

THE USE OF POLYGRAPHS IN EMPLOYMENT LAW

Mini-dissertation submitted in partial fulfilment of the requirements for the
degree Magister Legum in Labour Law at the Potchefstroom University
for Christian Higher Education

By

Niko Louw
10069828

Study supervisor: Mr PH Myburgh
October 2003

Uittreksel**Onderwerp: Die gebruik van poligraaftoetse in Arbeidsreg****Trefwoorde:**

Poligraaf, psigofisiologiese vasstelling van oneerlikheid, geldigheid, betroubaarheid, Grondwet, reg op privaatheid, toelaatbaarheid, onbillike arbeidspraktyke.

Opsomming:

Daar word daagliks probleme ondervind met oneerlikheid binne die werksplek. Werkgewers gebruik toenemend poligraaftoetse om vas te stel of werknemers oneerlik was rakende 'n spesifieke voorval of om voornemende werknemers te toets ten einde te bepaal of die persoon 'n eerlike geaardheid het al dan nie.

Die doel van die skripsie is om 'n kritiese oorsig te gee van die wetenskaplike basis waarop poligraaftoetse gebaseer word, met spesifieke verwysing na die geldigheid, betroubaarheid en status van die toets. Die gebruik van poligraaftoetse binne die werksplek word geanaliseer met verwysing na relevante literatuur en wetgewing, waaronder die Grondwet asook tersaaklike hofuitsprake.

Poligraaftoetse is ook bekend as die psigofisiologiese vasstelling van oneerlikheid. Psigofisiologie word gedefinieer as die studie van die verband tussen fisiologiese en psigologiese prosesse. Verskeie tegnieke bestaan, waarvan die belangrikste die sogenaamde Kontrolevraagtoets is. Hierdie toets meet die toetspersoon se verskillende fisiologiese reaksies op kontrole- en relevante vrae en het as uitgangspunt dat 'n persoon wat onskuldig is aan 'n sekere voorval 'n groter fisiologiese

reaksie sal toon op die kontrolevrae as op die relevante vrae, en omgekeerd.

Die meeste poligraaftoetse het dit gemeen dat ten minste drie fisiologiese reaksies gemeet word, te wete polsslag, asemhaling en elektrodermiese reaksies. Daar is in wese twee denkrigtings rakende die akkuraatheid van poligraaftoetse, dié wat betoog dat die toetse akkuraat is en gebruik kan word ten einde vas te stel of 'n persoon oneerlik is en dié wat betoog dat dit onakkuraat is en nie gebruik behoort te word nie.

Uit 'n studie van die relevante literatuur rakende die geldigheid en betroubaarheid van die poligraaftoetse blyk dit dat verskeie faktore 'n negatiewe invloed daarop het en dat die toets nie toets wat dit voorgee om te toets nie. Daar is ook bevind dat poligraaftoetse nie voldoen aan die vereistes wat deur huidige wetgewing gestel word nie.

Die gebruik van poligraaftoetse maak moontlik inbreuk op individue se grondwetlike regte, soos privaatheid en billike arbeidspraktyke. Probleme rakende die bewysregtelike toelaatbaarheid van poligraaftoetse bestaan.

Daar word aanbeveel dat die gebruik van poligraaftoetse binne die werkplek nie toegelaat behoort te word tensy dit wetenskaplik behoorlik gefundeer is en dat daar aandag gegee behoort te word aan beter regulasie rakende die gebruik van die toetse.

Preface

I hereby wish to express my sincere gratitude and appreciation towards the following persons for their contribution and support to this research project:

- My wife **Ansomé**, for her loving support, assistance and patience.
- My two sons **Niko** (7) and **Daniël** (2), for their love and the sacrifices that they had to make.
- My study-leader **Adv. PH Myburg**, for his guidance and support.
- My secretary **Gladys Jacobs**, who assisted me with the typing.
- **Mr Johan Blaauw**, for linguistically editing the dissertation.
- All praise to my **Heavenly Father**.

Table of contents

1	Introduction	1
2	An analysis of the scientific basis of the polygraph	4
2.1	<i>The method</i>	4
2.2	<i>The accuracy of polygraphs</i>	8
2.3	<i>The reliability, validity and legal status of polygraphs</i>	11
2.3.1	<i>Reliability</i>	15
2.3.2	<i>Validity</i>	17
2.3.3	<i>Legal status</i>	18
3	The polygraph and the Constitution	18
4	The admissibility of the polygraph into evidence	29
5	Conclusion	34
6	Bibliography	38
6.1	<i>Books and other references</i>	38
6.2	<i>Case register</i>	41
6.3	<i>Internet register</i>	43
6.4	<i>Legislation</i>	45

1 Introduction

- (a) One of the most notorious incidents of infidelity in history is recorded in the Bible. Jesus predicted that Peter, one of his disciples, despite his loyalty and strong convictions, would betray him three times.¹ Peter subsequent to the prediction betrayed Jesus, and when the cock crowed on the third occasion, Peter wept bitterly.² The Bible provides no specific reason for Peter's lies about his close relationship with Jesus. Given the circumstances at the time where Jesus was about to be prosecuted and crucified Peter might himself have been afraid of prosecution and a possible death sentence. It is also possible that he might not have wanted to be subjected to mockery and humiliation because of the special relationship that he had with Jesus. What is clear from these events recorded in the Bible is that it is intrinsic in human nature to tell lies, even when humans like Peter solemnly believe and profess that they will not do so.
- (b) The reasons for telling lies differ from person to person and from case study to case study. Some people lie to distance themselves from their involvement or perceived involvement in some or other form of trouble, whether it is serious, negligible or even in certain instances non-existent. Others lie to cause trouble for fellow human beings, to gain something that they would otherwise not have gained or merely to avoid embarrassment over something they do not wish to disclose to another.
- (c) In the workplace employees often lie to their employers and fellow employees. Lies as to the reason why a person reported late for work, why they have been unable to complete a specific task and a whole range of other lies are told in the workplace on a daily

¹ Luke *The Bible* Luke 22: 34.

² Matthew *The Bible* Matthew 26: 75.

basis. Employees are often dishonest about qualifications, skills and previous work experience. Employees often commit acts that involve some or other form of dishonesty or have knowledge about acts of dishonesty committed by fellow employees. Theft, fraud, falsification of documents such as doctor's certificates and attendance registers as well as other criminal activities involving dishonesty within the workplace are common throughout government and industry.

- (d) The eradication of dishonest practices in the workplace is without question one of the biggest challenges facing employers. In order to achieve the objective of eradicating dishonest practices, it is necessary to identify the parties involved in these practices and, once identified, to deal with them in terms of the provisions of the law. However, this is no easy task and the quest to develop a foolproof method to establish whether persons are telling the truth is as old as humankind. In ancient China a grain of rice was for instance placed in a person's mouth. If the grain came out dry from the person's mouth it was regarded as proof that the person was lying due to the absence of saliva in the mouth. There are also records dating back to the Middle Ages indicating *inter alia* that pulse rate was used to detect infidelity.³
- (e) One fairly modern attempt in humankind's quest to establish the truth is the development of technology that can allegedly establish whether a person is deceptive when being questioned about the person's involvement in a specific incident or series of incidents.
- (f) Examples of technology developed in this regard include *inter alia* psychological stress evaluators or voice stress analysers and polygraphs. Psychological stress evaluators can be defined as any mechanical device or instrument that purports to determine

³ Anon HYPERLINK <http://www.pasa.co.za> 22 Feb.

the truth or falsity of statements made by a person on the basis of measuring inaudible vocal fluctuations or vocal stress created by an attempt to deceive.⁴

- (g) The use of polygraphs specifically is becoming increasingly popular with employers as an investigative tool in disciplinary investigations and to assist with decision-making regarding the possible employment of employees.⁵ Prospective employees are increasingly subjected to polygraphs during the pre-employment phase in an attempt to establish *inter alia* whether any facts on the individuals *curriculum vitae* was misrepresented or whether the person is of a trustworthy and honest character.
- (h) The results of polygraphs are often relied upon, introduced and admitted into evidence in disciplinary hearings, at the CCMA and other arbitration forums in an attempt to prove employees' alleged involvement in a specific incident or series of incidents. In instances where an employee refuses to undergo a polygraph or where the test results indicate deception, it is often argued that this is indicative of the fact that the person is lying and that there is a breach in the trust relationship between employer and employee.
- (i) It is clear from the reported decisions that no consistent approach exists with regard to the evidentiary value and admissibility of polygraphs. In the majority of cases polygraphs are ruled to be inadmissible⁶ and there seems to be an unwillingness to base a finding of guilty on the results of polygraphs.⁷ In other cases

⁴ Anon HYPERLINK <http://caselaw.lp.findlaw.com> 12 Sept; Brenner 1979 HYPERLINK http://www.voicestress.com/brenner_branscomb.htm 12 Sept.

⁵ Tredoux and Pooley 2001 ILJ 821.

⁶ See *inter alia* *Rix v Ryder Security (Pty) Ltd* (1994) 3 LCD 68 (IC).

⁷ See *inter alia* *Sosibo and Others v (CTM) Ceramic Tile Market* (2001) 5 BALR 518 (CCMA); *Smith v Canoa Eastern Cape* (2000) 12 BALR 1436 (CCMA); *Kleinhans v Tremac Industries* (2001) 5 BALR 469 (CCMA).

polygraph results are admitted into evidence and the weight accorded to the test results varies.⁸

- (j) The focus of this dissertation is to give a critical overview of the scientific basis on which polygraphs function. The scientific validity, reliability and legal status of polygraphs are explored with reference to available literature on the subject. The use of polygraphs in the employment sphere is analysed with reference to relevant legislation and the possible impact that the use of polygraphs might have on individuals' constitutional rights. The admissibility of the polygraph into evidence is considered taking into consideration the scientific validity, reliability and legal status of the polygraph.

2 An analysis of the scientific basis of the polygraph

2.1 The method

- (a) Polygraph tests are also known as psychophysiological detection of deception or psychophysiological credibility assessment.⁹ Psychophysiology is defined as a discipline that capitalises on the fact that it is possible to measure the activity of bodily systems while people engage in a variety of cognitive and affect-producing tasks.¹⁰ Simply put psychophysiology is a study of the relationship between the physiological and psychological processes that occur in humans.¹¹

⁸ See *inter alia* *Malgas v Stadium Security Management* 1999 4 LLD 667 (CCMA); *Amos v NBS* (unreported CCMA Case No KN 42888); *Govender v Cargo and Container Services* (unreported CCMA Case No. KN 4881); *M Shinga v Gilbeys Distillers and Vintners (Pty) Ltd* NHN11/2/10237; *PETUSA on behalf of Van Schalkwyk v National Trading Co* (2000) 21 ILJ 2323 (CCMA).

⁹ Honts HYPERLINK <http://truth.idbsu.edu/amicus/brief.html> 18 March; *Christianson* 2000 21 ILJ 20.

¹⁰ Anon HYPERLINK http://www.ulib.org/webRoot/Books/National_Academy_Press_Books_brain_cognition_brain_057.htm 19 April.

¹¹ *Plug et al Psigologie Woordeboek* 292.

- (b) The American *Employee Polygraph Protection Act*¹² defines a polygraph as an instrument that:

records continuously, visually, permanently and simultaneously changes in cardiovascular, respiratory and electrodermal patterns as minimum instrumentation standards; and

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.

- (c) There are in essence three basic techniques used in the application of the polygraph.
- (d) The first technique used relies on the so-called Concealed Information Test. The Concealed Information Test takes two forms, namely the Guilty Knowledge Test (GKT) and the Peak of Tension (POT) Test. The GKT compares physiological responses to multiple-choice type questions about the incident under investigation, one choice of which contain information only the investigators and the perpetrator would know about.¹³ The POT uses a set of five to nine nearly identical “yes or no” questions asking if the subject knows about a particular detail related to an incident. One question actually includes the relevant detail while the others include plausible but false details of a parallel nature. The question with the true detail is usually presented in the middle of the sequence so that the subject’s physiological reactions will increase up to the critical question, where they will reach a peak, hence the name, and will then diminish again.¹⁴

¹² S 2(4) of the *Employee Polygraph Protection Act of 1988*; Carroll HYPERLINK <http://skepdic.com/polygraph.htm/> 27 March in which a polygraph is defined as “an instrument that simultaneously records changes in physiological processes such as heartbeat, blood pressure and respiration”.

¹³ Carroll HYPERLINK <http://skepdic.com/polygraph.htm/> 27 March; Anon HYPERLINK <http://fas.org/sgp/othergov/polygraph/ota/index.html> 12 Sept; Christianson *supra* 20.

¹⁴ Anon HYPERLINK <http://fas.org/sgp/othergov/polygraph/ota/index.html> 12 Sept.

- (e) The second technique is the Relevant Irrelevant Technique (RIT).¹⁵ This test compares the individual's physiological responses to questions relevant to the incident under investigation with responses to questions irrelevant to the incident. Deceptive subjects are assumed to have a significantly greater physiological reaction to the relevant questions than to the irrelevant questions.¹⁶ An underlying assumption of this technique is that non-deceptive subjects should have an equal response to all questions because being non-deceptive they would not fear questions about the incident any more than irrelevant questions.
- (f) The third and most commonly used and popular technique is the Control Question Technique (CQT).¹⁷ This technique is used in an attempt to assess a person's credibility by looking for a differential reaction between two types of questions, relevant questions, which are direct accusatory questions related to the issue under investigation, and questions that are referred to as comparison or control questions. These are ambiguous questions that are constructed by the examiner in collaboration with the examinee.¹⁸ The premise from which this technique operates is that a truthful person will show a larger reaction to the control questions than to the relevant questions, and a guilty person will conversely react more to the relevant questions than the control questions.¹⁹
- (g) From the literature referred to it is clear that it is accepted as a scientific fact that any conscious effort to deceive by a rational individual causes involuntary and uncontrollable physiological responses. These physiological responses include measurable reactions in blood pressure, pulse, breathing and electrodermal

¹⁵ Christianson *supra* 20.

¹⁶ Anon HYPERLINK <http://fas.org/sgp/othergov/polygraph/ota/index.html> 12 Sept.

¹⁷ Christianson *supra* 20.

¹⁸ Honts *supra* 5; Furedy *International Journal of Psychophysiology* 1993 (15) 267.

¹⁹ Honts *supra* 4 and 5; Christianson *supra* 20; Furedy *supra* 267.

responses.²⁰ A sensation of dryness in the throat, a feeling of butterflies in the stomach, measurable variances in sugar levels in the body and even changes in pupil size are among the psychological responses present when a subject is being deceitful.²¹ Virtually all polygraphs have in common that they measure at least three of these physiological systems.²²

- (h) Physiological changes associated with sweating, alterations in the blood supply to the face and peripheral organs and the internal feeling of butterflies in the stomach are associated with activities controlled by the autonomic nervous system. This system consists of a sympathetic system that creates arousal for situations in which a human must flee or fight, i.e. where a human experience *inter alia* fear or anger, and of a parasympathic system that has a recuperative function. It restores the balance of the body, for example by reducing the blood pressure and heart rate.²³
- (i) The brain controls both the autonomic nervous system and the endocrine system. The endocrine system is responsible for the secretions of *inter alia* hormones into the bloodstream, from where it is carried to other organs and cells. Hormones play an important part in human beings' emotional balance and have an impact on both the psychological and physiological functioning of human beings. The autonomic nervous system and the endocrine system are interdependent and impact on each other in order to stabilise and sustain the body's functioning.²⁴ Medicines and other substances such as alcohol and drugs equally impact on the physiological and psychological functioning of humans.

²⁰ Honts *supra* 4.

²¹ Temple "The Brain" 185; Louw "Inleiding tot die Psigologie" 443.

²² Honts *supra* 4.

²³ Temple *supra* 188; Louw *supra* 50 and 444.

²⁴ Louw *supra* 66 to 67.

- (j) Polygraphs function on the premise that humans experience fear and anxiety when they tell lies and further that these reactions are accompanied by a dominance of sympathetic activity in the autonomic nervous system. As analysed above, this sympathetic dominance leads to changes in the sweat glands, which in turn increase the size of the electrodermal response, as well as changes in the cardiovascular system, which lead to an increase in the individual's blood pressure.²⁵
- (k) The human mind and body is interdependent. It is submitted that the physiological responses of the body that are measured by the polygraph must be explained with reference to the psychological concept of emotion. Emotion can be defined as a complex experience of feelings associated with certain salient physiological conditions, which are expressed by certain behavioural patterns.²⁶ Various psychological theories exist to explain emotion and the relationship between the psychological and physiological components of emotion.²⁷ However, it is beyond the scope of this dissertation to attempt an exploration and analysis of these theories. For the purpose of this dissertation it will suffice to state that emotion in essence has two components, consisting of the individual's cognitive interpretation of events and the individual's physiological reaction to the events.²⁸ The two components cannot be seen or treated in isolation as they are co-existent and interdependent.

2.2 The accuracy of polygraphs

- (a) Two schools of thought regarding the accuracy of polygraphs exist. One group of researchers, led by David Raskin, argues that

²⁵ Temple *supra* 188; Louw *supra* 445.

²⁶ Louw *supra* 438.

²⁷ Louw *supra* 456 to 463.

²⁸ Louw *supra* 464.

the accuracy rates from suitably conducted studies in which mock situations are created in a laboratory environment are high enough to justify using specifically the CQT as a means of detecting deception.²⁹ The other school of thought, led by David Lykken, argue that the accuracy rates of these tests show that the CQT specifically has a very high probability of classifying truthful people as deceptive and that it is not suitable to be used as a means of detecting deception.³⁰

- (b) The school of thought that supports the use of the polygraph led by David Raskin often claim that the tests are 99% or even more accurate.³¹ Authors on the subject generally accept that it is possible for individuals to learn how to control at least one of the autonomic nervous systems' responses. This can be done by for example creating an artificial base-line level of electrodermal response by thinking anxiety provoking thoughts or by clenching the toes or fingers or biting the tongue when each of the neutral or so-called control questions are asked. If this occurs there might not be any significant difference between the neutral responses and the lie.³² One of the reasons for the accuracy of the tests that is submitted by this school of thought is that very few people can control all three or four physiological reactions that are being measured at the same time.³³ It is further argued that the polygraph examiners run pre-examination tests on the individual

²⁹ Raskin *et al.* "The Scientific Status of Research on Polygraph Techniques" 568; Tredoux and Pooley *supra* 833; Honts *supra* 6.

³⁰ Iacono and Lykken "The case against Polygraph Techniques" 585.

³¹ *Mbele v Cash Payment Services (Pty) Ltd* 1997 KN 4084; *Singh v First National Bank* (1999) KN 33299 and *NUMSA v Glacier van der Vell (Pty) Ltd* (1997) KN 3151 referred to by Tredoux and Pooley *supra* 822.

³² Anon HYPERLINK <http://www.nolo.com/lawcenter/ency/article.cfm/objectID/3129F771-5DSS-44B2-A211> 27 March.

³³ Anon HYPERLINK <http://www.nolo.com/lawcenter/ency/article.cfm/objectID/3129F771-5DSS-44B2-A211> at 2, 27 March.

that enables the examiner to measure the individual's reaction to telling a lie.³⁴

- (c) The school of thought that argue that the polygraph should not be used raise a number of concerns in regard to the polygraph. Among these problems are the following:³⁵
- (i) The pressure that individuals experience from the perception that polygraphs will determine the truth can in certain instances elicit false confessions. There are individuals in this world who, through guilt or the desire for notoriety or some or other obscure motive only known to the individual concerned, feel compelled to admit to a crime that they did not commit.
 - (ii) The criteria for the accuracy of the polygraph, also known as the ground or base truth, are difficult to pinpoint. This makes it difficult to evaluate the correctness of the polygraph's assessment of guilt.
 - (iii) Studies on which some accuracy statistics are based involve mock crimes conducted in laboratories that fail to adequately include the kinds of emotional components that might occur in real situations.
 - (iv) Some deceptive subjects can pass a test by using cognitive or physiological countermeasures to avoid detection. It is for instance stated that people suffering from anti-social personality disorder appear to have reduced autonomic

³⁴ Ramsland [HYPERLINK http://www.crimelibrary.com/criminalmind/forensics/polygraph/4.html](http://www.crimelibrary.com/criminalmind/forensics/polygraph/4.html) 19 March .

³⁵ Ramsland *supra*.

activity and show no remorse, which leads to a situation where the polygraph will not detect deception.

- (v) Polygraphs read heightened physiological responses, such as fear, which are not always related to deception. It is also submitted that the instrument itself does not record lies or even the physiological states that accompany lying.
- (vi) Accuracy and predictability is in principle impossible to assess because the procedure is not a standardised test and is subjectively scored.³⁶
- (vii) The manner in which the questions are posed also has an impact on the accuracy of the tests.³⁷
- (d) The problems that exist in respect of the accuracy of these tests brings into question the validity and reliability of these tests and raises the question whether these tests can and should be classified as psychometric testing or a similar assessment as defined in the *Employment Equity Act*.³⁸

2.3 The reliability, validity and legal status of polygraphs

- (a) The *Employment Equity Act*³⁹ provides as follows in respect of psychological testing and other similar assessments:

Psychometric testing and other similar assessments of an employee are prohibited unless the test or assessment being used:

- has been scientifically shown to be valid and reliable;
- can be applied fairly to employees; and

³⁶ Furedy *supra* 263 – 270.

³⁷ Furedy *supra* 266.

³⁸ *Employment Equity Act* 55 of 1998.

³⁹ S 8 of the *Employment Equity Act* 55 of 1998.

- is not biased against any employee or group.

- (b) No definition of “psychometric testing or other similar assessments” is provided in the Act and one is compelled by necessity to consider definitions of psychometric testing to be found in other sources dealing with the subject. Bonthuys⁴⁰ refers to a number of authorities on the subject and defines psychometrics as follows:

Psychometrics can be defined as that branch of psychology that focuses on the measurement of personality traits or personal characteristics in order to gather information about a person. The information that is gathered in this fashion is regarded as useful for predicting future behaviour.⁴¹

- (c) The classification, possession, control and use of psychological tests and other devices, such as questionnaires, apparatus, methods, techniques and approaches used for assessing individuals within the employment sphere in South Africa are controlled by legislation. In this regard the *Health Professions Act*⁴² regulates the medical and related professions, which includes the profession of psychology.
- (d) The *Health Professions Act* makes provision for the establishment of the Health Professions Council of South Africa, which is a juristic person⁴³ and has the authority to establish professional boards.⁴⁴ The establishment, objects and powers of the professional boards are provided for in the legislation⁴⁵ and the

⁴⁰ Bonthuys “*Counting Flying Pigs: Psychometric Testing and the Law* (2002) 23 *ILJ* 1175; Edenborough R “*Using Psychometrics: A Practical Guide to Testing and Assessment* (1994) 17; Rust *et al* “*Modern Psychometrics: The Science of Psychological Assessment*” (1989) 3.

⁴¹ Bonthuys *supra* 1175 –1176.

⁴² *Health Professions Act* 56 of 1974.

⁴³ S 2 of the *Health Professions Act* 56 of 1974.

⁴⁴ S 3 of the *Health Professions Act* 56 of 1974.

⁴⁵ S 15 of the *Health Professions Act* 56 of 1974.

professional boards are juristic persons in terms of the Act. One of the boards so established is the Professional Board for Psychology.

- (e) This Professional Board functions on the basis that a number of committees, *inter alia* a Psychometrics Committee, have been established as functionaries of the Board. One of the mandates of the Psychometrics Committee of the Board is the following:

To classify and regularly revise any device, instrument, questionnaire, apparatus, method, technique or test aimed at the evaluation of emotional, behavioural and cognitive processes or adjustment of personality of individuals or groups of persons or for the determination of intellectual abilities, personality make-up, personality functioning, aptitude or interests by the usage and interpretation of questionnaires, tests, projections or other techniques or any apparatus whether of South African origin or imported, for the determination of intellectual abilities, aptitude, personality make-up, personality functioning, psychophysiological functioning or psychopathology and to report thereon to the Board.⁴⁶

- (f) The Act makes specific provision for certain acts, which are acts pertaining to the profession of a psychologist. This includes the evaluation of emotional, behavioural and cognitive processes by the use and interpretation of questionnaires, tests or other techniques or apparatus for the determination of *inter alia* psychophysiological functioning.⁴⁷
- (g) The Professional Board for Psychology has adopted a policy on the classification of psychometric measuring devices, instruments, methods and techniques.⁴⁸ It is explained in the policy that it is

⁴⁶ Resolution of the Professional Board for Psychology taken in August 1999.

⁴⁷ S 37(2)(c) of the *Health Professions Act* 56 of 1974.

⁴⁸ Anon *Policy on the classification of psychometric measuring devices, instruments, methods and techniques* Form 208.

necessary to classify tests as only registered psychologists are permitted to perform psychological acts, which includes, as explained above, the evaluation of the psychophysiological functioning of individuals.

- (h) It is submitted with reference to the definition of psychophysiology and the fact that the polygraph in fact relies on the psychophysiological make-up of humans to do credibility assessments that the polygraph should be subject to classification in terms of the *Health Professions Act*. The polygraph might not be viewed as a psychometric test *per se* but it is submitted that it should be regarded as an apparatus or technique, as specified by the Board for Psychology. This, it is submitted, is the case as the polygraph as stated above is increasingly used in *inter alia* the pre-employment testing of employees. In this regard selection procedures of employees involve any procedures or actions used in obtaining and integrating information in order to make a recommendation or a final personnel decision, which may influence the job status of an individual or an evaluated person.⁴⁹

- (i) Selection tests can be divided into two broad categories namely those that measure knowledge, skills and abilities and those that measure other personal attributes or characteristics, such as extroversion, introversion, emotional stability and conscientiousness. There are also tests that seek to identify personal attributes thought to be undesirable in employees, and it is submitted that the polygraph belongs among other tests such as the so-called pen and paper honesty tests that fall within this category.⁵⁰ Whether the polygraph is used for the purpose of selecting or screening employees, checking whether employees

⁴⁹ Anon *Guidelines for the Validation and use of Assessment Procedures for the Workplace* 1.

⁵⁰ Verster HYPERLINK http://lablaw.hypermart.net/articles_archive.htm 22 February.

remain trustworthy during the course of employment or is used for the purpose of detecting deception on an *ad hoc* basis makes no difference to the nature of the test. It is submitted that the polygraph would be included in the term "other similar assessments", as provided for in terms of the *Employment Equity Act*.

- (j) If this is the case the polygraph should be prohibited in terms of the *Employment Equity Act* unless it can be shown to meet the requirements provided for in the Act.⁵¹ It is submitted that the polygraph would have to, if it were to pass muster in terms of the provisions of the *Employment Equity Act*, be classified in terms of the *Health Professions Act*.
- (k) If the polygraph were to be classified as an apparatus or technique in terms of the *Health Professions Act*, the requirement of scientific reliability and validity provided for in the *Employment Equity Act*⁵² would have to be assessed in accordance with the psychometric concept of validity and reliability. This will in turn impact on the status of the polygraph.

2.3.1 *Reliability*

- (a) Reliability is related to the accuracy and consistency of the measurements that are reflected by test scores. Psychometrics distinguish between internal consistency reliability, which relates to whether the different parts of the test measure the same variable, and test-retest reliability, which requires that people have similar scores if the test is administered to them on different occasions.⁵³ One of the biggest problems of the polygraph when

⁵¹ S 8 of the *Employment Equity Act* 55 of 1998.

⁵² S 8(a) of the *Employment Equity Act* 55 of 1998.

⁵³ See Bonthuys *supra* on 1186.

dealing with reliability is the fact that the test is subjectively scored. It is dependent on *inter alia* the setting up of control and irrelevant questions to determine whether there is any disparity between the responses to the relevant questions and the control or irrelevant questions.

- (b) The tests do not take cognisance of the individual's past experiences and events that might have an influence on the persons' psychological make-up. One of the problems in this regard relates to the examiner who conducts the test. The examiner is the person who ultimately interprets the test results and has had interaction with the individual. In this regard it is submitted that very few, if any, examiners are trained and registered psychologists or psychometrists. It is submitted that this casts serious doubt on their ability to interpret and understand the impact of an individual's psychological make-up on the test results. In addition, it is submitted that the examiner must have at least some kind of impact on the individual's emotional state, and a lot will depend on the manner in which the examiner conducts the test and himself both before and during the test.
- (c) The test is not standardised and this makes it difficult, if not impossible, to determine reliability. It is submitted that it is not possible to standardise the test for the simple reason that the questions posed to individuals will depend on the specific incident as far as relevant questions are concerned, and on the specific individual's background in so far as the control questions are concerned.
- (d) Different people have different reactions to different situations and although it is accepted that the polygraph can measure physiological reactions, the reliability of these tests are highly

questionable. This will in all probability result in these tests' not being able to be classified in terms of the *Health Professions Act*.

2.3.2 Validity

- (a) Validity as a concept refers to the appropriateness, meaningfulness and usefulness of the specific inferences drawn from test scores⁵⁴ *i.e.* whether the inferences regarding the specific uses of a test are validated.⁵⁵
- (b) The school of thought that is in favour of the use of the test claims that it can in fact establish, with reference to the physiological reaction of the individual, whether the particular individual is deceptive or dishonest, *i.e.* that the inferences drawn are valid. As has been argued above the polygraph instrument measures physiological changes in the human body but this does not mean lying has necessarily caused the physiological changes. A number of other reasons may have caused or at least contributed to the physiological changes.
- (c) The motivation for telling lies also differ from person to person, as has been explained in the introduction to this dissertation, hence it is submitted that the polygraph does not and cannot objectively and accurately measure what it purports to measure. All that can be measured are the physiological changes that occur in the human body when a person is undergoing the test.

⁵⁴ Anon *Guidelines for the Validation and use of Assessment Procedures for the Workplace* 7.

⁵⁵ *Ibid.*

2.3.3 *Legal status*

- (a) It is submitted that on a proper interpretation of the *Health Professions Act* and the *Employment Equity Act* the polygraph should be registered and classified. If the polygraph were to be classified in terms of the *Health Professions Act*, polygraph examiners would have to be registered in terms of said legislation.
- (b) Until such time as the polygraph has been classified and registered the test will have no legal status in terms of the relevant legislation. It is submitted that the use of the polygraph should be prohibited in terms of the provisions of the *Employment Equity Act* as well as the *Health Professions Act*.

3 **The polygraph and the Constitution**

- (a) South Africa is a constitutional state and the *Constitution of the Republic of South Africa*⁵⁶ has had a significant impact on labour law. The Constitution is the supreme law of the country and it obliges every court, tribunal and forum to promote the spirit and objects of the Bill of Rights when interpreting any legislation and when developing common law. The Constitution protects the individual's right against *inter alia* the invasion of privacy, self-incrimination and unlawful search and seizure,⁵⁷ and it guarantees the individual's right to fair labour practices.⁵⁸
- (b) The use of polygraph testing, whether or not it is viewed as accurate, reliable and valid, can possibly impact on an individual's constitutional rights.

⁵⁶ *Constitution of the Republic of South Africa, 1996.*

⁵⁷ Christianson M *supra* 27.

⁵⁸ S 23 of the *Constitution of the Republic of South Africa, 1996.*

- (c) Section 14 of the Constitution provides as follows:

Everyone has the right to privacy, which includes the right not to have:

- their person or home searched
- their property searched
- their possessions seized, or
- the privacy of their communications infringed.

- (d) Privacy has been described as an amorphous and elusive concept.⁵⁹

- (e) *Neethling* defines privacy as follows:

Privacy is an individual condition of life characterised by seclusion from the public and publicity. This implies an absence of acquaintance with the individual or his personal affairs in this state.⁶⁰

- (f) A right to privacy encompasses the competence to determine the destiny of private facts, which includes the right to decide when and under what conditions private facts may be made public.⁶¹

- (g) Privacy as defined in the Constitution does not provide a *numerus clausus* of possible infringements, and at the very least the right to privacy would include the right to be free from intrusions and interference by the state and others in one's personal life. In accordance with the wording of the section it may also include freedom from the unauthorised disclosure of information about an individual's personal life.⁶² Individuals have control over who

⁵⁹ *Bernstein v Bester* NO 1996(4) BCLR 449 (CC) at par 65 referred to by McQuoid-Mason *Privacy Constitutional Law of South Africa Chaskalson et al* (eds) Juta 1996 on 18-1.

⁶⁰ Neethling J, Potgieter J M *et al.* "Law of Delict" 2 ed. (1994) on 333.

⁶¹ *National Media Ltd & another v Jooste* 1996 (3) SA 262 (A) at 271.

⁶² *Case v Minister of Safety and Security* 1996 (5) BLLR 609 (CC) at par 91 referred to by McQuoid-Mason *supra* 18 – 1.

communicates with them and who has access to the flow of information about them.⁶³

- (h) In *Bernstein v Bester NO*⁶⁴ it was held that the right to privacy is not absolute and is subject to striking a balance between this right and other rights contained in the Constitution.⁶⁵
- (i) *Christianson*⁶⁶ states with regard to the issue of privacy in the context of polygraphs that:

It has been identified as an attempt to penetrate the inner-domain of individual belief in violation of the constitutional distinction between acts and beliefs, the interference with the individual's sense of autonomy and reserve created by machine sensing his emotional responses to personal questions and the increased psychological power that authorities acquire over individuals seeking employment or already employed.

- (j) One particular difficulty with the right to privacy and the possible invasion of this right when undergoing a polygraph is that even in the pre-test phase, where the examiner sets up the so-called control or irrelevant questions, the individual concerned is required to disclose personal information which he or she would possibly not otherwise have disclosed. In order to set the control question material, *i.e.* to maximise the impact of the control question in the CQT, the examiner, during the pre-test interview, has to find and develop an area of the individual's previous experience which is purported to be related to the relevant issues and which the examinee is likely to lie about or at least be concerned about. One of the methods to achieve this result would

⁶³ McQuoid-Mason: *"The Law of Privacy in South Africa"* (1977) 99; Neethling J, Potgieter J M *et al* *"Law of Delict"* 2 ed (1994) on 333.

⁶⁴ *Bernstein v Bester NO* 1996(4) BCLR 449 (CC) *supra* at par 106.

⁶⁵ De Waal *"The Bill of Rights Handbook"* (1999) at 254-256.

⁶⁶ *Christianson M supra* 29.

be to buttress the significance of the control question by for example stating that it has been proven that persons who steal from their employer probably began with a lesser violation of trust, such as cheating in school. This unethical manipulation of an individual in itself might constitute an invasion of the individual's privacy as the individual may well be left with the false and potentially damaging assumption that because he cheated in school he is the type of person who will commit theft from his employer.⁶⁷

- (k) The individual who has to respond to a question whether he ever cheated in school has two choices if he had in fact cheated in school. He can answer in the affirmative, in which case he discloses private information that is not relevant to the incident that is being investigated. This disclosure might in addition impact negatively on his relationship with his employer and cause tremendous embarrassment and prejudice. The second choice of this individual would be to lie about the fact, which also constitutes an invasion of his right to privacy as the examiner delves into matters that are irrelevant and private. In addition, the telling of this lie might have an effect on the results of the polygraph.

- (l) Another important aspect relating to the testing of individuals is that the person who is deemed to be non-deceptive does not always, and it is suggested that this is mostly the case, have the benefit of a proper debriefing where he is afforded the opportunity to discuss the psychological assault on areas of his life that are regarded as private and which upon disclosure might cause embarrassment, anxiety and prejudice. The person who tests as deceptive will normally have a debriefing session during which the test results will be discussed with him.

⁶⁷ Furedy *supra* 267.

- (m) Due to the fact that the right to privacy is not a non-derogable right, an individual can consent to undergo a polygraph. In *Mncube v Cash Paymaster Services (Pty) Ltd*⁶⁸ it was held that concerns about privacy and free will do not arise in the case where the individual consented to the polygraph. Many employers attempt, and in fact succeed, in including a clause in their employment contracts or policies regulating conditions of employment that employees by accepting employment consent to undergo polygraph tests whenever required to do so by the employer.
- (n) In South Africa the harsh reality is that a large portion of the population who can work find themselves among the ranks of the unemployed. Employees or prospective employees, especially unskilled employees, will accept and sign almost any document in order to obtain employment, including contracts in terms of which they consent to undergo polygraphs whenever required by the employer. The question that must be asked is whether such consent can be regarded as consent at all. Landman⁶⁹ states:

Various forms of so-called choice can be ... tantamount to no choice. The loss of ones livelihood, pension and other benefits must surely rank as a type of compulsion. To ignore it would mean that one gives precedence to the formal letter of the law at the expense of substance. The threat of the loss of employment may be more powerful than a legal compulsion to give incriminating evidence.

- (o) It is submitted that the same argument applies in cases where employees consent contractually to undergo polygraphs and even to the scenario where employees have not entered into a contract

⁶⁸ *Mncube v Cash Paymaster Services (Pty) Ltd* (1997) 5 BLLR 639 (CCMA) at 643G.

⁶⁹ Landman A "A right to Silence: Except at a Disciplinary Inquiry?" (1996) Contemporary Labour Law 6: 3 at 29 – 30.

providing for this, but are still required by the employer to undergo a polygraph. *Christianson* argues convincingly that the nature of the test involved and the potential of the test to infringe fundamental human rights would possibly make the validity of consent to the test questionable.⁷⁰ One would in all of these cases have to establish whether consent was in fact obtained without duress, coercion, force or promise.

- (p) Employees who find themselves in a work environment where the employer requires them to undergo polygraphs indeed find themselves in a very difficult position. Whether the test is conducted as the consequence of a specific incident that occurred, as an event-unrelated test to monitor ongoing honesty or as a method of pre-employment screening or assessment, the employee is faced with two choices.
- (q) The first is that the employee might be willing and in fact consent to undergo such a test. This option could result in the person being found deceptive, even if the employee is not lying, by a method of which the accuracy, reliability and validity is highly questionable. The consequences of being found deceptive by the polygraph can be and in most instances are highly prejudicial. The employee will in the normal course of events be dismissed or removed from the position that he holds or will simply not be appointed in the position for which he is applying.
- (r) Where the employee is dismissed, demoted or not appointed he would have to contest this action in terms of the provisions of the *Labour Relations Act*.⁷¹ This in itself might prove to be a risky option as the Commissioner that is appointed to arbitrate might be one of those commissioners who allow the polygraph into

⁷⁰ *Christianson M supra* 31.

⁷¹ *Labour Relations Act* 66 of 1995.

evidence and attach unjustified weight to the test results.⁷² Even where no action is taken against the employee, the employee will still be in a position that the perception has been created in the mind of the employer and his fellow employees that he is dishonest. This in itself will have a major and unjustified impact on the trust relationship between employer and employee, and it is difficult to see how the relationship between the parties can in fact continue as if nothing has changed.

- (s) The second option is for the employee to refuse to undergo the polygraph test, something he can do on one or more of the following grounds:
 - (i) It can firstly be argued that the test would constitute an invasion of the employee's constitutional right to privacy and that he is for this reason not consenting to the test.
 - (a) As stated above, the employee has a constitutional right to privacy, which right admittedly is not an absolute right and must for instance be weighed against the employer's constitutional right to have his property protected. It is submitted that as soon as an individual moves into communal relations and activities, such as business, employment relations and other social interaction, the individual's scope of personal space shrinks accordingly.⁷³
 - (b) Employers have the right to take the necessary measures to protect their property and business, and for instance have the right to know both the substance and the manner in which employees

⁷² See fn 8 *supra*.

⁷³ *Bernstein v Bester NO supra* par 67; *McQuoid-Mason supra* 18.1.

conduct themselves in the work environment, as long as the methods used to obtain the information is reasonable.⁷⁴ It would for example be reasonable to install cameras in a production facility to monitor both the production and employees' movements, and the movement of products within the facility.

- (c) The bounds of reasonableness will be exceeded, however, if the employer for instance, installs cameras in the ablution facilities. Employers who wish to make use of polygraphs should be required to justify their conduct within the provisions of Section 36 of the Constitution.⁷⁵ It is submitted that the use of polygraphs will not pass constitutional muster as it exceeds the bounds of reasonableness to compel a person to undergo a test that is unreliable, invalid and potentially highly prejudicial. The test infringes the individual's right to privacy as the very nature of the test forces the individual to disclose personal and often irrelevant information to the employer and a third party in the person of the polygraph examiner.
- (ii) It can secondly be argued that the test is inaccurate, unreliable and invalid and that the employee would for this reason not be willing to undergo the test.
 - (a) If one accepts that polygraphs should be classified and registered in terms of the *Health Professions Act* as a technique or apparatus, the testing would be prohibited in terms of Section 8 of the

⁷⁴ McQuoid-Mason *supra* 18–17.

⁷⁵ McQuoid-Mason *supra* on 18–17.

Employment Equity Act. If this was the situation the use of the test would not only be prohibited but could also, if relied upon, result in possible unfair discrimination in terms of the *Constitution* and the *Employment Equity Act*. The *Employment Equity Act* provides 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....⁷⁶

- (b) The grounds listed in Section 6 of the *Employment Equity Act* are not a *numerus clausus*. It is submitted that the reliance on the results of a test that is not classified and registered, and that should as a result be prohibited, may amount to discrimination on an arbitrary ground as there is no proper scientific basis for the validity and reliability of the test. It can possibly be argued that the personal attribute of honesty is an inherent requirement of certain jobs and that discrimination against a person who does not possess this specific attribute would be fair in terms of Section 6 (2) (b) of the *Employment Equity Act*. This argument is valid in so far as it will probably be fair to discriminate on this ground when appointing a person to a position of trust.
- (c) To rely on the results of a polygraph in order to determine whether a person is honest and trustworthy, however, might amount to unfair discrimination for the reasons mentioned above.

⁷⁶ S 6 of the *Employment Equity Act* 55 of 1998.

- (d) It is submitted that the reliance on the results of a polygraph could also constitute an unfair labour practice as defined in the *Labour Relations Act*⁷⁷ and could result in the violation of the individual's constitutional right to fair labour practices.⁷⁸ This will for instance be the case where an employer relies on the refusal of the employee to undergo a polygraph test or on the results of the polygraph in making a decision regarding the demotion or promotion of the employee.
- (iii) Another option that exists is to rely on Section 35(3)(h) of the Constitution that protects the right of every person to be presumed innocent, to remain silent and not to testify.
- (a) The court held in *Davis v Tip NO and Others*⁷⁹ that an employee's right to silence would not be violated where he is subjected to a disciplinary hearing and where the employee's request to postpone such a hearing has been refused. The court held in this instance that the preservation of the applicant's right to silence lay in his own hands and that in such circumstances he might be required to choose between incriminating himself and losing his employment.
- (b) The principle established in this case should not find application where employees are required to undergo a polygraph due to the potentially prejudicial nature of the polygraph and reliance on

⁷⁷ S 186(2)(a) of the *Labour Relations Act* 66 of 1995.

⁷⁸ S 23 of the *Constitution of the Republic of South Africa, 1996*.

⁷⁹ *Davis v Tip NO and Others* 1996(1) SA 1159 (T).

Section 35(3)(h) should be successful. It is submitted that there is a clear distinction between subjecting an employee to a polygraph and the testing of an employee's version by applying the normal rules of evidence. When applying the normal rules of evidence the employee will have the opportunity to give evidence in chief, be subjected to cross-examination and have the opportunity during re-examination to clarify any misunderstanding that might have arisen during cross-examination. The employee further has the right to lead corroborating evidence and to question any evidence brought against the employee. These are rights not afforded to the employee who has his fate determined by a polygraph.

- (t) Employers could possibly argue that the refusal to undergo a polygraph constitutes a serious breach of trust as it might create the perception that the employee has something to hide and can therefore no longer be trusted. This places the employee in a precarious situation and can lead to the employee experiencing unfair and undue influence in consenting to undergo a polygraph, with the inherent risk of being found deceptive by a technique that is highly questionable.
- (u) There is a strong possibility as is suggested by *Christianson*⁸⁰ that an individual may in terms of *Section 12* of the Constitution be protected against involuntary polygraph testing as it could fall within the general concept of "bodily and psychological integrity". The involuntary polygraph testing of an employee will constitute an invasion of that person's psychological integrity in the same

⁸⁰ *Christianson M supra* 28.

manner in which a person's bodily integrity would be invaded by torture, assault and illegal incarceration.

4 The admissibility of the polygraph into evidence

- (a) In the cases where polygraphs play a role in the dismissal of employees the onus to prove the fairness of the dismissal rests on the employer.⁸¹ The onus in an unfair labour practice claim, on the other hand, rests on the employee.⁸²
- (b) In the cases where employees are not appointed to positions due to the polygraph indicating deception and where unfair discrimination is alleged, i.e. in the cases of pre-employment testing or in the case of the non-promotion of an employee to a more senior position, the onus that no unfair discrimination took place would rest on the employer.⁸³ The party on whom the onus rests must prove its case on a balance of probabilities.
- (c) The test to be applied in considering whether evidence is admissible is whether it is relevant to the matter in issue.⁸⁴ It could be argued that the use of polygraphs in determining the truth would be relevant in any matter and should be admissible. A prerequisite for this argument to succeed would have to be that the polygraph is a reliable, valid and accurate method used to determine the truth.
- (d) A fact will only be relevant when inferences can be properly drawn from it as to the existence of a fact in issue. In *R v Trupedo*⁸⁵ the Court for instance had to deal with the question

⁸¹ S 192 of the *Labour Relations Act* 66 of 1995.

⁸² S 186 (2) of the *Labour Relations Act* 66 of 1995.

⁸³ S 11 *Employment Equity Act* 55 of 1998.

⁸⁴ *Kuruma son of Kaniu v R* 1955 AC 197 1955 1 All ER 236.

⁸⁵ *R v Trupedo* 1920 AD 58 on 62.

whether evidence submitted that a police dog followed a trail of a person and identified the person from among eight sleeping individuals by barking at the person was admissible. The Court held that one would enter a region of conjecture and uncertainty if inferences were to be drawn from the actions of a trailing hound as to the identity of a particular individual.

- (e) It is submitted that the relevance of the results of the polygraph must be assessed with reference to the reliability of the test procedure. If it is accepted that the polygraph has to be classified and registered in terms of the *Health Professions Act* one would also have to accept that until such time as the test has been classified and registered, the test would have to be inadmissible on the basis that it is irrelevant. In this regard reference must be made to the three requirements set out in the *Employment Equity Act* referred to in paragraph 2.3(a):
 - (i) The only manner in which it can be scientifically shown to be valid and reliable would be to have the test, technique or apparatus classified by following the prescribed procedure as set out in the policy of the Professional Board for Psychology referred to above. The procedure in essence entails that the test developer needs to notify the Psychometrics Committee of *inter alia* the purpose of the test, the time period during which it is envisaged that standardisation will take place, the time period over which the psychometric data will be collected and detail as to when the test will be submitted for classification purposes. Before a test can be classified, information regarding *inter alia* whether the test meets its intended purpose i.e. if it measures what it purports to measure, whether it is valid and reliable, whether the content is culturally reduced or culture-specific in nature and empirical evidence

concerning the appropriateness of the test for groups of different cultural, ethnic, socio-economic or linguistic backgrounds should be submitted.

- (ii) The second requirement of the *Employment Equity Act* is whether the test can be fairly applied to employees. Once again it is submitted that if the test can be classified in accordance with the requirements set out above it would be possible to be fairly applied. Until such time as classification has taken place, the test cannot be applied fairly as it cannot be proven at this stage that the test measures what it purports to measure.
 - (iii) The third requirement is that the test should not be biased against any employee or group. This would also only be able to be shown if the test is properly classified and standardised, as this will take account of specific physiological and psychological conditions that might have an influence on the test results.
- (f) If the test is found to be relevant and reliable, the second question that must be assessed is whether the evidence would assist the trier of fact in determining the facts at issue. If the test is reliable, there should be no problem with this second leg as it would be able to assist the Court in determining the facts. However, it is submitted that the test can only assist if it measures what it purports to measure.
- (g) The Courts would thirdly have to decide if the evidence has an unfairly prejudicial effect that would substantively outweigh its probative value. This third leg would also only become relevant if the test were in fact found to be reliable. If it is shown to be scientifically reliable, there should be no problem in so far as its

probative value is concerned, provided that there are no other problems such as the possible invasion of privacy and disputes regarding the voluntary nature of the test.

- (h) If we assess the American position, it is clear that the use of the polygraph is limited by statute.⁸⁶ In general, employers are not allowed to require or even suggest that employees or prospective employees undergo a polygraph test. The only exceptions to this general prohibition are for investigations involving economic loss or injury to the employer's business. A further qualification in this regard is that the employer must have a reasonable suspicion that the employee was involved in the incident that is being investigated and that the employee must have had access to the property that is the subject of the investigation.⁸⁷ The employee has the right to refuse the polygraph and has the right to terminate the test at any time. In addition, strict limitations are placed on the type of questions that can be asked, the qualifications of the examiner and the disclosure of the test results.
- (i) It is obvious that the American legal system recognises that the polygraph has the potential to be abused and to be highly prejudicial to the persons who undergo the test. However, it is submitted that even with the protective measures established by the *Employee Polygraph Protection Act* the validity and reliability of the test are not addressed at all. Arbitrators hearing matters in America have declined to attach any weight to polygraphs where the employer has relied solely on these tests to dismiss an employee. It is also required that evidence be led regarding the

⁸⁶ *Employee Polygraph Protection Act supra.*

⁸⁷ Lane A. "Employer use of Lie Detector Tests" HYPERLINK <http://www.alllaw.com/articles/employment/article 3.asp> 27 March 2003.

examiner's experience and the accuracy of the test reports in cases where it is admitted into evidence.⁸⁸

- (j) *Christianson*⁸⁹ states that none of the South African decisions so far has specifically assessed the scientific reliability and validity of polygraphs, which leads to a situation where it is very difficult to predict which approach will be followed by the CCMA or any other statutory dispute-resolving body. The difficulty with the admissibility of the polygraph is equally applicable to disciplinary hearings. The same onus of proof i.e. on a balance of probabilities applies, and it would not serve any purpose to rely on a polygraph in reaching a decision in a disciplinary hearing if the evidence will not be admissible in later litigation.

- (k) It is submitted that employers, lawyers and any other persons involved in the administration of fair justice within the workplace would have to be very careful if they choose to rely on the polygraph to construct a balance of probabilities. If the test is unreliable and inaccurate it cannot possibly establish the basis for finding a person guilty, nor should it be used as corroborative evidence in a disciplinary hearing. The basis for the dismissal in the disciplinary hearing when relying on the polygraph will be fatally flawed, as the test is unreliable and inaccurate. If the test results form the basis of finding a person guilty, the action taken against the employee might also be substantively unfair as the results of the polygraph might lead the presiding officer to make an incorrect finding on the facts of the matter.

- (l) If it is accepted that the use of polygraphs is prohibited in terms of the *Employment Equity Act* the admission of polygraphs into evidence during disciplinary hearings and subsequent litigation

⁸⁸ Christianson M *supra* on 33.

⁸⁹ *Ibid.*

might also constitute a procedural irregularity. It is submitted that the results of the tests will not be admissible due to their inherent unreliability. The unreliability of the tests impacts severely on the relevance of the evidence, as inferences cannot be properly drawn from it as to the existence of a fact in issue.

- (m) If one considers the cases referred to in which the polygraph was indeed admitted into evidence, it is clear from the majority of these cases that the polygraph was relied upon as corroborating evidence.⁹⁰ Corroborating evidence must be admissible. Hearsay evidence for example cannot be used to corroborate a witness.⁹¹ If one accepts that the polygraph should be classified in terms of the *Health Professions Act* and that the use of the test will be prohibited in terms of the *Employment Equity Act* until it is registered, it should not be admissible and should not be relied upon as corroborating evidence.

5. Conclusion

- (a) Humans lie to each other, sometimes simply because they are human. The benefit of finding a foolproof and reliable method to establish the truth and to apportion blame accordingly, without having to resort to medieval methods of physical torture or to a trial by a court of law, is obvious.
- (b) Litigation in the CCMA and Labour Court would for instance virtually be restricted to argument on the applicable legal principles, an enquiry into the appropriate penalty to be applied to the guilty party or to the determination of the appropriate relief to be awarded to the claimant. Very little need would exist for

⁹⁰ *Supra* fn 8.

⁹¹ Schmidt "*Bewysreg*" 121.

leading evidence on the facts of a matter or for cross-examination of witnesses if such a method could be developed. Society as a whole, with the possible exception of the less than honest members, is desperately in need of a method to eliminate dishonesty.

- (c) If the difficulties with the validity and reliability of the tests are addressed the polygraph can make a contribution to humankind's quest to eradicate dishonest practices in the workplace. Until such time as the problems with the polygraph is addressed the use of the polygraph and the reliance placed on the results will continue to be the subject of controversy. The possible prejudice that employees might suffer as a result of the use of a technique that is as unreliable and inaccurate as the polygraph must not be underestimated.
- (d) The use of the polygraph and the reliance placed on the results often impacts on the individual's constitutional rights, the most important of which is the employee's right to privacy and fair labour practices. Employees when undergoing the test are compelled *inter alia* to disclose private and often irrelevant information. This does not only infringe on the employees' constitutional rights to privacy but might also have the consequence that an employee's services may be terminated as a result of the information so disclosed or that the employee is prejudiced in some other manner, such as a possible demotion or non-promotion. This possibility exists even where the employee is found not to be deceptive but where he discloses personal information during the formulation of the control or so-called irrelevant questions.
- (e) The admissibility of the test results in evidence during disciplinary hearings and subsequent litigation might very well result in the

process being tainted by a procedural irregularity, as the evidence adduced is derived from an unreliable source and should not be admissible. If the test results form the basis of finding a person guilty the action taken against the employee might also be substantively unfair, as no reliance should in my view be placed on the test results to construct a balance of probabilities.

- (f) To measure the physiological responses in isolation from the psychological status of the individual cannot possibly lead to the conclusion that a person is lying or that, if the person is indeed lying, he is involved in, or has committed, the incident that is being investigated. A number of psychological and physiological factors relevant to the specific individual might have an impact on the reaction of the person undergoing the polygraph.
- (g) It is further submitted that there is a lack of effective regulation over the use of the polygraph and other forms of psychophysiological assessments. Whether the intention was to control the use of polygraphs and other forms of psychophysiological assessments with the *Employment Equity Act* remains an open question. However, it is abundantly clear that there is an urgent need for clear statutory intervention not only to protect employees but also to create certainty regarding the use, reliability and validity of the tests. It is proposed that one possibility would be to do so by the promulgation of regulations in terms of the *Employment Equity Act* or the *Health Professions Act*.
- (h) If the use of the polygraph test is properly regulated, the majority of the problems relating to the validity, reliability, evidentiary value and constitutional issues will be resolved. It is submitted that until this takes place the polygraph cannot tell us anything more than the person who interviewed a possible suspect and who testifies

that the suspect was lying as he was sweating like an ox, breathing like a hippo on a hot day, had dry crusts of spittle on the lips like a camel in the desert or blushed like a sixteen year old who has just had his first kiss.

6 Bibliography

6.1 Books and other references

A

Anon Guidelines for the Validation and use of Assessment Procedures for the Workplace Health Professions Council of South Africa (Society for Industrial Psychology 1998)

Anon Policy on the classification of psychometric measuring devices, instruments, methods and techniques Form 208 Health Professions Council of South Africa (November 2002)

Anon Resolution of the Professional Board for Psychology Health Professions Council of South Africa (August 1999)

B

Bonthuys E "Counting Flying Pigs: Psychometric Testing and the Law" (2002) 23 *ILJ* 1175 (Juta Cape Town)

C

Christianson M "Polygraphy Testing in South African Workplaces: 'Shield and Sword' in the Dishonesty Detection versus Compromising Privacy Debate" (2000) 21 *ILJ* 16 (Juta Cape Town)

D

De Waal J *et al.* "The Bill of Rights Handbook" (1999) in McQuoid-Mason Privacy in *Constitutional Law of South Africa* Chaskalson *et al* (eds) (Juta Cape Town 1996)

F

Furedy J J "The CQT Polygrapher's Dilemma: Logico-Ethical Considerations for Psychophysiological Practitioners and Researchers" *International Journal of Psychophysiology* 1993 (15) (Toronto 1993)

I

Iacono W and D Lykken "The Scientific Status of Research on Polygraph Techniques: The Case against Polygraph Techniques" in Faigman D *et al* (eds) *Modern Scientific Evidence: The Law and the Science of Expert Testimony* (1997) 565-582

L

Landman A "A Right to Silence; Except at a Disciplinary Inquiry?" (1996) *Contemporary Labour Law* 6: 3

Louw D A *Inleiding tot die Psigologie* (McGraw-Hill, Johannesburg 1983)

Luke "The Gospel According to Luke" in *The Bible* (Bible Society of South Africa Cape Town 1983) Luke 22:34

M

Matthew "The Gospel According to Matthew" in *The Bible* (Bible Society of South Africa Cape Town 1983) Matthew 26:75

McQuoid-Mason Privacy in *Constitutional Law of South Africa* Chaskalson *et al* (eds) (Juta Cape Town 1996)

McQuoid-Mason: The Law of Privacy in South Africa (1977) in McQuoid-Mason Privacy in *Constitutional Law of South Africa* Chaskalson *et al* (eds) (Juta Cape Town 1996)

N

Neethling J *et al* "Law of Delict" 2ed (1994) in McQuoid-Mason Privacy in *Constitutional Law of South Africa* Chaskalson *et al* (eds) (Juta Cape Town 1996)

P

Plug C *et al* *Psigologiewoordeboek* (Mc Graw-Hill Johannesburg 1986)

R

Raskin D *et al* "The Scientific Status of Research on Polygraph Techniques: The Case for Polygraph Techniques" in Faigman D *et al* (eds) *Modern Scientific Evidence: The Law and the Science of Expert Testimony* (1997) 565-582

S

Schmidt *Bewysreg* (Butterworths Durban 1982)

T

Temple C *The Brain* (Penguin Books London 1993)

Tredoux C and Pooley S "Polygraph Based Testing of Deception and Truthfulness: An Evaluation and Commentary" (2001) 22 *ILJ* 819 (Juta Cape Town)

6.2 Case register

A

Amos v NBS (unreported CCMA Case No KN 42888)

B

Bernstein v Bester NO 1996 (4) BCLR 449 (CC)

C

Case v Minister of Safety and Security 1996 (5) BLLR 609 (CC)

D

Davis v Tip NO and Others 1996 (1) SA 1159 (T)

G

Govender v Cargo and Container Services (unreported CCMA Case No. KN 4881)

K

Kleinhans v Tremac Industries (2001) 5 BALR 469 (CCMA)

Kuruma son of Kaniu v R 1955 AC 197 1955 1 All ER

M

M Shinga v Gilbeys Distillers and Vintners (Pty) Ltd (unreported Industrial Court Case No NHN11/2/10237)

Malgas v Stadium Security Management 1999 4 LLD 667 (CCMA)

Mbele v Cash Payment Services (Pty) Ltd 1997 (unreported CCMA Case No: KN 4084)

Mncube v Cash Paymaster Services (Pty) Ltd (1997) 5 BLLR 639 (CCMA)

N

National Media Ltd & another v Jooste 1996 (3) SA 262 (A)

NUMSA v Glacier van der Vell (Pty) Ltd 1997 (unreported CCMA Case No: KN 3151)

P

PETUSA on behalf of Van Schalkwyk v National Trading Co (2000) 21 ILJ 2323 (CCMA)

R

R v Trupedo 1920 AD 58

Rix v Ryder Security (Pty) Ltd 1994 3 LCD 68 (IC)

S

Singh v First National Bank 1999 (unreported CCMA Case No: KN 33299)

Smith v Canoa Eastern Cape (2000) 12 BALR 1436 (CCMA)

Sosibo and Others v (CTM) Ceramic Tile Market (2001) 5 BALR 518 (CCMA)

6.3 Internet register

A

Anon Four New Technologies: Critical Problems (Found on Internet) HYPERLINK [http://www.ulib.org/webRoot/Books/NationalAcademy Press Books /brain cognition/brain 057.htm](http://www.ulib.org/webRoot/Books/NationalAcademyPressBooks/brain%20cognition/brain_057.htm) (Date of use 19 April 2003)

Anon Consolidated Laws: Psychological Stress Evaluators and Employment (Found on Internet) HYPERLINK <http://caselaw.lp.findlaw.com/nycodes/c54/a49.html> (Date of use 12 September 2003)

Anon Lie Detector Tests: Truth and Consequences (Found on Internet) HYPERLINK [http://www.nolo.com/lawcenter/ency/article.cfm/objectID/3129F 771-5DSS-44B2-A211](http://www.nolo.com/lawcenter/ency/article.cfm/objectID/3129F771-5DSS-44B2-A211) (Date of use 27 March 2003)

Anon Polygraph Association of South Africa: Polygraph History (Found on Internet) HYPERLINK http://www.pasa.co.za/Polygraph_History.htm (Date of use 22 February 2003)

Anon Scientific Validity of Polygraph Testing: A Research Review and Evaluation (Found on Internet) HYPERLINK [http://www.fas.org/sgp /othergov/polygraph/ota/index.html](http://www.fas.org/sgp/othergov/polygraph/ota/index.html) (Date of use 12 September 2003)

B

Brenner M, Branscomb H H and Schwartz G E Psychological stress evaluator – Two tests of a vocal measure (Found on Internet) HYPERLINK http://www.voicestress.com/brenner_branscomb.htm (Date of use 12 September 2003)

C

Carol R T The Skeptics Dictionary (Found on Internet) HYPERLINK <http://skepdic.com/polygraph.htm/> (Date of use 27 March 2003)

H

Honts C R Amicus Curiae Re: The Polygraph in the Supreme Court of the United States (October term, 1997) United States of America v Edward G Schefer (No. 96 – 1133) (Found on Internet) HYPERLINK <http://truth.idbsu.edu/amicus/brief.html> (Date of use 18 March 2003)

L

Lane A Employer use of Lie Detector Tests (Found on Internet) HYPERLINK http://www.alllaw.com/articles/employment/article_3.asp (Date of use 27 March 2003)

R

Ramsland K Problems with Polygraphs (Found on Internet) HYPERLINK http://www.crimelibrary.com/criminal_mind/forensics/polygraph/4.html (Date of use 19 March 2003)

V

Verster J D Testing, relevant experience and selection of job applicants (Found on Internet) HYPERLINK [http://lablaw.hypermart.net/articles archive.htm](http://lablaw.hypermart.net/articles/archive.htm) (Date of use 22 February 2003)

6.4 Legislation

Constitution of the Republic of South Africa Act 108 of 1996

Employee Polygraph Protection Act of 1988 Pub L No 100-347 (28 June 1988)

Employment Equity Act 55 of 1998

Health Professions Act 56 of 1974

Labour Relations Act 66 of 1995