court considered whether the employer had violated section 2002.²⁷ First, Mennen claimed violation of section 2002(1), in terms of which an employer may not require, request, suggest, or cause an employee to take a test. In this regard, it is necessary to establish whether the employer plays an active or mere passive role in the administration of the test.²⁸ The court held that an employer's mere passive cooperation with the police in granting permission for an employee to take a polygraph examination did not violate the EPPA.²⁹ The polygraph test took place as part of the normal course of a police investigation into criminal activity. The court remarked that the police requested the employee to take the polygraph examination as part of its investigation of criminal misconduct involving economic loss to the employer, the employee consented to be tested, and the police administered the examination. Although the police needed the employer's consent to request the employee to take the examination, and, therefore, the employer could have vetoed the test, the administration of the examination by the police with no more employer involvement than giving its permission to do so did not violate the EPPA. The court explained that the employer had not yet crossed that line between a mere cooperation with the police department and active participation in the investigation. Hence, the court found no violation of section 2002(1) of the EPPA.

However, the court held that Easter Stores violated section 2002(2) when it based its decision to demote Mennen on the test results. The EPPA applies even where the employer uses the results of a police investigation. The court held that the exemptions under the EPPA are subject to strict use and the 'employer who does not adhere to the exemption's express requirements forfeits the right to claim the exemption from liability under the EPPA'.³⁰

The court also found that section 2002(3) was violated, which provides that an employer may not discipline or discharge an employee based on a polygraph

²⁷ *Mennen v Easter Stores*, 951 F. Supp. 838 (N.D. Iowa, 1997): Mennen was employed as a store manager. Money went missing from a cash drawer. The police conducted polygraph tests on Mennen and another suspected employee. Mennen was demoted after the employer learnt that Mennen had failed the test. Easter Stores did not claim the application of the 'ongoing investigation' exemption.

²⁸ Section 801.4(b) of the Department of Labour regulation 29 CFR 801.

²⁹ *Mennen v Easter Stores*, 951 F. Supp. 838 at 853 (N.D. Iowa, 1997).

³⁰ *Ibid.* at 854.

examination. Easter Stores argued that its decision was not solely based on the test results, as it had already lost trust in Mennen. The court did not support such a broad interpretation of the provision because it would be 'contrary to those legislative goals to read into the statute a more stringent standard of causation ... The court will not undercut the express language of the statute'.³¹ Besides that, the court found that Easter Stores' decision was solely based on the polygraph results because Mennen was only demoted after Easter Stores learned about the test results.³²

According to 2005(c)(1), an employer is liable for violations of the EPPA, but there is no specific provision in the Act that regulates the liability of the polygraph examiner. Can the examiner also be held liable under section 2005(c)(1)? The term '*employer*' is defined in section 2001(2) and '*includes any person acting directly or indirectly in the interest of an employer in relation to an employee or prospective employee.*' This plain language suggests that the examiner is included in the broad definition of section 2001(2). The polygraph examiner is employed by the employer to solve a specific matter under investigation, and thus acts in the employer's interest. In *Calbillo v Oldsmobile, Inc.* the court applied the so-called 'economic reality test' to determine whether the examiner has 'control, as a matter of economic reality, over the employer's compliance with the EPPA' but found that it was in fact the employer who decided, who to test and who to dismiss.³³ Therefore, an examiner can be '*employer*' for purposes of liability under EPPA unless he/she was employed for the sole purpose of administering the test.³⁴

In terms of section 2009 any state or local law or any negotiated collective agreement can further restrict the use of polygraph tests. According to sections 2006(a)-(c), however, no state may pre-empt the right of the federal government to

³¹ *Mennen v Easter Stores*, 951 F. Supp. 838 at 855 (N.D. Iowa, 1997).

³² In *Mennen v Easter Stores*, 951 F. Supp. 838 at 856 (N.D. Iowa, 1997) the court found that 'Easter waited for the results, and as soon as it received them, it removed Mennen from his position and stripped him of his responsibilities. The EPPA was designed to eliminate this type of reliance on polygraph testing in the private employment sector'.

³³ *Calbillo v Cavender Oldsmobile, Inc.*, 288 F.3d. 721 at 725 (5th Cir. 2002). The court held at 727 that in order to determine the degree of control, one must establish 'whether the examiner (1) decided that a polygraph examination should be administered; (2) decided which employee would be examined; (3) provided expertise or advice to the employer regarding compliance with the EPPA's requirements, or the employer relied on the examiner to ensure compliance; or (4) decided whether the examined employee would be subjected to disciplinary action, or merely reported the results of the polygraph examination to the employer.'

³⁴ *Ibid.* at 726.

administer tests to private employees in national security, national defence, or the FBI.

4.2.3 Exemptions from the EPPA

The EPPA does not absolutely prohibit the use of polygraphs in employment. Section 2006 contains several exemptions for the private sector, which are particularly relevant for this study. The employer bears the onus of proof. The employee must only show that he/she was asked to submit to a polygraph test.³⁵

The EPPA does not apply to employees of the federal, state or local government or any political subdivision,³⁶ employees in national defence and security, and FBI contractors. However, the test questions must show a legitimate government interest and relationship to the applicant's qualification to perform the job. The employee has a right to privacy. The examiner may not ask irrelevant and intrusive questions.³⁷ The employer might also face unfair discrimination claims when selecting certain employees for polygraph tests.³⁸ In terms of section 2006(a), the EPPA permits the use of the polygraph as an 'insurance measure' in the public interest. Another reason for the exemption is that these employees would possess sufficient protection against testing under existing legislation.³⁹ Section 2006(b) states that national defence and security are excluded from the EPPA. The section appears to reach a wide range of employers because the Act also applies to agencies whose activities are sufficiently vital to national defence and security. Certain provisions of the DOD constrain the administration of polygraphs under the exemption.⁴⁰ Section 2006(c) provides an exemption for employees '*engaged with in the performance of any work under the contract*' with the FBI.

Section 2006 allows the restrictive use of polygraph testing in private employment as well as in the security and pharmaceutical services. This is discussed in the subsequent sections.

³⁵ *Wiltshire v Citibank*, 653 N.Y.S.2d 517 at 521 (Supreme Court of New York, 1996).

³⁶ See, for instance, *Hossaini v Western Missouri Medical Centre*, 140 F.3d 1140 at 1144 (8th Cir. 1998) where the court held that the exemption applies to a county hospital as it is a political subdivision of a State.

³⁷ *Woodland v City of Houston*, 918 F. Supp. 1047 at 1048 (S.D. Texas, 1996).

³⁸ This happened, albeit before the EPPA was enacted, in *Martin v Citibank*, 762 F.2d 212 (2nd Cir. 1985).

³⁹ Koontz Sening, *op. cit.*, 247.

⁴⁰ *Ibid.* at 248.

Section 2007 seeks to protect both parties and provides detailed requirements as to polygraph testing under the exemptions, by granting certain rights to the examinee during each of the different stages of the test, and requiring minimum qualifications from the examiner. If the employer fails one of the requirements then the exemption is not applicable.

During the pre-test phase, the employer must inform the employee of his/her right to preview all proposed questions. This would exclude the 'element of surprise from the actual testing as well as to neutralize any adverse factors'.⁴¹ As provided in sections 2007(b)(2)(D) and 2007(b)(2)(E), the employee must also be informed that the test itself is voluntary and he/she may terminate the examination at any time and that he/she cannot be disciplined for making such decision. According to section 2007(b)(2)(A), the employer must further provide a reasonable written notice to the examinee of the date, time and location of the test as well as his/her right to legal representation and remedies. Finally, the employee must be informed in writing of the nature of the test and the characteristics of the instruments being used. He/she should further be advised whether the test will be recorded or viewed through a two-way mirror, according to sections 2007(b)(2)(B) and 2007(b)(2)(C). Section 2007(b)(3) provides that during the actual test phase, the examiner may ask only questions that were presented to the employee before the test. Section 2007(b)(5) provides for a test duration of at least 90 minutes and states that an examiner may not conduct more than five tests per day. After the examination, the management may not take any adverse employment action without interviewing the examinee about the test results and providing him/her with a written copy of the questions asked and an analysis of the results in terms of section 2007(b)(4). Throughout all phases of the test, the employee has certain unconditional rights. He/she may not be asked any degrading or unnecessarily intruding questions as provided in section 2007(b)(1)(B). In terms of section 2007(b)(1)(C) the examiner may further not ask any question concerning religious and political beliefs, racial matters, sexual behaviour and beliefs and activities linked to unions or labour organizations because these matters are seen as being irrelevant. The EPPA prohibits polygraph testing in section 2007(b)(1)(D) if there is sufficient written evidence by a physician that the employee suffers from a *'medical or psychological condition or undergoing treatment that might cause*

⁴¹ Section 2007(b)(2)(E) of the EPPA; Koontz Sening, op. cit., 259.

abnormal responses during the actual testing phase'. All factors can jeopardize the accuracy of the examination. Section 2007(b)(1)(A) provides for the examinee's right to terminate the test at any time for medical or any other reasons, without consequences of a disciplinary nature other than those permitted under the exceptions. This follows from the examinee's constitutional right to privacy.⁴²

Section 2007(c)(1) provides that the examiner must meet minimum qualifications such as '*a valid and current licence granted by licensing and regulatory authorities*' as well as minimum liability coverage of US\$ 50,000 or an equivalent amount. Section 2007(c)(2)(A) requires that the examiner may merely analyze the test results and base his/her conclusion solely on the results. This analysis may not include any personal recommendations concerning the examinee's employment.

Section 2008 permits disclosure of the test results only to the examinee, the employer who requested the test and any court, governmental agency, mediator or arbitrator pursuant to a court order. The examiner must keep all records and reports of the test for at least three years as provided in section 2007(c)(2)(B).

If the employer has violated any provisions of the EPPA, the Secretary of Labour may assess civil penalties of up to US\$ 10,000, depending on the severity of the infringement in terms of section 2005(a).

The EPPA further provides in section 2005(c) that the employee has a private right of civil action against the employer who violated the EPPA for damages suffered. This includes, but is not limited to, employment, reinstatement, promotion, and the payment of lost wages and benefits.

The EPPA prohibits a waiver of these rights in section 2005(d) unless it is part of a written agreement signed by the parties to the pending action.

4.2.3.1 Private employment

The EPPA provides for an exemption for the private sector. Section 2006(d) is the most relevant provision for this research, bearing in mind the extensive and increasing use of polygraph testing in the South African private industry, mainly in connection with investigations into specific crime or misconduct. Section 2006(d) of the EPPA reads as follows:

⁴² Koontz Sening, *op. cit.*, 254.

Limited exemption for ongoing investigations

Subject to sections 2007 and 2009 of this title, this chapter shall not prohibit an employer from requesting an employee to submit to a polygraph test if -

(1) the test is administered in connection with an ongoing investigation involving economic loss or injury to the employer's business, such as theft, embezzlement, misappropriation, or an act of unlawful industrial espionage or sabotage;

(2) the employee had access to the property that is the subject of the investigation;

(3) the employer has a reasonable suspicion that the employee was involved in the incident or activity under investigation; and

(4) the employer executes a statement, provided to the examinee before the test, that -

(A) sets forth with particularity the specific incident or activity being investigated and the basis for testing particular employees,

(B) is signed by a person (other than a polygraph examiner) authorized to legally bind the employer,

(C) is retained by the employer for at least 3 years, and

(D) contains at a minimum -

(i) an identification of the specific economic loss or injury to the business of the employer,

(ii) a statement indicating that the employee had access to the property that is the subject of the investigation, and

(iii) a statement describing the basis of the employer's reasonable suspicion that the employee was involved in the incident or activity under investigation.

In terms of section 2006(d)(1), private employers may still use polygraphs in the case of an *'ongoing investigation involving economic loss or injury to the employer's business'*. Besides an ongoing investigation, there are three more conditions before management may request an examination. If the employer fails one of the requirements, the exemption does not apply and the employer becomes liable under the EPPA. In terms of section 2006(d)(2) the employer must first show that *'the employee had access to the property that is subject of the investigation'*. Secondly, section 2006(d)(3) provides for that the employer must establish *'a reasonable suspicion that the employee was involved in the incident'*. Finally, according to

section 2006(d)(4) the employer must provide the examinee with a written statement detailing the employer's economic loss, the employee's access and the basis for reasonable suspicion.

Section 2006(d) is intentionally 'narrowly construed and subject to careful restrictions and conditions' to prevent abuse of polygraph testing.⁴³ The language of the section also indicates this by specifying that it is a '*limited exemption*'.

The employer may only request but not compel the employee to take the test as provided in section 2006(d).

In the following, we consider the requirements of section 2006(d) of the EPPA in more detail.

4.2.3.2.1 Ongoing investigation

The term '*ongoing investigation*' indicates that a specific incident must be under investigation, for instance, theft or fraud. Hence, unspecified random testing of employees and pre-employment screening are excluded. This indicates that the EPPA recognizes the validity of a polygraph used in connection with investigations of specific incidents, rather than as a prediction of future performance. The employee's misconduct must have caused a specific economic loss or injury to the employer's business. It includes both direct misconduct, for instance, theft in the workplace, and indirect misconduct, the use of the employer's business to commit the crime, loss or injury. '*Injury to the employer's business*' can be, for instance, industrial espionage concerning trade secrets or sabotage. Breach of trust can constitute an '*injury*'. The section has a broad scope as it includes acts that did not cause economic loss. The mere occurrence of an illegal act is, however, not sufficient. According to the Department of Labour regulation 801.12, loss or injury must be the result of intentional or illegal conduct. The section requires '*loss or injury to the employer's business*'. Consequently, the EPPA does not apply to misconduct amongst employees.

4.2.3.2.2 Access to the property

The EPPA further requires that the examinee had '*access to the property*'. However, the statute does not define the term '*access*'. The courts define it as having the

⁴³ *Mennen v Easter Stores*, 951 F. Supp. 838 at 851 (N.D. Iowa, 1997).

opportunity that requires more than direct or physical contact with the property during employment.⁴⁴

4.2.3.2.3 Reasonable suspicion

In addition, the employer must show that it had '*reasonable suspicion that the employee was involved in the incident*'.

The EPPA does not define '*reasonable suspicion*'. Reasonable suspicion lies between 'mere suspicion' and 'probable cause'.⁴⁵ The Department of Labour regulations define it as 'an observable, articulable basis in fact which indicates that a particular employee was involved in, or responsible for, an economic loss'.⁴⁶ Therefore, having access and potential opportunity alone does not constitute reasonable suspicion.⁴⁷ Access is also one of the requirements for an ongoing investigation listed in section 2006(d). All circumstances surrounding access or opportunity need to be considered, particularly whether these are of an unauthorized or unusual nature.⁴⁸ Factors such as employee's behaviour, inconsistencies between facts, and information from other employees are useful in this regard.

Some employers ask their employees to sign a document where they say that their employer had a reasonable suspicion. The rights or procedures of the EPPA cannot be waived unless they are part of a written settlement.⁴⁹

Further, in terms of '*reasonable suspicion*', the exemption limits the use of blanket testing of a group of employees. Blanket testing means that in order to investigate a specific incident in the workplace, the employer requests all employees who had access to the property to undergo a polygraph test. In *Polkey v Transtecs*

⁴⁴ *Burton v Gerland's Food Fair, Inc.*, 1998 Tex. App. LEXIS 7672 (Court of Appeals of Texas, 1998).

⁴⁵ Chin, op. cit., 1338.

⁴⁶ 29 CFR § 801.12(f)(1).

⁴⁷ *Polkey v Transtecs Corporation*, 404 F.3d 1264 at 1270 (11th Cir. 2005): Misconduct, in the form of opening of mail, had occurred. All mailroom employees including Polkey were asked to submit to a polygraph exam, which they did. They all refused to submit to a second polygraph test. Polkey was dismissed one week later but for other misconduct. Transtecs Corporation claimed that its polygraph request fell under the '*national defence*' exemption and the '*ongoing investigation*' exemption. The court made it clear that the '*national defence*' exemption, section 2006(b)(1), applies only to federal government. Private employers or contractors may not conduct polygraph tests under the exemption. They must argue '*ongoing investigation*'.

⁴⁸ *Long v Mango's Tropical Café, Inc.*, 958 F. Supp. 612 at 616 (S.D. Florida, 1997): The employee worked as a barmaid and was suspected of having committed theft. The employer employed undercover agents to observe its employees. Based on the agent's report, Long was suspended and was asked to take a polygraph test. The employer argued that the polygraph test was requested in connection with an ongoing investigation into theft.

⁴⁹ Ibid.

Corporation, the court held that in terms of the ongoing investigation exemption, section 2006(d)(3) requires 'reasonable suspicion as to each individual employee'.⁵⁰ This is relevant, as specific-event examinations in the workplace typically constitute blanket testing.⁵¹ However, the court's argument is confusing. Polkey took one polygraph examination before she refused to take another one. The court only deals with the second test.⁵² At the time of the second examination, Polkey's supervisor stated that Polkey was not under suspicion anymore as she had passed the first test. Prior to the testing, however, Polkey's supervisor suspected one employee of being responsible for the theft who then failed the first examination. Therefore, the first examination already constituted blanket testing as all six employees of the mailroom were requested to undergo a test. Those six workers had mere access, which on its own is not sufficient for reasonable suspicion. Reasonable suspicion requires more than just having access to the property, as mentioned above. Hence, section 2006(d) does not apply to blanket testing, unless the employer can show reasonable suspicion about each tested employee or employee that was asked to submit to a test. Thus, the EPPA restricts considerably the use of polygraph testing.

4.2.3.2.4 Written statement

In terms of section 2006(d)(4), the employer must provide the employee with written notice, but the section does not give a specific date or time.

Hence, the question arises whether the employer must provide a statement at the time of the request. The provision uses the term '*examinee*', whereas everywhere else in the EPPA the term '*employee*' is used. Consequently, in *Polkey v Transtecs Corporation* the court held that the employer must provide the statement before the polygraph examination, and not at the time of the request to submit to the test. The court concluded that Polkey never became an '*examinee*' because she refused to submit to a test,⁵³ as opposed to the decision in *Wiltshire v Citibank* where the employee had also refused to take a polygraph test.⁵⁴ In this case the court considered each requirement of section 2006(d)(4) and found that the section requires a written

⁵⁰ *Polkey v Transtecs Corporation*, 404 F.3d 1264 at 1270 (11th Cir. 2005).

⁵¹ The issue of blanket testing is further considered in chapter six *infra*.

⁵² *Polkey v Transtecs Corporation*, 404 F.3d 1264 at 1270 (11th Cir. 2005): 'At the time of Transtecs' second request, the company aimed to test all of its employees only in order to absolve the company of any responsibility for the theft.'

⁵³ *Ibid*.

⁵⁴ *Wiltshire v Citibank*, 653 N.Y.S.2d 517 (Supreme Court of New York, 1996).

statement prior to any request for a polygraph test so that the employee is able to consult with a counsel about whether to submit to a requested test.⁵⁵ The court found that the employer had failed to comply with section 2006(d)(4).

The Department of Labour regulation 801.12(g)(2) states that an employer must provide the statement at least 48 hours prior to the examination. If one were to agree with the judgment in *Polkey*, the standards would be set lower in the case of the employee's refusal. The employer would only have to meet the requirements of section 2006(d)(1) to (3), which would however be to the employee's disadvantage. It is questionable whether this is the legislative intent, as the exemptions must be restrictively applied to protect employees. Although the EPPA uses both the terms 'employee' and 'examinee', with the request to submit to the test, an employee becomes an examinee. Consequently, the employer must provide a detailed written statement at the time of the request so that the employee can decide whether to take the test or to refuse to do so.

4.2.3.2.5 Additional supporting evidence

In terms of section 2007(a)(1) an employee may not be dismissed, disciplined, or even promoted solely on the basis of the result of a polygraph test or the refusal to take one, in order to reduce the possibility of inaccurate results.

Therefore, the question arises about what type of evidence may serve as additional evidence. The employer may use, for instance, admissions or statements of the employee before, during or after the examination as additional evidence. The section itself provides for that '*the evidence required by such subsection may serve as additional supporting evidence*'. According to the clear unambiguous language of the provision, confirmed by the Department of Labour regulation 801.20(b), access and reasonable suspicion may serve as supporting evidence and one of the two factors would be sufficient. Yet in this case, section 2007(a)(1) would be superfluous because the employer has to have both already under section 2006(d). There appears to be no case law which would help to clarify the problem.

⁵⁵ Ibid. at 523 and 524.

4.2.3.2 Security services

The EPPA provides in section 2006(e) another exception for private employers in terms of security services. According to section 2006(e)(1), the security service includes all employers providing personnel for armoured cars, designing, installing or maintaining security alarms, or providing plainclothes security personnel.

The employer must ensure that following requirements are met before he/she requires or requests a test. Unlike under the ongoing investigation exemption, the employer may require a test because section 2006(e)(1) allows '*the use of polygraph tests*'. In terms of section 2006(e)(1), security services must be the '*primary business purpose*'. Further, the polygraph examination must be done to provide protection to '*facilities, materials, operations, or assets*' having a significant impact on the health or safety of the public.

The exception also applies to prospective employees, but only if they will have access to the facilities in terms of section 2006(e)(2). The employer may request current employees to take a test under section 2006(d). Moreover, section 2006(e) provides extended coverage to individuals whose duties relate to the security of covered facilities and so forth directly or indirectly but might be unrelated to security services. However, they are only included if their jobs have a significant impact on the health or safety of the public. Some procedural provisions, such as sections 2007 and 2008, further restrict the use of polygraph tests under the exemption.

In terms of section 2007(a)(2), the results of a test or the refusal to undergo an examination may not be used without additional evidence against current or prospective employees. Unlike the 'ongoing investigation' exemption, this section does not mention what kind of evidence the employer may use as additional evidence. Section 801.21(b) of the Department of Labour regulations is of some help: The employer may consider factors such as prior employment experience, education, job performance, admissions or statements by the employee.

4.2.3.3 Pharmaceutical services

Finally, the EPPA allows in section 2006(f) tests within drug security, drug theft or drug diversion investigations, to monitor employees engaged in the manufacture,

distribution, or dispensation of controlled substances. As with security services, an employer may require a polygraph examination.

The prospective employee may be tested in terms of section 2006(f)(2)(A) if the employer can show that the applicant *'would have direct access to the manufacture storage, distribution, or sale of any such controlled substance'*.

During the course of employment, an examination may only be conducted if it *'is administered in connection with an ongoing investigation of criminal or other misconduct ... or loss or injury to manufacture'*. The employer must only establish that the employee had *'access to the ... subject of investigation'* as provided in section 2006(f)(2)(B). Again, there must be other supporting evidence according to section 2007(a)(2).

4.2.4 Assessment and impact of the EPPA

An evaluation of the EPPA, including its impact on employees' testing, is relevant as the current South African situation might demand the enactment of similar legislation.

The EPPA addresses the use of polygraph tests in the private but not in the public sector. It is evident that the government did not want to give up a tool that had proved to be very useful.

Polygraph testing in the workplace has indeed declined since the enactment of the EPPA.⁵⁶ There are not many judgments dealing with claims of violation of the EPPA. As seen above, the statute banned periodic testing completely in private employment. Pre-employment screening is only allowed under the exemptions for security and pharmaceutical services. Specific event testing is still possible under the *'ongoing investigation'* exemption, yet subject to strict guidelines to prevent abuse of polygraph testing. Hence, one would actually expect that most court cases would deal with the application and requirements of the EPPA exemptions. However, this is not the case. Most decisions address the notion of *'employer'* in terms of section 2001(2) for purposes of liability.⁵⁷ A very few consider claims regarding the *'ongoing*

⁵⁶ *Polkey v Transtecs Corporation*, 404 F.3d 1264 at 1268, footnote 5 (11th Cir. 2005).

⁵⁷ See supra. For example, *Fallin v Mindis Metals, Inc.*, 865 F.Supp. 834 (N.D. Georgia, 1994); *Rubin v Tourneau, Inc.*, 797 F.Supp. 247 (S.D.N.Y.1992); *Calbillo v Cavender Oldsmobile, Inc.*, 288 F.3d 721 (5th Cir. 2002); *Watson v Drummond Co.*, 2006 U.S. App. LEXIS 1352 (11th Cir. 2006).

investigation' exemption.⁵⁸ In terms of an ongoing investigation, the employer must show that he/she had '*reasonable suspicion*' when requesting a polygraph test from the employee. The courts have considered what constitutes '*reasonable suspicion*'. Further, according to the EPPA, the employer may not discipline an employee solely based on the outcome of a polygraph test. There must be other additional evidence, such as '*access to the property*' in terms of sections 2006(d)(2) and 2007(a)(1). There appears to be no court decision specifically dealing with the problem of '*additional supporting evidence*'.

It is evident that with the enactment of the EPPA, a private employer remains on the safe side if he/she dismisses or disciplines an employee on mere suspicion rather than trying to investigate and strengthen its suspicion with the help of a polygraph test.⁵⁹ This indicates the legislative intent to ban most polygraph testing from private employment. Employers may not pick out the 'undesirables' among their employees. The EPPA seeks to encourage management to use other techniques of employment screening and internal control.⁶⁰ Blanket testing of a group of employees does not meet the requirement of '*reasonable suspicion*' and therefore is prohibited under the EPPA.

There appears to be only one case where it was held that the employer had complied with the EPPA. In *Burton v Gerland's Food Fair, Inc.* the court did not find any violation of the EPPA.⁶¹ The court found that the employer had complied with the requirements of the '*ongoing investigation*' exemption. In particular, the court considered whether the employee had '*access to the property*' and whether the employer showed '*reasonable suspicion*'. Unfortunately, the judgment does not mention what kind of supporting evidence the employer had submitted as required by section 2007(a).

⁵⁸ *Mennen v Easter Stores*, 951 F. Supp. 838 (N.D. Iowa, 1997); *Polkey v Transtecs Corporation*, 404 F.3d 1264 (11th Cir. 2005).

⁵⁹ The court stated in *Mennen v Easter Stores*, 951 F. Supp. 838 at 857 (N.D. Iowa, 1997) that 'while in one sense one can hardly fault Easter for waiting for the results of the polygraph examination, ostensibly wanting the assurances of a polygraph test rather than relying on mere suspicion, this is a choice Congress clearly foreclosed when it passed the EPPA'. Further at 856 it is said that 'the irony of this case ... is that Easter could have discharged Mennen, prior to any polygraph examination, simply based upon a mere suspicion that he committed the theft'.

⁶⁰ Koontz Sening, *op. cit.*, 260.

⁶¹ *Burton v Gerland's Food Fair, Inc.*, 1998 Tex. App. LEXIS 7672 (Texas, 1998): The employee was charged with theft of money. During the polygraph exam, the employee refused to answer to the test questions. She was dismissed for violating a store policy and for failing to co-operate in the investigation of the theft.

The EPPA provides federal minimum standards for all employees as it sets the requirements for examiners and the duration of tests. It restricts the above-mentioned 'at-will' doctrine and limits the scope of permissible test questions. Employers can only use the test results or the employee's refusal to take a test as additional evidence, in terms of section 2007(a), but this provision appears to be superfluous for the above-mentioned reasons.⁶² Because the EPPA provides exemptions, it limits the civil liability of employers.

In the first place, section 2002 of the EPPA has a very broad scope. An employer may not even request a test. He/she may not use the test results from another source, for instance, a polygraph examination that the police conducted during the course of its investigation. The mere request for a test violates the Act. The employer does not even have to take action based on the test. The exemptions are subject to strict guidelines, in particular the '*ongoing investigation*' exemption. It is difficult to meet all requirements of the '*ongoing investigation*' exemption as the court cases has shown. If the employer fails one of them, it cannot claim the exemption.

There are some inherent inconsistencies and inherent problems with the exemptions under the EPPA. The statute has been primarily enacted in response to employer's abuse of the polygraph and the inaccuracy of polygraphs. In providing exemptions, the EPPA opens the door to constitutional challenges asserting privacy violations and lack of equal protection. Moreover, although the ongoing investigation exemption was a result of a compromise with the employers, the polygraph can be either accurate or not. The EPPA attempts to minimize the invasion of privacy by providing certain rights to the examinee and designing some procedural guidelines such as prohibiting questions to specific areas, as well as limiting disclosure of test results only to authorized persons. The employee may also refuse to submit to the examination, but refusal can be used together with other evidence to discharge him/her.

Furthermore, the EPPA fails to prevent use of polygraph testing by permitting exceptional access to polygraphs in some circumstances, such as in the public sector. Individual rights are balanced with public interest that would legitimate the use of polygraphs 'to protect the national interest, or sensitive information ... to act as a

⁶² See chapter 4.2.3.2.5 *supra*.

deterrent ... to drug trafficking, or merely to ensure trust and responsibility among public employees'.⁶³

The EPPA establishes requirements and qualifications for examiners. The provision is obviously designed to promote test accuracy. It is believed that the polygraph's accuracy depends mostly on the competency of the examiner. However, as discussed above, the theory underlying polygraph testing is inherently flawed. The use of polygraphs is always linked with uncertainty due to the diversity of human responses and likely human errors. The provisions do not guarantee accuracy. Further, in section 2007(c)(1)(A), the EPPA delegates the authority to establish licensing laws to the states, instead of establishing federal standards.

According to section 2009, the EPPA does not pre-empt any state law or collective bargaining agreement that is more restrictive than the EPPA. State legislation is considered in the following section.

4.3 State statutes on polygraph testing in employment

Most states have adopted specific regulations on polygraph testing in employment.⁶⁴ The polygraph is completely banned from the employment setting only in a few states such as Minnesota and Oregon. Some state legislation is more restrictive than the federal EPPA. Most state codes however provide exceptions to the prohibition. Some regulations are very similar to the EPPA in this regard. The individual states will be reviewed in alphabetical order.

Alabama has specific regulations which forbid polygraph testing of current employees in the public sector and which are therefore more restrictive than EPPA. In terms of the Alabama Code, '*no person may require or demand as a condition of continued employment with the State of Alabama, any county, or any municipality that an individual submit to or take a polygraph or similar test*'.⁶⁵ The employer can however request or suggest a test.

⁶³ Koontz Sening, op. cit., 267.

⁶⁴ Except for Arizona, Arkansas, Colorado, Florida, Georgia, Indiana, Kansas, Louisiana, Missouri, New Hampshire, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Utah and Wyoming.

⁶⁵ Alabama Code (1998), section 36-1-8.

In *Alaska*, no employer other than police departments may request or make it a term or condition of employment that employees or applicants take polygraph examinations.⁶⁶

Californian law prohibits pre-employment screening, except for the federal, state and local governments.⁶⁷ No public safety officer can be compelled to undergo a test.⁶⁸

Screening is limited in *Connecticut*, except for police officers.⁶⁹

In *Delaware*, employers, excluding law enforcement agencies, may not require or suggest a polygraph test for any purpose.⁷⁰

In the *District of Columbia*, pre-employment and employment screening is prohibited with the exception of police, fire fighters, and corrections employees. The test results may not be used as sole evidence.⁷¹

Pre-employment and employment testing is prohibited in *Hawaii* except for federal government and law enforcement agencies.⁷²

Idaho prohibits the screening of prospective and current employees except for those employees in the federal government, State of Idaho, and any political subdivision of the State.⁷³

Law enforcement officers and fire fighters cannot be required to take a test and cannot be disciplined for refusing in *Illinois*. A test may not inquire into areas such as religious beliefs, political beliefs, or sexual preferences unless they are related directly to employment.⁷⁴

In *Iowa*, an employer may not request or require an employee or applicant to take a test. The provision does not apply to applicants for a position with a law enforcement agency, and applicants for employment as peace or corrections officers.⁷⁵

⁶⁶ Alaska Statutes (1998), section 23.20.037.

⁶⁷ Cal. Labor Code (1971), section 432.2.

⁶⁸ Cal. Government Code (1971), section 3307.

⁶⁹ Conn. Gen. Stat. (1983), section 31-51(g).

⁷⁰ Del. Code Ann. (1979) Title 19, section 704.

⁷¹ D.C. Code Ann. (1981), sections 32-901, 32-902, 32-903.

⁷² Hawaii Rev. Stat. (1976), section 378-26.

⁷³ Idaho Code (1977), sections 44-903 to 904.

⁷⁴ ILCS (2006), sections 725/3.11 and 745/3.11.

⁷⁵ Iowa Code (2001), section 730.4.

Testing of law enforcement applicants is explicitly permitted in *Kentucky* but the test results may not be disclosed.⁷⁶

Polygraph examination of prospective and current employees as well as the use of test results for employment purposes is prohibited in *Maine*. This prohibition also applies to employment agencies, but law enforcement agencies are excluded.⁷⁷

Maryland law prohibits pre-employment and employment screening except for law enforcement agencies. An employer must inform applicants that state law does not allow polygraph testing as a condition of employment.⁷⁸

Testing of job applicants and employees is prohibited in *Massachusetts*. The law requires a notice in the application that screening is not allowed. Law enforcement agencies are excluded.⁷⁹

In *Michigan*, an employer may not request or require current and prospective employees to take a polygraph test. An applicant or employee may voluntarily request a test.⁸⁰

The *Minnesota* Polygraph Statute prohibits testing of both current and prospective employees. The employee may request a test.⁸¹

Pre-employment polygraph screening of law enforcement officers is explicitly allowed in *Mississippi*.⁸²

The *Montana* Code provides for protection for both private and public employees, and for current and prospective employees.⁸³ According to the Code, employers may not require a polygraph test, but legislation does not prohibit requesting or suggesting an examination. Prior to the Code's amendment, employees of public law enforcement agencies were excluded from its scope. The constitutionality of the relevant provision was challenged in *Oberg v Billings*.⁸⁴ As a police officer, Oberg

⁷⁶ Ky. Rev. Stat. (2006), sections 15.382 and 15.400.

⁷⁷ Me. Rev. Stat. Ann. (1979), tit. 32, section 7166.

⁷⁸ MCA (2004), section 3-702.

⁷⁹ Mass. Gen. Laws Ann. (1982), ch. 149, section 19B.

⁸⁰ Michigan Polygraph Protection Act of 1981, sections 37.201-208.

⁸¹ Minnesota Statutes (1999), ch. 181, section 75.

⁸² Mississippi Code (1972), section 45-3-47.

⁸³ Mont. Code Ann. (2005), section 39-2-304: 'Lie detector tests prohibited (1) A person, firm, corporation, or other business entity or its representative may not require a person to take a polygraph test or any form of a mechanical lie detector test as a condition for employment or continuation of employment.'

⁸⁴ *Oberg v Billings*, (1983) 674 P.2d 494 (Supreme Court of Montana).

was an employee of a law enforcement agency. Oberg was requested to take a polygraph test as part of an investigation into police officer's actions based on a citizen's claim. The court considered whether the legislative classification was constitutional by looking at purpose and scope of classification. Why are certain employees excluded from the scope of the section? Is there a legitimate state interest for treating those employees differently from other public employees? The court held that all employees who are explicitly excluded from the scope of the provision would become 'second-class citizens. The loose wording and absence of enforcement guidelines from which a purpose for the classification might be discerned, make this statute unconstitutional on its face'.⁸⁵ The order to take the polygraph test had violated Oberg's right to the equal protection of the law, although it was argued that the police officer's high position of trust could justify this exclusion. The legislature, not the court, must define the class that is excluded from the scope. The fundamental right of individual privacy was infringed.

In *Nebraska*, an employer may not require a polygraph test as a condition of employment or continued employment. Law enforcement agencies are an exemption. An employer may however request an examination but has to follow strict guidelines. For instance, the questions must be job-related in pre-employment screening. In the case of current employment, the test must be administered in connection with a specific investigation and the employee may not be dismissed based solely on the test results.⁸⁶ The provisions are therefore contrary to the EPPA and private employers may only request tests in terms of section 2006 of the EPPA.

The *Nevada* state provisions are similar to those of the EPPA. Polygraph testing may not be required as a condition of employment or continued employment, except where there is an economic loss or injury under investigation. The employer must provide the employee with a written statement. Pre-employment screening is permitted in respect of applicants who will be employed to protect facilities, materials, or operations regarding the health and safety of a state or any political subdivision thereof, armoured car personnel, installers of security alarm systems, and employees with direct access to controlled substances.⁸⁷

⁸⁵ *Oberg v Billings*, (1983) 674 P.2d 494 at 496 (Supreme Court of Montana).

⁸⁶ Nebraska Rev. Stat. (1943), section 81-1932.

⁸⁷ Nev. Rev. Stat. (2005), sections 613.480, 613.510, 648.183.

In *New Jersey*, an employer may not require a test from applicants or employees, except for employers who manufacture or distribute dangerous substances.⁸⁸

The *New York* state law prohibits psychological stress evaluation of an employee or applicant, but in this regard, refers to the assessment of a person's 'vocal fluctuations and vocal stress'.⁸⁹ Psychological stress evaluation is included in the definition of a 'lie detector' in section 2001(3) of the EPPA.

In *Oregon*, subjecting applicants or current employees to a polygraph test constitutes an unlawful employment practice. A person may voluntarily consent to an examination during the course of criminal or civil judicial proceedings.⁹⁰

Under *Pennsylvanian* law, polygraph testing may not be used in current employment, except for law enforcement and persons who have access to dangerous drugs.⁹¹

An employer in *Rhode Island* may not require or subject an applicant or employee to a polygraph test.⁹²

The relevant provisions of the *Tennessee* Code deal mainly with the licensing of polygraph examiners but also provide that an employer may not take any personnel action based solely upon the results of a polygraph examination.⁹³

Texas has a specific regulation for employees of the Department of Justice who may not be suspended, dismissed, or subjected to any other form of employment discrimination by the department for refusing to take a polygraph test.⁹⁴

In *Vermont*, an employer may not require an applicant or employee to take a polygraph test or take any adverse action because of the refusal to submit to a test. Exceptions in terms of pre-employment screening include law enforcement agencies, gems or precious metals businesses operating as primary businesses, and retail sellers of regulated drugs.⁹⁵

⁸⁸ New Jersey Stat. Ann. (2007), section 2c:40a-1.

⁸⁹ New York Consolidated Laws (Labor), sections 733 – 739.

⁹⁰ Oregon Rev. Stat. (2005), sections 659.840 and 659A.300.

⁹¹ Pennsylvania Consolidated Statutes (Trade and Commerce), ch.3, section 7321.

⁹² Rhode Island Gen. Laws (1979), sections 28.6.1-1 to 2.

⁹³ Tennessee Code Ann. (Polygraph Examiners Act of 1978), section 62-27-128.

⁹⁴ Texas Government Code (1997), section 493.022. The Code was amended in 1997 in order to prohibit employment discrimination against certain employees of the Texas Department of Criminal Justice for refusing to take a polygraph examination.

⁹⁵ Vermont Stat. Ann. (2006), Tit. 21, sections 494(a) and 494(b).

A *Virginian* employer may not ask an applicant or employee about his/her sexual activities unless he/she has already been convicted of a sex crime in Virginia. Prior to the enactment of the EPPA, polygraph tests could be used as a condition of employment under the *Virginian* statute. The statute does not apply to the state or its agencies. The police cannot require employees to take a polygraph examination but the chief may require, by written directive, a polygraph for a particular internal administrative investigation into misconduct or crime.⁹⁶

In *Washington* an employer, including the state and its political subdivisions, may not require an applicant or employee to take a polygraph test as a condition of employment or continued employment. Applicants for employment with law enforcement agencies are excluded. Persons who manufacture or distribute controlled substances, or persons in sensitive positions directly involving national security can be required to submit to a test as a condition of employment or continued employment.⁹⁷

No employer may require or request, either directly or indirectly, that an employee or prospective employee of such an employer submit to a polygraph test in *West Virginia*. An employer may not use the test outside the state for employment decisions. The statute applies to state and private employers, except for employers who manufacture, distribute or dispense drugs, law-enforcements agencies, and the military.⁹⁸

The state provisions in *Wisconsin* are similar to those of the EPPA. Polygraph testing of prospective and current employees is not allowed, except for ongoing investigations into economic loss, as well as for certain security industries and law enforcement agencies. The test results may not be used without additional evidence. The rights of the examinee as well as the requirements for the administration and evaluation of a polygraph examination are also regulated.⁹⁹

Most statutes, for instance, the Iowa Code and the Michigan Polygraph Protection Act, provide that an employer may not require or request its current employees to submit to a polygraph test as a condition of continued employment. Therefore, consequences for the employee's status of employment arise from the outcome of the

⁹⁶ Virginia Stat. (1977), section 40.1-51, 4:3; section 40.1-2.1; section 40.1-51.4:4.

⁹⁷ Revised Code of Washington (2006), sections 49.44.120 and 49.44.135.

⁹⁸ West Virginia Code (2006), sections 21-5-5a and 5b.

⁹⁹ Wisconsin Stat. Ann. (1995), section 111.37.

test or the refusal. What happens if the employer does not use or refer to the results? The test would be permitted. However, section 2002 of the EPPA prohibits the requiring or suggesting of the test. The employer may not administer a test, may not cause a test to be conducted, and may not refer to the test result as, for example, in the regulations of the state of Maine. The Minnesota Polygraph Statute provides comprehensive protection, as it says that an employer may not require or request a polygraph test. State laws often provide exemptions for employees of the government and law enforcement agencies.

4.4 Law of evidence

This section considers the admissibility of polygraph evidence according to the law of evidence, which includes the Federal Rules of Evidence (F.R.E) and some relevant court cases such as *Daubert*.¹⁰⁰ Since the introduction of the F.R.E. in 1975, the courts' general approach towards the admissibility of polygraph evidence has changed. The section is relevant since South Africa has no specific legislation regarding the use of polygraph testing in private employment, and the admissibility of the results in labour disputes is not addressed consistently.

4.4.1 Federal Rules of Evidence of 1975

The F.R.E. regulate the admissibility of evidence in both civil and criminal proceedings. Although they apply only in federal courts, most states have adopted similar rules of evidence. Prior to the enactment of the rules, the federal system relied on case law, and courts did not accept the outcome of a polygraph test.¹⁰¹ However, this has changed since the F.R.E. were introduced. The following rules are relevant in terms of polygraph evidence.

Evidence must be relevant in order to be admissible. F.R.E. 401 defines relevant evidence as '*evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence*'. Evidence must have sufficient probative value to justify its introduction in court. However, according to F.R.E. 402, not all relevant

¹⁰⁰ *Daubert v Merrell Dow Pharmaceuticals*, 509 U.S. 579 (1993).

¹⁰¹ See *infra*.

evidence is admissible as the law can require its exclusion. Bearing in mind the discussion in chapter two, particularly the lack of scientific proof in the employment context, it is questionable whether polygraph evidence can be admissible under rules 401 and 402.

F.R.E. 403 excludes relevant evidence if such evidence is more prejudicial than probative. This is the case where the *'probative value is substantially outweighed by its danger of unfair prejudice, confusion of the issues, or misleading the jury, or by consideration of undue delay, waste of time, or needless presentation of cumulative evidence.'* The rule excludes evidence if its admission would be harmful. In terms of polygraph evidence, it is argued that it misleads the jury, leads to issues being confused, and wastes time with collateral issues, instead of dealing with evidence on the main issue. In order to determine the accuracy of an individual polygraph examination, evidence is required about the test administration and evaluation of the results, as well as the qualifications of the examiner. Polygraph evidence also has a prejudicial effect, particularly when it is solely used to bolster or undermine a witness's credibility, especially where credibility is the main issue of the case, which is the case where there is no other reliable evidence apart from the witness's statement.¹⁰² Its probative value is minimal due to the lack of accuracy. In terms of Rule 403, it was held that the polygraph evidence is prejudicial where it would constitute the 'tie-breaker' between two conflicting statements, which is normally the case. The court should then decide without considering the test results.¹⁰³

F.R.E. 608 deals with *'evidence of character and conduct of witness'*. Subdivision (a) provides that:

'The credibility may be attacked or supported by evidence in the form of opinion or reputation, but subject to these limitations: (1) the evidence may refer only to character for truthfulness or untruthfulness, and (2) evidence of truthful character is admissible only after the character of the witness for truthfulness has been attacked by opinion or reputation evidence or otherwise.'

¹⁰² *U.S. v Sherlin*, 67 F.3d 1208 at 1217 (6th Cir. 1995).

¹⁰³ *U.S. v Posado*, 57 F.3d 428 at 435 (5th Cir. 1995).

Subdivision (b) states that:

'Specific instances of the conduct of a witness, for the purpose of attacking or supporting the witness' character for truthfulness ... may not be proved by extrinsic evidence. They may, however, in the discretion of the court, if probative of truthfulness or untruthfulness, be inquired into on cross-examination of the witness (1) concerning the witness' character for truthfulness or untruthfulness, or (2) concerning the character truthfulness or untruthfulness as to which character the witness being cross-examined has testified ...'

With reference to subdivision (a), the polygraph cannot be used to determine a person's general character. Instead, it investigates whether a specific testimony was truthful or not. Therefore, polygraph evidence aims to bolster or undermine the credibility of the accused or a witness. Subdivision (b) deals with evidence of specific conduct of a witness. However, the provision encourages cross-examination, explicitly excludes external evidence, and therefore does not apply to polygraph evidence.

F.R.E. 702 deals with expert evidence. The rule provides that:

'If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if the testimony is based upon sufficient facts or data, the testimony is the product of reliable principles and methods, and the witness has applied the principles and methods reliably to the facts of the case'.

In order to assist the court, expert evidence must be both relevant and reliable. Therefore, in terms of Rule 104(a) the trial court must make a preliminary assessment of whether the theory or technique is scientifically valid and of whether it can be applied to the facts in issue. There is no legal requirement that expert evidence must satisfy a particular degree of reliability to be admissible.¹⁰⁴ 'Scientific' requires some foundation in the methods and procedures of science. However, the theory on which polygraph testing is based is flawed. 'Knowledge' is more than a subjective belief or unsupported speculation. It requires a standard of evidentiary reliability,¹⁰⁵ which the polygraph does not have.¹⁰⁶ If evidence is used to bolster a witness's credibility, the

¹⁰⁴ *U.S. v Scheffer*, 523 U.S. 303 at 334 (1998).

¹⁰⁵ *U.S. v Posado*, 57 F.3d 428 at 433 (5th Cir. 1995).

¹⁰⁶ See chapter two supra.

polygraph test does not provide the court with any additional information or help to find facts or to understand the evidence.

It is often argued that the testifying polygraph examiner usurps the role of the court, which makes the examiner's testimony inadmissible. Rule 704 deals with the opinion on an ultimate issue. In subdivision (a) it says:

'Except as provided in subdivision (b), testimony in the form of an opinion or inference otherwise admissible is not objectionable because it embraces an ultimate issue to be decided by the trier of fact.'

Subdivision (b) states that:

'No expert witness testifying with respect to the mental state or condition of a defendant in a criminal case may state an opinion or inference as to whether the defendant did or did not have the mental state or condition constituting an element of the crime charged or of a defense thereto. Such ultimate issues are matters for the trier of fact alone.'

The rule implies that evidence which is helpful to the court must be admissible, unless subdivision (b) applies, which it does not in respect of polygraph evidence. A polygraph examination is not administered to assess a person's mental state or condition.

The rules do not suggest a *per se* exclusion of polygraph evidence. The district courts may exercise discretion when dealing with the admissibility of scientific evidence, which includes polygraph evidence.¹⁰⁷

4.4.2 Case law on expert evidence

The United States Supreme Court has developed standards regarding expert evidence, which also apply to polygraph evidence. These standards have changed over the years. In 1923, the court held in *Frye* that scientific evidence must be generally accepted within its scientific community in order to be admissible evidence.¹⁰⁸ The polygraph was not accepted. *Frye* became the seminal polygraph case and consequently, over the next seven decades, virtually every state and federal court prohibited the admission of polygraph evidence, believing that substantial consensus

¹⁰⁷ *U.S. v Scheffer*, 523 U.S. 303 at 322 (1998).

¹⁰⁸ *Frye v U.S.*, 293 F. 1013 (1923).

in the scientific community promotes uniformity of decision. With the introduction of the F.R.E. in 1975, the *Frye* standard had to be reconsidered. In 1993, the Supreme Court developed a more tolerant approach towards polygraph evidence in *Daubert*.

4.4.2.1 Pre-*Daubert*

In *Frye v U.S.*, the evidence derived from a systolic blood pressure test was not admissible evidence in criminal proceeding because of a lack of general acceptance by the relevant scientific community. The court applied the so-called 'general acceptance test'.¹⁰⁹ In the court's view, the relevant scientific community in terms of lie detection comprised psychologists and physiologists. The court stated 'that truth is spontaneous, and comes without conscious effort, while the utterance of a falsehood requires a conscious effort, which' causes the physiological responses.¹¹⁰ The court also provided a definition of expert evidence: The issue to be decided must require 'special experience or special knowledge' in a 'particular science, art, or trade', as opposed to merely 'common experience or common knowledge'.¹¹¹ The standard did not apply only to the polygraph's admissibility but also to that of other scientific evidence. In fact, the defendant's counsel did not offer a polygraph test. It was a systolic blood pressure deception test, a predecessor of the polygraph, and therefore a monograph.

Admissibility of evidence cannot be decided based solely on general scientific acceptance. *Frye* as a rigid standard is not easy to apply to the individual case. The 'general acceptance test' hinders the introduction of evidence based on a new scientific method that has not yet gained acceptance.

Following *Frye* and prior to *Daubert*, the federal courts decided differently in terms of admissibility of polygraph evidence. The Second, Fourth, Fifth, and District of Columbia Circuits ruled that polygraph evidence was *per se* inadmissible evidence. The Eighth and Eleventh Circuits allowed admission for impeachment purposes or in the case of stipulation. The First, Third, Sixth, Seventh, Ninth and Tenth Circuits permitted admission at the discretion of the trial judge. For instance in *U.S. v A & S Council Oil Co.*, the court held that polygraph evidence is *per se* inadmissible only if

¹⁰⁹ Ibid.

¹¹⁰ Ibid. at 1014.

¹¹¹ Ibid.

offered to bolster or undermine the credibility of the witness. The test results should be admitted as an attack based on the expert's opinion, and not as a direct attack on the credibility of the witness.¹¹²

4.4.2.2 *Daubert* standard

In 1993, the court reconsidered the requirements for the admission of scientific evidence in *Daubert v Merrell Dow Pharmaceuticals*.¹¹³ The case did not deal with the polygraph but with an anti-nausea drug allegedly causing birth defects.

The court found that the *Frye* standard conflicted with the F.R.E. of 1975. The rules 'provide the trial judge with the task of ensuring that an expert's testimony rests on both a reliable foundation and is relevant to the case before the court'. *Daubert* replaced the *Frye* standard on the admissibility of scientific evidence, and focused on relevance and reliability in accordance with the federal rule of evidence rather than merely on the acceptance of the relevant scientific community. Instead of having strict rules that exclude evidence, it is left to the discretion of the district judge to admit or exclude evidence according to his/her assessment of reliability. Therefore, the courts of appeal will only consider whether the decision of the trial court was within its discretion and not arbitrary or disproportionate. In response to *Daubert*, the F.R.E. 702 was amended. The *Daubert* criteria for assessing reliability and validity of scientific evidence are (1) the testability of the technique; (2) whether it has been subject to peer review and publication; (3) the technique's known or potential error rate; (4) the existence and maintenance of standards controlling the technique's operation, and (5) whether the technique has been generally accepted within the scientific community.¹¹⁴ The list of the factors is not an exhaustive list.¹¹⁵

Let us look at how these criteria are fulfilled – or not – by polygraph testing. The first criterion requires a technique, which is objective and not simply subjective. Lack of objectivity, particularly in terms of test administration and score interpretation, is one of the main weaknesses of polygraph testing. The second criterion is relevant but not a condition for reliability. Regarding the known or potential error rate, there is no

¹¹² *U.S. v A & S Council Oil Co.*, 947 F.2d 1128 at 1135 (4th Cir. 1991).

¹¹³ *Daubert v Merrell Dow Pharmaceuticals*, 509 U.S. 579 (1993).

¹¹⁴ *Ibid.* at 580.

¹¹⁵ Cornell University, *Federal Rules of Evidence*, at www.law.cornell.edu/rules/fre/ACRule702.htm (accessed on 04 April 2006).

quality field research, particularly in the employment context and the polygraph's accuracy is often overestimated. Fourth, the EPPA sets some standards as to the examiner's qualifications and the administration of the test, which help to improve accuracy to some degree, but do not serve to overcome the inherent limitations of the test.¹¹⁶ In terms of the fifth factor, *Daubert* sustained *Frye's* 'general acceptance' test and acknowledged the importance of the opinion of the relevant scientific community. It is thus questionable whether polygraph evidence is able to pass the *Daubert* standard. However, the judgment gives proponents of the polygraph the opportunity to show the reliability and relevance of the evidence.

4.4.2.3 Post-*Daubert*

Most federal courts held that a *per se* ban would be inconsistent with *Daubert*. However, some Circuits such as the Fourth Circuit adhered to their *per se* exclusion rule regarding polygraph evidence. For instance, in *U.S. v Prince-Oyibo*, the court found that it was bound by the *per se* exclusion of polygraph evidence by prior precedent of the Fourth Circuit.¹¹⁷ The Second, Fifth and the Sixth Circuits followed the *Daubert* standard, but the courts did not want to hold that polygraph evidence was scientifically valid or of assistance to the court, for instance, in *U.S. v Posado*.¹¹⁸ In order to establish the admissibility of polygraph evidence, it was held that the court must determine whether the evidence is valid and reliable, if it assists the trier of fact in determining the fact at issue, and if it has an unfairly prejudicial effect that would substantially outweigh its probative value. If the polygraph evidence will be the 'tie-breaker' between two conflicting statements, the court should decide without considering the polygraph evidence because of its huge potential for prejudicial effect.¹¹⁹ The post-*Daubert* cases show that the courts are mainly consistent with the Supreme Court's decision but still reluctant to admit polygraph evidence. They exclude the evidence due to lack of reliability¹²⁰ or because it is prejudicial.¹²¹

¹¹⁶ Chapter two *supra*.

¹¹⁷ *U.S. v Prince-Oyibo*, 320 F.3d 494 at 501 (4th Cir 2003).

¹¹⁸ *U.S. v Posado*, 57 F.3d 428 at 434 (5th Cir. 1995).

¹¹⁹ *Ibid.* at 435.

¹²⁰ *U.S. v Cordoba*, 991 F.Supp. 1199 at 1205 (C. D. Cal. 1998).

¹²¹ *U.S. v Sherlin*, 67 F.3d 1208 at 1216 and 1217 (6th Cir. 1995).

In 1998, the Supreme Court considered polygraph expert evidence in *U.S. v Scheffer*.¹²² Although it concerns a court-martial matter, it is a relevant case. The Military Rule of Evidence 707 expressly prohibits the admissibility of any polygraph evidence.¹²³ Scheffer, a member of the air force, sought to submit the favourable results of a polygraph examination in order to support his testimony.

The court held that a *per se* evidentiary rule against the admission did not violate the constitutional rights of the accused to present a defence because the rule did not prevent the accused from submitting any fact or evidence about the crime itself. Evidence to bolster or undermine the accused's own credibility is not admissible in court.¹²⁴ A defendant has a right to present relevant evidence, but this right is subject to reasonable restrictions.¹²⁵ The Supreme Court held that the military rule of evidence was constitutionally permissible because there was still no consensus that the evidence is reliable and therefore the trial court did not abuse its discretion. Moreover, the court is unable to verify the accuracy of an individual test result.¹²⁶ The court held that rule 707 serves several legitimate purposes in a criminal proceeding, such as ensuring that only reliable evidence is admitted at trial, preserving the jury's role in determining credibility, and avoiding time-consuming collateral issues.¹²⁷

The court's argument is inconsistent with the F.R.E. and the decision in *Daubert*. The *per se* exclusion of an entire category of evidence because it is potentially unreliable contradicts *Daubert*.¹²⁸ Moreover, the government itself relies on polygraph testing and therefore must believe in its reliability because it routinely uses it for personnel screening and criminal investigations.¹²⁹ However, the court held that 'such limited, out-of-court uses of polygraph techniques obviously differ in character from, and carry less severe consequences than, the use of polygraphs as evidence in a

¹²² *U.S. v Scheffer*, 523 U.S. 303 (1998); followed, for instance, by *U.S. v Perez*, No. 00-1268 (2nd Cir. 2002).

¹²³ Military Rule of Evidence 707 provides that 'notwithstanding any other provision of the law, the results of a polygraph examination, the opinion of a polygraph examiner, or any reference to an offer to take, failure to take, or taking of a polygraph examination, shall not be admitted into evidence'. MCM, *supra* note 25, MIL. R. EVID. 707 (C5, 27 June 1991).

¹²⁴ *U.S. v Scheffer*, 523 U.S. 303 at 304 (1998).

¹²⁵ *Ibid.* at 308.

¹²⁶ *Ibid.* at 312.

¹²⁷ *Ibid.* at 307.

¹²⁸ *Ibid.* at 328.

¹²⁹ *Ibid.* at 323 and 324: Between 1981 and 1997, the DOD had administered hundreds of thousands of polygraph tests. The Department has its own polygraph institute, where it provides training to ensure reliable results. Rule 707 was adopted after the Court of Military Appeals had admitted the results of a polygraph test.

criminal trial. They do not establish the reliability of polygraphs as trial evidence'.¹³⁰ Thus Scheffer, a member of the defence force himself, could not submit polygraph evidence, whereas he could be required to submit to a test. It is unfair that an employer who extensively uses the polygraph may then claim in court that the evidence is not reliable.

Regarding the second purpose of Rule 707, the court stated that the examiner did not provide expert evidence on facts outside the jurors' knowledge because he/she supplied 'the jury only with another opinion, in addition to its own, about whether the witness was telling the truth' and might only influence the jury. In fact, 'the jury is the lie detector'.¹³¹ This argument is inconsistent with F.R.E. 704(a). If the expert does not provide additional evidence, then his/her statement does not assist the court and therefore is irrelevant in terms of F.R.E. 702. In terms of the third purpose, the court found that 'polygraph evidence is by its very nature collateral'.¹³²

The court sees further disagreement between state and federal courts regarding the admissibility of polygraph evidence due to the lack of scientific consensus.¹³³ The court stated that each state has the authority to determine the use of polygraphs within the state, hence to determine whether polygraph evidence should be admitted in court and even a *per se* ban on polygraph evidence would be constitutionally permissible.¹³⁴

Scheffer argued that the test results were factual evidence. The court disagreed and stated that the examinee's reactions to the questions did not relate to the crime.¹³⁵ They were merely facts about the responses to the questions about the crime, used to bolster his own credibility.

¹³⁰ Ibid. at 312.

¹³¹ Ibid. at 313.

¹³² Ibid. at 315.

¹³³ Ibid. at 310.

¹³⁴ Ibid. at 312. Twenty-nine states and the District of Columbia apply a *per se* rule of exclusion of polygraph evidence for all purposes. Eighteen states admit it at trial only when all parties stipulate to its admission in advance. Only three states leave the decision to the discretion of the trial judge. Polygraph evidence is *per se* inadmissible in Alaska, Colorado, Connecticut, District of Columbia, Hawaii, Illinois, Louisiana, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New York, North Carolina, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Texas, Vermont, Virginia, West Virginia, and Wisconsin. It is admissible by stipulation in Alabama, Arizona, Arkansas, California, Delaware, Florida, Georgia, Idaho, Indiana, Iowa, Kansas, Nevada, New Jersey, North Dakota, Ohio, Utah, Washington, and Wyoming. Its admissibility is at the trial court's discretion in Mississippi, New Mexico, and South Carolina.

¹³⁵ Ibid. at 317.

4.5 Conclusion

When it comes to its accuracy, it is evident that the polygraph is treated very inconsistently in terms of legislation as well as in court.

On the one hand, government frequently requires tests from its employees as part of its pre-employment and employment screening procedure, as well as for specific internal investigations. The government obviously relies on the polygraph and is not willing to give up a tool that has been shown to be very useful. The EPPA does not apply to government employees.

On the other hand, courts are reluctant to admit polygraph evidence, and even more reluctant to rely on it. Since *Daubert*, polygraph evidence is not inadmissible *per se* anymore. It is in the trial court's discretion to allow polygraph evidence. Most courts still exclude the evidence under the rules of evidence while some admit it. The Federal Rules of Evidence and *Daubert* require an isolated consideration of the admissibility of the polygraph evidence and it may not be excluded simply because it refers to an ultimate issue. Yet, there are many reasons why it should be inadmissible: It has an unfair prejudicial effect. The evidence is used solely to bolster or undermine the credibility of a witness. It is irrelevant, not reliable and does not assist the court in fact finding.

The EPPA has been primarily enacted to protect employees from their employer's decisions based on inaccurate polygraph test results. Yet, the EPPA fails to serve this main purpose as it provides for exemptions. The statute also allows pre-employment screening in some instances although there is no proof of accuracy, and although it is believed that the polygraph is less accurate than when used in a specific investigation. The employer might face claims of unfair discrimination when selecting certain employees for a test as well as when disciplining the one employee but not others. Regarding the test itself, the employee may assert invasion of privacy. The statute is obscure at some stage, for instance where it requires additional supporting evidence under the ongoing investigation exemption. The EPPA is further based on the wrong assumption that accuracy can be achieved by imposing standards for test administration and score evaluation. The problem rather lies in the inherent weaknesses of the underlying theory. The courts apply the EPPA very restrictively so it is difficult for an employer to use the test under the exemptions. Therefore, the

EPPA has helped to reduce the use of polygraph testing in the private sector. Some state law is more restrictive than the EPPA, particularly in respect of public employment.

Except for some provisions in the public sector, the use of polygraph testing is not regulated in South Africa. There are no restrictions on its administration in the workplace. In this regard, the EPPA helps to highlight some important issues, which are not addressed and therefore not standardized, despite the widespread administration of polygraph tests, such as the substantive and procedural requirements of testing, employee's rights, and examiners' licensing. The South African dispute resolution bodies rarely deal with admissibility but rather consider the evidential weight that should be attached to the test results. As however indicated by the discussed US case law, polygraph test results are not automatically admissible.

In the following chapter, we deal with the German legal approach to polygraph testing.

CHAPTER FIVE: FEDERAL REPUBLIC OF GERMANY

*'A polygraph examination produces absolute inadequate evidence.'*¹

5.1 Introduction

This chapter examines the German jurisdiction. Unlike the USA, Germany's private industry has never experienced any use of polygraph testing. There is also no known use by federal or provincial government, nor is it used by the police.

Germany does not have any codified law which explicitly regulates the use of polygraph testing. Only a small number of court cases exist, which will be discussed in this chapter. The Supreme Court (BGH) has held that the outcome of a polygraph examination is not admissible evidence in both criminal and civil proceedings.² Polygraph evidence occurs mainly in criminal proceedings and these cases therefore contain comprehensive arguments on its admissibility. For the same reasons, the BGH did not accept polygraph evidence in a civil matter in 2003. Further, the Federal Labour Court (BAG) has found test results inadmissible in labour court proceedings.³ The Federal Constitutional Court (BVerfG) has rejected polygraph evidence as well.⁴ Polygraph evidence has been found admissible only in one legal arena: In respect of alleged child abuse, it was accepted in a few family law proceedings before the Regional Appeal Court (OLG) in the 1990s.⁵ It is necessary to examine whether the introduction of polygraph evidence in these cases could affect other parts of the law, in particular, employment law.

Germany is important for this research as polygraph testing is not used in employment, not even within the public sector. It is therefore a relevant jurisdiction with which to contrast the situation in South Africa. South African employees and job applicants, who are frequently submitted to tests, must be protected because there is no scientific proof as to the polygraph's accuracy in the employment context.

¹ BGH, *JR* 1999, 379 at 379.

² *Ibid.*; BGH, 24 June 2003 – VI ZR 327/02.

³ BAG, *NZA* 1998, 670.

⁴ BVerfG, *NJW* 1982, 375.

⁵ For instance, OLG Bamberg, *NJW* 1995, 1684.

Germany's approach to protection against polygraph testing is different from the USA's approach. There are many regulations on polygraph testing in the USA, in response to its extensive use in employment, while Germany has none. In the USA, there are also numerous cases with diverse judgments and polygraph results are generally admissible upon stipulation, whereas in Germany only a few exist, which are mainly consistent and strict about the exclusion of polygraph evidence, even where the accused had requested its admission. Despite serious doubts about the accuracy of polygraph testing, its use in South Africa's private and public employment sectors has reached horrendous proportions, which in turn has led to an increase of cases before the CCMA. Polygraph evidence is not admissible in most of Germany's courts, whereas in South Africa, the CCMA usually regards it as admissible evidence. This chapter will analyze the German courts' arguments for rejecting polygraph evidence.

One reason why the polygraph is generally not accepted stems from Germany's history. Under the Nazi regime, human rights were severely violated. With the fall of the regime in 1945, Germany experienced a transformation from a tyrannical state into a constitutional state. Although there was some use of the polygraph as part of criminal investigations in the American occupation zone, it was not admissible evidence in court.⁶ In this regard, the courts' main concern with regard to polygraph evidence is to respect a person's constitutional rights.

This approach illustrates, for the purpose of this study, some fundamental rights of the examinee that might be at issue in polygraph testing. For decades, the courts emphasized that the accused is party to the proceedings and not merely the object. It was believed that polygraph testing violated the examinee's constitutional rights, particularly his/her right to human dignity. Consequently, since 1945 polygraph evidence has been rejected. The chapter will consider the scope of relevant constitutional rights of the examinee.

Since the late 1970s legal scholars have been arguing whether a polygraph test should be admissible as exculpatory evidence in criminal proceedings where the accused has no other evidence to show his/her innocence, while inadmissible as

⁶ Amelung, 'Anmerkung zu BGH, Urteil v. 17.12.1998 – 1 StR 156/98', *JR* 1999, 382 at 382.

inculpatory evidence.⁷ Exculpatory evidence refers to the results of a polygraph examination which indicate that the examinee is innocent, whereas inculpatory evidence implies a test with a deceptive outcome.

While in countries such as the USA and South Africa, employers conduct polygraph examinations to prevent or investigate crime in the workplace, companies in Germany rely on other measures like internal audits or personal rotations to protect their business.⁸ Yet, crime often remains undetected or is detected accidentally. More than one million cases of crime in the workplace such as fraud or embezzlement are reported each year.⁹ The number of those cases is continually increasing.¹⁰ Between 2003 and 2005, workers' criminal activities caused an estimated financial loss of 3.4 million Euros per company.¹¹

5.2 Constitutional rights

For more than forty years, the federal courts have found that polygraph testing violated the examinee's constitutional rights and hence its results were not admissible. This section will examine the courts' arguments as well as briefly consider the relevant constitutional rights, such as the rights to human dignity, personality, and bodily integrity.

The Supreme Court set a precedent when it refused to introduce polygraph evidence in 1954.¹² The Federal Constitutional Court dealt with the issue in three

⁷ Schwabe, 'Rechtsprobleme des "Lügendetektors"', *NJW* 1979, 576 at 580; Delvo, *Der Lügendetektor im Strafprozess der USA*, 215; Undeutsch, 'Die Untersuchung mit dem Polygraphen ("Lügendetektor") – eine wissenschaftliche Methode zum Nachweis der Unschuld', *FamRZ* 1996, 329 at 331.

⁸ PricewaterhouseCoopers (PwC), Economic Crime Survey 2005, www.pwc.com/de/ger/ins-sol/publ/wirtschaftskriminalitaet2005.pdf (accessed on 22 June 2006).

⁹ Maschinenmarkt, www.maschinenmarkt.de/fachartikel/mm_fachartikel_linkservice_2658554.html (accessed on 21 April 2006).

¹⁰ Euler Hermes Kreditversicherung, www.eulerhermes.com/imperia/md/content/ger/dt/pdf_dt/vsv_prospekt.pdf (accessed on 21 April 2006).

¹¹ PwC, www.pwc.com/de/ger/ins-sol/publ/wirtschaftskriminalitaet2005.pdf (accessed on 22 June 2006).

¹² *BGHSt* 5, 332.

judgments in 1981,¹³ 1997¹⁴ and 1998¹⁵. In 1998, the BGH held that constitutional rights were not violated if the accused had consented to undergo the test.¹⁶

5.2.1 Human dignity

During a polygraph test, the examinee is attached to several instruments which measure any changes in physiological reactions such as heart rate and sweating. From the measurements, the examiner infers a psychological state, namely whether a person is truthful or lying.¹⁷

In 1954, shortly after the end of National Socialism, the BGH held that polygraph evidence was inadmissible in court because it violated the right to human dignity.¹⁸ In the case before the trial court, the prosecution had introduced polygraph evidence with the consent of the accused. The accused had failed the examination and was convicted, also based on the results. The trial court violated the law of evidence in several respects: The court failed to discuss any possible technical defects or sources of error, and the examiner did not testify in court, so it was hearsay. The BGH also had objections because it found itself unable to assess the validity of the expert testimony. The BGH quashed the decision of the regional court.

Human dignity is guaranteed in article 1(1) of the Basic Law (GG) as the fundamental constitutional right of the individual and binding objective principle of constitutional law. Constitutional rights also apply to criminal proceedings.¹⁹ In terms of article 1(1) of the GG, the accused may not be degraded to a mere object of the trial. The accused must remain party to the proceedings.²⁰ In this respect, the court found that a polygraph examination 'revealed the psyche' of the accused and hence infringed his/her right to human dignity.²¹ The Supreme Court further held that the polygraph could not even be used as an investigation tool. It was found that the general rules for criminal procedure alone determined whether evidence was

¹³ BVerfG, *NJW* 1982, 375.

¹⁴ See Scherer, 'StPO § 136a Polygraphentests zukünftig verwertbar?', Anmerkung zu BVerfG, Beschluss v. 15.10.1997 – 2 BVR 1211/97', *StraFo* 1998, 16.

¹⁵ BVerfG, *NSiZ* 1998, 523.

¹⁶ BGH, *JR* 1999, 379.

¹⁷ See chapter 2.2 supra.

¹⁸ *BGHSt* 5, 332.

¹⁹ *Ibid.*

²⁰ *Ibid.*

²¹ *Ibid.* at 335.

admissible. Its admissibility did not depend on the accused's consent to take the test nor the technique's scientific accuracy and reliability. It was also irrelevant whether a technique or method was useful for crime investigation.²² The rules for criminal procedure prohibited the admission of polygraph evidence, in particular, section 136a of the Code of Criminal Procedure (StPO). The provision will be considered later in this chapter.

The court however erred when it stated that the polygraph 'reveals the psyche' of the accused. A polygraph test records physiological responses in order to determine a person's emotional condition, in particular whether she/he is lying. However, there is no specific lie response. The recorded physiological response can be caused by many reasons other than the examinee's fear of detection.²³ Hence, the right to human dignity is not infringed as long as the submission to the test was voluntary. This however indicates that if polygraph testing were able to identify links between certain cognitive and emotional states and specific patterns of physiological reaction, article 1(1) of the GG would be relevant.²⁴ The judgment was confirmed in later decisions until 1998.²⁵

The BGH held in 1998 that where the suspect had consented to the test, the right to human dignity was not violated due to the lack of a specific lie response.²⁶ The court may consider visible reactions such as blushing, sweating, shaking or changes in voice, which can also indicate that a person is lying.²⁷ If the accused has consented to the test, he/she has decided to testify. Therefore, the accused remains subject to the proceedings.²⁸ Further, a polygraph test cannot be carried out without the examinee's cooperation anyway.²⁹ The court held that article 1(1) of the GG requires taking a different approach which respects the accused's consent. The provision does not

²² Ibid. at 332.

²³ See chapter two regarding the theory underlying polygraph testing.

²⁴ Amelung, *JR* 1999, 382 at 383.

²⁵ OLG Frankfurt, *NSiZ* 1988, 425; District Court (LG) Wuppertal, *NSiZ-RR* 1997, 75; OLG Karlsruhe, *StV* 1998, 530.

²⁶ BGH, *JR* 1999, 379 at 380; confirmed by BGH, *NSiZ-RR* 2000, 35. The evidence was still inadmissible. The court's arguments are considered in chapter 5.3 *infra*.

²⁷ BGH, *JR* 1999, 379 at 380.

²⁸ Ibid. at 381.

²⁹ Ibid.; Eisenberg, *Persönliche Beweismittel der StPO*, 188 Para. 695; Schwabe, *NJW* 1979, 576 at 576.

restrict but protects human dignity, as a person is free to dispose of his/her rights. A person's intention and interest should not be ignored.³⁰

In terms of polygraph testing, the courts have also considered the constitutional rights to bodily integrity and personality.

5.2.2 Freedom of action, bodily integrity, personality

The polygraph consists of an ordinary blood pressure cuff, two electrodes attached to two fingertips and two pneumograph tubes around the abdomen and the chest, as described in chapter two. The polygraph instruments measure several physiological responses of the autonomic nervous system, which are outside the examinee's conscious control. The reactions are used to determine the emotional state of a person in response to the test questions.

The Federal Constitutional Court held in 1981 that polygraph testing violated the examinee's constitutional right to personality.³¹

Article 2 of the GG protects the general freedom of action, which includes the right to bodily integrity in article 2(2)(1) and the general right to personality in article 2(1), which must be read together with article 1(1). Article 2(2)(1) of the GG states that '*[e]veryone has the right to live and the right to bodily integrity.*' Bodily integrity of a person, namely his/her physical and psychological health, must be protected against any adverse impact. Intervention may only take place where law allows it, for instance in terms of section 81a of the StPO, which will be examined later in this chapter. Such interference further requires a change in the physical body as opposed to a purely external and painless treatment.³² Regarding polygraph testing, it was argued that merely touching or observing a person's body without adversely affecting the physical state does not constitute interference.³³ However, some examinees experience the pressure from the blood pressure cuff as painful.

The right to personality prohibits any form of indignity and is stated in article 2(1), which must be read together with article 1(1), the right to human dignity. Article 2(1) states that '*[e]veryone has the right to free evolvment of his/her personality.*'

³⁰ BVerfG 49, 286 at 298.

³¹ BVerfG, NJW 1982, 375.

³² Sachs, *Grundgesetz Kommentar*, Article 2 Para. 154.

³³ Prittitz, 'Der Lügendetektor im Strafprozess', MDR 1982, 886 at 890.

Polygraph testing aims to detect the examinee's emotional state, namely, whether he/she is truthful or deceptive. The right to personality protects the privacy of a person and includes inner thoughts and emotions, which may not be revealed under any circumstances. In particular, the right to privacy is protected against any intervention, even on a statutory basis. The right cannot be waived at any time of the proceeding.³⁴ A person may decide whether and how to answer to a question. In polygraph testing, however, the examinee cannot control the physiological responses.³⁵ Therefore, both the BVerfG and the BGH held that polygraph testing violated the right of personality.³⁶ Yet, as stated earlier on, polygraph testing cannot isolate a specific lie response, and therefore, the test does not invade the examinee's privacy.

The BVerfG argued that the accused became the 'bare appendix of an apparatus', hence a mere object of the proceedings.³⁷ In this case, the applicant sought to submit the results of a polygraph test to bolster his statement in a criminal proceeding. The trial court refused to introduce the evidence. The BVerfG found that the rejection of the polygraph evidence did not infringe the applicant's right to a fair and constitutional trial in terms of articles 2(1), 20(3) of the GG. The court also held that the test revealed a person's emotional state based on the measured automatic physiological reactions, which would otherwise not be visible. The testimony was no longer the examinee's very own contribution. The court stated that articles 2(1) and 1(1) restricted the truth-finding in criminal proceedings.³⁸ Although the court was satisfied with an accuracy rate of 90 per cent, it found that polygraph evidence only allowed a probability decision because it was still likely to obtain a false positive outcome. However, the court should be convinced that the accused had committed the crime. The outcome of such a test had only little legal weight and therefore was not admissible.

Regarding the case at issue, it is submitted that the court misjudged the quality of the evidence. It was not the prosecution which attempted to adduce polygraph evidence in order to prove the accused's guilt. This would require evidence beyond a reasonable doubt. Instead, the accused sought to introduce the evidence in order to

³⁴ LG Wuppertal, *NStZ-RR* 1997, 75 at 76.

³⁵ *BGHSt* 5, 332 at 335.

³⁶ BVerfG, *NJW* 1982, 375; BGH, *NJW* 1999, 662 at 662.

³⁷ BVerfG, *NJW* 1982, 375 at 375.

³⁸ *Ibid.*

escape conviction. The accused does not have to show his/her innocence beyond a reasonable doubt. The rule *in dubio pro reo* applies, which will be considered in more detail in the subsequent section on the admissibility of polygraph evidence in court. In terms of that rule, an accuracy rate of 90 per cent would probably be sufficient. The court further held that the accused could not consent to the test because a valid consent required that the accused had a choice. The accused was facing imprisonment and hence did not have a choice but to take the test.³⁹ When does an accused have a choice then? The polygraph test was also considered an intrusion of some gravity by the state, despite the fact that it was the accused, who sought to submit the evidence.

In another case brought before the BVerfG in 1997, the court did not accept a constitutional claim, but also left it undecided whether to uphold previous court decisions where polygraph testing was consistently considered a violation of the examinee's constitutional rights.⁴⁰ This was held for the case that the suspect had consented to the test. Although it cannot be seen as an acceptance of polygraph evidence, the BVerfG has adopted a new and more open approach towards polygraph testing with this recent judgment.⁴¹ Prior to this decision, consent was considered irrelevant.⁴² In previous cases, the courts applied a *per se* exclusion of the polygraph in order to protect the suspect's constitutional rights even if it was the suspect who requested the administration of the test.⁴³ However, the court did not deal with the admissibility and validity of polygraph evidence but considered whether the trial court's decision was arbitrary.⁴⁴

5.2.3 Right to be heard

Polygraph evidence may not be used as inculpatory evidence, namely, to prove the accused's guilt, in German courts. One must distinguish this situation from the situation where the accused seeks to introduce favourable test results to escape conviction, but courts refuse to admit them as evidence. According to article 103(1) of the GG, the accused '*has the right to be heard in court*'. Is the court therefore obliged to admit polygraph evidence?

³⁹ Ibid.

⁴⁰ BVerfG, 15.10.97 – 2 BvR 1211/97.

⁴¹ Scherer, *StraFo* 1998, 16 at 16.

⁴² *BGHSt* 5, 332.

⁴³ BVerfG, *NJW* 1982, 375.

⁴⁴ Artkämper, 'Anmerkung zu BGH, Urteil vom 17.12.1998 – 1 StR 156/98', *NJ* 1999, 153 at 154.

In a case brought before the BVerfG in 1998, the constitutional claim addressed the trial court's rejection of polygraph evidence.⁴⁵ The accused had always denied allegations of sexual abuse of children. He underwent a polygraph examination which indicated that he was truthful. The trial court however refused to introduce the test results in terms of section 244(3)(1) of the StPO and to hear the polygraph examiner.⁴⁶ The accused was sentenced to two years' imprisonment for sexual abuse. The BVerfG did not accept his constitutional claim. The court held that article 103(1) of the GG does not give a person the right to submit certain evidence. The admissibility of evidence is subject to the law of procedure and is in the discretion of the trial court.⁴⁷ The applicant claimed that section 136a of the StPO had been violated. However, it is not upon the BVerfG to apply and interpret procedural law. Instead, it considers whether the trial court has violated the applicant's constitutional rights or whether the trial court's decision to reject polygraph evidence was arbitrary, which however the applicant did not argue. The judgment cannot be seen as the court's acceptance of polygraph evidence, as is sometimes argued, because the BVerfG did not consider the admissibility of polygraph evidence.⁴⁸

Both courts, BGH and BVerfG, have found that polygraph testing violated the examinee's constitutional rights. Hence, it was believed that the protection of those rights had to have priority and required a strict exclusion of polygraph evidence.⁴⁹ Legal scholars have criticized the courts' view vehemently.⁵⁰ The courts' argument does not convince in the situation where the accused faces conviction and perhaps has no other evidence than the test results to present in order to show his/her innocence. However, one must remember that in the case before the BGH in 1954, the prosecution had adduced a negative test outcome to establish a case against the accused and the accused was convicted on that evidence. Nevertheless, the court held a *per se* inadmissibility and did not see the situation where the accused attempts to submit the test results as exculpatory evidence. The Supreme Court's view has changed with the recent judgment in 1998.⁵¹ There are no constitutional objections

⁴⁵ BVerfG, *NSiZ* 1998, 523.

⁴⁶ Section 244(3)(1) of the StPO will be discussed in the subsequent section on law of criminal procedure.

⁴⁷ *Ibid.* at 524.

⁴⁸ Magistrate's Court (AG) Demmin, 7.9.1998 – 94 Ls 182/98.

⁴⁹ *BGHSt* 5, 332; BVerfG, *NJW* 1982, 375.

⁵⁰ Schwabe, *NJW* 1979, 576, 578; Scherer, *StraFo* 1998, 16 at 17.

⁵¹ BGH, *NJW* 1999, 657.

where the examinee has consented to take the test. The evidence was inadmissible due to lack of accuracy. Unlike in 1954, it was exculpatory evidence presented by the accused this time.

Therefore, a court does not violate article 103(1) of the GG if it refuses to admit polygraph evidence, provided the decision is not arbitrary and does not infringe the party's constitutional rights.

The study proceeds to consider Germany's law of criminal procedure.

5.3 Law of criminal procedure

Polygraph evidence appears more in criminal proceedings, where it is submitted by the accused as evidence *ultima ratio* to show his/her innocence, than in civil proceedings. In fact, the Supreme Court considered the evidence in civil litigation for the first time in 2003 and referred to what it already had held in terms of the evidence's admissibility in criminal proceedings.⁵² Hence, detailed argument as to the admissibility of polygraph evidence can mainly be found in criminal court cases. In particular, the BGH held in 2003 that the same rules established for criminal proceedings must apply to civil proceedings. The civil procedure law in turn applies to labour disputes.

The Supreme Court made two significant decisions in terms of the polygraph's inadmissibility in criminal proceedings. It set the precedent in 1954⁵³ and reconsidered its arguments in 1998.⁵⁴ Consistent with the BGH's judgment of 1954, lower courts such as OLG Frankfurt,⁵⁵ District Court (LG) Wuppertal,⁵⁶ OLG Karlsruhe,⁵⁷ and LG Düsseldorf⁵⁸ refused to admit polygraph evidence.

In criminal proceedings, the rule of *nemo tenetur se ipsum accusare* applies. The suspect must not give self-incriminating evidence. Consequently, he/she is entitled to refuse to take a test. If a person refuses to submit to a polygraph test, the court may not draw any adverse inference from the refusal.

⁵² BGH, 24 June 2003 – VI ZR 327/02. For more details see chapter 5.4.2 *infra*.

⁵³ BGHSI 5, 332.

⁵⁴ BGH, JR 1999, 379.

⁵⁵ OLG Frankfurt, NStZ 1988, 425.

⁵⁶ LG Wuppertal, NStZ-RR 1997, 75.

⁵⁷ OLG Karlsruhe, StV 1998, 530.

⁵⁸ LG Düsseldorf, StV 1998, 647.

5.3.1 Polygraph as investigation tool

The polygraph may not be used in police investigations. The suspect may only be subjected to examinations or tests where the Code of Criminal Procedure (StPO) permits it. For instance, in terms of section 81a of the StPO, the suspect must tolerate the administration of a physical examination as part of the investigation. On the other hand, section 136a of the StPO prohibits certain interrogation methods to protect the suspect's constitutional rights. Both provisions are relevant to polygraph testing and this section will examine them.

5.3.1.1 Prohibited interrogation methods

Section 136a of the StPO prohibits some forms of interrogation methods. The BGH held in 1954 that the section, which constitutes a specific provision of article 2(1) of the Constitution, applied to polygraph testing.⁵⁹

Section 136a(1) states that:

'The suspect's freedom of voluntary decision and the freedom of volitional act may not be interfered by abuse, inanition, physical interference, giving substances, torture, deception or hypnosis. Force may only be applied where law permits it.'

In terms of section 136a, the suspect may decide at any time of the proceedings whether and to what extent he/she wishes to testify. It was argued that if the suspect undergoes a polygraph test, he/she would no longer have the choice whether he/she wants to testify or remain silent.⁶⁰ The polygraph records physiological responses that are closely linked to the examinee's emotional state and cannot be controlled, which are unlike visible expressions of the suspect such as blushing or sweating, prohibited by section 136a.⁶¹ However, the court held that the accused may refuse or agree to take the test. Thus, it remains his/her decision whether he/she wants to testify or remain silent. The BGH further overestimated the actual accuracy of the polygraph by assuming that the recorded physiological reactions are able to 'illuminate extensively the suspect's psyche'.⁶²

⁵⁹ BGHSI 5, 332 at 335.

⁶⁰ Ibid. at 333.

⁶¹ Ibid. at 335 and 336.

⁶² Frister, 'Der Lügendetektor – Zulässiger Sachbeweis oder unzulässige Vernehmungsmethode?', ZStW 106 (1994), 303 at 315.

In terms of section 136a, polygraph test results obtained during a police investigation are not admissible in court.⁶³ It was irrelevant whether the test was admissible under the law of the country where the test took place, which was the USA in the case at issue. The evidence did not become admissible under the more rigid German law.⁶⁴ It was further irrelevant that the suspect had not already confessed during the polygraph test but did so in the course of the subsequent police interrogation, as it was likely that the confession was made because of the adverse test results.⁶⁵

With regard to section 136a of the StPO, it is sometimes argued that the examinee is deceived about the accuracy of the polygraph.⁶⁶ In particular, it was held that the use of the Control Question Test (CQT) violated section 136a because the examinee was misled about the actual abilities of the polygraph and the relevance of the control questions.⁶⁷ The CQT requires that the examinee believes in the polygraph's ability to detect dishonesty. The Supreme Court however held that polygraph testing did not violate section 136a because it constituted a rather insignificant deception.⁶⁸ It was also argued that if the polygraph evidence were admissible, the accused would be indirectly forced to take a test because a refusal would cause suspicion and could be used against him/her.⁶⁹ However, the courts have held that one may not draw any adverse inferences from the refusal just as one may not draw them from the accused's decision to remain silent, since the accused has the right to remain silent.⁷⁰ Therefore, the Supreme Court held in its recent judgment that section 136a did not apply to polygraph testing because the test did not constitute deception or force, and was not as severe and intrusive as the listed interrogation methods. A person chooses to submit to the test or not.⁷¹

The administration of a test without the suspect's consent is inadmissible in terms of an analogous application of section 136a.⁷² Such an investigation violates the

⁶³ OLG Frankfurt, *NSiZ* 1988, 425.

⁶⁴ *Ibid.* at 425.

⁶⁵ *BGHSt* 17, 364 at 368.

⁶⁶ Frister, *ZStW* 106 (1994), 303 at 312; Volckart, 'Das Verwertungsverbot für Lügendetektortests', *RuP* 1998, 138 at 142.

⁶⁷ LG Düsseldorf, *StV* 1998, 647 at 648.

⁶⁸ BGH, *JR* 1999, 379 at 381.

⁶⁹ LG Düsseldorf, *StV* 1998, 647 at 648.

⁷⁰ BGH, *JR* 1999, 379 at 381.

⁷¹ *Ibid.*

⁷² Eisenberg, *op. cit.*, 188 Para. 695.

human dignity of the accused and his/her right of personality.⁷³ Polygraph testing requires the examinee's cooperation. The test does not become admissible because the suspect has consented to the test. Consent is irrelevant in terms of 136a(3) of the StPO.⁷⁴

The courts applied section 136a, although it is actually questionable whether polygraph testing constitutes an '*interrogation*' under the section. However, if it does, then only the judge, the public prosecutor or the police are authorized to interrogate a person. An expert can be consulted in terms of section 80(1) of the StPO and can question the suspect or witnesses but the expert may not conduct the interrogation. Does polygraph testing constitute an interrogation, examination, or a combination of both?⁷⁵ During an interrogation, the suspect is questioned but is free to make statements. During the polygraph test, questions are also asked and have to be answered with either yes or no, while the physiological reactions are recorded. However, the measured responses are more relevant than the answers. The examiner also pre-formulates the answers, which are a mere 'yes' or 'no'. If it is an interrogation, the suspect has the right to remain silent, whereas he/she has to tolerate an examination. Therefore, the polygraph test appears to be an examination rather than an interrogation. Hence, it is necessary to find out whether the test constitutes a physical examination in terms of section 81a of the StPO.

5.3.1.2 Physical examination

During a polygraph test, the examinee's physiological reactions such as changes in heart rate and respiration are measured.

In terms of section 81a(1) of the StPO, a physical examination can be done even without the suspect's consent in order to determine facts that are relevant to the case under investigation. A trained physician must carry out the examination. This provision restricts the right to bodily integrity granted in article 2(2)(1) of the GG.

⁷³ LG Wuppertal, *NSiZ-RR* 1997, 75 at 76.

⁷⁴ OLG Frankfurt, *NSiZ* 1988, 425 at 425; LG Wuppertal, *NSiZ-RR* 1997, 75 at 76.

⁷⁵ Peters, 'Eine Antwort auf Undeutsch – Die Verwertbarkeit unwillkürlicher Ausdruckserscheinungen bei der Aussagenwürdigung', *ZStW* 85, 663 at 674.

Hence, in terms of the polygraph's admissibility, scholars discussed whether section 81(a) applies to polygraph testing.⁷⁶ A bodily examination diagnoses the person's physical state, for instance, by doing x-rays or taking blood samples. A polygraph measures physiological responses, but in order to reveal the examinee's psychological state.⁷⁷ The BGH held that polygraph testing did not constitute a physical examination in terms of section 81a(1).⁷⁸

5.3.1.3 Information of the charge

Section 136(1)(1) of the StPO provides that *'with the beginning of the first interrogation, the suspect must be informed of the alleged offence and the penal provisions that will be taken into consideration.'* The provision applies to the first interrogation of the suspect by a judge prior to the trial, as well as to the interrogation by the prosecution and police according to section 163a(3)(2) of the StPO. The suspect must be informed immediately and comprehensively of the charge against him/her so that he/she is able to prepare the defence.⁷⁹

This provision is relevant to polygraph testing as it restricts the use of the Guilty Knowledge Test (GKT). As described in chapter two, the GKT aims to detect detailed knowledge of the crime which only the perpetrator possesses. However, in terms of section 136(1)(1) an innocent suspect may also have gained extensive knowledge of the crime by the time of the first police interrogation. Therefore, it is very likely that the test will then classify him/her as guilty.

5.3.2 Polygraph evidence in court

By analyzing the courts' arguments, this section will examine why the results of a polygraph test are not admissible evidence in criminal proceedings.

⁷⁶ Peters, *ZStW* 85, 663 at 671; Würtenberger, 'Ist die Anwendung des Lügendetektors im deutschen Strafverfahren zulässig?'; *JZ* 1951, 772 at 774.

⁷⁷ Würtenberger, *JZ* 1951, 772 at 774.

⁷⁸ *BGHSt* 5, 332 at 336.

⁷⁹ Simon, *Die Beschuldigtenrechte nach Art. 6 Abs. 3 EMRK – Ein Vergleich zur StPO im Hinblick auf die Auswirkungen der Konventionsrechte auf die deutsche Strafrechtsprechung*, 11.

5.3.2.1 Admissibility

Evidence is introduced under section 244 of the StPO. In terms of section 244(2) of the StPO, *'the court must consider ex officio all facts and evidence that are relevant to the case'* in order to establish the truth. However, the court may exclude evidence in terms of sections 244(3) and 244(4).

In terms of section 244(3)(1), the court must reject evidence that is inadmissible. This is for instance the case where evidence violates the constitutional rights of the accused person or witness. The Supreme Court held in 1954 that polygraph testing infringed the right to human dignity.⁸⁰ Consistent with this judgment, the lower courts held that the CQT violated section 136a and therefore was inadmissible in terms of section 244(3)(1).⁸¹

In terms of the Supreme Court's 1998 judgment, polygraph evidence remained inadmissible but was not rejected according to section 244(3)(1), because the court found that the evidence did not violate any constitutional rights or section 136a of the StPO, provided that the accused had agreed to undergo the test.⁸² Instead, the evidence was excluded under section 244(3)(2). The section provides that the court may exclude evidence that is superfluous, irrelevant or inadequate.

The BGH addressed several important issues that scholars had been discussing since the first decision on polygraph evidence in 1954, and which the court had found irrelevant at that time. For instance, the BGH had to reconsider whether the constitutional rights of the accused indeed require an exclusion of polygraph evidence, particularly since it is the accused in the majority of the cases who wishes to introduce the evidence to escape conviction. In this regard, the court also examined the admissibility of exculpatory evidence as demanded by scholars. Further, the evidence's scientific proof, which was irrelevant in the past, was considered with the assistance of several expert opinions. In the case at issue, the accused had sought to introduce polygraph evidence, but the trial court refused to admit the results and convicted the accused for sexual abuse of a child.

⁸⁰ BGHSI 5, 332 at 333.

⁸¹ LG Düsseldorf, StV 1998, 647 at 648; OLG Karlsruhe, StV 1998, 530 at 530; LG Wuppertal, NStZ-RR 1997, 75 at 77.

⁸² BGH, JR 1999, 379; confirmed by BGH, NStZ-RR 2000, 35.

With its judgment in 1998, the BGH finally reversed its previous approach and held that polygraph evidence was inadmissible because the test results did not provide adequate evidence. In 1954, the BGH had legal objections to the introduction of polygraph evidence whereas in 1998, it had factual objections.⁸³ The court found that both the CQT and the GKT produce completely inadequate evidence. First, the theory behind the CQT is naive as there is no specific lie response.⁸⁴ Secondly, there is no empirical proof: Laboratory experiments have no probative value, and field research faces the problem of sampling bias and lacks an independent criterion.⁸⁵ Thirdly, even if empirical research shows high accuracy rates, it cannot confirm the accuracy of an individual test.⁸⁶ Moreover, countermeasures might affect the test.⁸⁷ Although the GKT is based on a more plausible theory, it lacks empirical proof. The court found that it provided inadequate evidence at the time of the trial because the accused had already gained detailed knowledge of the crime, since section 136(1)(1) of the StPO requires the police to inform the accused promptly and comprehensively of the charge against him/her.⁸⁸ The court's judgment is restricted to specific polygraph techniques, and therefore other question formats could be admitted under section 244(3)(2). Unlike CQT, the GKT is not considered to be generally inadequate evidence. However, at the time of the trial, the GKT is regarded as inadequate evidence. Yet both techniques, as well as other question formats, share the same flawed underlying theory that cannot show a specific lie response and lacks empirical proof.

In the Supreme Court's 1954 decision, polygraph evidence constituted inculpatory evidence. Some legal scholars support the admissibility of polygraph evidence if it is exonerating evidence, but argue that the evidence remains inadmissible as inculpatory evidence.⁸⁹ The BVerfG had based its 1982 decision on an accuracy rate of 90 per cent.⁹⁰ In criminal proceedings, the rule *in dubio pro reo* applies, so it was argued that a lower accuracy rate would be sufficient to raise doubts

⁸³ Stalinski, *Aussagefreiheit und Geständnisbonus*, 83.

⁸⁴ BGH, *JR* 1999, 379 at 380.

⁸⁵ *Ibid.* at 381.

⁸⁶ *Ibid.* at 382.

⁸⁷ *Ibid.*

⁸⁸ *Ibid.*; LG Düsseldorf, *StV* 1998, 647 at 648.

⁸⁹ Schwabe, *NJW* 1979, 576 at 578; Klimke, 'Der Polygraphentest im Strafverfahren', *NSiZ* 1981, 433 at 433; Prittwitz, *MDR* 1982, 886 at 895; Achenbach, 'Polygraphie pro reo?', *NSiZ* 1984, 350 at 352; Steinke, 'Lügendetektor zugunsten des Beschuldigten?', *MDR* 1987, 535; Undeutsch, *FamRZ* 1996, 329; Meyer-Mews, 'Die "in dubio contra reo"-Rechtsprechungspraxis bei Aussage-gegen-Aussage-Delikten', *NJW* 2000, 916 at 917.

⁹⁰ BVerfG, *NJW* 1982, 375 at 375.

about the accused's guilt.⁹¹ In 1998, the BGH however rejected polygraph evidence irrespective of whether it served an inculpatory or exculpatory purpose. The court expressed reservations as to whether polygraph testing was accurate as both laboratory experiments and field research did not support accuracy.⁹² Moreover, if only favourable test results can be used, then the examinee does not have to fear the consequences of a deceptive outcome, and accuracy might suffer from the 'friendly examiner syndrome'.⁹³ Further, it is contradictory to the law of procedure if evidence is only used for exonerating purposes.⁹⁴ The polygraph evidence would be then the only evidence that is not equally admitted as inculpatory and exculpatory evidence. Moreover, it is the court's responsibility to assess the evidence, as discussed in the subsequent section on the assessment of evidence.

The courts further held that the outcome of a privately conducted polygraph examination is unreliable in terms of section 244(3)(2), due to the so-called 'friendly examiner syndrome'.⁹⁵ In addition to having doubts about whether the CQT was actually accurate, the court found that the CQT required the examinee to fear detection, and the examinee would therefore be aware that an adverse result will also be used in court. Yet in the case of the privately arranged test, the accused will submit only exonerating results as evidence in court. Such evidence has little probative value.⁹⁶

5.3.2.2 Expert evidence

Minimum standards are required of an expert opinion so that the court is able to assess it. The expert must remain neutral and be objective. Further, an expert must present his/her opinion in an understandable and transparent manner so that the court may then critically analyze it. An expert does not investigate the case, and hence may not question witnesses and does not reveal case facts because he/she would then give up his/her neutrality. He/she may also not make a conclusion as to whether the alleged crime took place. Truth finding is the task of the court alone.

⁹¹ Amelung, *JR* 1999, 382 at 384.

⁹² BGH, *JR* 1999, 379 at 381.

⁹³ See discussion in chapter two.

⁹⁴ Artkämper, *NJ* 1999, 153 at 154.

⁹⁵ BGH, *NJW* 1999, 662; LG Wuppertal, *NSiZ-RR* 1997, 75; OLG Karlsruhe, *NSiZ-RR* 1998, 368.

⁹⁶ BGH, *NJW* 1999, 662 at 663.

In terms of section 244(4)(1) of the StPO, the court may reject expert evidence if the court possesses the necessary knowledge of the subject matter. An expert must confine himself/herself to the scientific elements of the case.⁹⁷ The expert may not give his/her opinion about the legal or general merits of the case, such as the assessment of a witness's credibility, unless there is an indication that a witness is mentally ill and therefore not capable of giving evidence. In this regard, the court's knowledge might not be sufficient to assess the credibility. The expert then assesses the impact of the witness' illness on his/her capability to give evidence.⁹⁸ However, it was argued in chapter two that polygraph testing does not work with mentally ill persons as the technique requires the examinee to be aware that he/she is lying. An expert may also examine the credibility of a minor witness to establish whether the child's statement is based on facts, which will be considered in more detail in the following section on the assessment of evidence.

5.3.2.3 Assessment of evidence

There are no statutory rules on the assessment of evidence. Instead, in terms of section 261 of the StPO, the trial court exercises discretion when assessing the value of a specific statement or evidence. However, the court must be satisfied with the veracity of the evidence.⁹⁹ The court's judgment establishes a statement to be true.¹⁰⁰ The court must assess all available evidence and, in the case of contradicting evidence, explain why it gives preference to one statement.¹⁰¹ The expert opinion is also subject to the court's assessment. The court may not merely adopt an expert opinion but must reach its own conclusion.¹⁰² The court decides whether it accepts an expert's opinion after considering whether the opinion is logical and substantive.¹⁰³

The assessment of the evidence constitutes an ultimate issue. It was held that polygraph evidence does not constitute proper evidence in terms of section 244(3)(2) because the subject of the evidence is not factual, but rather conclusions about guilt or

⁹⁷ Freckelton and Selby, *The Law of Expert Evidence*, 252.

⁹⁸ Pfeiffer, *Strafprozessordnung und Gerichtsverfassungsgesetz*, § 244 Para. 42.

⁹⁹ *Ibid.*, § 261 Para. 7.

¹⁰⁰ Rosenberg et al, *Zivilprozessrecht*, § 112 Para. 1.

¹⁰¹ BAG, *NJW* 1970, 880 at 880.

¹⁰² BGH, *NJW* 1989, 2948.

¹⁰³ Rosenberg et al, *op. cit.*, § 120 Para. 65.

innocence, which is however upon the court to make, and only as an exception with the help of an expert opinion.¹⁰⁴

The credibility examination by an expert is the professional and scientific, specific event-related assessment of the quality of a specific testimony, which must be distinguished from the general concept of credit.¹⁰⁵ Credibility is linked to the subject matter whereas credit refers to the person.¹⁰⁶ In terms of the latter, a person's traits are examined, in particular whether that person is generally a liar or an honest person. The subject of a credibility analysis is therefore the assessment of whether a statement is correct in terms of a specific event, particularly whether a person has in fact experienced what he/she has testified. Does the examined statement contain the distinguished characteristics of a statement that is based on own experience? Empirical studies have shown that there is a qualitative difference between statements based on own experience and those that are not. In terms of the former, the witness recalls an event from his/her memory whereas with the latter someone who consciously lies, rather uses his/her general knowledge.¹⁰⁷ Due to its complex nature, the analysis can merely provide probability information on the credibility.¹⁰⁸

An expert may assess, for instance, the credibility of young witnesses. Where the witness is of a very young age, it is believed to be difficult to receive a statement that is based on mere facts and hence of probative value to the case.¹⁰⁹ First, it is questionable whether a young child has the capacity to distinguish between true and false. It is also likely that parents, for example, have influenced the child to make a certain statement. There is especially a risk with minor witnesses who often unconsciously change their statements, contrary to their own memories, in order to meet the expectations of the person who is questioning them or they attempt to adjust to the adult's higher competence.¹¹⁰ In most cases, the child has been abused sexually or physically.¹¹¹ The polygraph examination, which is also called the psychophysiological examination of the accused can be administered in addition to the

¹⁰⁴ BGH, *NJW* 1999, 662 at 662.

¹⁰⁵ BGH, *NJW* 1999, 2746.

¹⁰⁶ Thomas et al, *Zivilprozessordnung*, 460.

¹⁰⁷ BGH, *NJW* 1999, 2746.

¹⁰⁸ *Ibid.*

¹⁰⁹ Gesellschaft für wissenschaftliche Gerichts- und Rechtspsychologie, at www.gwg-institut.com (accessed on 5 May 2006).

¹¹⁰ BGH, *NJW* 1999, 2746.

¹¹¹ Polygraph testing in sexual abuse will be discussed later in this chapter.

expert's credibility assessment of the minor witness or instead of it and serves an exculpatory purpose.¹¹² Young children cannot submit to a polygraph test unless a child is competent enough to distinguish between truth and falsehood. Sexual abuse of a child was at issue in the case decided by the BGH in 1998 but the court did not introduce the polygraph test result of the accused because it did not provide sufficient evidence.¹¹³

In the following, we consider the law of civil procedure, particularly in labour disputes, and in this regard whether an employer may administer a test and whether it would be fair to dismiss or discipline an employee based on a test outcome.

5.4 Law of civil procedure and labour law procedure

Polygraph evidence appears rarely in civil and labour law proceedings. Two court cases are relevant, decided by the Federal Labour Court (BAG) in 1998¹¹⁴ and the BGH in 2003.¹¹⁵ Both courts ruled that polygraph evidence is inadmissible. Polygraph evidence plays a more important role in family law cases, where courts have found it admissible. These cases will be discussed at the end of this section.

The provisions of the Code of Civil Procedure (ZPO) also apply to labour law proceedings in terms of section 46(2) of the Labour Courts Act (ArbGG), which refers to the provisions of the ZPO. Section 55(4) Number 4 ArbGG provides for the interrogation of a party by the judge.

5.4.1 When can the employer request a test?

Comprehensive personality tests are not allowed. Psychological and medical testing must be required by law and administered by a qualified psychologist or physician.¹¹⁶

Any test or examination requires the explicit consent of the employee or applicant, even though the test will not affect his/her physical integrity. The employer must show a legitimate interest in the examination. Hence, the test outcome must relate to

¹¹² www.gwg-institut.com (accessed on 5 May 2006).

¹¹³ BGH, *JR* 1999, 379.

¹¹⁴ BAG, *NZA* 1998, 670.

¹¹⁵ BGH, 24 June 2003 – VI ZR 327/02.

¹¹⁶ Halbach et al, *Labour Law in Germany*, 50.

the employee's suitability for a specific job.¹¹⁷ If the employer cannot show a legitimate interest, the employee may refuse to give his/her consent without fearing any adverse disciplinary action. In the 1954 decision of the BGH as well as according to the BVerfG, it was found that polygraph testing violated the examinee's constitutional rights. Hence, any use of the polygraph in employment was also restricted. There could not be a legitimate interest in a test which infringes human dignity, and consent was irrelevant. In 1998, the BGH reconsidered the purpose of article 1(1) of the GG and held that the test did not violate the right to human dignity if the person had given his/her consent.

The situation of a job applicant is different because if he/she refuses to submit to testing he/she is not likely to be employed. However, the employer must show a legitimate interest in the examination.¹¹⁸ Questions about previous convictions may only be asked where they are relevant for the particular job.

Pursuant to section 94(2) of the Works Constitution Act (BetrVG) the workplace forum is entitled to participate in establishing rules for the assessment of an employee's performance and behaviour. The workplace forum has, therefore, the right to co-determine in terms of *'personal information in written employment contracts, which are generally used in the enterprise, and for the establishment of general evaluation principles.'* Such general rules allow a uniform and objective assessment of the employee's behaviour or performance. They can determine the relevant evaluation criteria, the reason for the assessment and frequency, as well as how the assessment must be done. The introduction of pre-employment polygraph screening and periodic testing in an enterprise, including a clause in the employment contract in which the employee agrees to submit to polygraph testing on the employer's request, would require the participation of the workplace forum.

Further, section 95 of the BetrVG provides that *'directives on staff selection in terms of pre-employment screening, transfer, promotion, demotion, and dismissal require the consent of the workplace forum'*. Selection directives are also general rules which determine the relevant requirements or criteria for individual personnel decisions. The employer must comply with them when, for instance, selecting an employee for dismissal. Such rules can also require the administration of screening

¹¹⁷ Dieterich et al, *Erfurter Kommentar*, Art. 2 Para. 93.

¹¹⁸ *Ibid.*, Art. 2 Para. 93.

tests in order to determine the applicant's suitability for the job or testing for transfer or promotion.

5.4.2 Fair reason for dismissal

Section 1(2)(1) of the Protection against Dismissal Act (KSchG) requires that the dismissal must relate to the employee's conduct or capacity or must be based on operational requirements in order to be fair. According to section 1(2)(4) of the KSchG, the employer must show that the reason for dismissal was fair, for instance, that the employee is guilty of misconduct. In terms of section 626 of the Civil Code (BGB), the employer may terminate the employment contract without notice if continued employment would be intolerable for him/her, for instance, if the employee has committed a crime in the workplace.

Polygraph evidence is not admissible in civil and labour court proceedings, and therefore the employer cannot discharge the onus of proof with the help of a polygraph test.

The Labour Appeal Court (LAG) Rheinland-Pfalz held that polygraph evidence was not admissible evidence, and this was confirmed by the BAG.¹¹⁹ In the case at issue, the employee was dismissed without notice due to a suspicion of sexual harassment. The victim of the alleged assault was heard as a witness. The employee sought to submit the favourable results of a polygraph test. The court referred to previous criminal and constitutional court cases in this regard. In the present case, however, the LAG rejected the test results because their admission would violate section 448 of the ZPO, which deals with the evidence of a party heard as a witness, irrespective of whether the party bears the onus of proof.¹²⁰ In respect of polygraph testing, conclusions as to the credibility of the examinee's answers are drawn from the measured physiological responses. Hence, it is similar to questioning a party. A party's statement is considered very weak because obviously he/she has an interest in the outcome of the proceedings.¹²¹ Therefore, section 448 only applies if there is lack of evidence. In the case at issue, the victim of the assault gave conclusive evidence,

¹¹⁹ LAG Rheinland-Pfalz, *MDR* 1998, 1119 and BAG, *NZA* 1998, 670.

¹²⁰ LAG Rheinland-Pfalz, *MDR* 1998, 1119 at 1120.

¹²¹ BGH, *MDR* 1983, 478 at 479.

and polygraph evidence was not required.¹²² The court further held that the introduction of polygraph evidence would constitute an evasion of section 448 because the polygraph examiner evaluates the statement of the party in terms of credibility. As in criminal proceedings, it is however the court that must assess the evidence. In terms of section 286(1)(1) of the ZPO, the court must conclude after having considered all evidence whether it considers a statement to be true or false.

In 2003, the Supreme Court had to consider the admissibility of polygraph evidence in a civil matter.¹²³ The court also held that in civil proceedings polygraph was inadequate evidence in terms of the CQT and GKT and therefore not admissible. The court referred to its decision in 1998¹²⁴ and found that the same standards as in criminal proceedings, in particular section 244(3)(2) of the StPO, applied to civil proceedings.

The decision of the BGH is also relevant for labour disputes. The employer cannot dismiss or take any disciplinary action based on the outcome of a polygraph test. The employee cannot use the test as evidence either. The employer may still dismiss an employee due to suspicion if it has led to a breakdown of the relationship of trust between employer and employee. The suspicion must be strong and the alleged misconduct of such gravity that the employer cannot be expected to continue the employment.¹²⁵

5.4.3 Family court decisions

Family law is the only legal arena in which polygraph evidence has been accepted by the courts. This section will look at the few family law cases where polygraph evidence was held to be admissible and examine whether this could have an impact on other parts of law, in particular employment law.

In the following cases, the father's right of access to his children or his right of custody was at issue because he was suspected of having sexually abused his children. There was insufficient evidence in these cases. In particular, it was questionable

¹²² LAG Rheinland-Pfalz, *MDR* 1998, 1119 at 1120.

¹²³ BGH, 24 June 2003 – VI ZR 327/02: In this case, a daughter had sued her father for compensation for sexual abuse. The father denied the allegations and sought to show his innocence with the help of a polygraph examination.

¹²⁴ BGH, *JR* 1999, 379.

¹²⁵ Dieterich et al, *op. cit.*, Section 1 KSchG Para. 298.

whether the allegedly abused child was a competent witness. Therefore, an expert needed to assess the father's credibility and the father then underwent a polygraph test. The test result did not always serve as exculpatory evidence.

In a case before the OLG Bamberg, the court based its decision on three different types of evidence, including the results of a polygraph examination. All evidence indicated that the father was innocent. The court held that all three methods were objective and therefore had probative value.¹²⁶ The OLG Koblenz introduced polygraph evidence and held that it merely provided an additional indication.¹²⁷ The OLG Oldenburg held that a polygraph test could be conducted to refute allegations of sexual abuse and was admissible evidence. The polygraph test indicated that the father was innocent. The court was satisfied with an accuracy rate of 95 per cent and 'based its decision on the test result without any hesitation'.¹²⁸ In another case, the court admitted polygraph evidence which indicated that the father was guilty. The court refused to introduce the result of a second, privately conducted polygraph exam, which apparently showed that the applicant was innocent.¹²⁹ The examiner emphasized that the test merely indicated deception but did not prove that the father had committed sexual abuse.

In terms of the right of custody and the right of access, the court must investigate *ex officio* to establish the relevant facts of the case. It is therefore different to the normal civil and the labour court proceedings where the court only considers facts and evidence that was submitted by the parties. Furthermore, all cited cases were decided before the judgment of the Supreme Court on the 17 December 1998.¹³⁰ The decisions are contrary to the position of the BGH prior to 1998 and the BVerfG prior to 1997, when both courts found that polygraph testing violated the constitutional rights of the examinee. The BGH gave a clear signal with its two judgments in 1998 and 2003. Therefore, it is expected that the family court divisions will follow the Supreme Court's recent judgment, where exculpatory polygraph evidence was not regarded as admissible in criminal proceedings, and which the same court confirmed for civil proceedings in 2003. In fact, the OLG Bremen ruled in 2001 that the submitted test

¹²⁶ OLG Bamberg, *NJW* 1995, 1684 at 1684.

¹²⁷ OLG Koblenz, 23.7.1996 – 15 UF 121/96; see BGH, *JR* 1999, 379 at 379.

¹²⁸ OLG Oldenburg, *DSB* 1998, 13.

¹²⁹ OLG München, 25.11.1998 - 12 UF 1147/98.

¹³⁰ BGH, *JR* 1999, 379.

results were not adequate to show the father's innocence.¹³¹ Hence, for the purpose of this study, it is very unlikely that the differing family court decisions will have any impact on the labour law cases.

Finally, it is argued that polygraph testing, namely the CQT, is problematic in cases of sexual abuse, particularly where a close relative such as a parent has sexually abused a child.¹³² The problem is not limited to sexual abuse and young victims. Yet these cases help to illustrate another limitation of polygraph testing, which was briefly discussed in chapter two. The CQT generally requires that the examinee is aware of the wrongfulness of his/her action and hence knows that he/she is lying to the relevant questions. The test questions need to be carefully composed so that the examinee clearly understands their content. In the case of sexual abuse of children by close relatives, it was observed that the perpetrator tends to 'deny or warp the perception and evaluation of his/her sexual misdemeanour'.¹³³ It is possible that parents consider sexual abuse to be part of their parental care or they believe that the child enjoys it, with the consequence that they do not realize that they are in fact committing a crime. In the CQT, this means that the guilty examinee will not show a stronger reaction to the relevant questions and therefore will be identified as truthful. On the other hand, innocent examinees can be classified as guilty. In the case of sexual abuse, it becomes difficult to compose proper control questions because they must relate to the subject matter at issue so that the innocent examinee experiences fear or insecurity. Yet, the emotional substance of the control questions does not come near to that of the relevant questions. The latter concerns a sexual subject under taboo, which can also make innocent examinees respond more to the relevant questions.¹³⁴ In GKT, detailed knowledge of the assault is required in order to formulate appropriate test questions and answers. However, there is usually a lack of conclusive evidence in cases of sexual abuse, in particular where small children are the alleged victims. Hence, it appears to be difficult to compose test questions when the facts of the crime are hardly known. In any case, the GKT cannot be applied at the time of the trial.

¹³¹ OLG Bremen, 28.5.2001 – 5 UF 70/2000b: The subject of the appeal was the trial court's refusal to introduce the test results.

¹³² Rill and Vossel, 'Psychophysiologische Täterschaftsbeurteilung – Eine kritische Analyse aus psychophysiologischer und psychodiagnostischer Sicht', *NStZ* 1998, 481.

¹³³ *Ibid.* at 486.

¹³⁴ *Ibid.*

5.5 Conclusion

Germany's federal courts have been treating the polygraph evidence consistently. The courts' arguments might have changed over the years, but polygraph evidence remains inadmissible in court. No adverse inference may be drawn from the refusal to undergo a test, since the suspect has the right to remain silent.

In older decisions, the courts rather looked at constitutional rights, deliberately ignoring the validity of the evidence and the subject's consent, as opposed to more recent judgments where the courts have examined the procedural principles and law of evidence, which include a consideration of the accuracy of scientific evidence. The understanding of constitutional rights has changed. The aim of the Constitution is to protect and not to restrict a right as happened in the early decisions. If lie-detection should however advance, though it is unlikely in terms of conventional polygraph testing, and be able to measure a specific lie response, the constitutional rights of the examinee may need to be reconsidered.

Even though

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'If the above was the only evidence to be taken into account I would be of the opinion that, despite some suspicion, the respondent had failed to establish that the applicant was guilty. The above situation means that it is necessary to consider the admissibility and reliability of the polygraph evidence'.¹

6.1 Introduction

In the previous chapters, the jurisdictions of the United States of America, in particular the Employee Polygraph Protection Act of 1988 (EPPA), and Germany were considered in order to establish how both countries protect employees from polygraph testing.

Chapter six examines the legitimacy of polygraph evidence in employment law in South Africa, which is the primary focus of this study. Companies use polygraph testing frequently for various purposes, mainly in connection with internal investigations into theft or fraud. The situation is similar to what the USA workplaces experienced in the 1980s, which finally resulted in the enactment of the EPPA.

In this chapter, we deal with the law of evidence, in particular the admissibility of evidence and the standards of expert evidence. In respect of the Labour Relations Act 66 of 1995 (LRA), we examine the substantive and procedural requirements of dismissal to determine whether it is fair to terminate employment because the employee failed or refused to undergo a polygraph test. In this regard, some case law is analyzed. The discussion highlights certain relevant issues and reviews how the dispute resolution bodies treat polygraph evidence. Further, the chapter focuses on section 8 of the Employment Equity Act 55 of 1998 (EEA), which prohibits the use of psychological testing of employees. In terms of employment law, some relevant constitutional rights of employees such as the right to remain silent, fair labour practices and equality are considered. This chapter also examines statutory provisions allowing the use of polygraph testing in the public sector.

¹ Commissioner Maritz in *PETUSA obo Van Schalkwyk v National Trading Co*, [2000] 21 ILJ 2323 at 2330 (CCMA).

6.2 Economic crime and polygraph testing

The CCMA cases show that polygraph testing is administered primarily in connection with ongoing investigations into specific unresolved crime or misconduct, often theft of stock, in the workplace.

The use of polygraph testing continues to grow and so does crime in the workplace. A study on economic crimes conducted by PricewaterhouseCoopers (PwC) in 2003 revealed that 79 per cent of South African companies are subject to asset misappropriation, compared to 60 per cent globally.² Asset misappropriation comprises theft or embezzlement of company assets including monetary assets, cash, supplies and equipment, by company directors, others in a fiduciary position or employees for their own benefit.³ Depending on the nature of the crime, loss quantification can be complicated. According to GriffithReid, a corporate security management company doing employee screening, South Africa's costs due to fraud amount to an estimated R40 billion per annum.⁴ Besides the actual financial loss, economic crimes can damage staff morale, external business relationships, brand image and reputation, therefore causing indirect costs, depending on the nature of the crime. In particular, asset misappropriation causes less damage externally but undermines staff morale.⁵ Forty per cent of the interviewed South African companies said that crimes were detected accidentally.⁶ Failure to manage the risk can have a long-term impact for a company in respect of business relationships and reputation.⁷

Proper recruitment helps to minimize the company's risks. In particular, it assists in hiring the right employees while avoiding unqualified applicants, helps to deter dishonest applicants and encourage honest applicants, and prevents or at least reduces crime in the workplace. Pre-employment screening also prevents post-dismissal lawsuits. Avoiding the wrong employees saves money, as each new employee constitutes an investment for the employer because of, for example, the training of the employee. The South African based Mie Resource Services, which does intellectual risk management for employers, including the verification of personal credentials of

² PricewaterhouseCoopers' (PwC) Global Economic Crime Survey for South Africa (2003); at www.pwc.com/gx/eng/cfr/gecs/PWC_GECS03_south%20africa.pdf (accessed on 31 March 2005).

³ PwC Global Report 2003, 19.

⁴ www.griffithsonline.co.za/media/clippings/mw08052004.htm (accessed on 27 September 2005).

⁵ PwC Global Report 2003, 11.

⁶ PwC Global Economic Crime Survey for South Africa (2003), 4.

⁷ PwC Global Report 2003, 11.

employees, reported that 70 per cent of job applicants falsely represent themselves in respect of driver's licences, criminal records, educational qualifications and identity documents.⁸ This figure is not confirmed by other sources. According to GriffithsReid in 2003, more than 15 per cent of job applicants had criminal records of a serious nature, 50 per cent of South African managers at all levels had at least embellished their curriculum vitae, and 30 per cent of all CVs showed significant distortions and lies.⁹

In South Africa, a polygraph industry is well established. Numerous companies offer investigation services; verification of, for instance, academic qualifications, driver licence, criminal record, or employment history for the pre-employment selection procedure; and polygraph testing to their customers. A number of companies specialize in polygraph investigations.¹⁰ Davian Polygraph Services CC, for instance, offers the following services, explaining the benefit of each one. First, the company offers specific polygraph investigations 'when a specific and identifiable incident has taken place: fraud, theft, arson, assault, sabotage etc. These tests are usually directed at the person's direct involvement or guilty knowledge about the crime or incident'. Second, periodic testing is 'conducted every 3 – 6 months to determine whether or not employees have been involved in unfound activities with-in the company that would not be acceptable and may be harmful to the organization'. Further, it suggests pre-employment screening 'prior to employing possible candidates in order to eliminate those who have been involved with unidentified crimes and who would not be completely suitable for the available position.'¹¹

South Africa's private sector has been using the polygraph since 1978, the government since 1986.¹² Banks, mining companies, security companies, motor manufactures, jewellers, transport companies, courier services, hotels, pharmaceutical companies and casinos employ polygraph testing on a frequent basis because they are

⁸ Mie Resource Services, 'Beware: 70% of prospective employees are fraudsters', see at www.pwc.co.za/Extweb/ncpressrelease.nsf/docid/CAFA095A8DDF310580256F8E004FCDDD (accessed on 31 March 2005).

⁹ GriffithsReid, at www.griffithsonline.co.za/newsletter/june2003/cv.htm (accessed on 06 September 2005).

¹⁰ See, for instance, at www.polygraph.co.za, www.polygraph-sa.co.za, www.honesty.co.za, www.polyservice.co.za, www.polygraphservices.co.za, www.polygraphy.co.za, www.forensicinvestigation.co.za (all accessed on 23 April 2007).

¹¹ Davian Polygraph Services CC, at www.polygraph.co.za/services.htm (accessed on 23 April 2007).

¹² Statement by the Polygraph Association of South Africa (PASA), reported on 14 July 1999 (IR Network).

particularly at risk and experience significant losses due to crime.¹³ The test is used for pre-employment and employment screening, and for specific investigations into crime or misconduct in the workplace. Apparently, more than 1000 companies apply it.¹⁴ For example, companies such as First National Bank, ABSA, Standard Bank, C.N.A., Holiday Inn, Mount Nelson, Solly Kramer, Fidelity Cash Management Services, Spur, Sun City, Metro Rail, Pick 'n Pay, Spoorinet, SAA, Rantanga Junction, Game, Clover SA, Makro SA, Distell, Siemens, De Beers, SA Post Office, Amalgamated Pharmaceuticals Ltd, and Morkels Stores all make use of polygraph testing.¹⁵ Most of them conduct polygraph screening as well as specific event investigations. Periodic polygraph screening is conducted to promote honesty among employees, deter dishonesty, identify potential risks, and to save money and time. Employees are suspended or dismissed if they refuse to undergo a polygraph test.¹⁶

In a newspaper article, for instance, it was reported that:

'Three pilots who are suspected of involvement in the SAA pilots' licence scam were expected to be subjected to lie detector tests on Monday ... They have agreed to take the polygraph test which is part of the SAA's initiative in trying to get to the bottom of the alleged exam leak and fraudulent licences. The pilots have been asked to co-operate – taking a polygraph test is voluntary.'¹⁷

¹³ See *Katyard, Prasant v New Republic Bank – M Abel*, [1998] CCMA, KN11050; *NUM & Others v RSA Geological Services, a division of De Beers Consolidated Mines Ltd*, [2004] 25 ILJ 410 (ARB); *Cebekhulu, Vusumuzi v Grey Security – Donna Stevenson*, [2000] CCMA, KN43367; *SACCAWU v Sterns Jewellery*, [1997] CCMA, NP144; *Cape Times* on 27 September 2004: 'How you can become a courier'; *The Cape Argus* on 21 November 2005: 'Polygraph examiner "threatened to kick me"'; *Felix v Constantia Pharmacy (Pty) Ltd*, [2002] 4 BALR 418 (CCMA).

¹⁴ See *Sunday Times (Business Times)*, 'Some polygraphists fail the test', at www.btimes.co.za/97/0413/btmoney/money7.htm (accessed on 27 September 2005).

¹⁵ *Singh, Dhumal v First National Bank*, [1999] CCMA, KN33299; *Ally, Pier Ursula v C.N.A.*, [2000] CCMA, KN47787; *The Cape Argus* on 21 November 2005; *SACCAWU obo Sandi v Solly Kramer*, [1999] 10 BALR 1207 (CCMA); 'Guards end strike over lie-detector test', reported at www.iol.co.za on 13 August 2002; *HOTELLICA Trade Union v San Angelo Spur (Rondebosch)*, [1997] CCMA, WE3799; *Mintcher, Stefan v Sun City (Sun International) – Diana Buck*, [2001] CCMA, NW21252; *Metro Rail v SATAWU obo Makhubela*, [2000] 5 BALR 599 (CCMA); *SACCAWU obo Sydney Fongo v Pick 'n Pay Supermarket*, [2000] CCMA, FS15555; *Spoornet – Johannesburg v SARHWU on behalf of J S Tshukudu*, [1997] CCMA, GAAR002861; 'Lie detector test for SAA pilots', at www.iol.co.za on 21 May 2000; 'Theme park axes senior staff', at www.iol.co.za on 23 February 2000; *Van Zyl, Adele v Game*, (CCMA) October 1999, FS6652; *Harilall, Jayrajih v Clover SA*, [1998] CCMA, KN10750; *SACCAWU obo Masele v Makro SA*, [1999] CCMA, EC11554/5/8/9; *NUFBWSAW obo Mahlangu & Masango – Sello Baloyi v Stellenbosch Farmers' Winery*, [2000] CCMA, MP11082; *Kroutz v Distillers Corporation Ltd*, [1999] 8 BALR 912 (CCMA); *Shongwe v Siemens Ltd*, [2003] 24 ILJ 2434 (BCA); *Neil Mays v SA Post Office Limited*, [2003] 12 CCMA 8.23.6; *Amalgamated Pharmaceuticals Ltd v Grobel NO and others*, [2004] 25 ILJ 523 (LC); *Zulu v Morkels Stores (Pty) Ltd*, [2000] CCMA, KN4/022.

¹⁶ See, for instance, *Cape Argus* on 21 November 2005.

¹⁷ 'Lie detector test for SAA pilots', at www.iol.co.za on 21 May 2000.

A vehicle tracking company administered tests on most of its employees after 'allegations that car theft syndicates may have infiltrated the company and bribed staff to hand over sensitive information.' In particular, 'the company did stringent background checks on employees and spent more than R700 000 a year on polygraph and voice stress analysis tests.'¹⁸ Another newspaper article reports that:

'Ratanga Junction, the multi-million rand theme park, has sacked two senior staff members ... and suspended all employees working under them amid allegations of theft ... In accordance with their employment contracts, they agreed to a polygraph test and signed admission of guilt statements. The ... manager was dismissed ... together with her immediate subordinate, who was employed as a supervisor, after they agreed to take polygraph tests, which they failed.'¹⁹

As part of its investigations into credit card cloning, a car rental company in Cape Town has asked all 15 employees to undergo polygraph testing.²⁰

According to the Polygraph Association of South Africa (PASA), approximately 20,000 tests were conducted in 2000.²¹ More recent information was not available but it is very likely that the number of tests has increased considerably since 2000. According to a statement of PASA in 2004, pre-employment polygraph screening is on the increase.²² For instance, it is required in courier services.²³ A South African polygraph examiner who was interviewed in 2005 stated that he administers about 500 tests per annum, of which about 20 to 30 per cent are screening tests. A single statement does not however allow us to make any generalizations.

With regard to public employment, members of the South African Police Service (SAPS), Scorpions, Defence Force, and Intelligence Service are polygraph tested during recruitment and there is also periodic screening. In the police service, it is said that polygraph testing eliminates 95 per cent of unsuitable applicants. From 1962 to 1991, the pre-employment polygraph screening of police applicants in South Africa has

¹⁸ 'Tracking firm tightens noose on its staff', at www.iol.co.za on 27 June 2006.

¹⁹ 'Theme park axes senior staff', at www.iol.co.za on 23 February 2000.

²⁰ 'Car rental firm investigates credit card cloning claim', *Cape Times*, 17 April 2007, 4.

²¹ See Tredoux and Pooley, 'Polygraph based testing of deception and truthfulness: An evaluation and commentary', [2001] 22 *ILJ* 819 at 821.

²² See at www.griffithsonline.co.za/media/clippings/mw08052004.htm (accessed on 27 September 2005)

²³ *Cape Times* on 27 September 2004.

increased from 16 to 75 per cent, as 'officer candidates must possess the highest ethical and moral standards because of the burden of trust placed upon them'.²⁴

For a number of reasons, polygraph testing enjoys great popularity in South Africa's workplaces. First, it is most likely because of the high crime rate in the workplace. Most polygraph tests are specific-event investigations, as employers seek to protect their property. Secondly, the majority of employees submit without hesitation to the test, probably because of fear of losing their jobs. Only a few - according to PASA, less than 0.5 per cent - refuse.²⁵ Most examinees confess after failing the test. In this way, the test proves its effectiveness, for instance, in cases of periodic testing when the examinee seeks to explain why he/she failed the test and then sometimes provides the employer with additional information about still undetected misconduct. Further, polygraph testing saves time and money. The costs for an examination vary between about R 500.00 and R 600.00 per examinee, depending on whether it is a specific incident or a screening assessment.²⁶ Finally, it is accepted by the CCMA as additional evidence in terms of dismissal for misconduct.²⁷ It is interesting to note that polygraph charts are not admissible evidence in criminal and civil proceedings: testing is used only for police investigations.

6.3 Law of evidence

In the majority of cases submitted by the employer, polygraph evidence is admissible evidence in CCMA and bargaining councils' proceedings if the polygraph examiner who administered a particular test is heard and other evidence supports the test outcome.²⁸ The results are not, however, admissible in criminal and civil proceedings.²⁹

²⁴ Cilliers and Martin, Utilisation of the polygraph in the criminal justice system (2), *Acta Criminologica* 16(1) 2003, 94 at 94 – 95.

²⁵ See *Sunday Times* (Business Times), at www.btimes.co.za/97/0413/btmoney/money7.htm (accessed on 27 September 2005).

²⁶ See, for instance, Davian Polygraph Services, at www.polygraph.co.za/prices.htm (accessed on 23 April 2007).

²⁷ See chapter 6.4.1.1.1.1 *infra*.

²⁸ For instance, in *Malgas v Stadium Security Management*, [1999] 8 BALR 919 (CCMA); *Sosibo & others v Ceramic Tile Market*, [2001] 22 ILJ 811 (CCMA); *NUMSA obo Masuku v Marthinusen & Coutts*, [1998] 9 BALR 1170 (CCMA); *SACCAWU v Sterns Jewellery*, [1997] CCMA, NP144.

²⁹ See *Mahlangu v CIM Deltak*, *Gallant v CIM Deltak*, [1986] 7 ILJ 346 at 354 (IC); *Malgas v Stadium Security Management*, [1999] 8 BALR 919 at 920 (CCMA); *Kroutz v Distillers Corporation Ltd*, [1999] 8 BALR 912 at 917 (CCMA).

In terms of section 191 of the LRA, disputes concerning dismissal for misconduct or disputes about an unfair labour practice such as demotion are referred to the CCMA or a bargaining council for conciliation. If conciliation fails to resolve the dispute, it may be determined by arbitration. The award is final and binding. In terms of automatically unfair dismissal or dismissal for operational requirements, the dispute is referred to the CCMA for conciliation and if this fails, it is referred to the labour courts for determination. The labour courts are established as courts of law in terms of section 151(1) of the LRA and therefore must apply the law of evidence. Although the CCMA is established as a juristic person according to section 112 of the LRA, its proceedings are not judicial proceedings. However, the principles of the South African law of civil procedure guide practice and procedure in the CCMA.³⁰ In fact, the CCMA is less rigid than the courts in the admission of evidence but it has held that 'the general rules of evidence serve as a guide in the determination of facts relevant in every enquiry'.³¹

Arbitration should avoid the formal and technical preparation of a case. However, an arbitration proceeding is the simplified trial of all the issues in dispute so the arbitrator has to 'consider all the material "properly available"'.³² Section 138(1) of the LRA provides that '*the commissioner may conduct the arbitration in a manner that the commissioner considers appropriate in order to determine the dispute fairly and quickly, but must deal with the substantial merits of the dispute with the minimum of legal formalities.*'

6.3.1 Admissibility of evidence

This section deals with the general requirements for admissibility of evidence in court. The CCMA has held that the 'admissibility of the evidence is not at all in question. What is in question ... is the evidential weight to be attached to such evidence'.³³ Can a test result derived from an unscientific method be admissible evidence? Is the polygraph examiner in fact an expert witness? Does the polygraph examiner give his/her opinion on an ultimate issue and, if so, is the opinion admissible?

³⁰ Oelschig, *Evidence & Labour Law*, 4.

³¹ *Themba & Luthuli v National Trading Company*, [1998] CCMA, KN16887; *Vincent Pillay v National Brands*, [1998] CCMA, KN15700.

³² Du Toit et al, *Labour Relations Law*, 126.

³³ *NUMSA obo Mkhonza & others v Assmang Chrome Machadodorp Works*, [2005] 14 MEIBC 2.11.1, MEGA5978; *Mzimela v United National Breweries SA (Pty) Ltd*, [2005] 9 BALR 969 at 980 (CCMA).

6.3.1.1 Relevance of the evidence

Evidence must be relevant to the facts in issue. Relevant evidence is *prima facie* admissible unless an exclusionary rule applies, whereas irrelevant evidence is always inadmissible. Section 2 of the Civil Proceedings Evidence Act 25 of 1965 (CPEA) provides that '*no evidence as to any fact, matter or thing which is irrelevant or immaterial and cannot conduce to prove or disprove any point or fact in issue shall be admissible*'.

Evidence is relevant if it relates to facts that are important to any of the issues in a particular case. In cases of dismissal for misconduct, the fact in issue is whether the employee has indeed committed the crime or misconduct he/she is charged with, which the employer must prove in terms of section 188(1)(a)(i) of the LRA. The facts relevant to the facts in issue are those which tend to prove or disprove the facts in issue. In a dismissal dispute, does polygraph evidence help to prove misconduct? In this regard, the test results indicate that an examinee was deceptive or truthful in answering questions about the misconduct under investigation.

But, the theory behind polygraph testing is highly questionable. Most question formats are not standardized and objective. A high number of innocent examinees is likely to be misclassified as deceitful.³⁴ The existing scientific research of polygraph testing cannot show how accurately the technique can prove the veracity of the examinee's statement. With regard to screening, no adequate study has been conducted. Therefore, it is rather doubtful whether polygraph evidence can be relevant and therefore admissible. Furthermore, the test outcome needs to be confirmed by other conclusive facts.

In some cases the CCMA has held that the polygraph chart might indicate that the employee lied at the examination, but still did not provide sufficient information on the misconduct under investigation. In *Sosibo v CTM*, the CCMA found that polygraph results did not give conclusive evidence but merely indicated deception.³⁵ The test did not provide detailed information on the misconduct in issue, as the relevant test questions were too general, and sole reliance on test results was not sufficient to prove misconduct. In *Steen v Wetherlys*, the CCMA also found that polygraph evidence was

³⁴ See chapter two *supra*.

³⁵ *Sosibo & others v Ceramic Tile Market*, [2001] 22 ILJ 811 at 817 (CCMA).

inconclusive and could be taken only as a sign that the examinee 'was in a heightened state of general arousal.'³⁶ In *NUMSA obo Masuku v Marthinusen & Coutts* it was held that the polygraph test was not in itself sufficient to prove guilt, but was admissible as expert evidence. The polygraph test was supposed to prove only that the employee had lied, but no questions were asked about the damage to the car. No other evidence supported the test results.³⁷ In *SACCAWU obo Sydney Fongo v Pick 'n Pay*, the evidence was seen as irrelevant because it proved dishonesty rather than gross negligence.³⁸

When dealing with the relevance of evidence, the court must also consider whether the admission of such evidence causes a proliferation or multiplicity of collateral issues, which would be of little probative value with regard to the relevant main issue, namely, whether the employee has committed the misconduct. The admission of polygraph evidence leads indeed to a proliferation of collateral issues. If the employee questions the accuracy of the conducted polygraph test, evidence is necessary as to the qualifications of the expert and test administration. The employee may also argue that he/she suffered from a mental or physical disorder which affected the test. However:

'[once these] subsidiary issues have been determined the court merely ends up with the following fairly useless result: the opinion of someone else that the witness concerned is truthful or untruthful according to a test which has as yet not received universal or broad acceptance in the scientific world. There is a real risk that the drawn-out and time-consuming investigation of collateral issues would not justify the final result.'³⁹

The admission of polygraph evidence in arbitration proceedings is actually contradictory to the purpose of arbitration proceedings, which is to resolve disputes in a quick, cheap and informal manner in terms of section 138(1) of the LRA.

6.3.1.2 Expert evidence

The employer cannot merely submit the results of a polygraph test in court as this would be hearsay evidence.⁴⁰ Hearsay evidence has no probative value and is not admissible. A witness may give evidence only regarding matters observed by him/her and may not

³⁶ *Steen v Wetherlys (Pty) Ltd*, [2005] CCMA, KNDB5462-05.

³⁷ *NUMSA obo Masuku v Marthinusen & Coutts*, [1998] 9 BALR 1170 at 1171 (CCMA).

³⁸ *SACCAWU obo Sydney Fongo v Pick 'n Pay*, [2000] CCMA, FS15555.

³⁹ Schwikkard and Van der Merwe, *Principles of Evidence*, 49.

⁴⁰ Section 3 of the Law of Evidence Amendment Act 45 of 1988.

relate the observations or experiences of other people who are not parties and not called as witnesses, as such evidence is likely to be unreliable.⁴¹ The CCMA has held that a polygraph examiner who conducted the test must be heard on the reliability and validity of the particular test at issue.⁴² Expert evidence constitutes an exception from the hearsay rule. However, one could also argue that polygraph evidence is not more than hearsay evidence due to the absence 'of any proved or accepted scientific basis'.⁴³

Expert evidence must be relevant in order to be admissible. It is relevant if the opinion assists the court and it is not relevant if the court is in the position to decide without the opinion.⁴⁴ It therefore requires a subject upon which the court is either unable to form an opinion without assistance, or the court could come to some sort of independent conclusion, but the help of an expert would be useful.⁴⁵ The CCMA has held that a polygraph examiner's statement was useful and therefore relevant expert evidence.⁴⁶ An expert possesses acquired special skill, training or experience on a particular subject and hence in this regard is better qualified to form an opinion than the court.⁴⁷ Within his/her expertise, the expert helps the court to understand or determine a fact in issue so that the court is able to make a decision.⁴⁸ The court decides whether the witness has sufficient skills, training, and experience to give assistance.⁴⁹

There are divergent decisions as to whether a polygraph examiner is sufficiently qualified and experienced to give an opinion on the subject to assist the court. While the Industrial Court required a trained and registered psychologist in *Mahlangu*, the CCMA was principally satisfied with a qualified polygraph examiner.⁵⁰ Most examiners do not have psychological training. Furthermore, polygraph training is not standardized in South Africa. Examiners are not registered with a statutory body.⁵¹ An unknown

⁴¹ Zeffertt, Paizes and Skeen, *The South African Law of Evidence*, 362.

⁴² For instance, *SACCAWU v Sterns Jewellery*, [1997] CCMA, NP144.

⁴³ *R v Murray* (1982) 7 A Crim R 48 (New South Wales District Court).

⁴⁴ Zeffertt, Paizes and Skeen, op. cit., 290 – 291.

⁴⁵ *Cooper (SA) (Pty) Ltd v Deutsche Gesellschaft für Schädlingsbekämpfung Mbh*, 1976 (3) SA 352 (A) at 370.

⁴⁶ For instance, *Mncube v Cash Paymaster Services (Pty) Ltd*, [1997] 5 BLLR 639 at 641 (CCMA); *SACCAWU obo Chauke v Mass Discounters*, [2004] 6 BALR 767 at 778 (CCMA).

⁴⁷ Zeffertt, Paizes and Skeen, op. cit., 299.

⁴⁸ Sandler, Richter und Sachverständige, *NJW* 1986, 2907 at 2908; *Mncube v Cash Paymaster Services (Pty) Ltd*, [1997] 5 BLLR 639 at 641 (CCMA).

⁴⁹ Zeffertt, Paizes and Skeen, op. cit., 302.

⁵⁰ *Mahlangu v CIM Deltak, Gallant v CIM Deltak*, [1986] 7 ILJ 346 (IC); *Mncube v Cash Paymaster Services (Pty) Ltd*, [1997] 5 BLLR 639 (CCMA); *Mvemve & Another v Evertrade 77 (Pty) Ltd*, [2003] 7 BALR 766 (BCI).

⁵¹ See chapter 2.3.4.2 supra.

number of unqualified examiners administer tests. Most South African examiners receive their training in the USA and are members of various American polygraph associations.⁵²

The *Mahlangu v CIM Deltak* case (1985) constitutes the first employment decision on lie-detection evidence in South Africa.⁵³ A voice analyzer was used in this case. In its judgment, the Industrial Court referred to the use of lie detectors in general, and the decision therefore applies to polygraph testing.⁵⁴ Due to the absence of previous case law, the court looked at foreign jurisdictions to serve as guidelines. It noted that polygraph evidence was inadmissible in England and Canada. The EPPA was not yet enacted but several US states already had provisions regulating the use of polygraph testing in employment, which the court considered. The court further noted that the examiner was not a registered psychologist and held that lie-detector tests carried out by persons other than psychologists are 'unscientific, unethical, invalid and illegal'.⁵⁵ In respect of the method's theoretical foundation, the court found that 'physical changes may also be brought about by other mental and emotional states' and therefore it had:

'the greatest doubt as to whether tests such as these can in fact detect whether the subject is telling the truth. At the very least, a trained psychologist would be needed to attempt to evaluate these mental and emotional responses and determine the cause of the alleged physical responses.'⁵⁶

The expert stated 'that all psychological tests are culturally bound' and further submitted that:

'While it is possible to standardize psychological testing procedure, any results obtained are merely a matter of probability. One cannot be categorical about the interpretation of such results. The greatest skill and care are therefore needed in the application and control of such tests'.⁵⁷

The Industrial Court rejected the evidence.

⁵² See, for instance, *SACCAWU obo Chauke v Mass Discounters*, [2004] 6 BALR 767 at 768 (CCMA); *Mzimela v United National Breweries SA (Pty) Ltd*, [2005] 9 BALR 969 at 974 (CCMA).

⁵³ *Mahlangu v CIM Deltak*, *Gallant v CIM Deltak*, [1986] 7 ILJ 346 (IC).

⁵⁴ Voice analyzer was excluded under chapter one (see chapter 1.6 supra). The Industrial Court has now been superseded by the Labour Court, a higher court.

⁵⁵ *Mahlangu v CIM Deltak*, *Gallant v CIM Deltak*, [1986] 7 ILJ 346 at 346 (IC).

⁵⁶ *Ibid.* at 351.

⁵⁷ *Ibid.*

Polygraph examiners were also found to be insufficiently qualified in a few CCMA cases. In *Sosibo & others v CTM*, the CCMA held that although the examiner was ‘undoubtedly an expert in polygraph equipment ... a scientific or medical expert has to lead evidence that any conscious effort at deception by a rational individual causes involuntary and uncontrollable physiological responses’.⁵⁸ Similarly, the CCMA found in *Steen v Wetherlys* that if the examiner did not have the required medical or psychological qualifications, he/she was not in fact an expert witness.⁵⁹ Employees often do not challenge the examiner’s qualifications.⁶⁰ It was questioned in *PETUSA*, in particular, whether a training period of few weeks was adequate, but the CCMA accepted the examiner’s evidence.⁶¹

Although the law of evidence does not require a certain degree of accuracy, expertise should be sufficiently recognized as reliable and valid by others competent of evaluating its theoretical and empirical foundations, in order to be of assistance to the court. As discussed in chapter two, polygraph testing is not seen to be a reliable and valid method, particularly if used in the employment context. The Psychometric Committee of the Professional Board for Psychology of the Health Professional Council of South Africa (HPCSA), which is the competent authority for classifying psychological tests, does not find polygraph testing reliable and valid.⁶² Moreover, there is simply no way to establish in a particular case whether a polygraph examiner’s conclusion is accurate unless there are other supporting facts. Yet, as later discussed in this chapter, polygraph testing is used in the workplace because of the absence of conclusive evidence.

There is no consistent approach by the dispute resolution bodies regarding the polygraph’s scientific reliability and validity. The *Mahlangu* judgment, which concluded that lie-detection testing was unscientific and invalid, had little impact on subsequent proceedings in the CCMA. In a number of cases, the CCMA held that *Mahlangu* could be disregarded because of the different equipment used, and it was also

⁵⁸ *Sosibo & others v Ceramic Tile Market*, [2001] 22 ILJ 811 at 817 (CCMA).

⁵⁹ *Steen v Wetherlys (Pty) Ltd*, [2005] CCMA, KNDB5462-05.

⁶⁰ See, for instance, *Mzimela v United National Breweries SA (Pty) Ltd*, [2005] 9 BALR 969 at 980 (CCMA).

⁶¹ *PETUSA obo Van Schalkwyk v National Trading Co*, [2000] 21 ILJ 2323 at 2327 (CCMA).

⁶² Media statement by the Professional Board for Psychology on 2 July 1999: ‘Legal and illegal use of psychometric tests including the polygraph’

stated that the technology might have changed since.⁶³ Yet, as discussed above, *Mahlangu* applies to all types of lie-detection devices. Further, it is the theoretical foundation of polygraph testing which causes problems.⁶⁴

In a few cases, the CCMA has followed the judgment in *Mahlangu* and held that polygraph evidence was inadmissible, inconclusive and unreliable evidence.⁶⁵ In *Singh, Dhumal v First National Bank*, the employee was charged with theft, dishonesty and defalcation, and was dismissed after failing a polygraph test. The examiner was heard but was unable to establish the accuracy and reliability of polygraph testing. The CCMA referred to *Mahlangu* and stated that polygraph testing was still too inconclusive despite developments in technology. Thus, it was even unreliable as supporting evidence.⁶⁶ In *Steen v Wetherlys*, the results were inadmissible evidence because they were derived from an unscientific test and reflected the mere opinion of the examiner.⁶⁷

In most cases, however, the CCMA has adopted the approach that polygraph evidence was admissible but not conclusive on its own, and hence supporting evidence was required. The CCMA found in *SACCAWU obo Sydney Fongo v Pick 'n Pay* that:

'It appears...that the said test is regarded as *scientific* and therefore *acceptable by our Courts as a general rule*. However, it is not regarded as conclusive and must be considered in conjunction with other evidence...The employee underwent the test voluntarily. She did not raise any complaint about it in her evidence. I, therefore, find that the evidence of the polygraph test can indeed be *reliable*.'⁶⁸

The examiner's opinion was admissible as expert evidence in *Mncube v Cash Paymaster Services* but the polygraph test was seen to be inconclusive and unreliable because the physiological changes could have been caused by mental and emotional

⁶³ For instance, in *PETUSA obo Van Schalkwyk v National Trading Co*, [2000] 21 ILJ 2323 at 2332 (CCMA); *Mncube v Cash Paymaster Services (Pty) Ltd*, [1997] 5 BLLR 639 at 641 (CCMA); *Zoned & one other v Floccotan (Pty) Ltd*, [1997] CCMA, KN2845; *Mbele v Cash Payment Services (Pty) Ltd*, [1997] CCMA, KN4084; *NUMSA obo Qhusheka v Alloy Wheels International*, [2000] CCMA, EC17665; *Rix v Ryder Security (Pty) Ltd* [1994] 3 LCD 68 at 69 (IC); *Singh, Dhumal v First National Bank*, [1999] CCMA, KN33299.

⁶⁴ Chapter two *supra*.

⁶⁵ *Mudley v Beacon Sweets & Chocolates*, [1998] CCMA, KN10527; *Pillay, Vincent v National Brands*, [1998] CCMA, KN15700; *Themba & Luthuli v National Trading Company*, [1998] CCMA, KN16887; *Mnguni, Zepjania v Oryx Security*, [1998] CCMA, KN17731; *Kroutz v Distillers Corporation Ltd*, [1999] 8 BALR 912 at 917 (CCMA).

⁶⁶ *Singh, Dhumal v First National Bank*, [1999] CCMA, KN33299.

⁶⁷ *Steen v Wetherlys (Pty) Ltd*, [2005] CCMA, KNDB5462-05.

⁶⁸ *SACCAWU obo Sydney Fongo v Pick 'n Pay Supermarket*, [2000] CCMA, FS15555 (own emphasis).

factors other than lying.⁶⁹ In this regard, the CCMA included in its consideration the two expert opinions which the court had received in *Mahlangu* ten years ago. This is the view that the CCMA generally holds and it is the reason why the CCMA requires the employer to submit additional supporting evidence in order to show successfully that the employee committed misconduct in terms of a fair dismissal.⁷⁰ In *Josana v Macsteel*, the commissioner was satisfied that the examiner was 'properly qualified to do polygraph testing and to submit evidence as a specialist on the subject and his findings' and therefore did 'not find that the test was inaccurate as suggested by the applicant'.⁷¹

Experts merely assist the court and therefore must restrict their statements to the scientific elements of the case. They may not give their opinion about the legal or general merits of the case.⁷² The proceedings must remain in the court's hands and the fact-finding responsibility of the court may not be shifted to the witness.⁷³ In a dispute over an unfair dismissal for misconduct, for example, it is upon the commissioner to conclude whether the employee indeed committed the misconduct he/she is charged with. In terms of the South African law of evidence, there is no general rule providing that a witness cannot state his/her opinion upon an ultimate issue, except for the legal or general merits of the case. The witness does not usurp the court's function because the court is free to reject the evidence. It assesses the probative value of the expert evidence and may agree with it or not. By its very nature however, polygraph evidence may diminish the court's role in making credibility determinations. The examiner usually offers an opinion to the court about whether the witness was deceptive or truthful in answering questions about the matters at issue. While most expert witnesses testify about factual matters outside the court's knowledge, for instance, about the analysis of fingerprints or DNA, the polygraph examiner provides the court only with another opinion, in addition to its own, about whether the witness was telling the truth. There is thus a great risk that the court will give excessive weight to the opinions of an examiner.

⁶⁹ *Mncube v Cash Paymaster Services (Pty) Ltd*, [1997] 5 BLLR 639 at 643 (CCMA): 'Why she responded in the way that she did falls squarely within ambit of the expertise of trained psychologists, which Mr. Roberts is not. In any event a psychologist would merely be able to assess the probabilities without making a categorical finding as to whether she was lying.'

⁷⁰ For instance, *SACCAWU obo Chauke and Mass Discounters*, [2004] 6 BALR 676 (CCMA).

⁷¹ *Josana v Mac Steel VRN*, [2004] 5 BALR 566 at 570 (MEIBC).

⁷² Phipson on Evidence, 37-12; Sendler, 'Richter und Sachverständige', *NJW* 1986, 2907 at 2908.

⁷³ Schwikkard and Van der Merwe, *op. cit.*, 49.

6.3.2 Weight of evidence

Only after all relevant evidence has been admitted, and at the end of the trial, the evidence's probative value, alone or together with other evidence, is assessed.⁷⁴ The weight of the evidence is the strength of the tendency of the evidence to prove the fact in issue that the evidence was adduced to prove.⁷⁵

There are two different standards of proof. While criminal proceedings require proof beyond reasonable doubt, the civil and labour courts assess evidence on a balance of probabilities.⁷⁶ The civil standard is not about weighing the quantities of evidence, but the probabilities arising from that evidence and all the circumstances of the case so that the one piece of evidence must be preferred to the other.⁷⁷ The civil standard of proof is lesser, so one could argue that a lower accuracy rate of polygraph testing would be sufficient in civil proceedings. However, in any case, the court must be satisfied that the accepted evidence is credible and sufficient to discharge the onus.

When determining the weight of evidence, single evidence can provide sufficient proof of the fact in issue in terms of section 16 of the CPEA. The same applies to labour proceedings. However, courts must exercise sufficient caution when dealing with uncorroborated evidence.⁷⁸ The polygraph's probative value is minimal due to the lack of accuracy. In particular, the RIT and CQT, both extensively applied in the employment context, show a high rate of wrongly classified innocent examinees.⁷⁹ The CCMA held that polygraph evidence was not conclusive on its own and therefore should be used as corroborating evidence only, nevertheless making the employer's version more probable. Corroborating evidence which is admissible in court is evidence that confirms or supports a fact of which other evidence is given.⁸⁰ Hence, the corroborating evidence must be independent of the evidence which needs to be corroborated. It must also have a bearing on the facts which are in dispute.⁸¹ In *SEAWU obo Mdhuli v Controlled Chatterbox Services CC*, for instance, it is however questionable why the results are admissible, as they appear to be irrelevant to the fact in

⁷⁴ Ibid. at 494.

⁷⁵ Dennis, *The Law of Evidence*, 5.

⁷⁶ Zeffertt, Paizes and Skeen, op. cit., 48.

⁷⁷ *Selamolele v Makhado*, 1988 (2) SA 372 (V) at 375.

⁷⁸ Zeffertt, Paizes and Skeen, op. cit., 793.

⁷⁹ See chapter two supra.

⁸⁰ Dennis, op. cit., 485.

⁸¹ Schwikkard and Van der Merwe, op.cit., 497; Zeffertt, Paizes and Skeen, op. cit., 803.

issue. In fact, the CCMA did not regard polygraph charts 'as conclusive proof of the applicant's misconduct but merely as an additional forensic *tool which is corroborated by other evidence*. I do not draw any definitive conclusion regarding their probative value. In this case the test results support my earlier findings'.⁸²

Where a group of employees is subjected to polygraph testing about the same incident, the employer has usually no more than circumstantial evidence that the employee had access to the property, along with suspicion caused by a deceptive test outcome. In this regard, it was found that failing a test caused suspicion, particularly if other examinees asked about the same incident passed.⁸³ Furthermore, if the employee failed a polygraph test and therefore was re-tested, and failed again or initially refused and then failed the test, the CCMA found this sufficient to justify dismissal.⁸⁴

The chapter now proceeds to deal with the legal framework of employment law at some length.

6.4 Employment law

The section considers the legitimacy of polygraph testing in terms of South Africa's labour legislation, in particular the LRA and the EEA. While there is no explicit statutory provision on polygraph testing in the private sector, it is allowed in some sections of public sector. The latter situation will be dealt with at the end of the section.

6.4.1 Labour Relations Act 66 of 1995

According to sections 1 and 3(c) of the LRA, the provisions of the LRA must be read together with South Africa's international law obligations, particularly as South Africa is a member state of the ILO.

The LRA must be further interpreted in compliance with the Constitution, as provided in section 3(b) of the LRA. The Constitution Act 108 of 1996 provides in section 23(1) that '*everyone has the right to fair labour practices*'. The LRA of 1995 protects current employees against unfair labour practices, in particular unfair dismissal.

⁸² *SEAWU obo Mdhuli v Controlled Chatterbox Services CC*, [2001] CCMA, GA121311.

⁸³ See, for instance, *Mzimela v United National Breweries SA (Pty) Ltd*, [2005] 9 BALR 969 at 980 (CCMA); *Harmse v Rainbow Farms (Pty) Ltd*, [1997] CCMA, WE 1728.

⁸⁴ See, for instance, *Harmse v Rainbow Farms (Pty) Ltd*, [1997] CCMA, WE1728 supra.

Regarding polygraph testing, an employee can be dismissed for misconduct or operational requirements. Disciplinary measures such as demotion or transfer based on test outcome can amount to unfair labour practices.

Job applicants are excluded from the ambit of the LRA.⁸⁵ Prior to the amendment, applicants were included in respect of unfair discrimination under item 2(2) of schedule 7 of the LRA. The provision was replaced by section 6 of the EEA.

6.4.1.1 Dismissal for misconduct

The employer must show that there was a fair reason for dismissal, in particularly '*related to the employee's conduct*', as well as a fair procedure in terms of sections 188(1) and 192.

6.4.1.1.1 Substantive fairness

In terms of section 192(1), the employee bears the onus of establishing that there was a dismissal as defined in section 186. The employee may also seek to rely on 'dismissal lock-out' as provided in section 187. In such a case, the dismissal would be automatically unfair because the employer's decision was based on arbitrary reasons. In order for it then to be automatically unfair the employer must have compelled '*the employee to accept a demand in respect of any matter of mutual interest*' between both parties in terms of section 187(1)(c). Matters of mutual interests are matters which are subject to the terms and conditions of employment.⁸⁶ An employee is not obliged to accept changes in conditions of employment. It can be therefore automatically unfair to dismiss an employee for refusing to accept changed terms and conditions.⁸⁷ For instance, the company may introduce periodic polygraph screening in a workplace and demand submission to a 'voluntary' polygraph test, but the employee may refuse to give consent.⁸⁸ There is a fine line between dismissal for refusal to accept changed conditions and dismissal for misconduct or operational requirements. If the employee refuses to comply with a reasonable and lawful instruction of the employer, it

⁸⁵ The LRA applies to prospective employees only in respect of freedom of association (section 5).

⁸⁶ Niekerk and Linström, *Unfair Dismissal*, 36.

⁸⁷ *Commercial Catering & Allied Workers Union of South Africa v Game Discount World*, [1990] 11 ILJ 162 at 165 (IC).

⁸⁸ See IR Network, 'Fired diamond sorter will see mining firm in labour court', reported on 18 June 1999; *Cunningham v Benguala Operations (Pty) Ltd* (1999) C542/98 (LC). The case was however settled by the company.

constitutes misconduct.⁸⁹ In this regard, it must be examined whether and when the employer may require the employee to undergo polygraph testing.

A dismissal is also automatically unfair in terms of section 187(1)(f) if the reason for dismissal was unfair discrimination. In this case, the dismissal constitutes the differentiation.⁹⁰ The employee must show that the real reason for his/her dismissal was unfair discrimination. Section 187(1)(f) prohibits discrimination on 'any arbitrary ground, including, but not limited' to the listed grounds. Courts established that differentiation on an unlisted ground must impair the employee's fundamental dignity as a human being in order to be unfair.⁹¹ It entails that the submission to a test is voluntary. Furthermore, chapter 2 of the EEA prohibits unfair discrimination in terms of specific employment testing. Therefore, if a particular test falls within the ambit of the chapter but does not meet the legal requirements, its use amounts to unfair discrimination. The application of section 8 of the EEA in terms of polygraph testing is discussed later in this chapter.

If the dismissal is not automatically unfair, the employer must show on the balance of probabilities that the dismissal was fair according to sections 188(1) and 192 of LRA. The employer must provide sufficient evidence that links the employee with the misconduct. The employer must establish, not merely suspect, misconduct.⁹² Otherwise, the dismissal will be unfair in terms of section 188(1)(a)(i).

The Industrial Court confirmed dismissal on mere suspicion in *Moletsane v Ascot Diamonds (Pty) Ltd*.⁹³ However, this case was decided before the current LRA 66 of the 1995 came into force. Although the employer could not establish on a balance of probabilities that the employee had replaced a diamond for one of lesser quality, it had a strong and valid suspicion that the employee was responsible. As the diamond polisher, the employee was in a position of trust.⁹⁴ Together with the suspicion, the employer was entitled to dismiss him as the continuation of employment 'under the circumstances

⁸⁹ See, for instance, *Lefophana v Vericon Outsourcing*, [2006] 15 CCMA 7.1.7, GAPT9884-05.

⁹⁰ Dupper et al, op. cit., 126.

⁹¹ See chapter 3.2.2.2 supra.

⁹² *Mahlangu v CIM Deltak, Gallant v CIM Deltak*, [1986] 7 ILJ 346 at 357 (IC); *Mahlo v Bolt & Engineering Distributors*, [2006] 11 BALR 1116 at 1116 (CCMA).

⁹³ *Moletsane v Ascot Diamonds (Pty) Ltd*, [1993] 2 LCD 310 (IC).

⁹⁴ *Ibid.* at 311.

would have been counter-productive to the commercial activities of the respondent as well as to the relationship of trust between the parties'.⁹⁵

There are different forms of misconduct. It constitutes misconduct if the employee has broken a valid and reasonable rule regulating conduct in the workplace.⁹⁶ Criminal acts such as theft or fraud, the unauthorized possession of property including intellectual property, insubordination and sexual harassment amount to misconduct in terms of the LRA. Any established misconduct violates the employee's common law duty to act in good faith towards the employer.⁹⁷

The gravity of the offence is relevant. The employer may discipline an employee for misconduct, but dismissal is only justified in cases of serious misconduct or repeated less serious offences. Item 3(4) of schedule 8 of the Code of Good Practice states that '*generally, it is not appropriate to dismiss an employee for the first offence, except if the misconduct is serious and of such gravity that it makes a continued employment relationship intolerable*'. The provision provides examples of serious misconduct such as gross dishonesty, wilful damage of employer's property, physical assault of the employer or other employees or gross insubordination. Theft is inherently very serious.⁹⁸ Minor incidents of misconduct should be dealt with through informal advice and counselling. If misconduct is repeated the employer should give a final warning according to item 3(3) of schedule 8 of the LRA.

For the purpose of this study, we need to determine whether polygraph evidence or the employee's refusal to undergo a test is admissible and sufficient to discharge the employer's onus.

6.4.1.1.1 Polygraph evidence

Since the early 1990s, there has been a large increase in the use of polygraph testing in the corporate sector, which consequently led to an increase of cases being brought before the dispute resolution bodies where employers offered polygraph charts as incriminating evidence, mostly in connection with ongoing investigations into specific misconduct. However, the problem with polygraph testing is not that it does not detect deception; the problem is rather the wrong classification of many innocent persons.

⁹⁵ Ibid.

⁹⁶ Basson et al, *Essential Labour Law*, 118.

⁹⁷ Ibid. at 150.

⁹⁸ *Cape Town City Council v SAMWU & others*, [2000] 21 ILJ 2409 at 2410 (LC).

Only a few cases exist where the employee submitted polygraph evidence to show that he/she did not commit the alleged misconduct. In *Simani v Coca-Cola Furtune*, the CCMA rejected polygraph evidence because it was not consistent with other submitted evidence, whereas in *NUFBWSAW v Stellenbosch Farmers' Winery*, it was accepted to confirm that the employee was not involved in the misconduct.⁹⁹

Although it is the employer's responsibility to show that the employee committed misconduct in terms of section 188(1)(a)(i) of the LRA, employers often administer the test, calling it a chance for the employee to 'clear' his/her name.¹⁰⁰ However, the request to undergo a test places the employee in an awkward position. If he/she refuses, the employer then argues that it indicates the employee was involved or knows something about the incident, which he/she is now trying to hide. If the employee fails while co-workers pass, his/her situation is not any better.¹⁰¹

In *Mahlangu* the Industrial Court did not accept the evidence because lie-detector results provided 'little more than suspicion'.¹⁰² Other submitted evidence was not sufficient to show the employee's involvement in the thefts. The dismissal was therefore unfair.

The CCMA and the bargaining councils have adopted the approach that polygraph evidence on its own is not conclusive and therefore can only be used as aggravating factor together with other conclusive evidence in order to show misconduct.¹⁰³ Some commissioners however believe that polygraph evidence is not reliable and hence does not provide any form of evidence.¹⁰⁴ In *Steen v Wetherlys*, the CCMA found polygraph results to be inadequate and held that employers should not give substantial weight to

⁹⁹ *Simani v Coca-Cola Furtune*, [2006] 10 BALR 1044 (CCMA); *NUFBWSAW obo Mahlangu & Masango – Sello Baloyi v Stellenbosch Farmers' Winery*, [2000] CCMA, MP11082.

¹⁰⁰ See, for instance, *Felix v Constantia Pharmacy (Pty) Ltd*, [2002] 4 BALR 418 at 424 (CCMA); *CWIU obo Frank v Druggist Distributors (Pty) Ltd*, [1998] 12 BALR 1573 at 1578 (CCMA).

¹⁰¹ See, for instance, *Mzimela v United National Breweries SA (Pty) Ltd*, [2005] 9 BALR 969 at 980 (CCMA).

¹⁰² *Mahlangu v CIM Deltak, Gallant v CIM Deltak*, [1986] 7 ILJ 346 at 346 (IC).

¹⁰³ For instance, in *Malgas v Stadium Security Management*, [1999] 8 BALR 919 (CCMA); *NUMSA obo Masuku v Marthinusen & Coutts*, [1998] 9 BALR 1170 (CCMA); *Ndlovu v Chapelat Industries (Pty) Ltd*, [1999] 8 BALR 996 (IMSSA); *Geni v Ceramic Tile Market*, [1999] CCMA, EC 10121; *Buang v Morkels Store*, [2001] CCMA, NC6585; *SACCAWU obo Chauke v Mass Discounters*, [2004] 6 BALR 767 (CCMA); *Mvemve & Another v Evertrade 77 (Pty) Ltd*, [2003] 7 BALR 766 (BCI); *ECCAWUSA obo Rosy Nhlapo - Sipho Busakwe v Miladys - Anna Hoodhouse*, [1998] CCMA, GA30036.

¹⁰⁴ For instance, *Sing, Dhupal v First National Bank*, [1999] CCMA, KN33299.

test results when deciding on an employee's guilt. The reliance on polygraph testing is 'totally unfair and a travesty of justice'.¹⁰⁵

Misconduct is usually difficult to prove in the working environment as several persons, employees and even clients have access to the property and therefore the opportunity to commit the offence. There are rarely eyewitnesses or other credible evidence. Polygraph testing is conducted because the employer suspects but has no evidence to show that a particular employee committed the misconduct. In this regard, the polygraph test assists in the investigation. Therefore, most polygraph examinations are in fact blanket tests of a group of employees.¹⁰⁶ If theft, for instance, occurs in the workplace, the employer asks a group of suspected employees, in small companies usually all employees, to submit to a polygraph test in order to find the true perpetrator. There is no need for polygraph testing, if the existing evidence would be sufficient. The administration of the test is an attempt to obtain some evidence, preferably in the form of a confession. The polygraph test results provide additional information, in addition to the fact that the employee had access, and cases, in particular in cases of blanket testing, show that the test results often tip the balance of probabilities in favour of the employer. Having access constitutes circumstantial evidence and alone is not sufficient to show misconduct. Polygraph test results do not provide additional circumstantial evidence but rather suspicion; in the absence of objectivity and standardization, they merely reflect the examiner's personal opinion.

In *Govender v Container Services*, the commissioner held that:

'There is no direct evidence linking the applicants to the theft. However, the inferences to be drawn are *overwhelming*. There is no doubt that the two employees were responsible as they were on duty. Their failure in two polygraph tests ... strengthens the belief that they were involved'.¹⁰⁷

¹⁰⁵ *Steen v Wetherlys (Pty) Ltd*, [2005] CCMA, KNDB5462-05.

¹⁰⁶ For instance, *Katyard, Prsuant v New Republic Bank – M Abel*, [1998] CCMA, KN11050; *Smith v Canoa Eastern Cape*, [2000] 12 BALR 1436 (CCMA); *Mahlo v Bolt & Engineering Distributors*, [2006] 11 BALR 1116 (CCMA); *PETUSA obo Van Schalkwyk v National Trading Co*, [2000] 21 ILJ 2323 (CCMA); *Meleni & others v Rohloff Administration*, [2006] 9 BALR 929 (CCMA); *MEWUSA obo Mbonambi v S Bruce CC t/a Multi Media Signs*, [2005] 14 MEIBC 6.10.2, MEKN855; *Simphiwe Shezi & 2 others v Amalgamated Pharmaceuticals Ltd – Mike Cole*, [2002] CCMA, KN7561-02; *Mvemve & Mahashe v Galaxy World/Evertrade 77 (Pty) Ltd*, [2003] 7 BALR 766 (BCI); *Khumalo & another v Cash Paymaster Services*, [2003] 1 BALR 48 (CCMA); *Dauth v Brown and Weir's Cash and Carry*, [2002] 8 BALR 837 (CCMA); *NUMSA obo Nqukwe & Others v Lowveld Implement & Farm Equipment (Life)*, [2003] 8 BALR 909 (CCMA); *Sosibo & others v Ceramic Tile Market*, [2001] 22 ILJ 811 (CCMA); *NUMSA obo Mkhonza & Others v Assmang Chrome Machadodorp Works*, [2005] 14 MEIBC 2.11.1, MEGA NHN11/2/10237.

¹⁰⁷ *Govender v Container Services*, [1997] CCMA, KN4881 (own emphasis).

In *PETUSA obo Van Schalkwyk v National Trading Co*, the polygraph outcome was evidently the tiebreaker. The employee was the only one of the five examinees who seemed deceptive. He denied that he had taken the sale cash box but offered to pay the money back, since as the supervisor he felt responsible. He also underwent a private voice analyzer test, which he passed. The result was not accepted as reliable. The employee further claimed that more people had access to the cash box. The CCMA held that:

‘If the above [employee’s access to the property and his offer to pay back the missing money] was the only evidence to be taken into account I would be of the opinion that, despite some suspicion, the respondent had failed to establish that the applicant was guilty. The above situation means that it is necessary to consider the admissibility and reliability of the polygraph evidence ... In the instant case there were some independent indicators to support an inference of guilt and that the polygraph test results supported that inference to the extent where the guilt of the applicant has been proved on a balance of probabilities’.¹⁰⁸

In this regard, it appears that the dispute resolution bodies apply the ‘ongoing investigation’ exemption in terms of section 2006(d) of the EPPA. Section 2007(a)(1) of the EPPA provides that an employee may not be discharged or disciplined solely on the basis of a polygraph test chart. The provisions of the EPPA are also instructive when considering whether the employee is obliged to submit to a requested polygraph test.

6.4.1.1.2 Refusal to undergo a test

In some cases, employees were dismissed or disciplined simply for refusing to take a polygraph test, even in the absence of a polygraph clause in the employment contract, because it caused suspicion: the assumption was that an innocent person has nothing to hide and therefore takes the test while a guilty person refuses.¹⁰⁹ This is particularly a problem in cases of blanket testing if one employee refuses while other employees agree to submit to testing. On the other hand, one could argue that it speaks in favour of the employee if he/she is not reluctant to take the test but fails which may be the result of other factors.

In this regard, it is necessary to determine when an employer may request or require a polygraph test, as illustrated by the EPPA, in the absence of a polygraph clause in the

¹⁰⁸ *PETUSA obo Van Schalkwyk v National Trading Co*, [2000] 21 ILJ 2323 at 2330 and 2324 (CCMA).

¹⁰⁹ See, for instance, *NUMSA obo Mkhonza & Others v Assmang Chrome Machadodorp Works*, [2005] 14 MEIBC 2.11.1, MEGA NHN11/2/10237; *Harmse v Rainbow Farms (Pty) Ltd*, [1997] CCMA, WE1728.

employment contract. The employee cannot be compelled to take a test. The LRA must be read in compliance with the Constitution.¹¹⁰ According to section 12 of the Constitution, '[e]veryone has the right to bodily and psychological integrity'. Further, the rights to privacy and free will are protected in section 14 of the Constitution. The right to privacy includes the right not to have one's body searched.¹¹¹

In this regard, the CCMA stated that:

'A polygraph test could constitute a violation of the employee's privacy and personal integrity. However, firstly the applicants had consented to the test ... and secondly, *this consideration would have to be weighed against the employer's operational requirements* or need to protect itself against losses sustainable through acts of, for example, dishonesty and, in appropriate circumstances, a polygraph test might constitute the *most effective, or one of the most effective methods* of the employer's protecting its operational requirements in this regard.'¹¹²

The constitutional rights to physical integrity and privacy mean that submitting to a polygraph test must be voluntary. However, employees often feel pressurized to take the test. In *Harmse v Rainbow Farms (Pty) Ltd*, for instance, the CCMA found that:

'in the circumstances, the company was justified in asserting some pressure, which they clearly did. Ultimately the employee could still have refused, and the company may well have been entitled to draw an inference from such a refusal. I do not believe that the pressure exerted by the company was unfair pressure in the circumstances.'¹¹³

Harmse was the only one of 15 employees who refused to undergo a polygraph test initially, apparently because of Christian values and human rights principles. The company wrote two letters to urge him to take the examination.

Finally, section 35(3) of the Constitution states that every accused person has the right to remain silent and may not be compelled to give self-incriminating evidence. The section applies only to employees facing a criminal charge.¹¹⁴ It does not apply generally to employees in disciplinary hearings.

Is there a general obligation on the employee to take the test, arising from the employment relationship? Obedience is regarded as an implied duty of every

¹¹⁰ Section 3(b) of the LRA.

¹¹¹ De Waal et al, *The Bill of Rights Handbook*, 324.

¹¹² *NUMSA obo Nqukwe & Others v Lowveld Implement & Farm Equipment (Life)*, [2003] 8 BALR 909 at 914 (CCMA); author's emphasis.

¹¹³ *Harmse v Rainbow Farms (Pty) Ltd*, [1997] CCMA, WE1728.

¹¹⁴ De Waal et al, op. cit., 742.

employee.¹¹⁵ In particular, the employee must comply with an employer's reasonable and lawful instructions. However, such an instruction must be job-related. The submission to testing has nothing to do with the performance of work duties.

The EEA contains some regulations on employment testing. For instance, medical testing is prohibited unless the law permits or requires it or it is justifiable in the light of employment conditions or the inherent requirements of a particular job.¹¹⁶ Section 8 of the EEA allows only scientifically valid psychological tests, but does not specify when the employer may require or request such a test. It is also not stipulated whether the employer may require or merely request a polygraph test. On the other hand, the employer has the right to protect its property.

The CCMA does not really deal with the issue but rather limits its focus to the weight than can be attached to the polygraph evidence. Hence, it appears that an employer may require a test at any time for any reason. The issue was considered in *Meth, LC v Avscan International Consultants* where the employee was dismissed after he failed a random testing. The CCMA held that an employer may request a polygraph examination in specific investigations, security firms or drug manufacturers, but may not dismiss or discipline because of the test outcome.¹¹⁷ The decision is similar to the exemptions provided under EPPA. However, the employer must show 'access' and 'reasonable suspicion' in respect of each employee in order to administer a specific polygraph investigation. In this way, as discussed already, the EPPA limits the use of blanket testing.¹¹⁸ If none of the specified exemptions applies, the employer may not request or suggest that the employee undergoes a polygraph test in terms of EPPA.¹¹⁹ In *Harmse v Rainbow Farms (Pty) Ltd*, the company's action was found reasonable in the light of the circumstances of the substantial loss.¹²⁰ Following EPPA as well, Christianson argues that:

¹¹⁵ Grogan, *Workplace Law*, 57.

¹¹⁶ Section 7 of the EEA.

¹¹⁷ *Meth, LC v Avscan International Consultants – JJ van Zyl*, [2001] CCMA, GA118598.

¹¹⁸ Section 2006 of the EPPA; see also chapter four supra for more details.

¹¹⁹ Section 2002(1) of the EPPA.

¹²⁰ *Harmse v Rainbow Farms (Pty) Ltd*, [1997] CCMA, WE1728. 'Economic loss' is required in section 2006(d)(1) of the EPPA in terms of the 'ongoing investigation' exemption.

'[T]he employer may request that the employee be subjected to a polygraph test to assist with this stage of the enquiry on the grounds that the employee had "access" to the property and that there was a "reasonable suspicion" that the employee was involved in the act of misconduct.'¹²¹

In Germany for instance, employees undergo medical or psychological testing only where the law requires it. Otherwise, an employer may not conduct a test.

Is a simple refusal sufficient to discharge the onus in terms of section 188(1)(a)(i) of the LRA? Does it further justify dismissal under the Code of Good Practice in schedule 8 of the LRA? In this regard, the CCMA follows different approaches. On the one hand, it was held that the employee is entitled to refuse as there is no duty upon him/her to take the test and then to co-operate, unless the employment contract provides for such an obligation. Therefore, the dispute resolution bodies may not draw any adverse inference from the refusal.¹²² Mere refusal also does not constitute serious misconduct that warrants dismissal.¹²³

Yet, in some cases, the commissioners have regarded the employee's refusal as an indication of his/her guilt. For instance, the CCMA held in *Armoed v Gray Security Services* that:

'The second significant factor is Mr Armoed's refusal to undergo a polygraph test...to grasp this final opportunity to demonstrate his innocence... To say that it would have been unnecessary to undergo the test does not hold water... It is appropriate to draw an adverse inference from his refusal'.¹²⁴

In *Boonzaier v HICOR*, the CCMA found:

'The company could not prove Mr Boonzaier's involvement in the theft beyond all reasonable doubt, there exists more than a reasonable suspicion that he was directly involved ... His initial reluctance to undergo the test, coupled to his subsequent failure where all other employees in the branch passed the test was evidence of this'.¹²⁵

¹²¹ Christianson, [1998] 8 : 1 *CLL* 1 at 10.

¹²² *Jacob, Paul Keith v Unitrans Engineering*, [1999] CCMA, KN21921; *Kroutz v Distellers Corporation Ltd*, [1999] 8 *BALR* 912 at 917 (CCMA); *SACCAWU obo Masele v Makro SA*, [1999] CCMA, EC11555; *Naidoo v Tiletoria Cape CC*, [2001] 6 *BALR* 622 at 627 (CCMA); *Nihani v ABI Limited*, [2002] 12 *BALR* 1310 at 1314 (CCMA).

¹²³ *Mnguni, Zepjania v Oryx Security*, [1998] CCMA, KN17731.

¹²⁴ *Armoed, Elton K v Gray Security Services*, [1999] CCMA, EC9809.

¹²⁵ *Chad Boonzaier v HICOR Trading Ltd*, [1999] CCMA, WE18745.

In *HOTELLICA Trade Union v San Angelo Spur*, the CCMA held that the employee's 'refusal to take a lie detector test may not be interpreted as implying guilt, it can be regarded as an aggravating factor, especially where there is other evidence of misconduct'.¹²⁶ Section 2007(a)(1) and (2) of the EPPA also require additional supporting evidence. The CCMA held in *CEPPWAWU obo W A Francis v Thermopac* that:

'[it did] not find it necessary to rely on the polygraph tests but it was clear that, whatever, criticism there can be against such tests the fact that Ms Petersen happily subjected herself to it and came out unscathed from the ordeal whilst the applicant had cold feet at the first moment *should perhaps not be entirely ignored*'.¹²⁷

In another case, where the employees had refused without providing any reasons the CCMA found that refusal 'may give rise to adverse inference in relation to charge of theft, but cannot in itself form basis of charge'.¹²⁸ In *NUMSA v Shelco Shelving*, the employees did not give a rational reason for refusing to undergo the requested test. It was held that the employer could therefore draw a negative inference.¹²⁹ Although submission is supposedly voluntary, the cases indicate that the employee is actually forced to take the test to avoid raising suspicion, particularly where other employees agree to testing.

Employees may refuse to take a polygraph test without fearing adverse disciplinary measures, as generally held by the CCMA. However, an obligation on the employee to submit can arise from the employment contract itself. Many companies have included a polygraph clause in their employment contracts: The employee agrees to submit to testing whenever required by the employer, in particular in connection with periodic screening as a means of crime control.¹³⁰ If a company's employment policy and practice require periodic polygraph testing of its employees, an employee who does not co-operate would then contravene that policy and practice and therefore can be dismissed for misconduct.¹³¹ The employee could challenge that such a policy is invalid

¹²⁶ *HOTELLICA Trade Union v San Angelo Spur*, [1997] CCMA, WE3799.

¹²⁷ *CEPPWAWU obo W A Francis v Thermopac*, [2000] CCMA, WE33153 (own emphasis).

¹²⁸ *Meleni & others v Rohloff Administration*, [2006] CCMA, WE12675-05.

¹²⁹ *NUMSA obo Goliath & another v Shelco Shelving*, [2003] 5 BALR 587 at 587 (CCMA).

¹³⁰ See, for instance, in *Smith v Cango Eastern Cape*, [2000] 12 BALR 1436 (CCMA) and *SATAWU obo Lawrence Mabunda v Group 4 Falck (Pty) Ltd (Formerly Callguard Security Services)*, [2002] 11 CCMA 8.8.15, GA1264-02.

¹³¹ So decided in *SATAWU obo Lawrence Mabunda v Group 4 Falck (Pty) Ltd (Formerly Callguard Security Services)*, [2002] 11 CCMA 8.8.15, GA1264-02.

and unreasonable, is not applied consistently or that dismissal is not the appropriate sanction.¹³² The policy was challenged in *Lefophana v Vericon Outsourcing* but considered as an indication of a lack of ‘remorse whatsoever from the applicant who instead elected to dispute the validity’ of the contract. Further, the employee’s behaviour was found to be unfair towards the employer.¹³³

Dismissal should be the last resort and therefore is only justified in cases of serious misconduct or repeated offences in terms of item 3(4) of schedule 8 of the LRA. However, it has also been held that a single act of insubordination could be sufficient.¹³⁴

In terms of item 7 of schedule 8 of the LRA, the employer must show that the employee had contravened a rule, which is valid, reasonable and applied consistently. In order to be valid, a workplace rule may not be contrary to any law or public policy. A rule is unreasonable if it is arbitrary or unfair.¹³⁵ Polygraph testing is inaccurate, particularly when used for screening and entails a high misclassification rate of innocent examinees. Hence, it has the potential to be unfairly discriminating. This can be relevant in terms of the EEA if polygraph testing is included in the scope of section 8.

In *Lefophana v Vericon Outsourcing*, the employee was dismissed for misconduct, specifically breach of contract.¹³⁶ The CCMA held that the employee had disobeyed a reasonable instruction of the employer to submit to testing, which all employees had agreed to submit to in their employment contracts. The refusal resulted in a loss of trust.

Therefore, it is necessary to investigate the legitimacy of such a clause. The CCMA finds it legal and reasonable.¹³⁷ The parties to an employment contract are basically free to decide on the contents of the contract. This freedom of contract is however subject to statutory and collective agreement restrictions designed to protect employees. The higher and the more favourable source of law has priority. Statute law is a higher legal source than the contract of employment.¹³⁸ If the clause is contrary to the law, it is invalid while the contract of employment itself remains valid. In the case of polygraph testing, the clause might violate section 8 of the EEA, which prohibits psychological

¹³² Item 7 of schedule 8 of the LRA.

¹³³ *Lefophana v Vericon Outsourcing*, (2006) 15 CCMA 7.1.7, GAPT9884-0.

¹³⁴ *Lefophana v Vericon Outsourcing*, (2006) 15 CCMA 7.1.7, GAPT9884-0; *Manilall v CCMA & others*, [1998] 12 BLLR 1312 (LC): The court held that in view of the employee’s lack of remorse, dismissal for a single act of insubordination was justifiable.

¹³⁵ Du Toit et al, op. cit., 399.

¹³⁶ *Lefophana v Vericon Outsourcing*, (2006) 15 CCMA 7.1.7, GAPT9884-05.

¹³⁷ See, for instance, *Lefophana v Vericon Outsourcing*, [2006] 15 CCMA 7.1.7, GAPT 9884-05.

¹³⁸ Halbach et al, *Labour Law in Germany*, 59.

testing in the workplace, although the section does not ban such testing completely.¹³⁹ The clause must be also assessed in the light of the Constitution. The use of an invalid testing method is likely to violate the constitutional rights of the employee, such as his/her rights to fair labour practices and equality.

6.4.1.1.2 Procedural fairness

Besides substantive fairness, the LRA also requires a *'fair procedure'* in section 188(1)(b). The employer bears the onus of proof. The guidelines are provided in item 4 of schedule 8 of the LRA. Despite its name, the Code of Good Practice on Dismissal is, however, not a codification of law or legal principles.¹⁴⁰ It is not a peremptory provision as the statute merely states in item 4(1) that the employer *'should'*. Moreover, the Code does not replace any existing relevant collective agreements, which will prevail over the Code.¹⁴¹

The inquiry may be informal according to item 4(1). The employer should give a notice of allegation to the employee. The employee is entitled to respond within a reasonable time. The employer must provide a written notification of its decision with the reason for dismissal, and must inform the employee of his/her rights.

For example, it constitutes procedural unfairness if the employee is not given a proper hearing in respect of the complaints against him/her at the disciplinary inquiry. In *SACCAWU obo Chauke v Mass Discounters*, the dismissal was found procedurally unfair because the test results were not shown to the employee and the polygraph examiner was not heard in the disciplinary hearing.¹⁴²

The procedural guidelines of the American EPPA give an indication as to how a test should be administered: The employer must provide the employee with the written notice about the polygraph examination. The proposed test questions have to be presented to the examinee before the test is conducted. Afterwards, the employer must inform the employee of the test outcome and whether it played a role in the decision to dismiss the employee. Item 4(3) of the Code of Good Practice explicitly requires that

¹³⁹ See for more details chapter 6.4.2.2 supra.

¹⁴⁰ Du Toit et al, *op. cit.*, 403.

¹⁴¹ Item 1(2) of schedule 8 of the LRA.

¹⁴² *SACCAWU obo Chauke v Mass Discounters*, [2004] 6 BALR 767 at 777 (CCMA).

the employee must be informed of the reason for the dismissal. Each case must be judged on the facts of the particular case itself.¹⁴³

6.4.1.2 Dismissal for operational requirements

Polygraph test results cannot prove misconduct, but they certainly raise suspicions about an examinee who fails the examination. In some instances, the employer may dismiss on mere suspicion on grounds of operational requirements, as provided in sections 188(1)(a)(ii) and 189 of the LRA.

Section 213 of the LRA defines operational requirements as '*requirements based on the economic, technological, structural or similar needs of an employer*'. The definition in section 213 indicates that operational needs are business-related rather than linked to an employee's behaviour or actions. All terms are defined in the Code of Good Practice on Dismissal based on Operational Requirements. In particular, '*economic reasons are those that relate to the financial management of the enterprise*'.¹⁴⁴ In most cases it is financial problems due to a downturn in the economy or a decrease in the demand for its products, for example, which make a certain number of dismissals necessary.¹⁴⁵ Misconduct cannot be subsumed as 'economic need', but it can constitute a similar reason for retrenchment. As an exemption to 'no fault' dismissals, the employee can be retrenched due to economic reasons when he/she is employed in a position of trust and an 'employee's conduct has led to a breakdown of the trust relationship'.¹⁴⁶ If the employer finds itself unable to prove misconduct, it still has the alternative to dismiss on grounds of operational requirements. In *Malgas v Stadium Security Management*, the employer could only raise suspicion and therefore failed to prove misconduct. The CCMA stated that the employee who behaved suspiciously and also failed a polygraph test 'should have been dismissed for operational requirements'.¹⁴⁷

Dismissal for operational reasons must be both substantively and procedurally fair.

¹⁴³ Christianson, 'Polygraph Testing in South African Workplaces: "Shield and sword" in the dishonesty detection versus compromising privacy debate', [2000] 21 *ILJ* 16 at 35.

¹⁴⁴ Item 1 of the Code of Good Practice.

¹⁴⁵ Basson et al, op. cit., 147.

¹⁴⁶ Item 2 of the Code of Good Practice; Basson et al, op. cit., 150.

¹⁴⁷ *Malgas v Stadium Security Management*, [1999] 8 *BALR* 919 at 921 (CCMA).

6.4.1.2.1 Substantive fairness

The employer bears the onus of establishing that operational requirements have called for the dismissal and must show 'that the operational reason actually existed and that it was the real reason for the dismissal' and 'not a mere cover-up for another reason'.¹⁴⁸

In some instances, the employer may 'dismiss a person on mere suspicion of misconduct. This is not, it should be clear, an exemption to the rules governing dismissal for misconduct: it is the application of the rules governing dismissal for operational reason'.¹⁴⁹ Despite not proving misconduct, the management may argue reasonable suspicion of losing trust, or that the employee might do so in the future, and that, therefore, the 'mistrust is counter-productive to the operation of the business'.¹⁵⁰ Then the breakdown of the trust relationship between both parties would constitute a fair reason for a dismissal in terms of section 189.¹⁵¹ However, any misconduct puts a strain on the employment relationship and that is why the employer can always claim operational reasons. Therefore, the nature of the business is relevant in this regard. For example, it can be argued that if the employee is placed within a high security environment where a relationship of trust between both parties is essential, then the employers can expect a high degree of honesty and integrity from its employees. Therefore, the employee can be dismissed if this relationship of trust is destroyed. Jobs within, for instance, the National Intelligence, special units such as the 'Scorpions', SAPS, private security services, the public service, customs and excise, insurance, banking, mining, information technology, or the post office entail such a trust relationship between employee and employer.¹⁵²

The employee must have caused the loss of trust. In *Amalgamated Pharmaceuticals Ltd v Grobler NO and others* the Labour Court held that 'the fact that the applicant did not trust the individual respondents did not on its own mean that the trust relationship had broken down, as the breach of trust had not been caused by them'.¹⁵³ However, who has caused the loss of trust in cases of polygraph testing? Is the employer responsible

¹⁴⁸ Basson et al, op. cit., 151; Du Toit et al, op. cit., 423 - 424 and *Steynberg v Coin Security Group (Pty) Ltd*, [1998] 19 ILJ 304 at 310 (LC).

¹⁴⁹ Brassey and Cheadle, *The New Labour Law: Strikes, Dismissals and the Unfair Labour Practice in South African Law*, 97.

¹⁵⁰ Basson et al, op. cit., 150.

¹⁵¹ Christianson, [2000] 21 ILJ 16 at 35.

¹⁵² Ibid. at 21.

¹⁵³ *Amalgamated Pharmaceuticals Ltd v Grobler NO and others*, [2004] 25 ILJ 523 at (LC).

because it required the test, or is the employee responsible because he/she refused to submit or failed the exam? In this regard, it is relevant whether the employer was entitled to ask its employees to submit to a test.

Although the employee is not obliged to undergo polygraph testing, employers find it suspicious if an employee fails a polygraph test or refuses to take one. In *Harmse v Rainbow Farms (Pty) Ltd* it was found that:

‘The results of the polygraph test made it clear that Harmse had known something about the theft which he had not disclosed to the company and this was what had given rise to the loss of trust. The main issue had been Harmse’s untruthfulness and Roberts [the chairman of the disciplinary hearing] had based his decision on that’.

The employer is entitled to dismiss an employee whom it no longer trusts if there are reasonable grounds for losing trust because the ‘breach of this trust in the form of conduct involving dishonesty is one that goes to the heart of the relationship and is destructive of it’.¹⁵⁴ The employee had initially refused to take the test but then agreed and failed while all other examinees passed. He failed to attend a second polygraph test.

In the recent case, *Sosibo & other v Ceramic Tile Market*, the CCMA held, contrary to *Harmse v Rainbow Farms*, that an employee could not be dismissed on operational reasons because section 188(1)(a) and item 2(2) of schedule 8 of the LRA clearly restrict the reason for dismissal to misconduct, incapacity and operational requirements. Further, with reference to the definition of operational requirements in section 213 ‘it is not possible to bring a subjective feeling towards an employee within this definition’.¹⁵⁵ In *Kleinhans v Tremac Industries*, the CCMA found that simply failing a polygraph test did not constitute reasonable grounds for losing trust. The employee failed a second examination as well. The commissioner stated that the employee had no defence against the results of an instrument that he had no control over.¹⁵⁶

With regard to retrenchment for operational reasons, it is not unfair to dismiss a person from a position of trust on mere suspicion. The burden of proof is consequently less than the onus to prove misconduct in terms of section 188(1)(a)(i) of the LRA. This invites employers to make use of polygraph testing.

¹⁵⁴ *Harmse v Rainbow Farms (Pty) Ltd*, [1997] CCMA, WE1728.

¹⁵⁵ *Sosibo & others v Ceramic Tile Market*, [2001] 22 ILJ 811 at 818 (CCMA).

¹⁵⁶ *Kleinhans v Tremac Industries*, [2001] 5 BALR 469 at 472 (CCMA).

6.4.1.2.2 Procedural fairness

The employer must also show '*that the dismissal was effected in accordance with a fair procedure*'.¹⁵⁷ Section 189, section 16 and the Code of Good Practice on Dismissals Based on Operational Requirements as well as section 41 of the Basic Conditions of Employment Act 75 of 1997 provide the procedural requirements.

In respect of polygraph testing, the employer is obliged to disclose certain information. According to section 189(3) of the LRA, the employer must disclose in writing to the other consulting party all information listed in the section including, but not limited to, the reasons for the proposed dismissal and the method of selecting the employees to be dismissed. The employer must only disclose information which is relevant according to sections 189(4) and 16 of the LRA.

Thus, if the employee submitted himself/herself to a polygraph examination and the employer's decision to dismiss him/her is based on the outcome of the polygraph examination, the employer must inform the employee about the analysis of the test and the results before dismissing him/her.

6.4.1.3 Unfair labour practice

The employee could also claim an unfair labour practice in terms of section 186(2)(a) of the LRA. An unfair labour practice refers to substantively and procedurally unfair employer conduct in terms of promotion, demotion, probation or training. A labour practice is unfair if it lacks an objective standard and is simply arbitrary or inconsistent.¹⁵⁸ An employer may argue unfair treatment where the decision to promote or demote was based on a test outcome or the refusal to undergo a test.

In *SEAWU obo Mdhluli v Controlled Chatterbox Services CC*, the employee was demoted after he failed a polygraph test.¹⁵⁹ Although the examiner testified an accuracy and reliability of nearly 100 per cent, the results were not regarded as conclusive evidence, but rather as a mere indication which was consistent with other evidence.

¹⁵⁷ Section 188(1)(b) of LRA 1995.

¹⁵⁸ Du Toit et al, *op. cit.*, 481.

¹⁵⁹ *SEAWU obo Mdhluli v Controlled Chatterbox Services CC*, [2001] CCMA, GA121311.

6.4.2 Employment Equity Act 55 of 1998

The purpose of the EEA is to provide equal and fair treatment in compliance with sections 9 and 23(1) of the Constitution Act 108 of 1996 and the ILO Discrimination Convention 111 of 1958.¹⁶⁰

This section of this study examines section 8 of the EEA, which prohibits psychological testing in employment. There is some debate about whether the provision applies to polygraph testing.

The EEA protects both current and prospective employees against unfair discrimination during the selection process. It applies to all employees other than members of the National Defence Force, the South African Secret Service and the National Intelligence Agency.

According to section 9 of the EEA, job applicants are included in respect of employment testing. In pre-employment screening, the prospective employee is not obliged to disclose prejudicial information about his/her past to the prospective employer unless the information is relevant to the particular job position.¹⁶¹ The employee has however the duty to disclose when non-disclosure of such information amounts to fraud. Such a duty exists if the past misconduct would make the employee unsuitable for the position, such as a conviction for drunk driving in the case of an application for a job as a taxi driver. The same applies to polygraph pre-employment screening, which examines the information provided in a job interview but also a person's past behaviour in order to determine future tendencies. However, the relevant test questions cover a wide range of misconduct so that some of the questions do not relate to the position being applied for. Furthermore, there is no research on the accuracy of pre-employment polygraph screening. The applicant is not obliged to take a test. However, if the candidate refuses to submit, he/she is not likely to be employed.

¹⁶⁰ Sections 3(a) and (b) of the EEA; see chapter 3.2.2 supra.

¹⁶¹ *Hoffman v Moni's Wineries Ltd* 1948 (2) SA 163 at 168 (C).

Section 1 of the EEA defines '*employment policy or practice*' to include:

'(a) recruitment procedures, advertising and selection criteria, (b) appointments and the appointment process, (c) job classification and grading ... (h) performance evaluation systems, (i) promotion, (j) transfer, (k) demotion, (l) disciplinary measures other than dismissal, and (m) dismissal'.¹⁶²

Polygraph testing does not constitute a medical test, which is prohibited in terms of section 7, as the test is not '*designed to ascertain, or ... has the effect of enabling the employer to ascertain, whether an employee has any medical condition.*'¹⁶³

Section 8 prohibits unfair discrimination by way of unfair testing and reads as follows:

'Psychological testing and other similar assessments of an employee are prohibited unless the test or assessment being used
(a) has been scientifically shown to be valid and reliable;
(b) can be applied fairly to all employees; and
(c) is not biased against any employee or group.'

The question remains whether section 8 applies to polygraph testing. Does it constitute a psychological test? Alternatively, if one wanted to draw parallels between polygraph and psychological testing, polygraph testing could be regarded as a '*similar assessment*'.

How is psychological testing defined and what is meant by '*other similar assessment*'? How do the dispute resolution bodies consider it? Finally, what are the requirements of section 8?

6.4.2.1 Definition of psychological testing

The EEA itself does not define psychological testing, although medical testing is defined in section 1.

Section 8 prohibits '*psychological testing and other similar assessment*'. In this regard, it is instructive to consider the history and drafting of section 8. The 1996 Green Paper for the EEA stated that '[e]mployers should avoid psychometric tests unless they can demonstrate that they respect diversity.'¹⁶⁴ Psychological testing was initially not

¹⁶² See chapter 3.2.2.1 *supra* for more details.

¹⁶³ Section 1 of the EEA.

¹⁶⁴ Green Paper on Employment and Occupational Equity, Gazette No. 17303, Notice No. 804, 01 July 1996, 35.

addressed in the Employment Equity Draft Bill 1997.¹⁶⁵ Section 8 of the Employment Equity Bill was included in the subsequent draft, which provided that:

*'Psychometric testing of an employee is prohibited unless the test being used – (a) has been scientifically validated as providing reliable results which are appropriate for the intended purpose; (b) can be applied fairly to employees irrespective of their culture; and (c) is not biased against people from designated groups'.*¹⁶⁶

However the section's scope was too limited. The Parliamentary Portfolio Committee on Labour rejected the provision and recommended amending its wording to the current version by including the phrase *'other similar assessments'*.¹⁶⁷ In particular, the word 'psychometric testing' was changed to 'psychological testing' to avoid disputes about whether an instrument is psychometric or psychological.¹⁶⁸ In fact, at the time when the EEA was drafted, employers abandoned psychometric testing in favour of interviews, or used psychometric tests but then argued that they were not in fact psychological tests and would therefore not fall within the ambit of the proposed legislation. By including the phrase *'other similar assessment'*, the legislature cast the net wider. The Parliamentary Portfolio Committee on Labour decided that all procedures and practices used in taking decisions about employees' careers had to be controlled.¹⁶⁹ It is submitted that section 8 applies to any device used for any form of employee assessment, classification, or grading. Polygraph testing falls as a minimum under *'similar assessment'* because employees are disciplined and evaluated on its outcome.

It is further submitted that polygraph testing constitutes psychological testing. Psychology deals broadly speaking with mental processes and behaviour.¹⁷⁰ Section 37(2) of the Health Professions Act 56 of 1974 (HPA) provides that psychology includes the evaluation of emotional processes by using and interpreting tests for the determination of aptitude or psycho-physiological functioning.¹⁷¹ A psychological test assesses a standard sample of behaviour in order to infer generalizations about a

¹⁶⁵ Gazette No. 18481, Notice No. 1840, 01 December 1997.

¹⁶⁶ Employment Equity Bill, B60-98.

¹⁶⁷ Employment Equity Bill, B60A-98 and B60B-98.

¹⁶⁸ Labour Portfolio Committee, Discussion on the Employment Equity Bill, 4 August 1998.

¹⁶⁹ See Mauer, *Psychological Test and Other Similar Assessment Device Classification and Use in South Africa*, at www.pai.org.za/board.htm (accessed on 29 December 2005).

¹⁷⁰ Muchinsky et al, *Personnel Psychology*, 1.

¹⁷¹ The name of the HPA has changed from Medical, Dental and Supplementary Health Service Professions Act 56 of 1974.

person.¹⁷² It is believed that people respond in a similar manner to various stimuli and situations. Psychometrics, a division of psychology, deals with 'the measurement of personality traits or personal characteristics in order to gather information about a person. This information is regarded as useful for predicting future behaviour'.¹⁷³ With regard to employment, psychometric testing means the assessment of an applicant in order to determine his/her suitability in terms of personality or the requirements of a specific position.¹⁷⁴

The act of lying constitutes an emotional process during which the brain must decide between two conflicting statements and choose one while the other one is suppressed for a short while.¹⁷⁵ The polygraph does not measure thoughts, but rather physiological reactions caused by emotional stress, which can be the fear of being detected as a liar, but may also be anger, anxiety or embarrassment about taking the test. The examiner draws an inference from the recorded physiological responses in order to determine its emotional cause and, in the case of event-free screening, to give a general predication about a person's character. Hence, polygraph testing is also called the psycho-physiological detection of deception and is assessed by the standards of psychological testing. Whether polygraph testing can actually detect lying and also predict behavioural tendencies, relates to the concept of validity.¹⁷⁶

Psychological tests need to be standardized and objective and both these aspects are incorporated in section 8 of the EEA, which also requires that the test is applied fairly to all groups of employees.¹⁷⁷ Some scholars also include both concepts in the definition of psychological testing.¹⁷⁸ Hence, Christianson argues that:

'Psychological tests, including psychometric tests, are required to be standardized, valid and reliable and should furthermore be free from bias. When assessed by these standards, it is submitted that broadly speaking the polygraph falls short of acceptable standards for psychological tests ... it may still come within the definition of "other similar assessments"'.¹⁷⁹

¹⁷² Anastasi and Urbina, *Psychological Testing*, 4.

¹⁷³ Bonthuys, 'Psychometric Testing and the Law', [2002] 23 *ILJ* 1175 at 1175 – 1176.

¹⁷⁴ Regulations to the Intelligence Service Act 65 of 2002 issued in terms of its section 37.

¹⁷⁵ Ross, 'Maschinen, die Gedanken lesen', in *Spektrum der Wissenschaft* 3/2004, Das verbesserte Gehirn, 48.

¹⁷⁶ See chapter two supra.

¹⁷⁷ See chapter 6.4.2.2 infra for more details.

¹⁷⁸ Anastasi and Urbina, op. cit., 4.

¹⁷⁹ Christianson, [2000] 21 *ILJ* 16 at 27.

Raskin and Honts, both qualified psychologists and proponents of the polygraph, claim that polygraph testing can be conducted in an objective and standardized manner. They argue that a 'psychological test is a standardized procedure for sampling behaviour' and further '[s]ince the CQT is a psychological and psychophysiological test, we evaluate the extent to which each of the major polygraph techniques satisfies the general requirements of a psychological test'.¹⁸⁰ This illustrates an unfortunate situation, namely, that if one supports accuracy of polygraph testing, it would fall within this definition of psychological testing. However, if one argues that polygraph testing is not objective and standardized, it does not constitute a psychological test.

Although decided in 1985 and therefore before the EEA came into force, the *Mahlangu* case provides some useful information on the issue. The court received expert evidence from two witnesses, who were both trained and registered psychologists. The one expert witness testified that:

'Lie-detector tests ... involve the testing and evaluation of mental and emotional responses to questioning and therefore constitute a form of psychological testing. The voice-analysers, as lie-detectors, are regarded by the professional board as C-level testing which means that a trained and registered psychologist is required to carry out and control these tests, which fall within the practice of psychology as defined by Act 56 of 1974.'¹⁸¹

In this regard, the court agreed with the witness.

The Psychometrics Committee of the Professional Board for Psychology at the HPCSA is the statutory body which classifies and legalizes the use of psychological tests as well as prescribed questionnaires, apparatus and instruments for the determination of intellectual ability, aptitude, personality make-up, personality functioning, psycho-physiological functioning and psycho-pathology.¹⁸² The HPCSA was established to determine standards of professional education and training, and to set and maintain excellent standards of ethical and professional practice. The developer, importer or distributor of a psychological test must apply to the Board for classification, which will then issue a classification certificate. Certification by a scientific organization is considered as 'an important indicator of validity'.¹⁸³

¹⁸⁰ Raskin and Honts, 'The Comparison Question Test', in Kleiner (ed), *Handbook of Polygraph Testing*, 1.

¹⁸¹ *Mahlangu v CIM Deltak*, [1986] 7 ILJ 346 at 351 (IC).

¹⁸² Section 37 of the HPA.

¹⁸³ Du Toit et al, *op. cit.*, 620.

The polygraph is not on the Board's list of psychological tests.¹⁸⁴ It has not been submitted for evaluation and classification.¹⁸⁵ Nevertheless, the Professional Board for Psychology considers the polygraph test to be a psychometric test. The Board released a media statement in 1999 on the 'legal and illegal use of psychometric tests including the polygraph' in which it expressed its opinion that:

'The polygraph, or lie-detector test as it is widely known, is completely unreliable and that the Board does not accept it as a valid test for the purposes in which it is commonly used in this country ... The [Board] wishes to emphasise that the use of the polygraph has not been approved by the Board... These tests are also used in direct contravention of the Health Professions Act as well as the Employment Equity Act'.¹⁸⁶

It is unclear whether the Board has the authority to regulate polygraph testing as will be apparent below.

The EEA commenced in August 1999. The position of the dispute resolution bodies regarding section 8 is not quite clear. There appear to be only two decisions on the issue, and these decisions have opposing approaches. In *PETUSA obo Van Schalkwyk v National Trading Co* the CCMA held that:

'A comparison of what is contemplated in the section and the basis of polygraph testing ... makes it clear that polygraph testing cannot be said to fall under s 8 of the Employment Equity Act or the sections under the Health Professions Act and ... whatever the need might be to establish the controls that Dr Cooper [witness] and the HPCSA desire, it will need new legislation to achieve that.'¹⁸⁷

Further, the polygraph examiner, who was not a trained psychologist:

'did not concede that psychology should be considered as the mother discipline noting that the jury was still out on the question and that there was a suggestion that it rather fell under criminology. I understand him to accept that there might be psychological conditions in a subject that might corrupt a polygraph test but he thought there was no clear acceptance of the effect of psychological stimuli on the physiology. The polygraph test measures physiological changes.'¹⁸⁸

Given this argument, it seems peculiar that the CCMA then accepted the evidence. The mere physiological changes of the employee are irrelevant to the facts at issue,

¹⁸⁴ HPCSA, Form 207, 'Why do we classify tests'.

¹⁸⁵ Board's e-mail of 16 November 2005.

¹⁸⁶ Media statement by the Professional Board for Psychology on 2 July 1999: 'Legal and illegal use of psychometric tests including the polygraph'.

¹⁸⁷ *PETUSA obo Van Schalkwyk v National Trading Co*, [2000] 21 ILJ 2323 at 2331 - 2332 (CCMA).

¹⁸⁸ *Ibid.* at 2327.

namely, whether the employee had indeed taken the sale cash box. It is also of some interest that the witness, Dr Cooper, who testified on behalf of the employee, was a trained psychologist and the chairperson of the Professional Board for Psychology in 2000. He believed that polygraph testing is a form of psychological testing.¹⁸⁹ Criminology deals with the causes, and types of crime and ways to control criminal behaviour. It is an interdisciplinary field in the behavioural sciences, which includes psychology and other disciplines. The CCMA stated that psychometrics dealt with the scientific measurement of mental capacities and processes and of personality, and held that a '*similar assessment*' must have the same basis as psychological testing. The polygraph however measures physiological responses and 'the result is an inference based on the variance in the responses'.¹⁹⁰ Hence, the CCMA did not consider the polygraph test as a '*psychological test or other similar assessment*' and therefore neither section 8 of the EEA nor the relevant sections of the HPA 1974, which deemed such acts to pertain specially to the profession of a psychologist, applied to polygraph testing. The CCMA further held that the HPCSA had no jurisdiction over polygraph testing in terms of the current legislation.¹⁹¹

The commissioner in *Mvemve & Another v Evertrade 77 (Pty) Ltd* came to a different conclusion. He/she stated that:

'The legal status of the polygraph testing is, at best, highly questionable in the eyes of the courts and, at worst, it is likely that polygraphs would be found to be illegitimate in the light of the provisions of the Employment Equity Act dealing with the validity of psychometric testing. In view of the imperfection of the polygraph system and the lack of solid research ... I conclude that polygraph testing has no scientific basis.'¹⁹²

Unfortunately, the issue was not discussed in any detail.

When the CCMA considered the scope of section 8 of the EEA in *PETUSA obo Van Schalkwyk v National Trading Co*, it referred to Christianson's articles and found that Christianson concludes that polygraph testing was different to psychological testing and that the HPCSA did not have jurisdiction over polygraph testing.¹⁹³ The CCMA agreed with this conclusion. Christianson discusses the features of psychological and

¹⁸⁹ Ibid. at 2328.

¹⁹⁰ Ibid. at 2331.

¹⁹¹ Ibid.

¹⁹² *Mvemve & Another v Evertrade 77 (Pty) Ltd*, [2003] 7 BALR 766 (BCI).

¹⁹³ *PETUSA obo Van Schalkwyk v National Trading Co*, [2000] 21 ILJ 2323 at 2331 (CCMA).

polygraph testing. While psychological and psychometric tests 'are used to determine ability, aptitude, personality-type and overall suitability for a particular job', polygraph tests are administered 'to detect the truthfulness or deception of particular information rather than a predictive test as such' and fall short of the standards for psychological testing.¹⁹⁴ She therefore believes that it is 'unlikely that a polygraph test will be deemed to be a psychological or psychometric test' but leaves it open whether section 8 applies, particularly with regard to 'other similar assessment'.¹⁹⁵ Christianson concludes that the nature of the test has yet to be established as well as whether the Professional Board for Psychology has jurisdiction over polygraph testing.¹⁹⁶

Section 8 must apply to polygraph testing in any situation, irrespective of the purpose of a particular test. Otherwise, the employer could argue that the test was conducted for a reason other than the actual purpose, in particular, that screening testing was in fact a specific ongoing investigation. Moreover, most tests are administered in connection with a specific-event investigation, as seen earlier in this chapter.

Polygraph testing is therefore subject to classification by the Professional Board of Psychology, which was established under section 15 of the HPA. Even if a test is 'classified as a psychological test, the onus rests on the test user to ensure that the test is valid for the purposes for which it is being used'.¹⁹⁷ In terms of section 17, registration with the Board is prerequisite in order to practise as a psychologist. The HPA provides penalties in section 37 for a person who practises as a psychologist although he/she is not registered or if he/she uses an unclassified device. Furthermore, any person or institution that provides polygraph training must apply to Professional Board for approval in terms of section 16 of the HPA. Hence, only qualified psychologists who are registered with the HPCSA are permitted to use, interpret, and control psychological tests. Most polygraph examiners do not meet these requirements. Other professionals may use certain psychological tests if the Psychometrics Committee of the Professional Board for Psychology has certified the use of the test for that category of tester. In this regard, the examiner must obey whatever restrictions may be placed on the test's use relevant to the category of test user that he/she is registered as. The examiner must also

¹⁹⁴ Christianson, 'The testing of employees: The selective prohibition of medical, psychological and other testing in terms of the Employment Equity Act', [1999] 9 : 2 *CLL* 11 at 16.

¹⁹⁵ Christianson, [2000] 21 *ILJ* 16 at 36.

¹⁹⁶ Christianson, [1999] 9 : 2 *CLL* 11 at 16; Christianson, [2000] 21 *ILJ* 16 at 37.

¹⁹⁷ HPCSA, Form 207, 3.

seek monitoring from a psychologist where specialist input would enhance the testing process and the understanding of the test results. Finally, the examiner must be appropriately trained and must have achieved the minimum competencies required to use the test.¹⁹⁸ However, the minimum qualifications for polygraph examiners are not regulated.

6.4.2.2 Requirements of section 8 of the EEA

Section 8 does not prohibit psychological testing completely. The onus of proof is upon the employer to demonstrate that the test is valid and reliable, not biased and can be applied fairly to all employees.¹⁹⁹ The requirements are cumulative and apply to '*other similar assessments*' as well.²⁰⁰

It appears that there are no cases dealing with the section's scope, application and requirements apart from the above-mentioned two decisions on polygraph testing. The concepts of reliability and validity as well as the various types of both concepts were discussed in chapter two. In this regard, a test is valid if it measures what it purports to measure. Polygraph testing cannot determine a person's character relevant to the job, particularly his/her general truthfulness. Generally, an increased response to the test questions can be for reasons other than deception. The frequently-used CQT has a high rate of false positives. In terms of reliability, the test must produce consistent and repeatable results. The employer must provide evidence that a particular polygraph test is valid and reliable. However, legislation does not distinguish between the different types of reliability and validity,²⁰¹ nor does it require a certain degree of reliability and validity.²⁰² The general rules of evidence also do not require a particular degree of accuracy.

Section 8 of the EEA further requires a fair application to all employees, which necessitates some standardization and objectivity in order to treat all employees consistently. In this regard, it also refers to the validity and reliability of the test. Due to the personal interaction between examiner and examinee, polygraph testing cannot be

¹⁹⁸ Ibid. at 2.

¹⁹⁹ Section 11 of the EEA.

²⁰⁰ Du Toit et al, op. cit., 620.

²⁰¹ See chapter 2.3.1 supra.

²⁰² Bonthuys, op. cit., 1188 – 1189.

standardized and therefore applied in a fair manner. Further, a professional who is registered with the Professional Board for Psychology must conduct the test.

Finally, the test may not be culturally biased. This refers to the misclassification of certain social or ethnic subgroups and in this respect to the concept of validity as well. Research has indicated that people from different ethnic groups do not react in the same way to stress.²⁰³ In particular, it will constitute indirect discrimination if the test shows 'a significantly lower or disproportionate pass rate amongst certain race or gender groups.'²⁰⁴ Tests developed in other countries need to be adapted for use in South Africa.

Finally, we deal with polygraph testing in the public sector, paying attention to the legislation that allows its use.

6.4.3 Public employment

It was previously noted that the LRA does not apply to members of the defence force, the intelligence and secret service.²⁰⁵ They are also not included in the ambit of EEA.²⁰⁶ However, employees can bring an unfair discrimination claim in terms of the Promotion of Equality and Prevention of Unfair Discrimination Act 4 of 2000 (PEPUDA), as the latter applies to areas which are not regulated by the EEA.²⁰⁷

Polygraph testing is allowed in public employment and is mainly used for pre-employment and employment screening purposes, although there are no empirical studies showing the polygraph's accuracy and reliability in this particular context. Its accuracy is however believed to be low due to the general scope of the relevant test questions, resulting in a great number of innocent examinees being misclassified. Nonetheless, polygraph testing is subject to restrictions. The employee's right to privacy protects him/her from questioning about his/her personal activities. The employee also has the constitutional right to equal protection.

²⁰³ See chapter 2.3.1 *supra*.

²⁰⁴ Dupper et al, *op. cit.*, 219.

²⁰⁵ Section 2 of the LRA.

²⁰⁶ Section 4(3) of the EEA.

²⁰⁷ Section 5(3) of the PEPUDA.

There are a number of South African statutes such as the former Defence Act 44 of 1957,²⁰⁸ the National Strategic Intelligence Act 39 of 1994 and the Intelligence Services Act 65 of 2002 that explicitly permit the use of polygraph testing.

6.4.3.1 National Strategic Intelligence Act 39 of 1994

We first consider the National Strategic Intelligence Act 39 of 1994 (NSIA). Polygraph testing is mentioned in the sections 2A(1), (4)(a) and (b), (9)(a) as well as 6(3), which deal with security screening investigations.

According to section 2(1)(a)(i), the National Intelligence Agency gathers, correlates, evaluates and analyses domestic intelligence in order to identify any threat or potential threat to the security of the Republic or its people.

The NSIA applies to both current and prospective employees of an organ of state. Section 2A(1) states that security screening investigations may be administered of persons rendering service or persons who going to do so, who have access in some way, particularly access to information and certain areas.

The NSIA also applies to employees of the South African Secret Service, Police Service and the National Defence regarding security screening in terms of section 2A(2).²⁰⁹

As far as members of the Defence Force are concerned, the former Defence Act 44 of 1957, repealed by the Defence Act 42 of 2002, contained a relevant provision which limited the rights of members of the defence force. Section 48(2)(c) allowed periodic security screening by polygraph testing of its members and provided that:

'To the extent necessary for purposes of military security and safety of members of the Defence Force and employees, such members and employees may from time to time be subjected to (c) security clearances which probe into their private lives and may include polygraph tests'.

²⁰⁸ The Defence Act 42 of 2002 repealed the Defence Act 44 of 1957.

²⁰⁹ Provincial Gazettes (Western Cape), Gazette No. 5926, Notice No. 275, P.N.275/2002, 30 August 2002: A Municipal Police Service was established under section 64A(4) of the South African Police Service Act No. 68 of 1995 for the area of jurisdiction of the Swartland Municipality and according to section 1.2, it is subject to the following condition: *'The Swartland Municipality must require members of the Swartland Municipal Police Service to undergo random polygraph testing on request'*. Provincial Gazettes (Western Cape), Gazette No. 5786, Notice No. 347, 02 November 2001: The same applies to the police of the City of Cape Town, which must also require its members to undergo random testing.

The provision permitted the questioning of a person about his/her private life although the information is of no relevance to the job. The right to privacy is protected under the Constitution. Defence Act 42 of 2002 no longer includes polygraph testing.²¹⁰

Section 2A(4)(a) of the NSIA provides that in security screening investigations a polygraph may be used *'to determine the reliability of information gathered during the investigation.'* Subsection (b) defines the polygraph as *'an instrument used to ascertain, confirm or examine in a scientific manner the truthfulness of a statement made by a person.'* What does the phrase *'in a scientific manner'* imply in this regard? Does it require the test to be conducted in a scientific manner and therefore actually restrict its use? The alternative, and more likely, meaning is that the section is simply stating that polygraph testing is conducted in a scientific way to avoid claims that polygraph testing is not valid.

Information relating to criminal and financial records, personal information and any relevant information in this context may be gained by using section 2A(5). Based on the test outcome, the security clearance may be issued, degraded, withdrawn or refused.²¹¹ Consequently, the NSIA allows pre-employment screening, periodic vetting and specific investigations. It appears that the polygraph can be used even as sole aid. Hence, an employee can be discharged based solely on the outcome of a polygraph test.

Further regulations can be issued on the use of polygraph testing as part of security screening investigations in order to determine the reliability of information provided by a person.²¹²

6.4.3.2 Intelligence Services Act 65 of 2002

The Intelligence Services Act 65 of 2002 (ISA) regulates the establishment, administration, organization and control of the National Intelligence Agency, the South African Secret Service and the South African National Academy of Intelligence.

Section 1 defines the polygraph examiner as:

'A person who, in order to ascertain, confirm or examine in a scientific manner the truthfulness or otherwise of statements made by another person, uses skills and techniques in conjunction with any equipment and instrument designed or adapted for that purpose.'

²¹⁰ See section 50(2)(c) of the Defence Act 42 of 2002, which limits the member's rights.

²¹¹ Section 2A(6) of the NSIA.

²¹² Sections 2A(9)(a) and 6 of the NSIA.

Further, the provision says that security service '*entails performing the functions of a polygraphist*'.

Section 14 deals with security screening in the appointment and discharge of members of the Intelligence Service. A person may be appointed only if '*information with respect to that person has been gathered in the prescribed manner in a security screening investigation by the Intelligence Services.*' This can be done by accessing criminal records, financial records, personal information, and any other information which is relevant to determine the security clearance of the person.²¹³ Further, a person may only be appointed if he/she does not constitute a security risk or acts prejudicially to the security interests of the Republic.²¹⁴ In this regard, the ISA permits pre-employment polygraph screening in order to verify the obtained information. According to sections 14(3) and 14(4)(a), '*[t]he Director-General may engage the services of a polygraphist to determine the reliability of the information gathered*' and issue directives on the use of polygraph testing.

After assessing a person's potential security risk, a security clearance certificate may be issued, degraded, withdrawn or refused.²¹⁵ If the certificate is withdrawn, the person is deemed unfit for further membership of the Intelligence Services or the Academy and can be discharged from the service or transferred.²¹⁶ Hence, periodic polygraph vetting and specific investigations are allowed. Appeal is possible.²¹⁷ The reliability of information gathered about a member or applicant may be confirmed by a polygraph test.²¹⁸

In terms of section 37, the Minister of Intelligence Service approves and issues Regulations on the Intelligence Services, which provide further details on the use of polygraph testing in this sector.²¹⁹ Chapter XXVI deals with security screening: an applicant may be requested '*to undergo a polygraph examination to determine the reliability of information gathered*' in connection with a person's security clearance.²²⁰ However, the polygraph may be used as an investigation tool only '*and not as*

²¹³ Section 14(2) of the ISA.

²¹⁴ Section 14(1)(b) of the ISA.

²¹⁵ Section 14(5) of the ISA.

²¹⁶ Section 14(7) of the ISA.

²¹⁷ Section 14(8)(a) of the ISA.

²¹⁸ Section 14(3) of the ISA.

²¹⁹ Government Gazettes, Gazette No. 25592, Notice No. 1505, 16 October 2003.

²²⁰ Regulation 6(1).

polygraph test results were not conclusive on their own but were considered as an aggravating factor in showing misconduct. The dispute resolution bodies take an employer-friendly approach. A large number of cases indicated that without the polygraph results, the submitted evidence would not be sufficient to discharge the onus of proof. The test results made the employer's argument more probable and therefore actually decided the case against the employee. The submission of a test outcome involves the risk that too much weight is given to it or that other evidence is assessed in its light. It was further shown that where the employee was employed in a position of trust, he/she could be dismissed on operational grounds on the basis of mere suspicion. Although the employee is not obliged to submit to testing, refusal normally has adverse consequences for him/her. It looks particularly suspicious if several employees are asked to undergo polygraph exams and some agree while others refuse. In various cases, the CCMA found refusal together with other evidence sufficient to dismiss for misconduct.

The discussion further showed that polygraph testing constitutes psychological testing and therefore is included in the ambit of section 8 of the EEA. In the absence of empirical evidence, standardization and objectivity, the use of the polygraph amounts to unfair discrimination. It is also likely to be culturally biased. However, section 8 of the EEA does not offer sufficient protection against inappropriate and intrusive testing, as it does not prohibit the use of psychological tests *per se*. The position of the dispute resolution bodies is not clear in the absence of case law but on the other hand, it could also indicate that the CCMA does not support an extended application of section 8 of the EEA to polygraph testing. Companies may employ psychological testing but must show that it meets all the requirements of section 8. Persons who administer tests have to be qualified and registered with the HPCSA, which also approves training. It is not clear, unless regulated in the contract of employment, when an employer may administer polygraph testing in the workplace. The EEA prohibits pre-employment testing. In this regard, the polygraph is used for event-free screening purposes only and is less accurate than in a specific investigation. If job applicants refuse to submit, they risk not being employed.

The chapter finally showed that employees in the public sector such as members of the National Defence Force and the Intelligence Service can be polygraph-tested. In this regard, polygraph testing is mainly used as a screening tool despite the lack of scientific

research in this context. Employees may seek to claim unfair discrimination in terms of the PEPUDA. Although international labour law provides that polygraph testing should not be used in the workplace, it is not binding in this regard and does not replace national legislation.

Conclusions about the research and recommendations for South Africa are made in the following chapter.

CHAPTER SEVEN: CONCLUSION

*'The point of describing the provisions of foreign legislation is not to suggest that it is in any way binding in South Africa. However, it does suggest that other jurisdictions exercise a great caution in the use of polygraphs in the workplace.'*¹

7.1 Introduction

This chapter concludes the study on polygraph testing in the South African workplace in terms of current employment law. The chapter seeks to summarize what was considered in the previous chapters. The aim of this chapter is to illustrate the contribution of this study's findings to the existing body of knowledge. Furthermore, this study aimed to find solutions to the South African problems, and recommendations for South Africa are therefore made, based on the findings of the chapters. In this regard, the study could be criticized for comparing South Africa with two developed countries. However, the USA constitutes the key source of reference when it comes to polygraph testing in employment as it has specific codified law regulating its use. The private industry also experienced a very similar situation to that of the current South African situation about 20 years ago. The US government still applies tests on a large scale. In addition, the South African dispute resolution bodies have referred to US legislation and case law in numerous instances.² Germany, in this respect, provides a good contrast. Both the private and public sectors have never experienced employee polygraph testing due to strict court decisions.

The primary purpose of this study was to show that the current framework of South Africa's employment law provides some, yet insufficient, protection against being subjected to polygraph testing. Furthermore, that the law explicitly allows polygraph testing in certain types of employment. The research further attempted to draw attention to a number of important issues which are not regulated, despite the extensive use of the polygraph in both the private and public sectors.

¹ *Sosibo & others v Ceramic Tile Market*, [2001] 22 ILJ 811 at 817 (CCMA).

² For instance, in *Mahlangu v CIM Deltak*, *Gallant v CIM Deltak*, [1986] 7 ILJ 346 at 353 (IC); *Mncube v Cash Paymaster Services*, [1997] 5 BLLR 639 at 643 (CCMA); *PETUSA obo Van Schalkwyk v National Trading Co*, [2000] 21 ILJ 2323 at 2332 (CCMA); *Sosibo & others v Ceramic Tile Market*, [2001] 22 ILJ 811 at 817 (CCMA).

Chapter one introduced the study and explained the context and importance of this study as well as its methodology and limitations.

Chapter two considered the scientific research on the reliability and validity of polygraph tests for the various contexts of employment. It was found that the theoretical basis of polygraph testing is severely flawed and that there is very little quality research on the use of polygraphs in employment, particularly in the screening context.

In chapter three, the use of polygraph testing in employment was considered in the context of international labour law. In this regard, we looked at the employee's right to non-discrimination, the requirement of a valid reason for dismissal, and specific international regulations on polygraph testing in the workplace. South Africa's compliance with international labour standards, particularly as a member state of the ILO, was also examined.

The USA, with its considerable amount of explicit legislation and case law on polygraph testing, was the subject of chapter four. The limitations of the EPPA and its impact on the use of the test in the private sector were identified. The EPPA does not apply to public employees. Court cases indicate a reluctance to accept polygraph evidence.

Chapter five assessed the reasons and arguments of German courts for consistently rejecting polygraph evidence. On the basis of legislation and case law, German employers are prohibited from administering polygraph testing.

Chapter six identified the factors responsible for the growth of polygraph testing in South African workplaces. The role that the polygraph plays in dismissal disputes was considered. The scope of the EEA and some statutes relating to the public sector were further examined.

7.2 Summary and conclusions

The experiences and perspectives of the examined ILO standards and jurisdictions should help South Africa to address successfully the currently excessive use of polygraph testing in the employment context.

7.2.1 Scientific research

Due to the inherent limitations of the underlying theory and the absence of quality field research on labour law cases, there is no scientific evidence to show how reliable and accurate polygraph testing is. People do not respond in the same way to stress. Some believe in the polygraph's accuracy while others do not. Not only lying causes changes in heart rate, respiration or increased sweating.

Only certain question formats can be used in the employment context, but these formats lack standardization and objectivity. The techniques further show a high rate of wrong classifications of innocent examinees, which clearly speaks against their use as incriminating evidence. Yet employers use the results to prove misconduct. In terms of event-free screening, typically applied in the employment context, polygraph testing has very little accuracy. It cannot predict future tendencies. Furthermore, polygraph testing is likely to be culturally biased as people from different ethnic groups react differently to stress. It is evident that particularly in the employment context, the polygraph's accuracy is over-estimated because it is confused with efficacy. There is no doubt about the latter. Polygraph testing requires interaction between the examiner and the examinee, which limits the impact of computerization on increasing the accuracy of testing. In the absence of established standards and controls, unqualified examiners without psychological skills make the situation worse.

Therefore, it has been concluded that there is no scientific evidence of accuracy in the sense of a general accuracy rate as often argued. It cannot be established whether a particular test outcome is correct unless there are independent factors supporting the results. Yet the test is employed due to the absence of conclusive evidence. The results should therefore not be used as any form of evidence in labour disputes.

7.2.2 International Labour Standards

The ILO instruments indicate that employers should not administer polygraph testing.

In particular, it was established that using test results to make employment decisions could constitute unfair discrimination against prospective and current employees. In this regard, South Africa's Employment Equity Act 55 of 1998 explicitly regulates certain types of employee testing that amount to unfair discrimination. The employer must further show that there was a valid reason, namely

misconduct, for dismissal. In terms of the Termination of Employment Convention, national legislation may specify whether a deceptive test outcome or mere refusal to submit constitutes an invalid reason. Furthermore, the collection and processing of employee data should be subject to restrictions under national law. Employers may not gain absolutely any information about their employees. The ILO Code of Practice on the protection of workers' personal data contains specific regulations regarding polygraph testing, but the Code is not sufficient to provide protection because it does not impose obligations on member states.

7.2.3 United States of America

Adopting specific regulations similar to the EPPA might help to reduce the number of polygraph tests conducted in South Africa.

The US courts have established general requirements of admissibility of scientific evidence and in this regard, the relevance and reliability of polygraph testing are considered. Although the *per se* inadmissibility rule regarding polygraph evidence was abandoned in the 1990s, courts are generally reluctant to admit the evidence. Test results may not be the tiebreaker in a case.

Despite its weaknesses, the EPPA is useful for this study, because it restricts the administration of tests. In respect of the private sector, the EPPA regulates when an employer may request a test, as well as the requirements for using test results for disciplinary action. In particular, it requires an 'ongoing investigation', 'access to the property', and 'reasonable suspicion' regarding each employee, as well as a written statement by the employer. The employer must demonstrate additional supporting evidence in terms of the EPPA, but it was argued that this requirement is in fact superfluous. The EPPA further limits the administration of blanket testing and hence the application of polygraph testing in general. Non-specific periodic screening and pre-employment testing are generally prohibited by the EPPA. The EPPA has reduced the number of tests conducted in private employment. The EPPA does not apply to public employees: The government uses polygraph testing extensively in its security-screening program. State law, in some respects more restrictive than the federal EPPA, regulates the licensing of examiners.

7.2.4 Federal Republic of Germany

As far as Germany is concerned, the hopes of some scholars that exculpatory polygraph evidence would finally become admissible vanished in 1998 when the Supreme Court refused to accept test results submitted by the accused. One criticism which needs to be made is that the Supreme's Court judgment is too restricted in terms of polygraph techniques, namely the CQT and the GKT.

As indicated above, polygraph tests are administered mostly as an attempt to show that a person did not commit the crime he/she is charged with. Courts emphasize the examinee's fundamental rights to privacy and personal dignity. Initially those rights required the exclusion of polygraph evidence and courts did not even deal with the question of whether the polygraph is accurate. The more recent approach is that the constitutional rights make it necessary to consider the issue. However, the results are not admissible due to the lack of accuracy, despite being conducted by qualified psychologists. The Supreme Court held that the results are not admissible as exculpatory evidence in both criminal and civil proceedings. The quality of polygraph evidence is considered separately, and the courts found it was not adequate evidence and therefore not admissible. A confession made after failing a polygraph testing is also not admissible. In terms of employee testing, the law must explicitly require it. The polygraph may not be used as an investigative tool in Germany.

7.2.5 Republic of South Africa

Despite the polygraph being extensively applied in the private sector, South Africa does not have explicit regulations to confine or control the use of polygraph testing and nothing is done to ensure that, at least, qualified examiners conduct the examinations. In fact, polygraph testing has become more important in crime investigation and prevention due to increasing economic crime. Although an employee is not generally obliged to undergo a polygraph examination, most workers agree to submit to testing.

Polygraph evidence is only admissible in labour disputes and here it is mostly used as incriminatory evidence, despite the high misclassification rate of innocent examinees. In this regard, admissibility is not seen to be a problem, but the weight of polygraph evidence is relevant. It was found that it assists the commissioner and it is

conclusive as additional aggravating evidence. Apart from the test outcome, there is often little circumstantial evidence; usually, the employee would have had access to the property. Polygraph evidence is considered together with other evidence, and there is the danger that too much weight is given to polygraph evidence and that other evidence is assessed in the light of the test results. There is no consistent approach as to whether the polygraph examiner constitutes an expert witness in labour proceedings, but the CCMA generally accepts him/her as an expert. In addition, many examiners do not have sufficient skills and qualifications and there is no obligation upon examiners to be registered with a statutory supervising body. The test has not been approved for use in South Africa and therefore it might be culturally biased. Polygraph test results play a significant role in disputes about dismissal for misconduct. It has unfavourable consequences for the employee if he/she fails or refuses to undergo testing. The EEA applies to polygraph examinations but the current section 8 of the EEA does not provide for a prohibition *per se*. Therefore, employers can still administer tests and then seek to demonstrate that they are accurate. The dispute resolution bodies do not consider the EEA in respect of polygraph testing. The law allows polygraph screening in public employment and permits appointing or dismissing an employee based on the test outcome.

Most tests conducted in the workplace are blanket examinations and, in this regard, the test results help to tip the balance of probabilities in favour of the employer. Without the polygraph evidence, employers would often not be able to show misconduct. There is an increasing use of pre-employment and employment polygraph screening. Numerous companies use contracts of employment which contain a polygraph clause. The employee is obliged to take the test, otherwise he/she can be dismissed for breach of contract. Employees in particularly sensitive positions can be retrenched on mere suspicion and hence a polygraph outcome could be sufficient.

It was also shown that employers can in fact require a polygraph test at any time for any reason due to the absence of regulations and authoritative case law. The judgments do not provide restrictions, but rather deal with assessing the weight of the submitted test results. Screening can be conducted without any restrictions. This encourages companies to rely even more on polygraph testing. Very few commissioners took a similar approach to that of the EPPA and found that the

employer may request testing in ongoing investigations or in pharmaceutical and security companies.

Due to a high misclassification rate of innocent examinees, and in the absence of other evidence, polygraph test results are used rather as exculpatory evidence in foreign jurisdictions. In South Africa, the outcome serves mainly inculpatory purposes in labour disputes despite there being no other evidence to show misconduct.

7.3 Recommendations

It is recommended strongly that the use of polygraph testing should not be permitted in the South African workplace. Employers should be prohibited from using the test on prospective and current employees.

Therefore, regulations for polygraph testing are required to address the current extensive use and misuse in the employment sector, the lack of qualified examiners and the inconsistent treatment in labour disputes. Employment decisions are made depending on the outcome of a polygraph test. If the suspected employee passes the test, he/she will be reinstated. Although the employee is not obliged to submit to testing, the CCMA draws a negative inference from the refusal in a number of cases so that the employee is essentially forced to take the test.

The dispute resolution bodies apply the EPPA as a rough guideline. The EPPA illustrates a number of issues which are not regulated in South Africa:

- employee's rights, namely that testing is voluntary and that the employee may terminate the exam at any time without fearing discipline for doing so,
- requirements regarding the employer giving notice of the test,
- test administration, in particular the number of sets of questions, the types of questions that may not be asked, and so forth,
- the minimum length of a test and the maximum number of tests that the examiner may conduct per day,
- the examiner's minimum qualifications,

- the requirements regarding the examiner's report for the employer, disclosure and recordkeeping.

Furthermore, what happens if the employee claims that he/she was not suitable to undergo testing because he/she was suffering from a medical or psychological condition or taking medication or claims that the test was not conducted in his/her home language? In this regard, section 2007(b)(1)(D) of the EPPA provides that the test may not be conducted *'if there is sufficient written evidence by a physician that the examinee is suffering from a medical or psychological condition or undergoing treatment that might cause abnormal responses during the actual testing phase'*. Further, the Professional Board for Psychology at the HPCSA says that the examiner must ensure that the assistant is properly trained. There is no research regarding the use of assistants such as translators and whether it affects accuracy.

The current framework of South Africa employment law does not offer sufficient protection to employees regarding polygraph testing. It is therefore submitted that chapter 2 of the EEA needs to be amended by incorporating a section on lie detection devices, which also includes the polygraph. The EEA applies to both current and prospective employees. The new section should also respect the right of the employee to refuse to take the test, since 'voluntary' submission to a polygraph examination actually takes place under duress. Voluntariness is generally questionable in the employment relationship. Employees are under pressure to undergo testing because of the threat of loss of employment and therefore are also under pressure to sign the consent form. Job applicants agree to submit due to the economic necessity of employment. Furthermore, according to the CCMA, it creates suspicion when a person refuses to submit, particularly when other employees have agreed to take the examination.

More companies have been adding a polygraph clause to their employment contracts. It is also relevant in this regard that no restriction is placed upon the employer as to when it can request a test, as is done for instance in the EPPA. We recommend that a section with a broad scope be added to chapter 2 of the EEA prohibiting the use of all types of lie detection equipment in employment and prohibiting the mere suggestion of a test:

'The use of lie detection devices is prohibited'.

In public employment, it needs to be clarified whether an employee can be compelled to submit to a polygraph test in the course of an investigation and whether he/she can be dismissed or disciplined for refusing to take a test. Public employees must be also guaranteed certain procedural rights. Therefore, it would be advisable to reconsider those statutes which allow the use of polygraph testing. In this regard, it is stressed once again that polygraph testing is mainly used for pre-employment and periodic screening that are both barely accurate. Furthermore, most examiners are not sufficiently trained and qualified.

7.4 Concluding Remarks

South African employers increasingly rely on polygraph testing in the fight against crime in the workplace. The polygraph has become more important as part of the recruitment and for periodic vetting during the course of employment. Employees are demoted, transferred or dismissed based on polygraph testing.

Despite continuing doubts about the polygraph's accuracy and its potential for unfair discrimination, the CCMA recognizes the employer's 'need to protect itself against losses sustainable through acts of, for example, dishonesty and, in appropriate circumstances, a polygraph test might constitute the most effective, or one of the most effective methods of the employer's protecting its operational requirements'.³ Although dispute resolution bodies are cautious about polygraph evidence to some extent, applying test results as 'mere' corroborative factor does not solve the problem.

Therefore, legislative action is required to tackle the problems. A section could be added to the EEA, which already addresses employee testing, to ensure that employees and job applicants are fully protected against polygraph examinations.

Employers need to protect their business against increasing crime. On the other hand, employees have certain fundamental rights which should not be ignored. In the employment context, consent is hardly ever present in the face of a possible loss of employment or economic need to find work. Decisions are made about people's livelihoods and careers based on a test that lacks accuracy. The employer should put its faith in other, more reliable measures.

³ *NUMSA obo Nqukwe & Others v Lowveld Implement & Farm Equipment (Life)*, [2003] 8 BALR 909 at 908 (CCMA).

It is hoped that this work has succeeded in highlighting the issues involved in the use of polygraph testing in South Africa's employment sector.

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APPENDIX A

ILO Code of practice on the protection of workers' personal data (Geneva 1997)

1. Preamble

Employers collect personal data on job applicants and workers for a number of purposes: to comply with law; to assist in selection for employment, training and promotion; to ensure personal safety, personal security, quality control, customer service and the protection of property. Various national laws and international standards have established binding procedures for the processing of personal data. Computerized retrieval techniques, automated personnel information systems, electronic monitoring, genetic screening and drug testing illustrate the need to develop data protection provisions which specifically address the use of workers' personal data in order to safeguard the dignity of workers, protect their privacy and guarantee their fundamental right to determine who may use which data for what purposes and under what conditions.

2. Purpose

The purpose of this code of practice is to provide guidance on the protection of worker's personal data. This code does not have binding force. It does not replace national laws, regulations, international labour standards or other accepted standards. It can be used in the development of legislation, regulations, collective agreements, work rules, policies and practical measures.

3. Definitions

In this code:

3.1. The term 'personal data' means any information related to an identified or identifiable worker.

3.2. The term 'processing' includes the collection, storage, combination, communication or any other use of personal data.

3.3. The term 'monitoring' includes, but is not limited to, the use of devices such as computers, cameras, video equipment, sound devices, telephones and other communication equipment, various methods of establishing identity and location, or any other method of surveillance.

3.4. The term 'worker' includes any current or former worker or applicant for employment.

4. Scope of application

4.1. This code applies to:

(a) the public and private sectors;

(b) the manual and automatic processing of all workers' personal data.

5. General principles

5.1. Personal data should be processed lawfully and fairly, and only for reasons directly relevant to the employment of the worker.

5.2. Personal data should, in principle, be used only for the purposes for which they were originally collected.

5.3. If personal data are to be processed for purposes other than those for which they were collected, the employer should ensure that they are not used in a manner incompatible with the original purpose, and should take the necessary measures to avoid any misinterpretations caused by a change of context.

5.4. Personal data collected in connection with technical or organizational measures to ensure the security and proper operation of automated information systems should not be used to control the behaviour of workers.

5.5. Decisions concerning a worker should not be based solely on the automated processing of that worker's personal data.

5.6. Personal data collected by electronic monitoring should not be the only factors in evaluating worker performance.

5.7. Employers should regularly assess their data processing practices:

- (a) to reduce as far as possible the kind and amount of personal data collected; and
- (b) to improve ways of protecting the privacy of workers.

5.8. Workers and their representatives should be kept informed of any data collection process, the rules that govern that process, and their rights.

5.9. Persons who process personal data should be regularly trained to ensure an understanding of the data collection process and their role in the application of the principles in this code.

5.10. The processing of personal data should not have the effect of unlawfully discriminating in employment or occupation.

5.11. Employers, workers and their representatives should cooperate in protecting personal data and in developing policies on workers' privacy consistent with the principles in this code.

5.12. All persons, including employers, workers' representatives, employment agencies and workers, who have access to personal data, should be bound to a rule of confidentiality consistent with the performance of their duties and the principles in this code.

5.13. Workers may not waive their privacy rights.

6. Collection of personal data

6.1. All personal data should, in principle, be obtained from the individual worker.

6.2. If it is necessary to collect personal data from third parties, the worker should be informed in advance, and give explicit consent. The employer should indicate the purposes of the processing, the sources and means the employer intends to use, as

well as the type of data to be gathered, and the consequences, if any, of refusing consent.

6.3. If the worker is asked to sign a statement authorizing the employer or any other person or organization to collect or disclose information about the worker, the statement should be in plain language and specific as to the persons, institutions or organizations to be addressed, the personal data to be disclosed, the purposes for which the personal data will be collected, and the period of time within which the statement will be used.

6.4. When an employer has obtained a worker's consent for the collection of personal data, the employer should ensure that any persons or organizations required by the employer to collect the data or conduct an investigation are at all times clear about the purpose of the inquiry and that they avoid all false or misleading representation.

6.5 (1) An employer should not collect personal data concerning a worker's:

- (a) sex life;
- (b) political, religious or other beliefs;
- (c) criminal convictions.

(2) In exceptional circumstances, an employer may collect personal data concerning those in (1) above, if the data are directly relevant to an employment decision and in conformity with national legislation.

6.6. Employers should not collect personal data concerning the worker's membership in a workers' organization or the worker's trade union activities, unless obliged or allowed to do so by law or a collective agreement.

6.7. Medical personal data should not be collected except in conformity with national legislation, medical confidentiality and the general principles of occupational health and safety, and only as needed:

- (a) to determine whether the worker is fit for a particular employment;
- (b) to fulfil the requirements of occupational health and safety; and
- (c) to determine entitlement to, and to grant, social benefits.

6.8. If a worker is asked questions that are inconsistent with principles 5.1, 5.10, 6.5, 6.6 and 6.7 of this code and the worker gives an inaccurate or incomplete answer, the worker should not be subject to termination of the employment relationship or any other disciplinary measure.

6.9. Personal data provided by the worker which go beyond or are irrelevant to the request for personal data because the worker has misunderstood the request should not be processed.

6.10. Polygraphs, truth-verification equipment or any other similar testing procedure should not be used.

6.11. Personality tests or similar testing procedures should be consistent with the provisions of this code, provided that the worker may object to the testing.

6.12. Genetic screening should be prohibited or limited to cases explicitly authorized by national legislation.

6.13. Drug testing should be undertaken only in conformity with national law and practice or international standards. Examples of ILO guidance include the code of practice on Management of alcohol- and drug-related issues in the workplace and the 'Guiding principles on drug and alcohol testing in the workplace'.

6.14. (1) If workers are monitored they should be informed in advance of the reasons for monitoring, the time schedule, the methods and techniques used and the data to be collected, and the employer must minimize the intrusion on the privacy of workers.

(2) Secret monitoring should be permitted only:

(a) if it is in conformity with national legislation; or

(b) if there is suspicion on reasonable grounds of criminal activity or other serious wrongdoing.

(3) Continuous monitoring should be permitted only if required for health and safety or the protection of property.

7. Security of personal data

7.1. Employers should ensure that personal data are protected by such security safeguards as are reasonable in the circumstances to guard against loss and unauthorized access, use, modification or disclosure.

8. Storage of personal data

8.1. The storage of personal data should be limited to data gathered consistent with the principles on the collection of personal data in this Code.

8.2. Personal data covered by medical confidentiality should be stored only by personnel bound by rules on medical secrecy and should be maintained apart from all other personal data.

8.3. Employers should provide general information, regularly reviewed, listing types of personal data held on individual workers and on the processing of that data.

8.4. Employers should verify periodically that the personal data stored is accurate, up to date and complete.

8.5. Personal data should be stored only for so long as it is justified by the specific purposes for which they have been collected unless:

(a) a worker wishes to be on a list of potential job candidates for a specific period;

(b) the personal data are required to be kept by national legislation; or

(c) the personal data are required by an employer or a worker for any legal proceedings to prove any matter to do with an existing or former employment relationship.

8.6. Personal data should be stored and coded in a manner:

(a) that the worker can understand; and

(b) that does not ascribe any characteristics to the worker that have the effect of discrimination against the worker.

9. Use of personal data

9.1. Personal data should be used consistent with the principles in this code that apply to its collection, communication and storage.

10. Communication of personal data

10.1. Personal data should not be communicated to third parties without the worker's explicit consent unless the communication is:

- (a) necessary to prevent serious and imminent threat to life or health;
- (b) required or authorized by law;
- (c) necessary for the conduct of the employment relationship;
- (d) required for the enforcement of criminal law.

10.2. A worker's personal data should not be communicated for commercial or marketing purposes without the worker's informed and explicit consent.

10.3. The rules applicable to communications to third parties should apply to the communication of personal data between employers in the same group and between different agencies of government.

10.4. Employers should instruct those who receive a worker's personal data that the personal data can be used only for the purposes for which the data are communicated, and should request confirmation that the instructions have been followed. This does not apply to regular communications pursuant to any statutory obligation.

10.5. Internal communications of personal data should be limited to those explicitly drawn to the attention of the worker.

10.6. Personal data should be internally available only to specifically authorized users, who should have access only to such personal data as are needed for the fulfilment of their particular tasks.

10.7. An interconnection of files containing workers' personal data should be prohibited unless strict compliance with the provisions of this code on internal communications has been secured.

10.8. In the case of a medical examination, the employer should be informed only of the conclusions relevant to the particular employment decision.

10.9. The conclusions should contain no information of a medical nature. They might, as appropriate, indicate fitness for the proposed assignment or specify the kinds of jobs and the conditions of work which are medically contra-indicated, either temporarily or permanently.

10.10. The communication of personal data to workers' representatives should take place only in conformity with national legislation or a collective agreement in accordance with national practice, and should be limited to the personal data necessary to fulfil the representatives' specific functions.

10.11. Employers should adopt procedures for monitoring the internal flow of personal data and for ensuring that the processing complies with this code.

11. Individual rights

11.1. Workers should have the right to be regularly notified of the personal data held about them and the processing of that personal data.

11.2. Workers should have access to all their personal data, irrespective of whether the personal data are processed by automated systems or are kept in a particular manual file regarding the individual worker or in any other file which includes workers' personal data.

11.3. The workers' right to know about the processing of their personal data should include the right to examine and obtain a copy of any records to the extent that the data contained in the record includes that worker's personal data.

11.4. Workers should have the right of access to their personal data during normal working hours. If access cannot be arranged during normal working hours, other arrangements should be made that take into account the interests of the worker and the employer.

11.5. Workers should be entitled to designate a workers' representative or a co-worker of their choice to assist them in the exercise of their right of access.

11.6. Workers should have the right to have access to medical data concerning them through a medical professional of their choice.

11.7. Employers should not charge workers for granting access to or copying their own records.

11.8. Employers should, in the event of a security investigation, have the right to deny the worker access to that worker's personal data until the close of the investigation and to the extent that the purposes of the investigation would be threatened. No decision concerning the employment relationship should be taken, however, before the worker has had access to all the worker's personal data.

11.9. Workers should have the right to demand that incorrect or incomplete personal data, and personal data processed inconsistently with the provisions of this code, be deleted or rectified.

11.10. In case of a deletion or rectification of personal data, employers should inform all parties who have been previously provided with the inaccurate or incomplete personal data of the corrections made, unless the worker agrees that this is not necessary.

11.11. If the employer refuses to correct the personal data, the worker should be entitled to place a statement on or with the record setting out the reasons for that worker's disagreement. Any subsequent use of the personal data should include the information that the personal data are disputed, and the worker's statement.

11.12. In the case of judgemental personal data, if deletion or rectification is not possible, workers should have the right to supplement the stored personal data by a statement expressing their own view. The statement should be included in all communications of the personal data, unless the worker agrees that this is not necessary.

11.13. In any legislation, regulation, collective agreement, work rules or policy developed consistent with the provisions of this code, there should be specified an avenue of redress for workers to challenge the employer's compliance with the instrument. Procedures should be established to receive and respond to any complaint lodged by workers. The complaint process should be easily accessible to workers and be simple to use.

12. Collective rights

12.1. All negotiations concerning the processing of workers' personal data should be guided and bound by the principles in this code that protect the individual worker's right to know and decide which personal data concerning that worker should be used, under which conditions, and for which purposes.

12.2. The workers' representatives, where they exist, and in conformity with national law and practice, should be informed and consulted:

- (a) concerning the introduction or modification of automated systems that process worker's personal data;
- (b) before the introduction of any electronic monitoring of workers' behaviour in the workplace;
- (c) about the purpose, contents and the manner of administering and interpreting any questionnaires and tests concerning the personal data of the workers.

13. Employment agencies

13.1. If the employer uses employment agencies to recruit workers, the employer should request the employment agency to process personal data consistently with the provisions of this code.

APPENDIX B

Employee Polygraph Protection Act of 1988 Title 29 United States Code Chapter 22

Section 2001. Definitions.

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Section 2008. Disclosure of information.

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(b) Permitted disclosures.

(c) Disclosure by employer.

Section 2009. Effect on other law and agreements.

Section 2001. Definitions

As used in this chapter:

(1) Commerce

The term 'commerce' has the meaning provided by section 203(b) of this title.

(2) Employer

The term 'employer' includes any person acting directly or indirectly in the interest of an employer in relation to an employee or prospective employee.

(3) Lie detector

The term 'lie detector' includes a polygraph, deceptograph, voice stress analyzer, psychological stress evaluator, or any other similar device (whether mechanical or

electrical) that is used, or the results of which are used, for the purpose of rendering a diagnostic opinion regarding the honesty or dishonesty of an individual.

(4) Polygraph

The term 'polygraph' means an instrument that -

(A) records continuously, visually, permanently, and simultaneously changes in cardiovascular, respiratory, and electrodermal patterns as minimum instrumentation standards; and

(B) is used, or the results of which are used, for the purpose of rendering a diagnostic opinion regarding the honesty or dishonesty of an individual.

(5) Secretary

The term 'Secretary' means the Secretary of Labor.

Section 2002. Prohibitions on lie detector use

Except as provided in sections 2006 and 2007 of this title, it shall be unlawful for any employer engaged in or affecting commerce or in the production of goods for commerce -

(1) directly or indirectly, to require, request, suggest, or cause any employee or prospective employee to take or submit to any lie detector test;

(2) to use, accept, refer to, or inquire concerning the results of any lie detector test of any employee or prospective employee;

(3) to discharge, discipline, discriminate against in any manner, or deny employment or promotion to, or threaten to take any such action against -

(A) any employee or prospective employee who refuses, declines, or fails to take or submit to any lie detector test, or

(B) any employee or prospective employee on the basis of the results of any lie detector test; or

(4) to discharge, discipline, discriminate against in any manner, or deny employment or promotion to, or threaten to take any such action against, any employee or prospective employee because -

(A) such employee or prospective employee has filed any complaint or instituted or caused to be instituted any proceeding under or related to this chapter,

(B) such employee or prospective employee has testified or is about to testify in any such proceeding, or

(C) of the exercise by such employee or prospective employee, on behalf of such employee or another person, of any right afforded by this chapter.

Section 2003. Notice of protection

The Secretary shall prepare, have printed, and distribute a notice setting forth excerpts from, or summaries of, the pertinent provisions of this chapter. Each employer shall post and maintain such notice in conspicuous places on its premises where notices to employees and applicants to employment are customarily posted.

Section 2004. Authority of Secretary

(a) In general

The Secretary shall -

- (1) issue such rules and regulations as may be necessary or appropriate to carry out this chapter;
- (2) cooperate with regional, State, local, and other agencies, and cooperate with and furnish technical assistance to employers, labor organizations, and employment agencies to aid in effectuating the purposes of this chapter; and
- (3) make investigations and inspections and require the keeping of records necessary or appropriate for the administration of this chapter.

(b) Subpoena authority

For the purpose of any hearing or investigation under this chapter, the Secretary shall have the authority contained in sections 49 and 50 of title 15.

Section 2005. Enforcement provisions

(a) Civil penalties

(1) In general

Subject to paragraph (2), any employer who violates any provision of this chapter may be assessed a civil penalty of not more than \$10,000.

(2) Determination of amount

In determining the amount of any penalty under paragraph (1), the Secretary shall take into account the previous record of the person in terms of compliance with this chapter and the gravity of the violation.

(3) Collection

Any civil penalty assessed under this subsection shall be collected in the same manner as is required by subsections (b) through (e) of section 1853 of this title with respect to civil penalties assessed under subsection (a) of such section.

(b) Injunctive actions by Secretary

The Secretary may bring an action under this section to restrain violations of this chapter. The Solicitor of Labor may appear for and represent the Secretary in any litigation brought under this chapter. In any action brought under this section, the district courts of the United States shall have jurisdiction, for cause shown, to issue temporary or permanent restraining orders and injunctions to require compliance with this chapter, including such legal or equitable relief incident thereto as may be appropriate, including, but not limited to, employment, reinstatement, promotion, and the payment of lost wages and benefits.

(c) Private civil actions

(1) Liability

An employer who violates this chapter shall be liable to the employee or prospective employee affected by such violation. Such employer shall be liable for such legal or equitable relief as may be appropriate, including, but not limited to, employment, reinstatement, promotion, and the payment of lost wages and benefits.

(2) Court

An action to recover the liability prescribed in paragraph (1) may be maintained against the employer in any Federal or State court of competent jurisdiction by an employee or prospective employee for or on behalf of such employee, prospective employee, and other employees or prospective employees similarly situated. No such action may be commenced more than 3 years after the date of the alleged violation.

(3) Costs

The court, in its discretion, may allow the prevailing party (other than the United States) reasonable costs, including attorney's fees.

(d) Waiver of rights prohibited

The rights and procedures provided by this chapter may not be waived by contract or otherwise, unless such waiver is part of a written settlement agreed to and signed by the parties to the pending action or complaint under this chapter.

Section 2006. Exemptions

(a) No application to governmental employers

This chapter shall not apply with respect to the United States Government, any State or local government, or any political subdivision of a State or local government.

(b) National defense and security exemption

(1) National defense

Nothing in this chapter shall be construed to prohibit the administration, by the Federal Government, in the performance of any counterintelligence function, of any lie detector test to -

(A) any expert or consultant under contract to the Department of Defense or any employee of any contractor of such Department; or

(B) any expert or consultant under contract with the Department of Energy in connection with the atomic energy defense activities of such Department or any employee of any contractor of such Department in connection with such activities.

(2) Security

Nothing in this chapter shall be construed to prohibit the administration, by the Federal Government, in the performance of any intelligence or counterintelligence function, of any lie detector test to -

(A)

(i) any individual employed by, assigned to, or detailed to, the National Security Agency, the Defense Intelligence Agency, the National Imagery and Mapping Agency, or the Central Intelligence Agency,

(ii) any expert or consultant under contract to any such agency,

(iii) any employee of a contractor to any such agency,

(iv) any individual applying for a position in any such agency,
or

(v) any individual assigned to a space where sensitive cryptologic information is produced, processed, or stored for any such agency; or

(B) any expert, or consultant (or employee of such expert or consultant) under contract with any Federal Government department, agency, or program whose duties involve access to information that has been classified at the level of top secret or designated as being within a special access program under section 4.2(a) of Executive Order 12356 (or a successor Executive order).

(c) FBI contractors exemption

Nothing in this chapter shall be construed to prohibit the administration, by the Federal Government, in the performance of any counterintelligence function, of any lie detector test to an employee of a contractor of the Federal Bureau of Investigation of the Department of Justice who is engaged in the performance of any work under the contract with such Bureau.

(d) Limited exemption for ongoing investigations

Subject to sections 2007 and 2009 of this title, this chapter shall not prohibit an employer from requesting an employee to submit to a polygraph test if -

(1) the test is administered in connection with an ongoing investigation involving economic loss or injury to the employer's business, such as theft, embezzlement, misappropriation, or an act of unlawful industrial espionage or sabotage;

(2) the employee had access to the property that is the subject of the investigation;

(3) the employer has a reasonable suspicion that the employee was involved in the incident or activity under investigation; and

(4) the employer executes a statement, provided to the examinee before the test, that -

(A) sets forth with particularity the specific incident or activity being investigated and the basis for testing particular employees,

(B) is signed by a person (other than a polygraph examiner) authorized to legally bind the employer,

(C) is retained by the employer for at least 3 years, and

(D) contains at a minimum -

(i) an identification of the specific economic loss or injury to the business of the employer,

(ii) a statement indicating that the employee had access to the property that is the subject of the investigation, and

(iii) a statement describing the basis of the employer's reasonable suspicion that the employee was involved in the incident or activity under investigation.

(e) Exemption for security services

(1) In general

Subject to paragraph (2) and sections 2007 and 2009 of this title, this chapter shall not prohibit the use of polygraph tests on prospective employees by any private employer whose primary business purpose consists of providing armored car personnel, personnel engaged in the design, installation, and maintenance of security alarm systems, or other uniformed or plainclothes security personnel and whose function includes protection of -

(A) facilities, materials, or operations having a significant impact on the health or safety of any State or political subdivision thereof, or the national security of the United States, as determined under rules and regulations issued by the Secretary within 90 days after June 27, 1988, including -

(i) facilities engaged in the production, transmission, or distribution of electric or nuclear power,

(ii) public water supply facilities,

(iii) shipments or storage of radioactive or other toxic waste materials, and

(iv) public transportation, or

(B) currency, negotiable securities, precious commodities or instruments, or proprietary information.

(2) Access

The exemption provided under this subsection shall not apply if the test is administered to a prospective employee who would not be employed to protect facilities, materials, operations, or assets referred to in paragraph (1).

(f) Exemption for drug security, drug theft, or drug diversion investigations

(1) In general

Subject to paragraph (2) and sections 2007 and 2009 of this title, this chapter shall not prohibit the use of a polygraph test by any employer authorized to manufacture, distribute, or dispense a controlled substance listed in schedule I, II, III, or IV of section 812 of title 21.

(2) Access

The exemption provided under this subsection shall apply -

(A) if the test is administered to a prospective employee who would have direct access to the manufacture, storage, distribution, or sale of any such controlled substance; or

(B) in the case of a test administered to a current employee, if -

(i) the test is administered in connection with an ongoing investigation of criminal or other misconduct involving, or potentially involving, loss or injury to the manufacture, distribution, or dispensing of any such controlled substance by such employer, and

(ii) the employee had access to the person or property that is the subject of the investigation.

Section 2007. Restrictions on use of exemptions

(a) Test as basis for adverse employment action

(1) Under ongoing investigations exemption

Except as provided in paragraph (2), the exemption under subsection (d) of section 2006 of this title shall not apply if an employee is discharged, disciplined, denied employment or promotion, or otherwise discriminated against in any manner on the basis of the analysis of a polygraph test chart or the refusal to take a polygraph test, without additional supporting evidence. The evidence required by such subsection may serve as additional supporting evidence.

(2) Under other exemptions

In the case of an exemption described in subsection (e) or (f) of such section, the exemption shall not apply if the results of an analysis of a polygraph test chart are used, or the refusal to take a polygraph test is used, as the sole basis upon which an adverse employment action described in paragraph (1) is taken against an employee or prospective employee.

(b) Rights of examinee

The exemptions provided under subsections (d), (e), and (f) of section 2006 of this title shall not apply unless the requirements described in the following paragraphs are met:

(1) All phases

Throughout all phases of the test -

(A) the examinee shall be permitted to terminate the test at any time;

(B) the examinee is not asked questions in a manner designed to degrade, or needlessly intrude on, such examinee;

(C) the examinee is not asked any question concerning -

- (i) religious beliefs or affiliations,
- (ii) beliefs or opinions regarding racial matters,
- (iii) political beliefs or affiliations,
- (iv) any matter relating to sexual behavior; and
- (v) beliefs, affiliations, opinions, or lawful activities regarding unions or labor organizations; and

(D) the examiner does not conduct the test if there is sufficient written evidence by a physician that the examinee is suffering from a medical or psychological condition or undergoing treatment that might cause abnormal responses during the actual testing phase.

(2) Pretest phase

During the pretest phase, the prospective examinee -

(A) is provided with reasonable written notice of the date, time, and location of the test, and of such examinee's right to obtain and consult with legal counsel or an employee representative before each phase of the test;

(B) is informed in writing of the nature and characteristics of the tests and of the instruments involved;

(C) is informed, in writing -

- (i) whether the testing area contains a two-way mirror, a camera, or any other device through which the test can be observed,
- (ii) whether any other device, including any device for recording or monitoring the test, will be used, or
- (iii) that the employer or the examinee may (with mutual knowledge) make a recording of the test;

(D) is read and signs a written notice informing such examinee -

- (i) that the examinee cannot be required to take the test as a condition of employment,
- (ii) that any statement made during the test may constitute additional supporting evidence for the purposes of an adverse employment action described in subsection (a) of this section,
- (iii) of the limitations imposed under this section,
- (iv) of the legal rights and remedies available to the examinee if the polygraph test is not conducted in accordance with this chapter, and
- (v) of the legal rights and remedies of the employer under this chapter (including the rights of the employer under section 2008(c)(2) of this title); and

(E) is provided an opportunity to review all questions to be asked during the test and is informed of the right to terminate the test at any time.

(3) Actual testing phase

During the actual testing phase, the examiner does not ask such examinee any question relevant during the test that was not presented in writing for review to such examinee before the test.

(4) Post-test phase

Before any adverse employment action, the employer shall -

(A) further interview the examinee on the basis of the results of the test; and

(B) provide the examinee with -

- (i) a written copy of any opinion or conclusion rendered as a result of the test, and
- (ii) a copy of the questions asked during the test along with the corresponding charted responses.

(5) Maximum number and minimum duration of tests

The examiner shall not conduct and complete more than five polygraph tests on a calendar day on which the test is given, and shall not conduct any such test for less than a 90-minute duration.

(c) Qualifications and requirements of examiners

The exemptions provided under subsections (d), (e), and (f) of section 2006 of this title shall not apply unless the individual who conducts the polygraph test satisfies the requirements under the following paragraphs:

(1) Qualifications

The examiner -

(A) has a valid and current license granted by licensing and regulatory authorities in the State in which the test is to be conducted, if so required by the State; and

(B) maintains a minimum of a \$50,000 bond or an equivalent amount of professional liability coverage.

(2) Requirements

The examiner -

(A) renders any opinion or conclusion regarding the test -

(i) in writing and solely on the basis of an analysis of polygraph test charts,

(ii) that does not contain information other than admissions, information, case facts, and interpretation of the charts relevant to the purpose and stated objectives of the test, and

(iii) that does not include any recommendation concerning the employment of the examinee; and

(B) maintains all opinions, reports, charts, written questions, lists, and other records relating to the test for a minimum period of 3 years after administration of the test.

Section 2008. Disclosure of information

(a) In general

A person, other than the examinee, may not disclose information obtained during a polygraph test, except as provided in this section.

(b) Permitted disclosures

A polygraph examiner may disclose information acquired from a polygraph test only to -

(1) the examinee or any other person specifically designated in writing by the examinee;

(2) the employer that requested the test; or

(3) any court, governmental agency, arbitrator, or mediator, in accordance with due process of law, pursuant to an order from a court of competent jurisdiction.

(c) Disclosure by employer

An employer (other than an employer described in subsection (a), (b) or (c) of section 7) for whom a polygraph test is conducted may disclose information from the test only to -

(1) a person in accordance with subsection (b) of this section; or

(2) a governmental agency, but only insofar as the disclosed information is an admission of criminal conduct.

Section 2009. Effect on other law and agreements

Except as provided in subsections (a), (b), and (c) of section 2006 of this title, this chapter shall not preempt any provision of any State or local law or of any negotiated collective bargaining agreement that prohibits lie detector tests or is more restrictive with respect to lie detector tests than any provision of this chapter.