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***EXPLORING THE USE OF THE POLYGRAPH TEST IN THE  
WORKPLACE AND AS EVIDENCE IN LABOUR DISPUTES***

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Research dissertation presented for the approval of Senate in fulfilment of part of the requirements for the LLM (Labour Law) degree in approved courses and a minor dissertation. The other part of the requirement for this qualification was the completion of a programme of courses.

I hereby declare that I have read and understood the regulations governing the submission of LLM (Labour Law) degree dissertations, including those relating to length and plagiarism, as contained in the rules of this University, and that this dissertation conforms to those regulations.

Signed in Cape Town on this 12<sup>th</sup> day of February 2007.

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## CHAPTER 1: INTRODUCTION

*'The first rule is to keep an untroubled spirit.  
The second is look things in the face and  
know them for what they are'*

Marcus Aurelius

The quest to 'know things for what they are' has been a driving force in mankind since the beginning of time. Throughout the ages we read about meetings, trials and even torture techniques - all designed, adapted and refined with the patience of time in order to sneak out the truth.

Human beings lie – that's a fact. We lie because we may be in trouble if we tell the truth or because we want to avoid embarrassment, or we want to get someone else (especially the older brother) in trouble, and sometimes we even lie to ourselves. And where will we be without the lie? No litigation lawyers, no legal battles, no CSI Miami or New York, no LA Law.

The students of 'body language' spent hours studying the movements of people, attributing a wave of an arm, the licking of one's lips, a quick glance to the left and up as indications of deception. One recalls President Bill Clinton's vehement denial of any involvement with Monica Lewinsky. This denial was soon analysed and correctly labelled as false by body language experts.<sup>1</sup>

It is no surprise then, that we have spent ages and fortunes in fulfilling the desire to create a mechanism to determine the truth – some magical system that could tell us when someone is lying. In the ancient Hindu culture suspects were forced to chew a grain of rice (or keep it under the tongue) and then spit it out on the leaf of a holy tree, if the rice

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<sup>1</sup> Caciiani 'No Sweat? Reading the body language' BBC news available at [http://news.bbc.co.uk/1/hi/events/clinton\\_under\\_fire/latest\\_news/176808.stm](http://news.bbc.co.uk/1/hi/events/clinton_under_fire/latest_news/176808.stm) [assessed on 4 January 2007]; Leadbeater 'Why politicians cannot tell fibs' available at <http://news.bbc.co.uk/2/hi/health/5316916.stm> [assessed on 4 January 2007].

grain was dry it meant that the suspect was lying.<sup>2</sup> Arabs used a hot iron. The suspect had to lick the iron and if the tongue was burnt, it indicated that deception existed.<sup>3</sup>

The employment relationship is built on honesty and trust.<sup>4</sup> It is no wonder then, that when the polygraph industry presented the employer with a possible solution to determining the honesty of its employees, we grabbed it with both hands, eager to identify and eliminate the dishonest element in the workplace – looking forward to harmony, peace and unlimited profits.

A great breakthrough in deception identification came at the end of the 19<sup>th</sup> century when Cesare Lombroso the ‘father of criminology’ started experimenting with the changes in pulse and blood pressure in order to ascertain the truth of answers given by criminal suspects.<sup>5</sup> His experiments resulted in the development of the first truth detection instruments that through further development over years resulted in the polygraph instrument. The word polygraph literally means ‘multiple writing’ because the polygraph records not only one, but various physiological activities.

The use of polygraph examinations, unfortunately for the eager employer, is not without its practical, legal, and moral difficulties. Many an academic and labour practitioner doubt the validity, reliability and interpretation of the test results and beside this school of doubt, stands the issues surrounding legality and possible constitutional challenges to the use of polygraph tests.

South Africa is not unique in our position regarding the use of polygraphs and most Western European countries as well as the UK and the USA have been faced with the dilemma and controversy surrounding

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<sup>2</sup> The theory comes down to the well-known phenomenon that one’s mouth goes dry when placed under stress.

<sup>3</sup> L Reinach and DA Louw ‘The relationship between anxiety and polygraph results’ *Acta Criminologica* 15(3) 2002, at 56.

<sup>4</sup> *Standard Bank v CCMA & others* (1998) 7 LC 8.23.2.

<sup>5</sup> Guy van Damme ‘Forensic Criminology and Psychophysiology: Truth Verification tools, with a special study of Truster Pro’ *Crime Research in South Africa*, 2(2), April 2001 available at <http://www.crisa.org.za> [assessed on 5 January 2007].

polygraphs and the use thereof in both the employment as well as the criminal sphere.

The different approaches to polygraph examinations and evidence, taken by several different countries has been summarised as follows:<sup>6</sup>

The mushrooming of the polygraph industry in South Africa is not unique. The internationalization of American lie-detection technology started slowly in the early 1950's, largely as a result of its use within the US armed services abroad, but accelerated in the 1980's. Canada, Japan, Turkey, South Korea and Israel are all countries with substantial 'polygraph capability'. Other countries such as Great Britain, India, the Philippines, Poland, Germany and Holland in Western Europe specifically outlawed its use in criminal cases and there was no industrial use of polygraphy. In Australia, where equity and fairness are important concepts in employment, polygraph testing is generally unacceptable in employment, and very little use is made of it even by the police.

Eliminating dishonest practices in the workplace is certainly one of the biggest challenges facing private employers, unions, and government departments (even parliament) the like. Corruption is rife, costing South Africa billions every year.<sup>7</sup> In order to eliminate these practices it is necessary to identify the culprits and their associates accurately and cost-effectively. Ideally one should be able to act against them legally and preferably publicise the discovery, action taken, and identity of these persons as deterrent to others.

Employers are increasingly making use of polygraph examinations in ascertaining the general honesty of an employment applicant (pre-employment screening), for periodic testing of the honesty of current employees as well as investigating specific incidents that have taken place in the workplace.

Employers use polygraph tests in pre-employment screening for several reasons. It supposedly verifies information supplied by prospective employees, it provides an understanding of the applicant's attitude towards salaries, job satisfaction, and company culture, and it

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<sup>6</sup> Marylyn Christianson 'Polygraph Testing in South African Workplaces: 'Shield and Sword' in the Dishonesty Detection versus Compromising Privacy Debate' (2000) 21 *ILJ* 16 at 16.

<sup>7</sup> Peter Fabricious 'South Africa scores higher on Corruption Scale' Business Report, 7 November 2006.

also assists in the discovery of criminal backgrounds. It also acts as a deterrent for unqualified applicants to apply.<sup>8</sup>

The need for ascertaining a person's honesty levels has reached such a crucial stage in America that in 1999, the American Congress and Executive Branch raised concerns regarding the security in their nuclear weapons laboratories. This concern prompted the Department of Energy to investigate a policy requiring some employees and applicants for employment to undergo polygraph testing as a way of screening them.<sup>9</sup>

The results of polygraph examinations are often used in South African workplaces to investigate matters and to take disciplinary action. When these actions, mostly dismissals, are then referred to the Commission for Conciliation Mediation and Arbitration (CCMA), employers introduce these tests as evidence against the dismissed employee (applicant), sometimes by way of calling the polygraph expert and sometimes by simply presenting the results as documentary evidence. Employers even argue that where an employee refuses to undergo the examination that the refusal is an indication of deception and consequently the trust relationship has been irretrievably damaged. This breach in the trust relationship, it is argued, provides the employer with enough reason to terminate the employment relationship.

This dissertation explores the multiple challenges facing the South African labour arena in the use of polygraph evidence. It is imperative that, to properly lead and cross examine any polygraph expert the representative has a basic understanding of the technology used. We therefore first deal with the theory supporting polygraph testing and then look at the detail of how these tests actually work.

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<sup>8</sup> Charl Cilliers and Raymond Martin 'The polygraph: Friend and ally of private industry yet cautious guest of the criminal justice system (1)' *Acta Criminologica* 15(3) 2002 available at [http://search.sabinet.co.za/WebZ/images/ejour/crim/crim\\_v15\\_n3\\_a11.pdf?sessionId=01-50063-1749325122&format=F](http://search.sabinet.co.za/WebZ/images/ejour/crim/crim_v15_n3_a11.pdf?sessionId=01-50063-1749325122&format=F) [assessed on 5 January 2007].

<sup>9</sup> Website of Federation of American Scientist 'Polygraphs and Security: A study by a Sub panel of Sandia's Senior Scientists and Engineers' October 1999 available at <http://www.fas.org/sgp/othergov/polygraph/index.html> [assessed on 18 December 2006].



We assess the different kinds of polygraph tests, the criticism attracted by each, as well as the different phases and applications of testing.

With a proper understanding of how it works and when and why the tests are conducted, we look at the reliability and validity of these tests and what possible influence countermeasures may have on the outcome of the tests.

The South African legal framework follows with an assessment of our current legislation and possible arguments for including polygraph testing under the Employment Equity or Health Professionals Act. We continue with an assessment of South African case law, divided in pre 2000 and post 2000 era's and follow the development of our case law in terms of the admissibility and weight attached to polygraph evidence.

The Constitutional challenges presented by the introduction of polygraph evidence are discussed with specific reference to the individual's right to privacy, human dignity, right to remain silent and right to fair labour practices.

Then and because polygraph testing originates from America, we assess the American perspective on polygraph testing and evidence.

We continue with a brief and more practical discussion regarding some areas of concern for practitioners either wanting to introduce polygraph evidence or having to defend polygraph evidence after it was introduced.

In conclusion, concern is raised that after all the published literature on polygraph tests and the amount of case law on the subject, that our courts and labour dispute tribunals have not formed a uniform approach to this issue. This uncertainty places employees and employers alike at risk when faced with the question whether to perform these tests and whether to use the evidence or not. Employers have the right to protect their interests whilst employees have the right to protection against unscrupulous employers.

It should be stated at the outset that in planning this dissertation the aim was to provide substance and persuasive power to the argument advanced by many employers desperate to control workplace discipline, that polygraph evidence is valid, reliable and should be admitted into evidence in our labour tribunals with less circumspection and suspicion that it currently receives. In researching this topic however, support for the planned view was not found and the conclusion reached is quite the opposite.

Suspicion towards and distrust in polygraph evidence is well founded and South Africa has to make a policy decision on our stand regarding polygraph evidence. We can either accept that the polygraph instrument is not the 'magical device' we believe it to be and prohibit the use of polygraph evidence or we can enact legislation to protect employees against the use of polygraph evidence in some industries and for some uses.

The sound approach, advanced below, is that the only possible way in dealing fairly with polygraph evidence will be to prohibit its use. The unscientific and unreliable nature of polygraph evidence poses a multitude of practical and constitutional problems and in the absence of convincing scientific evidence to the contrary, no constitutional state can tolerate the admission of such fallible evidence when the future of people's lives are decided.

## **CHAPTER 2: TECHNICAL BACKGROUND**

### **2.1 The Theory supporting Polygraph Technology**

The theory underscoring the functioning of polygraph tests is well known. Human beings have a sophisticated survival mechanism that keeps our whole being in balance. Throughout every organ of the body, fluids and chemicals need to be balanced in order for the body to function. The hypothalamus, a part of the brain, is the gland that controls this inner balance. Activities such as sleep, breathing,

digestion, pulse, blood pressure, and respiration are subconsciously regulated by the autonomic nervous system which is controlled by the hypothalamus.

When we are threatened either physically or psychologically, our senses - hearing, seeing, feeling or instinct send alarm signals to the autonomic nervous system to activate the sympathetic department and take action.<sup>10</sup> The body is now programmed for 'fight or flight'.

Polygraph theory states that the automatic psychological reaction a subject experiences in an emergency situation is similar to the automatic reaction of the body when one is consciously acting in a deceptive way. This reaction is often equated with the adrenalin rush experienced in an emergency situation – the 'fight or flight'.<sup>11</sup> Theoretically this means that a subject's deception or truthfulness is indicated by the physiological arousal shown in response to the conscious answers given to questions asked.<sup>12</sup> Some of the effects are listed as, dry mouth, an increase in the heart rate that increases blood volume and pulse, breathing changes, sweating, the iris of the eye dilating permitting more light to enter the eye and bladder relaxing.

Arguments against polygraph testing, which is dealt with later, question the logic of this assumption and states that there is, to date, no proof that deceptive conduct manifests in specific physiological responses.<sup>13</sup>

It is also well known that the polygraph instrument is not a 'lie detector' in itself. The polygraph instrument measures and produces a graph of three or more psychological reactions shown by the subject. The reactions recorded by this graph is then analysed and interpreted

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<sup>10</sup> Van Damme, (note) 5.

<sup>11</sup> Kerry Knowles 'Polygraph Testing – is it as reliable and accurate as everyone thinks?' available at <http://www.ccma.org.za/DisplayNews2.asp?ID=1> [assessed on 4 January 2007].

<sup>12</sup> Sunita Parbhoo: 'The Validity of polygraph testing – A South African and American Perspective' CCMAil, Sept 2003 at 24.

<sup>13</sup> Website of Princeton: 'Scientific Validity of Polygraph Testing: A Research Review and Evaluation, Office of Technology Report' available at <http://www.wws.princeton.edu/~ota/disk3/1983/8320.html> [assessed on 10 August 2005].

by the polygraph examiner. The examiner makes a diagnosis of truthfulness or deception based on the interpretation of these charts.

## 2.2 The Polygraph Instrument

It is necessary to understand the functioning of the polygraph instrument itself in order to be able to properly comprehend the theory underscoring the belief in the polygraph machine as well as the different ways of interpreting the results of the tests. Every representative who either introduces polygraph evidence or who has to cross examine a polygraph expert will be hard pressed to convince a client that they are doing their best if they lack understanding of polygraph technology. Especially if this lack of understanding prevents them from asking the much needed questions that prove or disprove the reliability or validity of the polygraph evidence. Understanding the polygraph instrument and how it measures the different psychological responses enables the representative to interpret and critically analyse the data produced by the polygraph examiner.

The technology used by the polygraph machine has not significantly changed or evolved since the early 1900's<sup>14</sup> and despite polygraph examiners' claims to the contrary, only the recording device has changed dramatically. The original type of polygraph instruments were the instruments used today in advertisements and the movies with little needles scribbling lines on a single strip of scrolling paper – sometimes for dramatic effect scribbling off the paper onto the desk!<sup>15</sup> These are called analog polygraphs. Today, most polygraph tests are recorded by digital equipment. The scrolling paper has been replaced with sophisticated algorithms and expensive computer monitors and programs.

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<sup>14</sup> Colin Tredoux and Susan Pooley 'Polygraph Based Testing of Deception and Truthfulness: An Evaluation and Commentary' (2001) 22 *ILJ* 819 at 824.

<sup>15</sup> Installing fear to honestly answer the question relating to whether the subject likes his mother-in-law or not.

The polygraph instrument is a combination of medical devices that are used to monitor changes occurring in the body. The instrument's sole function is to record electro physiological activity and via the electrodes that are placed on the body, transport this information into a readable graph format.

#### Parts of a polygraph that monitor physiological responses <sup>16</sup>

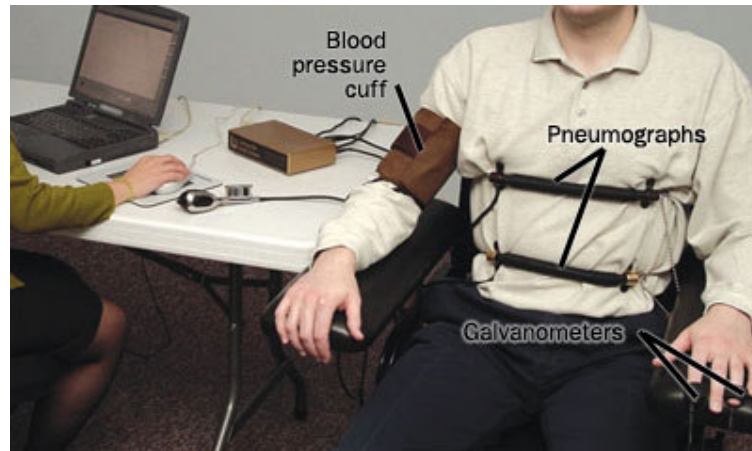


Photo courtesy Lafayette Instrument

The different responses that are recorded are variations in blood pressure, heart rate, respiration, and electro-dermal activity (subcutaneous sweating).<sup>17</sup>

A trained polygraph examiner is believed to be able to interpret the physiological changes triggered by deceptive behaviour. The examiner is looking for, and analysing the level of fluctuation in certain physiological activities resulting from changes in the subject's responses recorded by the polygraph instrument. The polygraph instrument normally measures three physiological responses: respiration (tested by the pneumograph); galvanic skin responses and measurement of the blood volume, pulse and blood pressure (tested by a cardiograph).<sup>18</sup>

<sup>16</sup> Available at <http://www.howstuffworks.com/lie-detector.htm> [assessed on 12 December 2006].

<sup>17</sup> Tredoux and Pooley (note 14) at 825.

<sup>18</sup> Parbhoo (note 12) at 24.

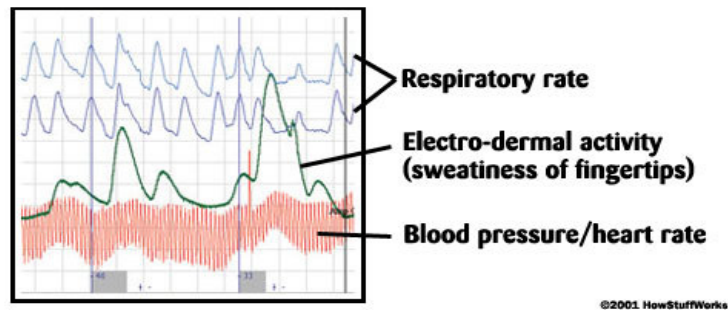
The measurement of the physiological responses works in the following ways:<sup>19</sup>

- a) **Respiratory rate** - Two pneumographs are placed around the test subject's chest and abdomen. These are rubber tubes filled with air. When the subject breathes in or out, the chest or abdominal muscles expand. This action displaces the air inside the tubes. In an analog polygraph, the displaced air acts on an accordion-like device, called a bellows that contracts when the tubes expand. A mechanical arm, which is connected to an ink-filled pen, reacts on this bellows. The movement of the pen records the markings on the scrolling paper when the subject takes a breath. A digital polygraph employs transducers linked to these pneumographs to convert the energy of the displaced air into electronic signals.
- b) **Blood pressure/heart rate** – The subject's upper arm is covered with a blood-pressure cuff that is linked to the polygraph instrument with tubing. Blood pumping through the veins in the arm makes a sound that results in pressure changes. These pressure changes displace the air in the tubes, which again are connected to a bellows, which moves the pen. Again, in digital polygraphs, transducers convert these signals into electrical signals.
- c) **Galvanic skin resistance (GSR)** - This is a measure of the sweat on a subject's fingertips and is also called electro-dermal activity. A person's finger tips are very porous and are prone to increased sweating under stress or excitement. Galvanometers (fingerplates) that measure the ability of the skin to conduct electricity are attached to two of the subject's fingers. When the skin sweats (is hydrated), electricity is more easily conducted than when it is dry.

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<sup>19</sup> See note 16.

### Physiological responses recorded by a polygraph<sup>20</sup>



Source: Lafayette Instrument

The physiological changes that take place in the body are described as follows:<sup>21</sup>

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 parasympathetic system that has a recuperative function. It restores the balance of the body, for example by reducing the blood pressure and heart rate.

The theory states that by asking questions about a particular issue under investigation and examining a subject's physiological reactions to those questions, a polygraph examiner can determine if deceptive behaviour is being demonstrated.<sup>22</sup>

Criticism has been levelled against polygraph tests and the usefulness of its results. It has been stated that:

The theory underlying polygraph tests of deception is fundamentally flawed, and empirical tests of its accuracy have found it to be little more accurate at detecting deception, or truthfulness, than tossing a coin.<sup>23</sup>

This statement is supported by an assessment of polygraph evidence by the United States Congress' Office of Technology

<sup>20</sup> See note 16.

<sup>21</sup> Temple C, cited in Niko Louw 'The Use of Polygraphs in Employment Law' unpublished LLM dissertation, Potchefstroom University for Christian Higher Education, at 7.

<sup>22</sup> See note 16.

<sup>23</sup> Tredoux and Pooley (note 14) at 819.

Assessment where they concluded that '[t]here is no known physiological response that is unique to deception.'<sup>24</sup> It has also been said that '[t]he accuracy of the physiological measurements made by the polygraph is not in question'.<sup>25</sup>

It is clear that the criticism lies against the interpretation of the measurements and not the measurements themselves. The interpretation of the results are based on the assumption that when a person attempts to deceive, that person's physiological responses will vary and furthermore, vary in a specific way, so much so as to enable the examiner to identify deceptive behaviour.

Several writers support the view that there is no particular psychological response in people that behave in a deceptive way. They conclude that '[m]ore than 30 years of deception research convincingly demonstrates that there is no such thing as a typical deceptive response'.<sup>26</sup>

Reference is made to a study that assessed the correct detection of deception where it was found that only 56.6 per cent of the time, people correctly identified if someone was lying or telling the truth. The conclusion was that there are a lot of misconceptions regarding how people behave when they are lying and this influences the interpretation of truthfulness.

The theory supporting polygraph examinations are the same for all the types of polygraph tests that have been developed. Different types of tests are used for pre-employment screening, periodic testing or specific incident testing. Each type of test has also created its own followers and critiques.

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<sup>24</sup> See note 13.

<sup>25</sup> Tredoux and Pooley (note 14) at 825.

<sup>26</sup> Aldert Vrij and Simon Easton 'Fact or Fiction? Verbal and Behavioural clues to detect deception' *MLJ* 70(29) 20 February 2002.



## **CHAPTER 3: METHODOLOGY OF POLYGRAPH EXAMINATIONS**

### **3.1 Polygraph Examination Techniques**

Different techniques have been developed over the years for the conducting of polygraph tests. There are five main techniques, the relevant/irrelevant technique, control question technique, zone of comparison technique, modified general question test, and the concealed information technique. The concealed information technique has two different applications that may be called secondary techniques, which are the peak of tension test and guilty knowledge test.

A short summary of the different techniques as well a summary of criticism that has been levelled against these techniques follows.

#### **3.1.1 Relevant/Irrelevant (R/I) Technique**

The Relevant/Irrelevant technique was the first polygraph technique developed by one Marston, a psychologist and first promoter of polygraph examinations.<sup>27</sup> This technique uses questions relevant and irrelevant to the incident to determine physiological responses. The theory supporting this technique is that a deceptive subject will fear the relevant question and show significant physiological reactions to the relevant question whilst the non-deceptive subject will not fear either of the questions and will not show any different reaction to the irrelevant or relevant question.

Two main problems exist with this technique: Firstly, the intention with the questions is transparent and an honest subject may also show a greater physiological response to the relevant questions merely because the type of question itself may arouse emotion. The second problem is that the questions are not framed in conjunction or consultation with the subject and may, even to an honest subject,

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<sup>27</sup> See note 13.

come as a surprise or may even be misinterpreted thus resulting in a greater physiological response.

The R/I technique has been criticised and is now generally accepted as non-conclusive and non-reliable.<sup>28</sup> This kind of test has been labelled as 'unacceptable' because:

...the question "Did you shoot the deceased?" is more likely to result in physiological arousal than the question "Do you live in Cape Town?" regardless of whether the examinee is guilty or innocent.<sup>29</sup>

One of the developers of polygraph tests acknowledged the limitation of the R/I technique when he stated that he had hoped it would become a legitimate part of the police service but that '[i]t is little more than a racket. At times I am sorry I ever had any part in its development.'<sup>30</sup>

The results from several research studies concluded that non-deceptive subjects are just as likely to be labelled deceptive as non-deceptive when using the R/I technique.<sup>31</sup>

### 3.1.2 Control Question Technique (CQT)

The Control Question Technique is most often used in specific incident testing (see paragraph 3.4). This test is conducted with precise and detailed care to the design of the control questions that will be put to the subject. As with the R/I technique, the deceptive subject is assumed to show a greater physiological response to the relevant than the control questions. It is important to remember that the subject does not know which questions are control and which are relevant questions. Neither does the examiner inform the subject that there is a difference in the questions. The control questions are designed to arouse physiological responses in non-deceptive subject. This means

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<sup>28</sup> Ray Bull, et al. 'A review of the current scientific status and fields of application of Polygraphic Deception Detection' Final report from BPS working party, 6 October 2004.

<sup>29</sup> Tredoux and Pooley (note 14) at 826.

<sup>30</sup> See note 28 at 10.

<sup>31</sup> Tredoux and Pooley (note 14) at 826.

that innocent subjects should be more concerned about the truthfulness of their answers to control questions than to the relevant question.

Considerable time is spent in developing and refining the control questions. It is imperative that the subject believes that the control questions are of equal importance than the relevant questions. The control questions are designed in such a way that the subject can answer it completely by a simple 'no' answer. A typical control question would be 'Before today, did you take anything from anyone that did not belong to you?' The assumption at the base of this technique is that most people would have taken something from someone in their lifetime and be reluctant to admit it. The response to the control question is then used as a benchmark in ascertaining the level of arousal when the subject is being deceptive. The examiner therefore gets the subject to lie, records the level of arousal when lying and compares this to the level of arousal recorded during answers given to the relevant questions.

It is critical that the examiner creates the right psychological state in the subject in order for this technique to have any useful results. The subject should be encouraged to discuss any problematic questions with the examiner and these should be cleared up before the test itself is done. The subject must believe that the examiner wants the truth as an answer, when in reality the examiner wants the subject to doubt the truthfulness of the answer or even be deceptive on purpose.

Various writers have criticised this 'deception' that has to be created in the subject in order for this technique to work. In short, the subject has to be manipulated into lying whilst believing that the examiner does not know that a lie has been told, such belief being a false one. The validity and reliability of the CQT are therefore dependent on deception. This deception has been equated to that of

a magician in that '...a confidence trick is embedded deep within the structure of polygraph testing.'<sup>32</sup>

The difference in the reactions shown to the response and control questions are used as the basis for interpreting the test, finding evidence of deception shown or not. The examiner makes a global comparison between the responses to the control and relevant questions.

Examiners also consider the subject's behaviour during the pre-test interview in order to make a finding as to the subject's truthfulness. This 'broadening' of the information used in assessing the outcome of the CQT draws more criticism to this procedure because the skill of the examiner plays an integral role in the outcome. Innocent subjects are sometimes fearful of the test itself, which fear is often interpreted by the polygraph examiner as an indication of deception. This false 'fear indicates deception' deduction has been referred to as the Othello error.<sup>33</sup> The reference to Othello is explained as follows:

Othello has Desdemona (his wife) falsely accused of infidelity. He tells her to confess, since he is going to kill her for her treachery. Desdemona asks Cassio (her alleged lover) to be called so that he can testify her innocence. Othello tells her that he has already murdered Cassio. Realising that she cannot prove her innocence, Desdemona reacts with an emotional outburst. Othello interprets this outburst as a sign of her infidelity.

This subjective effect that the examiner has on the test makes it nearly impossible to standardise and compare tests. It is evident that the nature of the interaction between the examiner and the subject is of utmost importance for this type of test to be valid and it will be useful to explore the pre-test phase and the exact framing of these questions in cross-examination should one face a polygraph expert as witness for the opposing party.<sup>34</sup>

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<sup>32</sup> Tredoux and Pooley (note 14) at 827.

<sup>33</sup> Ekman, cited in Vrij and Easton, (note 26).

<sup>34</sup> Refer to the conclusion for further discussion of this point.

Another major problem with any comparison test is the fact that physiological responses may vary not only because the subject is deceptive but for a multitude of other reasons. Some of the external variables that can influence test results are 'countermeasures, test protocol, test calibration, and the personalities, biases and tactics of the interrogator and the subject.'<sup>35</sup>

### **3.1.3 Zone of Comparison Technique (ZOC)**

The Zone of Comparison Technique (ZOC), developed by one Backster,<sup>36</sup> is in actual fact a form of the Control Question Technique. In the ZOC the examiner does not make a 'global' comparison of the different responses obtained from the comparison and relevant questions, but pairs each relevant question with a control question and scores the reactions. If the subject shows greater psychological reaction to the control question, a plus score is given and if the subject shows a greater psychological reaction to the relevant question, a minus score is given. A predefined criterion for example a +3 to -3 score is used.<sup>37</sup> A positive score above this level is considered to be truthful whilst a negative score below the level, is considered to be deceptive. Any score in between is inconclusive. This technique results in a possible conclusion that a subject showed deception to a certain question and not just deception in general.

### **3.1.4 Modified General Question Test (MGQT)**

The Modified General Question Test (MGQT) could also be described as a version of the Control Question Technique. There are a few differences between the two tests which differentiates their application.

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<sup>35</sup> See note 9.

<sup>36</sup> See note 13.

<sup>37</sup> Developed by David Raskin. Tredoux and Pooley (note 14) at 827. Various other polygraph examiners prefer to use a bigger scale of up to +6 -6 before deception is concluded.

The difference between the MGQT and the CQT is summarised as follows:<sup>38</sup>

- 1) only the polygraph charts are used to make determinations of truth and deception and global evaluations using inferences about behaviour are dispensed with;
- 2) charts are numerically scored;
- 3) control questions exclusively concern a time and place separate from the time and place of the crime under investigation, with the intention of clearly separating responses related to the crime and the control question; and
- 4) the content of control questions always relates to the crime under investigation, i.e. control questions about theft are used to investigate theft, control questions about assault are used to investigate assault, etc. Presumably, when unauthorized disclosures are at issue, control questions would concern some sort of unauthorized disclosures in the past.

### 3.1.5 Concealed Information Test (CIT)

The Concealed Information Test (CIT) works in an entirely different way than the Control Question Technique. The CIT literally concentrates on any 'concealed' information that the subject may have on a crime or incident i.e. the amount of money stolen, the site of the crime, and the amount of persons involved in executing the crime. The basis of this technique is that only the guilty person would have this information, thus confirming a suspicion or in some cases extracting the desired information for investigative purposes.

There are two forms of CIT's:

- Peak of Tension (POT) test; and
- Guilty Knowledge Test (GKT).

#### a) **Peak of Tension (POT) test**

The Peak of Tension (POT) test is usually used in criminal or specific incident examinations. The test has a pre-test phase during which the examiner discusses five to nine questions with the subject. These questions are nearly identical and answerable by a simple 'yes' or 'no' answer. The subject is encouraged to answer 'no' to all the questions.

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<sup>38</sup> See note 13.

This questioning technique concentrates on a specific detail or fact of the crime, or specific incident. The detail may be colour, the amount of money, location of a crime, or proceeds of a crime etc.

One question contains the relevant information (that which the examiner knows or suspects is true) and the other questions differ slightly. The theory is that the deceptive subject's physiological reactions will increase gradually until the relevant question is asked where it will peak and fall back down again. This technique may also be used as an investigative tool to confirm some detail which the examiner is unsure about. The peak-answer is then used as a clue in the investigation or as indication that the subject is involved in the crime or incident.

b) **Guilty Knowledge Test (GKT)**

The Guilty Knowledge Test (GKT) differs slightly from the POT test. In the GKT the subject is linked to a galvanic skin response electrode only and not to all three the normal electrodes. Another difference is that the questions asked of the subject contains multi choice answers assuming that the guilty person would know the correct answer and show significant psychological responses when the wrong answer is provided. The GKT is mostly used as an alternative test to the CQT and not as a supplement as with the POT technique.

Advocates of the GKT claim that this test significantly reduces the amount of 'false-positives'<sup>39</sup> because the details of the answers will be known only to the perpetrators of the crime or those involved in the incident. They claim further that increasing the number of questions put, may greatly improve the GKT's validity. Critics are of the opinion that the GKT has specific limitations in that innocent persons may have knowledge of a crime by being a witness or having read the

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<sup>39</sup> A false positive occurs when the response of a truthful subject is determined to be deceptive.

details in the media. Use of this test is also limited in that investigators may not have the information needed to employ the test.

### **3.2 Summary on Techniques**

All the techniques discussed use the polygraph instrument (in different ways) to measure different physiological responses of subjects. These responses are then analysed, interpreted and assessed by an examiner. The examiner uses his findings to come to a conclusion whether the subject was deceptive or not.

The co-operation of the subject is crucial. An unwilling subject will almost inevitably be obstructive and the test results will lead to a conclusion that the test was inconclusive. Proper training of the examiner, as we have seen is crucial. A lot of the criticism levelled against polygraph examiners lies at the heart of their insufficient training and skills.

The examiner has to follow a certain procedure for the tests to have any validity. It is important as we will see later, that anyone facing a polygraph examiner in the witness box knows which test was used, how it works, and how the different stages of the tests were conducted.

### **3.3 Phases of a Polygraph Examination**

#### **3.3.1 Introduction**

Polygraph examinations are conducted in a structured way with distinctly different phases. These tests vary in length depending on the examiner, the purpose of the examination and whether or not the subject gives their co-operation or not. The traditional polygraph interview has three essential stages. The pre-test interview, the test itself and the post test interview.



It is important to remember that there is no set standard for the conducting of polygraph tests and that some techniques vary. Examiners may follow different procedures in that at times up to five phases are used.<sup>40</sup> For the purposes of this paper however, I will refer to the three phase approach only.

### 3.3.2 The Pre-test Interview

The pre-test interview is an integral and very important part of any polygraph test. This interview is most often the longest phase in the examination and is used to obtain the subject's consent and get some background regarding the subject. The subject is informed of their rights and information regarding the polygraph test and how it works is provided. This phase provides the polygraph examiner with the opportunity to create the correct psychological climate in order to conduct a proper and valid examination. In most of the techniques mentioned above the examiner and the subject agree to the exact questions to be put during the test.<sup>41</sup> This agreement is also obtained in the pre-test interview.

It is important that the subject is convinced that the examination is a professional process and that any attempt at deceiving will be blatantly obvious to the examiner. The reason for creating the climate, it is said, is because it places truthful subjects at ease whilst it increases tension and anxiety in subjects who plan to be deceptive.<sup>42</sup> The examiner has to discuss the subject's past and investigate possible wrongdoings of the subject in the past in order for the test to be conducted with a subject who can 'approach the polygraph machine with an untroubled soul'.<sup>43</sup> This requirement has come under severe criticism because the subject has to supply information regarding past actions and may divulge incriminating information which is irrelevant to the investigation at hand. This possibility of

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<sup>40</sup> Cilliers and Martin (note 8) at 136.

<sup>41</sup> Tredoux and Pooley (note 14) at 826.

<sup>42</sup> See note 13.

<sup>43</sup> Coghill, cited in Cilliers and Martin (note 8) at 138.

incrimination are dealt with in Chapter 5 in the discussion of the constitutional challenges presenting polygraph testing specifically regarding the right to privacy.

During this pre-test phase the examiner should also enquire if there are any circumstances that the subject thinks the examiner should be aware of or if the subject has taken any substances that may influence the results of the polygraph examination (for example for a medical condition or if there was excessive use of alcohol the day before).

Some of the strongest criticism against polygraph examinations focuses on the procedure and possible influence the examiner has on the outcome of the test results. The criticism is based on the examiner not conducting this part of the examination properly or even abusing the fear factor associated with the polygraph test, in order to extract a confession.

It was mentioned that the pre-test interview is also used to obtain the subjects consent. Some criticism levelled against polygraph examinations argues that most examiners just accept that a subject will consent to the procedure and any hesitation or questioning from the subject on the consent issue is taken into account in interpreting the results as an uncooperative attitude.<sup>44</sup>

### **3.3.3 The Test Phase**

The test phase is the phase when the substance of the test itself is conducted. During this phase the questions are asked and polygraph charts produced using one of the different techniques discussed above. Co-operation of the subject is important during this phase and the polygraph examiner should be alert for any countermeasures that may have an influence on the validity of the test.<sup>45</sup>

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<sup>44</sup> The issues surrounding consent to undergo the polygraph test is discussed in Chapter 5.

<sup>45</sup> Countermeasures are discussed in Chapter 4, paragraph 4.4.

### **3.3.4 The Post Test Interview**

During the post test interview the results of the test are discussed with the subject. The subject gets an opportunity to explain possible adverse results and to highlight any other information thought necessary or applicable.

The practice to 'interrogate' a subject during this phase has been severely criticised. It is well-known that polygraph examiners may spend considerable time during this phase attempting to persuade and even coerce a subject that failed the test (or who's test showed 'inconclusive') to confess or provide details that can be used in the investigation. The allegations levelled against the employer in *Hoosen and Sparkport Pharmacy*<sup>46</sup> that the employee who failed a polygraph test was threatened with police action and dismissal and then given the option to resign is not unusual, although the commissioner held in this case that the employee did not discharge the onus of proofing that she was placed under duress.

## **3.4 Application of Polygraph Examinations**

Although there are different polygraph examination techniques that are used for different purposes polygraph tests are, in the employment sphere, mainly used in three instances namely specific incident testing, pre-employment screening, and periodic testing during employment.

### **3.4.1 Specific incident testing**

Specific incident testing is used when a specific incident where the employer suspects an employee of some wrongdoing, either of a criminal nature or not, is the subject of the test. Information regarding the incident is available and can be used in the formation of the

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<sup>46</sup> (2004) 25 ILJ 618 (CCMA).

questions that the subject will be asked. As stated above, the R/I technique is not usually used when this type of testing is done in that it has been found to be too unreliable. The CQT or GKT are normally used with these tests.

Criticism against the use of specific incident testing revolves around the fact that the polygraph examiner (the person who ultimately interprets the charts) would have some knowledge regarding the alleged wrongdoing. The examiner may even have comprehensive and detailed information including the identity of the suspected perpetrator. The examiner would then know that the subject being tested is the main suspect and this, it is argued, will necessarily influence the interpretation of the tests.

All criminal investigations where polygraph tests are used can be described as specific incident testing simply because of the specific nature of the test.

### **3.4.2 Pre employment screening**

The second use of polygraph examinations, which is more controversial, is in pre-employment screening. In pre-employment screening the test is believed to identify personality traits of a person in advance, i.e. whether a person is overall an honest person or not; has been involved in some unknown crime or not; is likely to be bribed or generally can be trusted.<sup>47</sup>

In pre-employment screening there are no specific details available and general questions are asked. The CQT or GKT cannot be used in pre-employment screening simply because no specific details on which the questions can be based are available. The much criticised R/I technique is employed in pre-employment screening with the result that this type of testing has perhaps drawn the most intense criticism.

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<sup>47</sup> See note 9.

There are no studies that provide even direct evidence of the validity of the polygraph for making judgements of future undesirable behaviour from pre-employment screening tests. The theory and logic of the polygraph ... is not consistent with ... forecasts of future ... performance...<sup>48</sup>

Pre-employment screening is not common in South African and as mentioned later, no South African case law on pre-employment screening could be found.

### **3.4.3 Periodic Polygraph testing during Employment**

Polygraph testing during employment is used to establish indications of dishonest and maybe disloyal behaviour of current employees. There are obvious problems with using polygraph testing on current employees.

The employment relationship is essentially built on trust. But what is the employer telling its employees when they are constantly and maybe repeatedly requested to undergo polygraph tests without the evidence of specific incidents? The trust relationship, as fragile as it is, may and most probably will, be adversely affected. The issue becomes more complicated if the situation where the employee refuses to undergo the test is considered. The employer may argue that the mere refusal of the employee to undergo the test may be an indication of some form of misconduct or untruthful behaviour.

The situation will necessarily be more serious where the employee has consented to undergo periodic polygraph testing in the employment contract. If the employee now refuses, it may constitute a breach of the employment contract, an action which in itself may lead to dismissal. Periodic screenings can therefore only lead to alienation and a reduction in productivity.

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<sup>48</sup> United States National Research Council Report, quoted in Bull, (note 28) at 18.

## CHAPTER 4: RELIABILITY, VALIDITY, AND THE INFLUENCE OF COUNTERMEASURES

### 4.1. Introduction

The attraction of believing in a machine that can independently tell if someone is lying needs very little explanation. Many a wife (or husband) would certainly pay the equivalent of the wedding reception to have such a device. But does the polygraph fill this need with enough reliability and validity that we can base important decisions on its results?

A possible explanation for this belief in the accuracy of the polygraph test is advanced as 'the esoteric technology factor' and is explained as follows:

The polygraph machine looks like a sophisticated, space-age device of modern technology. It can be administered correctly only by experts trained in arcane ways. Non-experts are at the mercy of the high-tech, specially trained wizards who alone can deliver the prize: a decision as to who is lying and who is not.<sup>49</sup>

Polygraph testing, notwithstanding the criticism, is becoming more common in and outside the workplace and is used by employers for several purposes as highlighted above. It is used outside the employment sphere by criminal investigation authorities and national security agencies.

The controversy and doubt surrounding polygraph tests are also not unique to South Africa, and discussions, articles and seminars around the world centre on the issue of validity and the usefulness of the results of the polygraph.<sup>50</sup>

Some writers are very sceptical about the belief placed in polygraph tests and argue that polygraph test results are no better at identifying a lie than the tossing of a coin. Concern is also raised about the issue of voluntary examinations, invasion of privacy and the

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<sup>49</sup> The website of Skepdic.com available at <http://skepdic.com/polygraph.html> [assessed on 12 December 2006].

<sup>50</sup> One simply has to enter the word 'polygraph' in the search engine [www.google.com](http://www.google.com) to be overwhelmed by the amount of information available on this 'magic device'.

use of the polygraph to cover racism, sexism and the extraction of confessions by ruthless examiners.<sup>51</sup>

Many a Labour Court or CCMA litigant have argued, sometimes successfully,<sup>52</sup> sometimes not,<sup>53</sup> that because trust lies at the heart of the employment relationship, the irretrievable breakdown thereof between an employer and employee provides enough reason for dismissal of the employee.

What if the polygraph is not such a trustworthy instrument and the interpretations thereof are flawed? What if the employee is dismissed based on an unreliable, unscientific test that can be manipulated to suit the employer? Does that not smell of a type of unfairness that runs directly against the spirit of the South African Constitution<sup>54</sup> as well as the Labour Relations Act?<sup>55</sup>

We are faced with a problem in assessing polygraph tests because the review of the scientific literature surrounding polygraph tests is complicated not only because:

...tests can be administered in a number of forms, but also because validity has different dimensions and can therefore be measured in a number of ways. There are, as a result, a number of different forms of validity that are associated with polygraph examination depending on the type of the polygraph test as well as its intended use (for example employee screening versus an investigation against a criminal suspect in the workplace).<sup>56</sup>

## 4.2 Reliability

Reliability of polygraph tests relates to the accuracy and consistency of the measurements that are produced by the polygraph instrument. Psychometrists differentiate between different types of reliability. Test-retest reliability relates to whether the same subject would have

<sup>51</sup> Tredoux and Pooley (note 14) at 820.

<sup>52</sup> *National Union of Mineworkers & Others and RSA Geological Services (A Division of De Beers Consolidated Mines LTD)* (2004) 25 ILJ 410 (ARB).

<sup>53</sup> *NUM obo B Monageng and Anglo Platinum Mines* (2003) 12 CCMA 8.8.9; *Meleni & others and Rohloff Administration* (2006) 15 CCMA 8.31.1; *Mahlo and Bolt & Engineering Distributors* (2006) 15 CCMA 8.8.8.; *Van Wyk and Mndeni Meats & Another* (2003) 24 ILJ 1033 (CCMA).

<sup>54</sup> Act 108 of 1996.

<sup>55</sup> Act 66 of 1995.

<sup>56</sup> Parbhoo (note 12) at 25.

similar scores if the test is administered on different occasions. This means that each test taken by the same person based on the same set of questions but on different occasions should have the same conclusion. Clearly if questions should be asked today and the test results leads the examiner to conclude that deception is indicated then the same test performed in a week, if valid, should have the same conclusion.

The other type of reliability, internal consistent reliability, relates to whether the different parts of the test measure the same variable.<sup>57</sup> This means that the test will be unreliable if the pneumograph, the cardiograph and the galvanometers do not all measure physiological changes based on psychological reactions in the body but one measures the room temperature whilst the other measures humidity.

With any test false positives and negatives are possible. False positives occur when an individual is found to be deceptive when they provided truthful responses. False negatives are reached when a deceptive individual is found to be truthful.

A big stumbling block for the standardisation and control of polygraph tests is the fact that the interpretation of the polygraph results is extremely subjective and the rate of false positives and negatives are difficult, if not impossible, to establish. The outcome could further depend on which of the techniques are used and whether or not the subject employed undetected countermeasures.<sup>58</sup> The type of control and relevant questions, as stated, has a major impact on the results of the test.

The personal bias, background, training and general experience of the examiner also has an effect on the result and the interpretation thereof. If the examiner was privy to some information before the test was conducted, this information may also have an effect on the results simply because the examiner either consciously

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<sup>57</sup> Bonthuys 'Counting Flying Pigs: Psychometric testing and the Law' (2002) 23 *ILJ* 1175 at 1186.

<sup>58</sup> Possible countermeasures are discussed in paragraph 4.4.



or subconsciously links the wrongdoing to a specific person. For example that one of the test subjects has at first admitted to theft and thereafter denied involvement. It is well known that very few polygraph examiners in South Africa are trained psychologists or psychometrists which may have a direct impact on their ability to understand a subject's psychological make-up or mindset.

The question has also been asked if a subject's general nervousness or anxiety could have an influence on the test. In a recent study it was found that the hypothesis that anxiety and gender has an influence on polygraph results could not be confirmed.<sup>59</sup> The study, however, had several limitations and should be interpreted with caution. Comprehensive studies remain to be performed in order for these questions to be answered.

Polygraph tests are at present, for the reasons mentioned and the difficulties associated therewith not standardised and reliability can thus hardly be accurately assessed.

We would be best served to take notice of the development of the law in the United Kingdom where there is a very cautionary approach to polygraph evidence with the attitude that polygraph evidence is '... insufficiently reliable...'<sup>60</sup> and inadmissible.

### 4.3 Validity

Validity relates to whether the test accurately measure what it purports to measure.<sup>61</sup> It refers to the appropriateness, meaningfulness, and usefulness of the specific inferences drawn from the test scores. It asks the question if the polygraph test can accurately detect deception and truthfulness.

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<sup>59</sup> Reinach and Louw (note 3) at 65.

<sup>60</sup> Jeremy Lever 'Why procedure is more important than substantive law' *International and Comparative Law Quarterly* (48) 285 at 286.

<sup>61</sup> Bonthuys (note 57) refers to different types of validity being, content validity, face validity, criterion based validity and construct validity. However, distinguishing between the types of validity in the scope of polygraph testing is outside the scope of this dissertation.

The bulk of academic criticism against polygraph tests is aimed at the pro-polygraph society's claim that the tests are valid.

Supporters of polygraphy claim that the measurements accurately show physiological responses associated with deceptive behaviour. Critics of the polygraph claim that there is no scientific proof that certain physiological responses are linked to deceptive behaviour.

Validity is also affected by the inherent subjective nature of polygraph interpretation and possible countermeasures that may be employed by deceptive subjects in order to 'beat' the test.

#### **4.4 Possible Countermeasures**

##### **4.4.1 Background**

Countermeasures are deliberate techniques used by deceptive subjects to avoid the detection of deception during a polygraph examination. There are a number of plausible countermeasures that were found to be very effective in defeating polygraph tests.<sup>62</sup>

The effectiveness of countermeasures was illustrated by a man called Floyd "Buzz" Fay who was suspected of murder. He entered into an agreement with the prosecuting authorities that they may use the results of the polygraph test if he failed. However, if he passed, they will withdraw all charges. He was so convinced of his innocence that he did not even consider the possibility that he will fail. He took the test, and failed. He was convicted of murder and sent to jail.

The fact that he failed the test, whilst firmly believing in his own innocence prompted him to become a polygraph expert in the two years of imprisonment. He coached 27 inmates, who all freely confessed to their different crimes, to beat the control question

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<sup>62</sup> Ray Bull, et al. 'A review of the current scientific status and fields of application of Polygraphic Deception Detection' Final report from BPS working party, 6 October 2004.

polygraph test. Following his coaching 23 of the 27 were successful in defeating the polygraph test.<sup>63</sup>

The famous case surrounding Aldrich Ames<sup>64</sup> is another example of someone being able to employ countermeasures in order to beat the test.

In a further study it was found that mental and physical countermeasures were equally effective and it enabled approximately 50 per cent of the subjects to defeat the test. The worst was that these countermeasures were nearly impossible to detect.<sup>65</sup>

The effective application of countermeasures by deceptive subjects poses a very big risk not only in allowing dishonest and guilty employees to continue employment but specifically in the national security arena, a false negative rate (guilty persons detected as not deceptive) could have very serious consequences.<sup>66</sup>

What follows is a short summary of some of the most well known countermeasures employed by subjects.

#### **4.4.2 Physical Countermeasures**

Physical countermeasures are the most frequently used countermeasure technique. Physical activity resulting in altered physiological responses is a real problem in the interpretation of any polygraph result. Some of the physical countermeasures believed to have an influence on the results are tensing muscles, biting the tongue, squeezing toes and shifting position.

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<sup>63</sup> Bull, et al (note 62) at 16. (One possible explanation could be that these inmates had no adverse finding to 'fear' and thus showed no significant responses to the tests, but as with the results, this argument is pure speculation.)

<sup>64</sup> Aldrich Ames is an infamous CIA-Agent. He almost single-handedly shut down the CIA's operations in the Soviet Union when in 1985 he sold the names of the CIA's operatives to the KGB. In the investigation into the leaking of information, he passed several polygraph tests employing countermeasures. (Even the fictional character Hannibal Lechter in Thomas Harris' latest book 'Raising Hannibal' also manages, at the tender age of 13, to beat the test.)

<sup>65</sup> See note 9.

<sup>66</sup> See note 9.

Different studies have been conducted and the conclusion reached was that deceptive subjects who employ physical countermeasures and who are able to distinguish between relevant and control questions are able to decrease the chances of showing deception.<sup>67</sup> It has been suggested that it will probably be easier for subjects to increase arousal levels during control questions than to decrease arousal levels during relevant questions. Although one would think that a trained examiner should be able to easily detect these measures, studies show that this is not the case and that in most of the cases, these measures are not detected.<sup>68</sup>

#### **4.4.3 Use of Drugs as Countermeasures**

The use of drugs in order to influence the psychological measurements obtained via the polygraph instrument is well known. It is understandably more difficult to detect than physical measures. One of the questions that the polygraph examiner must ask every subject during the pre-test interview is to disclose any medication or mind altering substance that has been taken. But, this questioning supposes that the subject will be truthful in the answer and does not guarantee that no such substance was consumed.

Research has shown that use of the tranquilizer Meprobamate suppresses autonomic activity and it may not have any detectable physical influence which will cause the examiner to observe use of the substance.<sup>69</sup> The influence of drugs also differ depending on which test is administered. It has been suggested that tranquilizers will, when employing the CQT test, have the effect of inconclusive results rather than 'non-deceptive' results.<sup>70</sup> This argument is based on the fact that tranquilizers will most probably cause a subject to display very little difference in reaction to the control and relevant questions, thus resulting in an 'inconclusive' finding. Another drug found to have

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<sup>67</sup> OTA Report (note 13).

<sup>68</sup> See note 62 at 16.

<sup>69</sup> OTA Report (note 13).

<sup>70</sup> Raskin, cited in the OTA Report (note 13).

an influence on the psychological responses recorded by the polygraph instrument is Propranolol.<sup>71</sup>

#### **4.4.4 Hypnosis/Biofeedback as Countermeasure**

There is some evidence that hypnosis has an effect on psychological responses of an individual by reducing skin conductance levels but comprehensive research has not supported this theory.<sup>72</sup> It is argued that for hypnosis or biofeedback to be an effective countermeasure, the subjects will have to be trained in the theory and technicalities of commonly used polygraph techniques.

#### **4.4.5 Mental Countermeasures**

Several mental control techniques have been suggested to be effective countermeasures. These control techniques involves getting the subject to think differently about the test and the possibility that the test can detect deception. A subject can be taught to follow patterns of thinking that curb responses to relevant and control questions. This control will result in a failure to show significant responses to the relevant questions.

It will not be difficult for any subject understanding the basic structure of any polygraph examination to distinguish between the relevant and the control questions. A subject can attempt to dissociate themselves from the relevant questions and mentally heighten responses to the control questions. Several techniques can be employed, varying from persuading oneself that something different is asked or concentrating on an irrelevant object.

It has been explained that the effectiveness of many of the polygraph techniques used depends on the subjects believing that the polygraph instrument can detect deception. If the polygraph examiner fails to establish the proper psychological atmosphere of fear and

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<sup>71</sup> Gatchel, cited in the OTA Report (note 13).

<sup>72</sup> OTA Report (note 13).

intimidation and the subject consequently does not trust the test, the result will most probably be inconclusive and not reliable or valid.

Furthermore if a subject can be trained to believe that the polygraph instrument cannot detect deception, or that the whole theory of polygraph is bogus, then it will be impossible to get the subject to 'buy into' the test, thereby removing the pre-requisite for the test to operate effectively. For instance if the subject has taken a polygraph in the past and passed where the subject knew themselves to be guilty, there could be an absolute lack of trust or fear in the test.

The problems highlighted above regarding the standardisation of polygraph examinations has application also on the conduct of experiments and field studies regarding countermeasures and these claims should be investigated more thoroughly before any specific deductions could be made.

Whether countermeasures are effective or not, the fact that some studies have shown that they may have an influence on test results directly affects the reliability and validity of polygraph tests and leaves one further in the dark as to the scientific basis and trustworthiness of polygraph tests.

## **CHAPTER 5: A SOUTH AFRICAN LEGAL PERSPECTIVE ON POLYGRAPH EVIDENCE**

### **5.1 The South African Legal Framework**

South Africa does not have any specific legislation that deals with the issue of polygraph testing. It is therefore necessary to investigate the possibility of incorporating polygraph tests into one of the forms of tests or assessments currently dealt with in existing South African legislation.

One option is to argue an inclusion of polygraph tests into s 8 in chapter II of the Employment Equity Act, 55 of 1998, (as amended) ('EEA'). Section 8 states:

## 8 Psychological testing and other similar assessments

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.<sup>73</sup>

It can be argued that polygraph tests are a form of psychological testing or that it should be included in 'other similar assessments'.

The opinion that it is very unlikely that polygraph tests will be seen as psychological or psychometric testing and that we will have to look at 'other similar assessments' in our attempt to draw polygraph tests into the sphere of the EEA has had some support.<sup>74</sup>

'Psychometric testing or other similar assessments' as a term is not defined in the EEA. A possible definition of psychometric testing has been advanced 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.<sup>75</sup>

Keeping in mind that there are different uses for polygraph testing as discussed in paragraph 3.4, this definition of psychometric testing will not be wide enough to include specific incident polygraph testing. It may be wide enough for pre-employment screening or periodic testing where personality traits and personal characteristics are tested but ideally a definition should be comprehensive and include all types of testing and therefore this definition will not suffice.

Another consideration when dealing with polygraph tests is the control measures introduced by the Health Professions Act, 56 of 1974 (HPA). These measures were introduced for classification, control, and use of psychological tests and other devices, such as questionnaires, apparatus, methods, techniques, and approaches

<sup>73</sup> Section 9 extends the application of s 8 to applicants for employment.

<sup>74</sup> Parbhoo (note 12).

<sup>75</sup> Bonthuys (note 57) at 1175 –1176.

used for assessing individuals within the employment sphere in South Africa. Once again we would have to argue for the inclusion of polygraph tests under psychological tests and if that does not succeed, broaden the argument to include polygraph tests under 'other devices'.

The same arguments as that relating to the EEA will be levelled against inclusion of polygraph tests in the term 'psychological tests' in the HPA. The opinion exists that the interpretation of 'other similar assessments' can be wide enough to include polygraph examinations and in this way employees can have some form of protection from unfair discrimination in the employment selection process.<sup>76</sup> This extension of the HPA has not yet presented itself to our courts and to date it has not been tested.

The Health Professions Council of South Africa (HPCSA) was established in terms of the Health Professions Act. The HPCSA has authority to establish professional boards.<sup>77</sup>

The Professional Board of Psychology was established by the HPCSA with inter alia the aim to set standards for the psychology profession. A media statement issued by the Professional Board of Psychology in July 1999 attempted to educate the South African public on the uses and risks of psychological testing. In this statement they referred to polygraph testing and did not attempt to distinguish between polygraph testing and psychological testing – apparently accepting that polygraph testing is a form of psychological testing.

The statement relating to polygraph testing read as follows:

The Professional Board of Psychology furthermore wishes to point out 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 stresses that the polygraph has never been accepted as definitive in court cases in countries with reputable legal systems, since these tests can be unreliable and invalid. The Professional Board for Psychology further wishes to emphasise that the use of the polygraph has not been approved by the Board, and that the continued uncritical use of

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<sup>76</sup> Parbhoo (note 12) at 25.

<sup>77</sup> Health Professions Act, 56 of 1974 s 3.



these tests is not in the interest of the public. These tests are also used in direct contravention of the Health Professional Act, as well as the Employment Equity Act, and the Board wishes to point out that any person subjecting himself/herself to this test does so at his/her own risk.<sup>78</sup>

The opinion held by the Board that polygraph testing is illegal and a contravention of the two acts stated is to date not supported by any case law. It does however give a strong indication about the intense distrust the psychology profession places in polygraph tests. We also have to keep in mind that most of South African polygraph examiners have been trained locally, in America or Israel.<sup>79</sup> These examiners are not trained psychologists but come from either a legal or national intelligence background.<sup>80</sup>

## 5.2 Current legislation and evidentiary issues

The Labour Relations Act, 66 of 1995 (LRA) stipulates that every employee has the right to fair labour practices and not to be unfairly dismissed.

Polygraph testing poses a few constitutional issues which include the issues surrounding the right to fair labour practices.<sup>81</sup>

The right not to be unfairly dismissed and the use of polygraph tests raise a few questions. Firstly, regarding the admissibility of polygraph tests and closely linked with this issue, the question regarding the evidentiary weight to be attached to polygraph test results. Then there is the issue of the use of the test on its own to prove guilt as well as the issue regarding the freedom of choice, either submitting to a test or refusing. What if an employee refuses to submit to a polygraph test and is then dismissed because of this refusal, would that be an unfair dismissal? And, would it make a difference if the employee's general conditions of employment or employment contract contain a clause consenting to undergo the polygraph test?

<sup>78</sup> Cited in Parbhoo (note 12) at 25.

<sup>79</sup> Christianson (note 6) at 23.

<sup>80</sup> Polygraph examiners are often members of the American Polygraph Association (APA) and may also belong to the non accredited, non statutory body, the Polygraph Association of South Africa (PASA).

<sup>81</sup> The Constitutional issues are discussed in Chapter 5, paragraph 5.4.

Admissibility of real evidence in civil proceedings, in principle depends on the relevance of the evidence. The basic principle is that irrelevant evidence is inadmissible whilst relevant evidence is admissible. Relevance is a matter of common sense and reason and have been described by our courts as being 'based upon a blend of logic and experience lying outside the law'.<sup>82</sup> Evidence will be relevant if it logically assists the trier of fact in coming to an answer posed by the questions at hand. If the evidence which is to be presented does not aid in the answering of the question at hand, it will be held to be irrelevant and inadmissible.

Unreliable evidence is seen as irrelevant evidence simply because it does not aid the trier of fact in deciding the questions at hand because of the unreliable nature thereof. In the early 1920's South African courts were sceptical regarding the evidence presented by snuffer dogs and it was routinely held as unreliable and therefore inadmissible.<sup>83</sup> This opinion changed as more evidence became available regarding the accuracy and reliability of the conduct of these dogs and it is well know that snuffer dog evidence are currently accepted as relevant in our courts.

The issue of the relevance of polygraph evidence is closely linked to the reliability and validity of these tests. As stated, neither the reliability nor validity of these tests can be properly assessed.<sup>84</sup> A further issue to remember is that the polygraph test results and report are documentary evidence and would be hearsay in the absence of the verbal testimony of the polygraph examiner. In instances therefore where the examiner is not called, our labour tribunals have held that there is no way to assess the credibility of the evidence and generally ruled it as inadmissible.

Despite all the criticism against the reliability and validity of polygraph tests, our labour tribunals more regularly than not ruled that

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<sup>82</sup> *R v Matthews* 1960 (1) SA 752 (A) at 758.

<sup>83</sup> *R v Trupedo* 1920 AD 58.

<sup>84</sup> There is a school of thought that holds the opposite in that they argue that polygraph tests are fully reliable and valid. They are in the minority though.

where the polygraph examiner testified, these tests are relevant and admitted it into evidence.<sup>85</sup>

Admissibility of evidence is the first hurdle to be crossed in presenting evidence. The second is the question regarding the evidentiary weight that is to be attached to this evidence. The issue of weight can be summarised as the amount of persuasive power the evidence is given in assisting the trier of fact in coming to an answer to the questions posed. Evidentiary weight of evidence is, like admissibility, closely linked to the reliability and validity thereof. If there are questions regarding the reliability, the persuasive power will be less than when the evidence is held to be fully reliable. Polygraph evidence, as summarised in paragraph 5.3, is not on its own afforded enough weight in our courts to tip the balance of probabilities but generally, when presented together with corroborating evidence, will be held to have enough weight to tip the scales.

Another issue relates to consent to undergo the polygraph test in the employment contract or conditions of employment. An employee is faced with a dilemma where the employment contract contains a clause in either the letter of appointment or the general conditions of employment consenting to specific or general polygraph testing. A typical clause would read as follows:

**“Polygraph Testing**

The company may request that you subject yourself to a polygraph test if an incident has occurred in which the security of the operation of the company has been compromised or assets of the company or its staff or customers have been illegally removed from the owner’s possession. The employee hereby declares that he is aware of the company’s polygraph policy and accepts that this policy is a term and condition of his employment. The employee undertakes to comply with the said policy in all respects and acknowledges that he is bound thereby.”<sup>86</sup>

Where the employment contract contains a consent clause and the employee refuses to undergo a polygraph test, the employer may

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<sup>85</sup> The case law on polygraph evidence are discussed in paragraph 5.3 hereunder.

<sup>86</sup> Capitec Bank Ltd, General Conditions of Employment.

charge the employee with misconduct in the form of insubordination and/or breaching the employment contract.

In a rather recent and surprising CCMA award, *Lefophana and Vericon Outsourcing*<sup>87</sup> the commissioner upheld an employee's dismissal after he refused to undergo a polygraph examination while his employment contract had an express clause consenting to undergo a polygraph test. The surprise lies in the fact that the specific reason why the employee refused to undergo the test was because he feared that the test will implicate him in an offence of which he was innocent. The commissioner held, (despite the myriad of criticism against polygraph tests) that the employee refused to undergo the test 'at his own peril'. He continued and stated that the polygraph test, had the employee failed it, would on its own not constitute enough evidence to dismiss the employee and there would have to be other evidence to proof his guilt on a balance of probabilities.

A different view was taken by the commissioner in *Meleni & others v Rohloff Administration*<sup>88</sup> where Meleni's dismissal due to the refusal to undergo a polygraph test was held to be unfair. The difference may be due to the fact that in the *Meleni*-case the employee's general conditions of employment did not contain a consent clause and refusal to submit to the polygraph test did not constitute a breach of the employment contract or insubordination.

The South African context of employment calls for realism. With the unemployment rate set by Statistics SA at 26 per cent,<sup>89</sup> an employee or prospective employee, especially unskilled, will be hard pressed to re-negotiate the standard terms set forth by the employer in the letter of appointment or general conditions of employment. Many employers include this 'consent to polygraph testing' in the standard conditions of employment as opposed to in the appointment letter.

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<sup>87</sup> (2006) 15 CCMA 7.1.7.

<sup>88</sup> *Meleni & others and Rohloff Administration* (2006) 15 CCMA 8.31.1.

<sup>89</sup> Carol Hills, 'Unemployment rate down – Stats SA' Business Report, 26 September 2006 available at <http://www.busrep.co.za/index.php?fSectionId=552&fArticleId=3454802>. [assessed on 5 January 2007].

This inclusion of the consent in the general conditions is of serious concern because often an employee would not even read all the terms and conditions before taking up employment and may only read them once an issue is at hand and it becomes necessary to refer to the terms of employment.

In South African law, any contract has contractual freedom at its heart. The question that should be asked is whether consent to polygraph testing by signing a standard contract is truly consent. This issue has been described as follows:

Various forms of so-called choice can be ... tantamount to no choice. The loss of one's 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.<sup>90</sup>

American arbitrator Edgar A Jones is openly set against polygraph examinations in the employment sphere. He believes polygraph evidence is so inherently prejudicial and unreliable that no arbitrator should enforce an agreement providing for use of the polygraph.<sup>91</sup>

Where the employment contract does not provide for consent, the employee has to consent to the polygraph before the test can be administered. Once again the nature of the consent may be questioned. It has been argued 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.<sup>92</sup> The fact that the consent was obtained voluntarily must in all instances be established before a tribunal should even consider admitting the test results.

An employee faced with a request to undergo a polygraph test has to make a decision, either submit to the test or refuse. This is a difficult choice, for the choice can, either way, prove to be to the

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<sup>90</sup> Landman AA 'A right to Silence: Except at a Disciplinary Inquiry' (1996) *Contemporary Labour Law* 6(3) at 29.

<sup>91</sup> Jones, cited in Massey (note 184).

<sup>92</sup> Christianson (note 6) at 31.

employee's detriment. The employee may submit to the test and fail with the failure resulting in disciplinary steps being taken, or the employee may, in the light of the strong criticism against polygraph evidence and the unreliability thereof refuse to take the test. If the employee refuses to take the test, an adverse inference may be drawn from this refusal, and if there is other evidence corroborating the employee's misconduct, be used against them.<sup>93</sup>

If the employment contract does not contain a consent clause, and the employee refuses consent to taking the test, the employer may argue that the trust relationship has been broken and in order to run its operations properly, it must be able to trust the employee. The argument is that operational requirements dictate that an employee that does not take the test can not be trusted and the employer can not be expected to continue with an employment relationship in this instance. The employer can then issue a notice in terms of s189 of the LRA and continue with the appropriate steps relating to dismissal for operational requirements.

This argument, however, may not hold water in our labour tribunals. There are several cases where the commissioners or judges held that the mere breach of trust is not enough to constitute a fair ground for dismissal.<sup>94</sup> Besides proving the irretrievable breakdown of the trust relationship, the employer will also have to prove all the other requirements for s189 dismissals as well as the fact that there was no alternative to dismissal.

In terms of s192 of the LRA the employee has to prove that a dismissal took place. If proven, and it does not qualify as an automatic unfair dismissal defined in s187, then the employer has the opportunity to prove that the dismissal was fair both in substance and procedure. An employee who refuses to take the test or sign the polygraph release form and is thereafter dismissed may argue that the

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<sup>93</sup> *Meleni & Others and Rohloff Administration* (note 53); *NUMSA obo Ncgwane and Assmang Chrome Machadodorp Works* MEGA 6803 (MEIBC); *B Hlatswayo and Barrier Angelucci* (MENT 1283) (MEIBC).

<sup>94</sup> See case listed in note 52.

dismissal was automatically unfair because the dismissal relates to a matter of mutual interest.<sup>95</sup>

If the dismissal follows a charge of misconduct, the employee may as possible defences and may argue:

- a) the rule or standard set by requiring the submission to a polygraph test was not reasonable and thus proof that the dismissal was substantially unfair;
- b) the employee was not adequately informed of the rule or standard (for instance the agreement to undergo a polygraph test is included in general conditions of employment, signed hastily on the first day of employment);
- c) the dismissal was too harsh a sanction in the circumstances and a lesser sanction should be imposed.<sup>96</sup>

These arguments may or may not be successful given the opposing awards in *Meleni*<sup>97</sup> and *Lefophana*.<sup>98</sup> Success may also vary depending on the sector in which the employee was employed, the circumstances of the case and the training of the commissioner.

Employers use polygraph testing in different stages of the employment relationship.<sup>99</sup> The issues surrounding the use of these tests in the different stages should be assessed considering the purpose of each application.

Using polygraph tests in pre-employment screening and periodic testing may be more questionable than the use of these tests in specific incident investigations. It has been argued that the use of polygraph testing for specific incidents relating to dishonesty should be viewed with more tolerance than incidents that do not necessarily threaten the trust relationship. In the financial sector, for instance, the trust placed in an employee by an employer is of critical nature. In

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<sup>95</sup> Christianson (note 6) at 35.

<sup>96</sup> Christianson (note 6) at 35.

<sup>97</sup> See note 93.

<sup>98</sup> See note 87.

<sup>99</sup> See paragraph 3.3 *supra*.

*Standard Bank v CCMA & others*<sup>100</sup> the commissioner described the relationship between a banking official and a bank as follows:

It is one of the fundamentals of the employment relationship that an employer should be able to place trust in an employee. A 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.

The existence of the duty upon an employee to act with good faith towards his or her employer and to serve honestly and faithfully is one of long standing in the common law.

But it is not only in the financial sector that a more sympathetic view may be taken when the trust relationship is threatened, but also in the service industry, in retail and generally relating to stock theft.<sup>101</sup> In *Anglo American Farms t/a Boschendal Restaurant v M Komwjayo*<sup>102</sup> the employee, Komwjayo, worked as a waiter in Boschendal Restaurant. He stole a can of Fanta from the bar, was charged, and dismissed. The Labour Appeal Court stated that although the value of the article stolen was very low, the true question to be asked is not how much was stolen, but if the theft and therefore act of dishonesty, had the effect of irretrievably breaking down the trust relationship. In this case the court held that it did and dismissal was fair.

In another equally interesting matter *Consani Engineering v CCMA & Others*<sup>103</sup> the employee was found in possession of a roll of rubber tape stolen from the stock of the employer with the aim to use it to repair his 'shack' situated in an informal settlement. Even though the court expressed sympathy with his position it held that the act of the employee fundamentally breached the trust relationship and that dismissal was an appropriate sentence for such actions.

The issue of parties wishing to introduce polygraph evidence has presented itself on several occasions to our labour tribunals and we turn now to a summary of the different cases.

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<sup>100</sup> See note 4.

<sup>101</sup> *Meleni & others and Rohloff Administration* (note 53).

<sup>102</sup> (1992) 1 ICJ 8.8.2.

<sup>103</sup> (2004) 13 LC 1.11.13.



### 5.3 South African Case Law on Polygraph evidence

#### 5.3.1 Introduction

Despite the warning issued in the statement of the Professional Board for Psychology in 1999, the popularity of polygraph testing in the employment sphere seems to be growing by the day. In a recent article in the newspaper Rapport<sup>104</sup> statements are made that the polygraph is 85 to 99 per cent accurate. The article states further, that although our courts do not accept polygraph testing as evidence, the Commission for Conciliation Mediation and Arbitration (CCMA) which is tasked to conciliate and arbitrate labour disputes, accepts polygraph tests as forensic aid in determining disputes.

This statement reflects a portion of the general public's (and some commissioners') view on polygraph tests – that they are reliable, accurately indicates deception or truthfulness, and should be used. This view is a dangerous view and based more on the need to believe in a truth detection instrument than on scientific proof.

The criminal justice system however, is not so convinced that polygraph tests are reliable and such evidence is not admissible in South Africa's criminal courts.<sup>105</sup>

The use of polygraph examinations is widespread in the employment sphere, not only for specific incident testing but also in pre-employment screening. It is unfortunate that no record could be found in the reported case law of polygraph testing being contested when used in pre-employment screening. This may be because the CCMA, which is the more affordable tribunal for labour disputes does not have jurisdiction to adjudicate matters regarding applicants for employment (before appointment) in the absence of any allegations of unfair discrimination.<sup>106</sup>

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<sup>104</sup> Helen Ueckermann 'Poligraaftoets wyer gebruik' Rapport Loopbane, 4 December 2005.

<sup>105</sup> Raymond Martin and Charl Cilliers 'Utilisation of the Polygraph in the Criminal Justice system (2)' *Acta Criminologica* 16(1) 2003 at 98.

<sup>106</sup> One can argue that the use of polygraph tests in pre-employment is a form of discrimination on an arbitrary ground and thus, refer the matter to the CCMA under the

It remains to be seen what the courts will do with pre-employment screening polygraph testing.

A number of cases regarding specific incident polygraph testing have been referred to the CCMA, Industrial, and Labour Courts. Most cases firstly focus on admissibility, reliability, and validity of these tests and then deals with the weight to be attached to the evidence if it is admitted.<sup>107</sup> Up until 2001, polygraph testing has been treated:

...highly inconsistently in terms of admissibility, and commissioners' understanding of the scientific status, validity, reliability and research findings regarding polygraph tests of deception is, with due respect often confused.<sup>108</sup>

The risk of admitting polygraph evidence without any investigation into its reliability, is that the evidence, even if not given much weight, finds its way into the minds of the commissioners as a form of 'corroborative evidence'.<sup>109</sup> It follows that employers may submit two or more pieces of highly suspect evidence and together with an adverse polygraph finding use the combination as 'reliable' evidence against the innocent employee. To reiterate, the risk involves the fact that polygraph evidence is then used to 'tip' the balance of probabilities in favour of the employer who really has little reliable evidence to produce.

One of the reasons for the inconsistent approach to polygraph evidence by commissioners has been stated as the difference and inconsistencies of polygraph examiner's evidence themselves. Examiners claim that polygraphs are up to 99 per cent of the time accurate.<sup>110</sup> This claim often coupled with a lack of proper explanation of the test procedures and possible problems, leaves commissioners in the dark as to what actually transpires during a polygraph test. More often than not, the polygraph examiners evidence stands untested, either because as experts they claim 'sacred ground' and do

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provisions of the Employment Equity Act. A discussion of this point however, falls outside the scope of this dissertation.

<sup>107</sup> Refer to paragraph 5.2 regarding the admissibility and weight of evidence.

<sup>108</sup> Tredoux and Pooley (note 14) at 821.

<sup>109</sup> Tredoux and Pooley (note 14) at 821.

<sup>110</sup> *SACCAWU obo Chauke and Mass Discounters* (2004) 13 CCMA 2.13.1.

not explain the whole process, or there is no evidence produced by the employee to rebut the evidence put forward by the examiner. This may well be because the average employee facing polygraph evidence cannot afford the services of an expert to rebut the evidence produced by the polygraph expert.<sup>111</sup>

It is also possible that the representatives appearing for the employee (if allowed) very seldom understand the scientific basis of the polygraph examination and can therefore not properly cross examine the polygraph expert. This results in one-sided evidence being presented with total ignorance to the large body of literature questioning the scientific reliability and validity of polygraph examinations.<sup>112</sup>

More than 15 years ago the Industrial Court had occasion to assess the admissibility and reliability of voice stress analysis evidence in *Mahlangu v CIM Deltak; Gallant v CIM Deltak*.<sup>113</sup> The Industrial Court found that the use of voice analysis for detection of deception purposes by persons not registered as psychologists was unscientific, unethical, invalid, and illegal. Voice stress analysis technology has been replaced by polygraph technology in our quest to find a fool proof way of detecting the truth. The same objection that was levelled against voice stress analysis 15 years ago is continually advanced against the reliability and validity of polygraph testing. The chief objection to the polygraph is that it is still too inconclusive in order to aid us in this quest.<sup>114</sup>

The summary of the case law that follows are ordered chronologically with the aim to illustrate the development of our case law and the still inconsistent approach taken by our tribunals.

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<sup>111</sup> Tredoux and Pooley (note 14) at 822.

<sup>112</sup> *Mzimela and United National Breweries SA (Pty) Ltd* (2005) 14 CCMA 8.23.11.

<sup>113</sup> 1986 (7) ILJ 346.

<sup>114</sup> As referred to in *Kleinhans and Tremac Industries* (2000) 9 CCMA 2.5.1.

### 5.3.2 Case Law in the era pre 2000

In *Mncube v Cash Paymaster Services (Pty) Ltd*<sup>115</sup> and the unreported case of *Harmse v Rainbow Farms (Pty) Ltd*<sup>116</sup> the CCMA had to assess the admissibility and reliability of polygraph tests.

In *Mncube* the employee was dismissed for theft, bribery, fraud, dishonesty, forgery and bringing or attempting to bring the name of the employer into disrepute. With her consent, she was submitted to a polygraph test. The CCMA commissioner found that expert evidence could be admitted to assist in assessing the reliability of the polygraph examination. He stated that even though the Industrial Court rejected polygraph tests in *Mahlangu*<sup>117</sup> he believed there may have been some progress in the reliability of these tests since then. He found however, that the polygraph expert's evidence was inconclusive and could not be used as corroboration of the other witness's evidence. This finding was reached despite the fact that he found the employee's evidence to be improbable.

In *Harmse* the commissioner referred to the trust relationship and stated that an employer is entitled to dismiss an employee that it can no longer trust, but emphasised that this breach of trust must be based on reasonable grounds. He held that failing a polygraph test when presented as the only evidence against the employee is not serious enough to create reasonable grounds for a breakdown in the trust relationship and therefore not enough for dismissal.

In 1999 the Labour Court in *M Shinga v Gilbeys Distillers and Vintners (Pty) Limited*<sup>118</sup> stated that at that point in time there was 'still no uniform approach to the admissibility of polygraph tests'.

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<sup>115</sup> [1997] 5 BLLR 639 (CCMA).

<sup>116</sup> *Harmse v Rainbow Farms (Pty) Ltd* (CCMA) Case no WE 1728 9 July 1997, unreported.

<sup>117</sup> *Mahlangu v CIM Deltak; Gallant v CIM Deltak* (note 113).

<sup>118</sup> *M Shinga v Gilbeys Distillers and Vintners (Pty) Limited* (LC) Case no N11/2/10237, 1999, unreported case.

### 5.3.3 Case Law in the era 2000 to Date

The post 2000 era saw no clearer approach to polygraph evidence than before. In *Sosibo & Others v Ceramic Tile Market*<sup>119</sup> the commissioner referred to the long line of cases dealing with polygraph evidence. He highlighted that the South African courts have long since approached the admissibility of polygraph tests with caution. He gave three reasons why he adopted a similar approach.

Firstly, the person administering the tests, while an expert on the handling of polygraph equipment, was neither a qualified doctor nor a psychologist. Secondly, the tests were simply an indicator of deception. They did not give details of the extent of misconduct which were essential in the assessment of the sanction. Thirdly, sole reliance on unspecified polygraph results was insufficient to discharge the onus on the employer in terms of section 192 of the LRA 1995 in order to prove that the dismissal was fair.<sup>120</sup>

In an article published in 2000, more than 5 years ago, it was remarked that none of the cases that have up until then dealt with polygraph evidence, had assessed the scientific reliability and validity of the tests and procedures and neither have any adjudicator at that point given any satisfactory opinion on the general legal admissibility of these tests.<sup>121</sup> The conclusion was that the question normally asked by employers and employees is if the polygraph will be admissible and states that the actual question to be asked is really how much weight will be given to this evidence once admitted.<sup>122</sup> It was predicted that the future of the admissibility and weight of polygraph tests will depend on the type of test and the individual examiner's qualifications and experience.

Despite an affirmation by the commissioner in *Mzimela and United National Breweries SA (Pty) Ltd*<sup>123</sup> that the law relating to polygraph evidence tests are clear in South Africa, recent case law does little to show a pattern and one is left with the same

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<sup>119</sup> (2001) 22 *ILJ* 811 (CCMA).

<sup>120</sup> Parbhoo (note 12) at 26.

<sup>121</sup> Christianson (note 6) at 34.

<sup>122</sup> Refer to paragraph 5.1 for a discussion on the admissibility and weight of evidence.

<sup>123</sup> (2005) 14 CCMA 8.23.11.

inconsistencies in the approach to polygraph test that have existed for the last 10 years.

*Kleinhans and Tremac Industries*<sup>124</sup> dealt with circumstances where the employee was dismissed based on a failed polygraph examination as only evidence against him. The employee's employment contract stipulated that he had to undergo a polygraph if so requested. *Kleinhans* was charged with dishonesty after theft of company tools was discovered. *Kleinhans* persisted throughout the internal hearing and the hearing at the CCMA that he told the truth and that he was not involved in the theft. The commissioner referred to several cases which pointed in the direction of not accepting polygraph evidence. In this specific case however, the polygraph examiner did not testify and the commissioner held that in the absence of oral evidence from the examiner to corroborate his finding, he had no way of assessing the examiner and there was no evidence as to the accuracy of the test. This resulted in the commissioner being 'unable to attach any credibility to the outcome of the polygraph tests'. It is surprising that the case law referred to in the judgement all point to polygraph tests being unreliable and inadmissible, and still, the commissioner rather deals with the matter in dismissing the evidence based on the absence of the polygraph examiner's direct evidence and would not add his voice to the general distrust of polygraph tests.

In *PETUSA obo Van Schalkwyk v National Trading Co*<sup>125</sup> the commissioner remarked that polygraph tests should not be accepted without supporting evidence. The polygraph examiner's credentials were found to be impeccable and the commissioner did not hesitate to accept his evidence as an expert. There was also no criticism of the environment wherein the test was conducted although the commissioner did remark that the subject was tense throughout the test but concluded that there was nothing to suggest that the subject was not a suitable subject for polygraph testing. In this case the

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<sup>124</sup> (2000) 9 CCMA 2.5.1.

<sup>125</sup> (2000) 21 ILJ 2323 (CCMA).

commissioner found that there was other evidence supporting the finding that the employee was guilty that together with the polygraph test tipped the balance of probabilities. The polygraph evidence was therefore accepted and afforded some weight in upholding the dismissal. In *Josanau and Macsteel VRN*<sup>126</sup> the commissioner simply accepted the polygraph evidence without any analysis or reference to any criticism. The commissioner dealt in detail with the test of balance of probabilities and the 'inherent probabilities' of the two versions put before him. At the end he simply accepts the polygraph test and states:

The finding is further fortified by the fact that the polygraph test indicated deception when the applicant was tested.

*NUMSA obo Mkhonza & Others and Assmang Chrome Machadodorp Works*<sup>127</sup> presented another opportunity to a commissioner at the Metal and Engineering Industries Bargaining Council to assess polygraph evidence. The applicants were charged with dishonesty after copper pads and hydraulic cylinders to the value of approximately R 2 million went missing from the respondent's general store. All the applicants were subjected to polygraph tests and they showed deception relating to the copper pads.

The commissioner distinguished between the admissibility and the weight of the polygraph evidence and noted that the admissibility of the polygraph evidence was not in dispute but only the evidentiary weight to be attached to the evidence. He mentioned that the admissibility will only be in question where:

- (i) The examiner's qualifications are dubious.
- (ii) The examiner did not present oral evidence.
- (iii) The test was not conducted freely or employees did not know why the examination was conducted.

He continued and found that the 'cumulative effect of the circumstantial evidence supported by the polygraph examination

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<sup>126</sup> (2004) 13 CCMA 8.8.2.

<sup>127</sup> (2005) 14 MEIBC 2.11.1.

results leads to the conclusion that the trust relationship has been damaged.’

It is noteworthy that the commissioner did not refer to any of the case law or literature either reflecting the distrust in polygraph evidence. He accepted the evidence merely because there was other circumstantial evidence supporting the conclusion of deception which in this instance was placed on par with dishonesty.

This approach illustrates the danger highlighted above where the evidence of the polygraph test is used by the employer, who really has little reliable evidence to produce, to ‘tip’ the balance of probabilities in its favour.

In the recent decision in *MEWUSA obo Mbonambi and S Bruce CC t/a Multi Media Signs*<sup>128</sup> the applicant was also subjected to a polygraph test. The commissioner did not analyse the polygraph tests and accepted that the polygraph examiner who testified was an expert in his field. This may have been because the credentials were not challenged nor was the polygraph examiner cross-examined on his background or expertise. The Commissioner concluded that:

It is commonly accepted that an employer who causes polygraph tests to be conducted on employees who have been suspected of lying may not rely entirely on the outcome of such polygraph tests. The approach of arbitrators and the courts in this country is that the outcome of polygraph tests may be taken in to account when there are other grounds for believing that the employee was dishonest.

The case of *MEWUSA*<sup>129</sup> contrasts strongly with *Steen and Wetherlys (Pty) Ltd*,<sup>130</sup> a case in which polygraph evidence was not accepted. The applicant, a branch manager, was dismissed for gross dishonesty involving theft or gross negligence after the respondent discovered that it has fallen victim of a massive theft operation. The applicant was dismissed after being found guilty on the strength of a polygraph test and the evidence of an investigator who relied on information supplied by an unnamed informant. The commissioner

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<sup>128</sup> (2005) 14 MEIBC 6.10.2.

<sup>129</sup> See note 128.

<sup>130</sup> (2005) 15 CCMA 7.1.6.



rejected the polygraph evidence and held it inadmissible because the test was unscientific and the polygraph examiner's supporting evidence was mere opinion. He continued and stated that the polygraph examiner's opinion was mere guesswork and that he lacked the medical skill to determine the effects of mood swings, emotions, and medication taken by the subject which could all influence the subject's responses. He refers to several cases as well as articles and said:

To date there is nothing either in the body of research or in the authority of case law to convincingly suggest that polygraphers are in fact expert witnesses or that they are medically qualified to interpret the physiological responses of witnesses.

He continued that:

...such evidence is inconclusive, and does no more than to indicate that the subject was in a heightened state of general emotional arousal. It does not distinguish anxiety, stress/tension, or indignation from guilt. There are also the circumstances surrounding the test. The polygraphist is often a stranger and the test may be given in an unfamiliar environment. This alone may cause increased nervousness and physiological responses in the body. A further factor is the natural fear in the mind of the innocent that the test results may not correctly reflect his innocence. This fear can increase his physiological responses and he can 'fail' even though he is innocent. This fear and the ensuing adrenaline rush may be sufficient to cause the polygraphist to infer a likelihood of deceit when there is in fact none. Therefore the inference of deception that the polygraphist makes may not be the correct inference.

In essence the research shows that polygraphers are deemed to be expert witnesses by some commissioners while there is nothing to show that they are in fact expert witnesses.<sup>131</sup>

He concluded that the finding of 'deception indicated' is interpreted by polygraph examiners to be an indication of guilt and dishonesty and that this is an illogical and unsustainable inference that is drawn.

Normally it is the employer who wants to introduce polygraph evidence in support of a dismissal or other disciplinary action. But in *Simani and Coca-Cola Fortune*<sup>132</sup> the employee wanted to introduce the results of a polygraph test. The employee was dismissed after he was charged when the employer discovered that some drivers were

<sup>131</sup> *Steen v Wetherleys* (note 130) at 5.

<sup>132</sup> (2006) 15 CCMA 8.8.7.

involved in a stock theft scheme. Simani submitted to a polygraph examination and passed the test (no deception indicated). Despite this fact and based on other evidence produced, the employer dismissed him.

At the CCMA the commissioner stated that the fact that the employee passed the polygraph test does not change the fact that he was an unreliable and incredible witness and it does not aid his defence. He stated that polygraph tests are considered with care and are generally speaking not admissible in courts around the world except if the polygraph results are corroborated by other more direct evidence.

In January 2005, the South African Society of Banking Officials (SASBO) published an article in their newsletter commenting on the current position in South African law. They conclude that at that point there seemed to be no decisive case law in South Africa.

It is clear from the analysis and summary of the case law above that this remains true. Depending on the commissioner, the specific facts and especially if the polygraph examiner testifies, the chances of the polygraph evidence being accepted are just as unpredictable as the chance that it will be rejected.

## **5.4 Constitutional Issues surrounding the use of Polygraph Evidence**

### **5.4.1 Background**

South Africa has a unique past marked by deep divisions. In the last decade of the 20<sup>th</sup> century the country's history changed when political negotiations resulted in the interim Constitution<sup>133</sup> that was later, in 1996, replaced by the Final Constitution.

In Chapter 1 the Constitution sets out the founding provisions. Section 2 of that Chapter reads as follows:

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<sup>133</sup> Juta; Pocket Statutes: The Constitution of South Africa: An overview (2003) at ix.

## 2 Supremacy of Constitution

This Constitution is the supreme law of the Republic; law or conduct inconsistent with it is invalid, and the obligations imposed by it must be fulfilled.<sup>134</sup>

The result of South Africa being a constitutional state is that to be valid and effective all legislation, regulations, acts, and exercise of power has to be consistent with the Constitution. The application of the Constitution extends horizontally and binds natural and juristic persons, if applicable given the nature of the right and the duty imposed by the right.<sup>135</sup>

It was mentioned above that South Africa does not currently have any legislation that deals with polygraph testing and that it is up to the courts and labour dispute tribunals to regulate the use of polygraphs. Section 39 (2) of the Constitution requires the courts, when developing the common law to promote the spirit, purport and objects of the Bill of Rights. The court in *S v Thebus and another*<sup>136</sup> noted that in at least two instances the courts would have to develop the common law under this section and said:

The first would be when a rule of the common law is inconsistent with a constitutional provision. Repugnancy of this kind would compel an adaptation of the common law to resolve the inconsistency. The second possibility arises even when a rule of the common law is not inconsistent with a specific constitutional provision but may fall short of its spirit, purport, and objects. Then, the common law must be adapted so that it grows in harmony with the 'objective normative value system' found in the Constitution.

The use of polygraphs in relation to the common law falls in the second category.

Central to this question of protecting constitutional rights is another issue relating to which right to protect should two fundamental Constitutional rights be in conflict. For instance, person A has a right

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<sup>134</sup> The Constitution of South Africa, Act 108 of 1996.

<sup>135</sup> The Constitution of South Africa, Act 108 of 1996, s 8(2).

<sup>136</sup> 2003 (6) SA 505 (CC).

to freedom of expression<sup>137</sup> but can person A by right defame person B, since person B has the right to Human Dignity?<sup>138</sup>

Section 36 of the Constitution provides the solution to this apparent conflict by regulating the limitation of fundamental rights. In the assessment of whether a limitation constitutes an infringement to a fundamental right, the purpose of the limitation has to be determined first. The enquiry then turns to whether the limitation would be reasonable and justifiable in an open and democratic society based on human dignity, equality, and freedom.

The Constitutional considerations specifically regarding polygraph testing, relates to the fundamental rights of individuals specifically the right to privacy, which includes the right against unlawful search and seizure and infringement of one's dignity, the right to remain silent, and the right to fair labour practices.

The different applications of polygraph testing, in pre-employment screening, periodic testing of current employees and specific incident testing presents its own unique constitutional considerations. The constitutional rights of employees may be affected differently depending on the specific use of the polygraph test and these differences are highlighted in the following section.

#### **5.4.2 The Right to Privacy**

Section 14 of the Constitution provides as follows:

##### **14 Privacy**

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

- (a) their person or home searched;
- (b) their property searched;
- (c) their possessions seized; or
- (d) the privacy of their communications infringed.

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<sup>137</sup> The Constitution of South Africa, Act 108 of 1996, s 16.

<sup>138</sup> The Constitution of South Africa, Act 108 of 1996, s 10.

The right to privacy as contained in the Constitution has two aspects. There is the general right to privacy 'Everyone has the right to privacy' and the specific rights distilled from the general right which includes sub sections (a) to (d) above. Unlawful search and seizure and infringement of one's communications falls therefore squarely within the 'right to privacy'. But the use of the word 'includes' leads us to interpret that these four examples are not the only possible ways that the right to privacy can be invaded and has to be protected.

Privacy has been defined 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.<sup>139</sup>

The invasions of privacy is the 'unreasonable intrusion into private sphere, public disclosure of private facts, appropriation of likeness (or infringement of the right to identity) and false light in the public eye'.<sup>140</sup>

The right to privacy includes the right not to provide personal facts without the individual's knowledge or consent. It therefore includes the competence to decide whether on not to make personal facts public.<sup>141</sup>

In *Bernstein and Another v Bester and Others NNO*<sup>142</sup> the Constitutional Court found that the right to privacy has to shrink when an individual moves out of their personal realm and into society.

Privacy is acknowledged in the truly personal realm, but as a person moves into communal relations and activities such as business and social interaction, the scope of personal space shrinks accordingly.

As with many other rights contained in the Bill of Rights, the right to privacy is not absolute and if conflict between this right and another fundamental right arises one has to strike a balance.<sup>143</sup>

<sup>139</sup> Neethling J cited in Louw, N (note 21).

<sup>140</sup> Jonathan Burchell 'Principles of Delict' (1993) at 199.

<sup>141</sup> *National Media Ltd & Another v Jooste* (1996) 3 SA 262 (A) at 271.

<sup>142</sup> *Bernstein v Bester NO* 1996 (4) BCLR 449 (CC) at par 67.

<sup>143</sup> *Bernstein v Bester NO* (note 142) at par 106.

The issue of polygraph testing and privacy as been referred to as a three fold issue summarised as follows:<sup>144</sup>

- 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;
- the increased psychological power that authorities acquire over individuals seeking employment or already employed.

The Labour Relations Act does not expressly deal with the right to privacy but is subject to the Constitution. In interpreting constitutional issues of privacy our courts look to foreign law as guidance.<sup>145</sup>

Following decisions in the United States, it was held in *Protea Technology Ltd v Wainer*<sup>146</sup> that the right to privacy 'requires a subjective expectation of privacy which society recognises as objectively reasonable'.<sup>147</sup>

Reasonability is dependent on the realities of the employer's enterprise keeping in mind that employees can substantially limit their rights by consenting to infringements in the employment contract. Generally in South Africa the employer does not have the right to intrude unhindered into the private life of the employee.

In *Goosen v Carline's Frozen Yoghurt Parlour*<sup>148</sup> the Industrial Court had occasion to comment on the privacy of the employer in relation to the employment relationship. In this matter the employee obtained conversations between the chairman of her disciplinary enquiry and members of management which suggested that the chairperson may have been biased. The employee wanted to

<sup>144</sup> Christianson (note 6) at 29.

<sup>145</sup> 'The right to privacy' available at <http://butterworths.uct.ac.za/nxt/gateway.dll/2b/zc/vna/ryie/mzie/pzie> [assessed on 5 January 2006].

<sup>146</sup> 1997 (9) BCLR 1225 (W) at 1239.

<sup>147</sup> See also *Magajane v Chairperson, North West Gambling Board and Others* (2006) 5 SA 250 (CC).

<sup>148</sup> [1995] 2 BLLR 68 (IC).

introduce the tape recordings as part of her case but the employer party objected, arguing that the tapes are inadmissible since it infringes the employer's right to privacy. The Industrial Court, referring to the limitations clause in the interim Constitution, held that the tape recordings were admissible. The reasoning was the employee wanted to introduce this evidence for a legitimate and valid purpose and that the limitation of the employer's right to privacy was in this instance, both reasonable and justifiable.

The case of *Makhale v Vitro Building Products*<sup>149</sup> was the first reported case to be decided which concerned the employee's right to privacy. The employer instructed the employee to consult a medical practitioner of the employer's choice. The employee refused and insisted on being treated by her personal doctor. She was charged with insubordination and dismissed for her refusal to adhere to the direct instruction of the employer. The Industrial Court referred to the requirements of insubordination that states that the instruction given must have been reasonable and lawful. Referring to the employee's right to bodily integrity and self determination, the court found that the instruction was unreasonable and unlawful because it constituted a breach of the employee's right to privacy. Her dismissal was therefore held to be unfair.

A Canadian case that has a close link with the *Makhale*-case is the matter of *Re Canadian Pacific Ltd v United Transportation Union*<sup>150</sup> where the employer wanted to introduce a policy on random drug testing. With reference to s 8 of the Canada's Charter of Rights and Freedoms, the arbitrator held that the prerogative of management which is limited by the implied duty of trust and confidence does not extend to this kind of privacy invasive policy. The same attitude was taken by the Californian Court of Appeal where it observed that

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<sup>149</sup> [1996] 4 BLLR 506 (IC).

<sup>150</sup> (1987) 31 LAC 179.

...every employment contract contains an implied covenant of good faith and fair dealing, and that employers are required to abide by human rights principles (such as privacy) as part of this covenant.<sup>151</sup>

German labour law has the same attitude towards the constitutional human rights and the employer in Germany has a duty to exercise managerial discretion 'fairly'. Interpretation of 'fairly' should be done with a view to constitutional human rights and an employer are therefore not entitled to give orders that disregards constitutional guarantees.<sup>152</sup>

Several South African cases dealt with the employee's right to privacy in the workplace balanced against the employer's right to monitor electronic and telephone conversations. In *Sugreen v Standard Bank of SA*<sup>153</sup> the commissioner found that the employee's conversations could be recorded and did not infringe her right to privacy. He stated that:

It is sufficient to recognise that the use by the employee of the employer's telephone and e-mail are legitimate areas of interest to the employer where it suspects that the employee is guilty of misconduct.

The commissioner found the following factors relevant:

- (a) The recording was not aimed at entrapping the applicant to commit a crime;
- (b) Because the alleged crime had already been committed, there were few other methods of securing evidence against the employee;
- (c) The recording was not part of an on-going monitoring of all the applicant's calls;
- (d) The recording was not undertaken by the employer itself; and
- (e) The recording was made in the course of the applicant's business hours, using the employer's telephone.

The United Kingdom has a different take on the privacy of telephone conversations as reflected in *Halford v The United Kingdom*.<sup>154</sup> Although the no general right to privacy exists in the United Kingdom, the court in the *Halford*-case held that the European Convention on Human Rights has application and force in the public

<sup>151</sup> John Craig and Hazel Olivier, 'The Right to Privacy in the Public Workplace: Should the Private Sector be concerned?' *ILJ* 27 (March 1998) at 54.

<sup>152</sup> See note 151 at 45.

<sup>153</sup> (2002) 11 CCMA 8.23.1.

<sup>154</sup> [1997] IRLR 471 (ECHR).



sector, and by extending the right to respect for private life,<sup>155</sup> public sector employees has a right to privacy.<sup>156</sup> It is argued that this decision does not mean that the right to privacy will be enforceable against private employees but that it gives a clear indication of the development of English law.<sup>157</sup>

The question with regards to polygraph tests however is one that stretches a bit further than mere conversations. Is the employee's right to privacy infringed if requested to undergo a polygraph test? And does it make a difference if the employee (or applicant for employment) is requested to undergo polygraph as part of pre-employment screening, periodic screening whilst employed, or specific incident testing?

With electronic mail and telephone conversations one can argue that the technology and storage facilities belongs to the employer and the employer has, because of this ownership, a right to access that information. One can in fact argue that the information belongs to the owner and that in the absence of permission to store personal information on the owner's systems, the employee has a limited right to protection of their private information on the systems.

The issue of video taping an employee's actions may have a closer link to that of obtaining information via a polygraph test. The facts of *NUMSA obo Abrahams and Guestro Wheels*<sup>158</sup> were that the employee was unknowingly video taped by a surveillance camera whilst accepting money in a corrupt manner for selling rims. The employee argued that the surveillance of his movements at the company premises constituted an infringement of his right to privacy and that the video evidence thereof should be inadmissible. The commissioner decided to allow the evidence and stated the following regarding the balancing act of the competing rights:

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<sup>155</sup> European Convention on Human Rights, Art 8.

<sup>156</sup> Note should be taken of the specific facts of the *Halford*-case where the employer specifically provided the telephone for her private use.

<sup>157</sup> See note 151 at 49.

<sup>158</sup> (2004) 13 CCMA 8.8.1.

I believe that in arbitration proceedings between employer and employee there should be a greater degree of parity between the parties and the emphasis should be on finding a balance between the interests of the parties. The rights of the parties involved should be weighed, i.e. the employee's right to privacy against the employer's right to protect his property and economic interest.

He argued further that because the employee was acting in the course and scope of his employment, going about his normal duties and no private actions or confidential information was captured, the surveillance did not constitute an infringement of his right to privacy.

In quite a different matter, *NUMSA obo Msiza and Apex Leads CC*<sup>159</sup> the commissioner found that the employer had gone too far and infringed the right to privacy of the employee when he searched her locker without her consent.

It has been stated that it is likely that a polygraph test conducted without the employee's consent may amount to an invasion of their right to privacy.<sup>160</sup> In *NUMSA obo Nqukwe & Others and Lowveld Implement & Farm Equipment (Life)*<sup>161</sup> however the commissioner stated that although a polygraph test could be seen as a violation of the right to privacy of the employee the question of invasion of the right of privacy did not play any part in that case because:

... firstly the applicants had consented to the test, consequently concerns about privacy and the violation of free will do not arise in this case and secondly, this consideration would have to be weighed against the employer's operational requirement 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.

An interesting case involving conduct of an employee outside of the workplace but affecting a fellow employee presented itself in *Costa and Nu Metro Theatres*.<sup>162</sup> The employee was dismissed after he used vulgar and foul language towards a fellow employee at the

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<sup>159</sup> (2004) 13 MEIBC 8.4.1.

<sup>160</sup> *Mncube v Cash Paymaster Services (Pty) Ltd* [1997] 5 BLLR 639 (CCMA).

<sup>161</sup> (2003) 12 (CCMA) 7.17.2.

<sup>162</sup> (2005) 14 EIBC 8.13.1.

workplace but after work hours. The Employee argued that what he said was private and confidential and to admit the evidence of that conversation would constitute an invasion of his right to privacy. The commissioner had the following to say about the right to privacy in this context:

I should not be understood to be suggesting that an employee enjoys no right to privacy at the workplace. What I am saying rather is that an employee who says the kind of things that the applicant said while knowing them to be untruthful – and uses the kind of language that the applicant used – about a fellow employee at the workplace does so at his/her own peril.

In weighing the right to privacy against the right to freedom of speech, the commissioner found that in these circumstances, it is reasonable and justifiable that the right to freedom of speech give way to the right to privacy.

The possibility of infringing the right to privacy of a prospective employee or current employee, when pre-employment screening or periodic polygraph tests are done is bigger than when specific incident testing is done. The R/I technique, which has been widely criticised as unreliable and unscientific, is used in pre-employment and periodic screening because of the lack of details regarding a specific incident. Questions therefore relate to general activities, honesty, and attitude and are not limited to a specific incident.

The prospective employee or current employee is therefore running a much bigger risk in divulging information they would normally prefer to keep private.

It is important to remember that the relationship between an employee and employer is vastly different than the relationship between the individual and the state. There is a vast amount of case law dealing with the latter and it is generally accepted that the right of the individual to privacy will be protected and only infringed if 'reasonable and justifiable in an open and democratic society'.<sup>163164</sup>

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<sup>163</sup> Constitution of South Africa Act 108 of 1996, s 36.

The employee's right to privacy in the workplace will not be afforded the same strength as that afforded when being faced with criminal charges.<sup>165</sup> The employer has the right to protect his property and business and this right should also be considered and afforded the required protection.

The argument forwarded below regarding the right to silence will find application to the right to privacy as well.

### 5.4.3 The Right to Dignity

Section 10 of the Constitution contains the right to dignity and reads:

**10 Human dignity**  
Everyone has inherent dignity and the right to have their dignity respected and protected.

The Appellate division in *Delange v Costa*<sup>166</sup> has laid down the general test for determining dignity as (a) the plaintiff's self esteem must have been actually (subjectively) impaired and (b) a person of ordinary sensibilities would have regarded the conduct as offensive (tested by the general criterion of unlawfulness – objective reasonableness).

The issue is whether the conducting of a polygraph, where the examiner reads into the graphs information that the employee does not realise or know they are imparting, is an invasion of the 'right to have their dignity respected and protected'? The issue of polygraph evidence and the right to dignity has not per se presented itself to our courts and no reported cases where this issue had come to be decided could be found.

A related issue was assessed by the Court in *S v Huma*<sup>167</sup> where the taking of fingerprints was submitted by the defence to be an

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<sup>164</sup> *Serious Economic Offences and Others v Hyundai Motor Distributors (Pty) Ltd and Others: In re Hyundai Motor Distributors (Pty) Ltd and Others v Smit NO and Others* (2001) 1 SA 545 (CC).

<sup>165</sup> See also *SATAWU obo Assegai and Autopax* (2001) 10 AMSSA 8.9.2.

<sup>166</sup> *Delange v Costa* (1989) 2 SA 857 (A).

<sup>167</sup> 1995 (2) SACR 411 (W).

infringement of the right to dignity. The court referred to the United States case *Schmerber v California*<sup>168</sup> (which dealt with blood samples) and drew a conclusion that there is a difference in ‘communications emanating from an accused’ which are of a testimonial nature, and ‘real or physical’ evidence of which the accused’s body is the source.

In *Schmerber* the court stated the following:

We hold that the privilege protects an accused only from being compelled to testify against himself, or otherwise provide the State with evidence of a testimonial or communicative nature, and that the withdrawal of blood and use of the analysis in question in this case did not involve compulsion to these ends . . . The distinction which has emerged, often expressed in different ways, is that the privilege is a bar against compelling “communications” or “testimony”, but that compulsion which makes a suspect or accused the source of “real or physical evidence” does not violate it. Although we agree that this distinction is a helpful framework for analysis, we are not to be understood to agree with past applications in all instances. There will be many cases in which such a distinction is not readily drawn . . . Since the blood test evidence, although an incriminating product of compulsion, was neither petitioner’s testimony nor evidence relating to some communicative act or writing by the petitioner, it was not inadmissible on privilege grounds.

The court concluded that fingerprint evidence is admissible and was not a breach of the right to human dignity.

It should be remembered that the employee has to consent to a polygraph test before it is administered. The employee therefore agrees to the limitation of their rights and an argument can be advanced that they should not be allowed to insist on the protection of a right where consent to infringement was given. (Refer to the discussion above).

Again, and for the same argument advanced regarding the right to privacy, the possibility of infringing the right to dignity of a prospective employee when pre-employment screening polygraph tests are done is bigger than when specific incident testing is done. The issue of consent should also be considered here with the realities

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<sup>168</sup> ANON Quoted in ‘Ascertainment of bodily features’ available at <http://butterworths.uct.ac.za/nxt/gateway.dll/2b/zc/wna/goa/i0ie/n0ie> [assessed on 5 January 2007].

of the South African economy in mind and the unemployment rate and level of poverty should not be disregarded.

#### 5.4.4 The Right to Remain Silent

The right to remain silent is contained in s 3(3)(h) of the Constitution. It is important to note that s 3 starts off by qualifying the right as 'Every accused person has a right to a fair trial, which includes the right -...'. This means that the direct application of the right to remain silent as contained in the Constitution is for 'accused persons' only and does not automatically extend to the private sector.

The choice between remaining silent at a disciplinary enquiry and possibly losing one's employment and testifying to defend the charges, thereby providing possible incriminating evidence which may be used in a later or pending criminal trial has come to the fore in *Davis v Tip NO and others*.<sup>169</sup>

Davis was charged in a disciplinary enquiry as well as criminally. He argued that his disciplinary enquiry should be postponed pending the conclusion of the criminal hearing because if he had to testify at the disciplinary enquiry, the evidence may be used against him in his criminal trial and that would be an infringement of this right to remain silent. The chairperson of the disciplinary enquiry refused his application for postponement but allowed this decision to be taken on review.

The review judge acknowledged that the accused could have to face evidence disclosed by the accused himself if required to testify in civil proceedings before the criminal proceedings are concluded. He concluded that:

In the present case the preservation of the applicant's right lies entirely in his own hands ... What the applicant seeks to be protected against is the consequence of the choices he may be called upon to make.

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<sup>169</sup> 1996 (1) SA 1159 (T).

He continued that he does not agree that the applicant has to choose between losing his employment and incriminating himself and concluded that the applicant has to make and live by his own choices.

In reference to this case it has been submitted that this choice may be tantamount to no choice at all and that the employee may find himself in an unbearable position if he has to choose between employment and providing information that can be used against the employee in the criminal prosecution.<sup>170</sup>

The same issue presented itself in the matter of *Nedcor Bank Ltd v Behardien*<sup>171</sup> where the judge followed the dictum in *Davis v Tip NO & Another*<sup>172</sup> and came to a similar conclusion. In *Nedcor* the judge stated that the general rule in staying civil proceedings until criminal proceedings have been finalised had as principle that the accused should not be forced to play his hand or reveal his side of the story before the state had opportunity to adduce evidence and place a *prima facie* case before the criminal court. He said that if the choice between giving evidence in a civil hearing and facing 'damning' evidence was equally unattractive it would be an issue of compulsion and the civil proceedings will be stayed. But if it was simply facing the consequences of a choice, one is not faced with compulsion and the civil proceedings should not be stayed.

The arguments advanced in support of a stay of proceedings lose sight also of the employer's rights. The employer has the right to protect his property and to conduct his business to be best of his ability. This necessarily entails that he should be able to employ as many people as needed to effectively keep his business running. If an employee is facing a disciplinary enquiry with a possibility of dismissal, why should the employer have to wait for the criminal proceedings (which sometimes takes years to complete) before action can be taken? In this argument the employer has to wait to enforce its rights

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<sup>170</sup> Landman AA (note 90 )at 30.

<sup>171</sup> 2000 (1) SA 307 (C).

<sup>172</sup> See note 169.

simply because the employee does not want to own up to what had happened? The employer most probably has suspended the employee – either on full pay or without, and need someone to do the employee's work. Especially if the charges relate to dishonesty it would be grossly unfair to expect of the employer to allow the employee to continue working or keep the employee's position reserved thus relying on the accused employee's fellow workers to pick up his responsibilities. This argument especially holds more force where one is dealing with a relatively small company (or branch) or with an employee with particular skill or who is employed in a specialised field.

A possible solution for an employee's predicament could be that evidence is given at the disciplinary enquiry but that the legal representative at the criminal hearing, argue that the evidence provided in the disciplinary hearing should be inadmissible at the criminal trial. This argument will be based on the fact that the employee was not formally and within the criminal setting warned of his right to remain silent. This evidence so provided, should then be dealt with in a similar manner as a statement obtained by the South African Police Services without following proper procedure. The admission of this evidence would then depend on the presiding officer of the criminal hearing's understanding of the protection of the individual's rights, which in itself could be risky but may be a better option than not giving evidence at the disciplinary enquiry at all.

Based on the arguments above and the need for the employer to be able to continue with his operations the employee's right to remain silent should give way to the employer's right to finalise the matter and that the judgment in *Davis*, is a good example of a proper balancing of the rights of the employee and employer.

In applying the above principles on polygraph testing a distinction has to be drawn between pre-employment screening on the one hand and periodic and specific incident testing on the other hand. An employment applicant would have to choose between applying for



a position and submitting to a polygraph tests and not applying at all. There is no employment relationship with the employer at this stage and no trust relationship either. Even though the applicant for employment is afforded the same protection than the employees under the EEA, it has been argued that employers have the right to pursue their business objectives and this may include the right to be sure that those persons employed can be trusted.

#### 5.4.5 The Right to Fair Labour Practices

The right to fair labour practices is guaranteed in terms of s 23(1) of Constitution. The concept of 'fair labour practices' is not defined in the Constitution or the LRA. The Constitutional Court has found that the concept is incapable of precise definition and what is fair depends on the circumstances of each particular case and essentially involves a value judgment. In giving content to the concept the courts and tribunals seek guidance from domestic and international experience. The right has been interpreted as being afforded to both employers and employees and includes both natural and juristic persons.<sup>173</sup> Again, in deciding these matters one would have to weigh the opposing rights of the two parties involved in order to strike a balance and be fair.

In *Denel v Vorster*<sup>174</sup> the employer incorporated its disciplinary code into the employment contract. The employer did not follow the provisions of the code in dismissing Vorster and argued that it does not have to follow its own disciplinary code as long as it acts in a fair manner. The Supreme Court of Appeal held that the right to fair labour practices does not relieve the employer from adhering to his own disciplinary code which, because it was incorporated in the employment contract became contractually binding.

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<sup>173</sup> *NEHAWU v UCT* 2003 (3) SA 1 (CC).

<sup>174</sup> 2004 (4) SA 481 (SCA).

This argument can be turned around and extended to the employee as well. Where the consent to undergo a polygraph test has been included in the employment contract that **consent** becomes a contractual term entered into between the employer and the employee. One could argue that the right to fair labour practices should not be interpreted as giving the employee the right to opt out of the contractual terms and obligations of the employment contract.<sup>175</sup>

It remains to be seen if these Constitutional rights will be held to prevent the evidence of polygraph tests to be presented and one could only hope that the courts would consider the literature and adopt a uniform approach in this regard.

## CHAPTER 6: AN AMERICAN PERSPECTIVE

### 6.1 Introduction

The American Office of Technology Assessment<sup>176</sup> (OTA) has conducted several tests and studies regarding the reliability and validity of polygraph tests. They found that a number of different factors have an effect on the accuracy of the tests, such as examiner training, orientation and experience, the subjects characteristics (emotional stability and intelligence), and in particular the use of countermeasures (techniques developed to 'beat' the test). The willingness of the subject to undergo the test is another factor which may have a noticeable influence on the results of the test.<sup>177</sup>

The OTA concluded that there is limited scientific evidence for establishing the validity of polygraph testing and even where the evidence indicates that polygraph testing is more accurate than chance at detecting deception, enormous error rates exists.<sup>178</sup>

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<sup>175</sup> The position will be different where there is no consent in the employment contract.

<sup>176</sup> See note 13.

<sup>177</sup> See note 13.

<sup>178</sup> Parbhoo (note 12) at 25.

## 6.2 American Case Law on Polygraph Evidence

For years the leading case on the admission of scientific evidence in the United States was *Frye v United States*,<sup>179</sup> a case that centred on the validity of polygraph tests. Frye was a 19-year old defendant convicted of robbery and murder. He denied any involvement and after a systolic blood pressure deception test (earlier form of a polygraph test), administered by one of the founders of polygraph examinations, Dr. Marston, was found to be truthful in his denial. The evidence regarding the polygraph examination however was held to be inadmissible by the trial judge. Frye appealed this decision but the appeals court upheld the decision stating:

While courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, the things from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs. Just when a scientific principle crosses the line between experimental and demonstrable is difficult to define.<sup>180</sup>

Ironically Frye's conviction was later overturned due to a confession to the crime made by another man. This did not settle the matter and recent discussions of the facts resolved that Frye was in fact guilty. The resulting conclusion is therefore that the test administered by Marston was inaccurate and thus unreliable.

A later case *United States v Stifel*<sup>181</sup> referred to the test used in Frye and criticised it stating that 'neither newness nor lack of absolute certainty in a test suffices to render it inadmissible in court.'

The legal foundation for the introduction of scientific evidence has changed in 1975 with the introduction of Federal Rules of Evidence, Rule 702. Rule 702 in essence holds that for evidence to be admitted it should be relevant and aid the jury.

In a case decided in 1977, *United States v Brown*,<sup>182</sup> the validity of the polygraph test conducted was again of the court's concerns.

The court stated that a defendant in a criminal case should not have to

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<sup>179</sup> *Frye v United States*, 54 App. D.C. 46, 293 F 1013 (1923).

<sup>180</sup> See note 179.

<sup>181</sup> 433 F.2d 431 (6<sup>th</sup> Cir 1970).

<sup>182</sup> 557 F.2d 541 (1977).

rebut scientific evidence which ‘bears an aura of special reliability and trustworthiness’, where the witness is actually testifying on the basis of a yet unproven and unconfirmed fact-finding method.

It has been held that the test set for the admission of polygraph and other scientific evidence in the *Frye*-case was too high.<sup>183</sup> The court stated that evidence by a witness that is qualified to give an opinion in a specialised area, and if relevant, should be admitted even if it is beyond the knowledge of the layman. This is what expert evidence is supposed to do – enlighten the uninformed.

It is clear then that the United States takes a critical stance to polygraph evidence in criminal matters. The case however is slightly different in employment matters.

In the United States the Employee Polygraph Protection Act (EPPA) was enacted in 1988 and became federal law on 27 December 1988.<sup>184</sup> The Act aims to provide protection to private employees from polygraph testing. Section 2(4) of the EPPA defines a polygraph as an instrument that:

- a) records continuously, visually, permanently and simultaneously changes in cardiovascular, respiratory and electro dermal 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.

It has been pointed out that the EPPA distinguishes between a ‘lie detector test’ and a ‘polygraph test’ in that ‘the term “lie detector” is defined to include the polygraph, deceptograph, voice stress analyser, psychological stress evaluator, or any other similar device (whether mechanical or electrical).’<sup>185</sup>

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<sup>183</sup> *United States v Stifel* (note 181).

<sup>184</sup> Robert V. Massey ‘Polygraph Testing in Arbitration: What are the Rights and Responsibilities of the Advocates’ available at <http://www.wvu.edu/~eten/depts/ilsr/polygraph-testing.pdf> [assessed on 10 August 2005].

<sup>185</sup> Christianson (note 6) at 19; Massey (note 184).

There are a few exceptions to this protection and it relates mainly to employment in sensitive fields such as national security etc.

The process to be followed and the preparation of the subject for the test are prescribed in the EPPA. In short, a pre-test interview must be conducted during which employers must provide employees with advance notice of the time and place that the investigation will take place. An explanation of the nature of the test and both parties' rights must be given and a notice to this effect must be signed. One of the rights of the employee is the right to consult a legal practitioner before each stage of the test. Furthermore, a denial to take the test cannot be used to discontinue employment nor may disciplinary action follow such a denial without additional supporting evidence that some misdeed was committed.

During the test phase, the examiner may only ask those questions given to the employee in writing during the pre-test phase and may not ask any questions relating to religious beliefs, political opinions, racial matters, union adherence, or matters relating to sexual behaviour.<sup>186</sup> The results of the test must be discussed in the third and final post-test phase. No disciplinary action may follow when the results were not discussed and the employee's input on the result was not obtained. The employee is also entitled to a copy of the questions and the results in writing.

The EPPA effectively prohibits pre-employment screening and periodic testing of employees. The position is summarised as follows:

The Act broadly prohibits an employer from requiring, requesting, suggesting, or causing any employee or prospective employee to take a lie detector test.<sup>187</sup>

But despite the broad prohibition, employers may use polygraph examinations (not 'lie detector tests') in the investigation of specific incidents in certain instances.

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<sup>186</sup> Christianson (note 6) at 21.

<sup>187</sup> Christianson (note 6) at 22.

There are three pre-conditions imposed by the EPPA for the control and administering of polygraph tests, which are:<sup>188</sup>

- a) The employee must have access to the property that is the subject of the investigation;
- b) There must be a reasonable suspicion that the employee was involved in the incident; and
- c) The employer must have suffered economic loss or injury.<sup>189</sup>

The circumstances under which polygraph tests may be concluded includes theft, embezzlement, and misappropriation of property or specific acts of industrial espionage or sabotage.

The EPPA also protects employees in that it stipulates that only some polygraph examiners may conduct the examinations, thereby controlling the training and competence of the examiners. Examiners must have professional liability cover and have been granted a licence to administer polygraph examinations by the state in which the test is to be done. They must also meet the requirements in terms of issuing and maintaining the documents and reports that are needed to do the job of a polygraph examiner.

Employees employed in the different states of the United States are therefore largely protected against polygraph tests for employment screening and have broad protection against specific incident testing as well. In 1999 the Department of Energy planned to institute polygraph screening for some employees and employment applicants to its national nuclear weapons laboratory. The Department approached Sandia National Laboratories who appointed a panel of Senior Scientist and Engineers to conduct a review of polygraph tests.<sup>190</sup>

In the executive summary the panel makes the following statement:

These [polygraph] tests are intended to identify subversives and deter potential ones. This policy seemingly assumes that polygraph tests, tests interpretation, and any follow-up processes will accurately identify subversives and nonsubversives. We concluded that there is no adequate

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<sup>188</sup> Debbie Collier 'Truth or dare? What lies beneath the polygraph test?' *De Rebus* July 2001 Issue 402.

<sup>189</sup> It is interesting to note that **possible future** loss or economic injury is not included.

<sup>190</sup> See note 9.

scientific basis for this assumption. No specific polygraphic or behavioural response has been directly linked to the act of deception and there are too many subjective factors involved in the administration and interpretation of polygraph tests to be able to predict and control their effectiveness and limitation.

A review of scientific literature on polygraph testing revealed substantial concern about polygraph accuracy for screening.... A summary of scientific opinion from a recent survey concludes that most psychology experts do not consider polygraphy to be technically sound and even more believe that skilled subversives can defeat polygraph tests.<sup>191</sup>

Polygraph testing in pre-employment screening in the US is therefore viewed with some scepticism. In 2003 the United States National Research Council compiled a report on the use of polygraphs in pre-employment screening by government agencies. The report found that:

There are no studies that provide even direct evidence of the validity of the polygraph for making judgements of future undesirable behaviour from pre-employment screening tests. The theory and logic of the polygraph ... is not consistent with ... forecast of future ... performance...<sup>192</sup>

As seen above, the United States courts in the past consistently rejected polygraph evidence on the basis of non-admissibility.<sup>193</sup>

The matter of *Daubert v Merrell Dow Pharmaceuticals*<sup>194</sup> provided another opportunity for the United States Courts to consider the scientific basis for expert evidence. The Court remarked that the rules of evidence have 'moved beyond' the test in the *Frey*-case. The judge listed four considerations that should be applied in determining whether expert evidence should be admitted.

(1) Testability (or falsifiability), (2) error rate, (3) peer review and publication, and (4) general acceptance.

The attitude of the courts in the United States have however, changed in the last few years. In *United States v Posado*,<sup>195</sup> a criminal

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<sup>191</sup> See note 9.

<sup>192</sup> As cited in Bull, et al (note 62) at 18.

<sup>193</sup> Christianson (note 6) at 32.

<sup>194</sup> 113 C. Ct. Supp. 2789 (1993) as cited in Leonard Saxe and Gershon Ben-Shakhar, 'Admissibility of Polygraph Tests: The Application of Scientific Standards Post-Daubert' available at [http://www.openu.ac.il/Personal\\_sites/Gershon-Ben-Shakhar/S&BPPL99.pdf](http://www.openu.ac.il/Personal_sites/Gershon-Ben-Shakhar/S&BPPL99.pdf) [assessed on 12 January 2007].

<sup>195</sup> 57 F.3d 428, 434 (CA 5 1995).

case, the court stated that the courts have not yet ruled that polygraph examinations are scientifically valid or that they will always assist the trier of fact but the obstacle of the per se rule against admissibility has been removed. This rule, the court stated was 'based on antiquated concepts about the technical ability of the polygraph and legal precepts that have been expressly overruled by the Supreme Court'.

The court further held that an enquiry into the issue of polygraph evidence admissibility should consist of three steps:<sup>196</sup>

Firstly the court must determine whether the evidence is relevant and reliable. Second the court must determine if the evidence assists the trier of fact in determining the fact at issue. Third, the court must decide if the evidence has an unfairly prejudicial effect that would substantially outweigh its probative value.

In *Posado*, the court submitted that the polygraph test should not replace the courts and arbitrators as 'finders of fact' and that the polygraphist should be cross-examined by the accused (or employee) in the same fashion as any other witness.

The argument was made in *United States v Scheffer*<sup>197</sup> that the defendants' right to introduce evidence was unreasonably violated because of the inadmissibility of the polygraph evidence. The basis for this decision was because scientists do not agree that polygraph evidence is reliable.<sup>198</sup>

The current view taken by the United States Courts can be summarised as follows:<sup>199</sup>

In American arbitrations, arbitrators have declined to give any weight to lie detector results when the employer has relied solely on such tests in dismissing an employee. Furthermore, arbitrators require evidence of polygraph examiner's experience and the accuracy of the test reports themselves, and both should be available for cross-examination.

The pattern is becoming consistent: admissibility, and reliability, of polygraph test results depend to a large extent on the qualifications and experience of accredited examiners, and polygraphs should never be used without supporting evidence.

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<sup>196</sup> *United States v Posado*, (note 195) cited in Christianson (note 6) at 32.

<sup>197</sup> 118 S. Ct. Supp. 1261 (1998).

<sup>198</sup> This view was also taken by the New South Wales District court.

<sup>199</sup> Christianson (note 6) at 33.



## CHAPTER 7: SUGGESTIONS AND CONCLUSION

Polygraph tests and the technology underscoring these tests are still, after more than 100 years in operation, very controversial. There is an enormous amount of literature on the topic of polygraph examinations as well as the validity, reliability and its usefulness in both criminal and civil applications of these tests. Criticism against the use of these tests revolves mainly around the issues of unreliability and invalidity. Opposed to this school of thought, stand those who believe that polygraph tests are accurate and should be used in and outside the employment sphere.

The technology behind these tests is integral to the main issues of reliability and validity and any practitioner coming face to face with polygraph evidence has to understand more than just the legal standing and principles surrounding this 'magical device'. Different polygraph techniques are used for different purposes, some less criticised than others, some less known and more mystical than others.

The position in South Africa is far from decided. All the case law deals with specific incident polygraph testing and no case law could be found dealing with the use of polygraphs in pre-employment screening or periodic testing of employees.

The bulk of South African case law either admits the evidence and attaches some weight to it or rules it totally inadmissible. In most cases the polygraph evidence was allowed but the weight attributed thereto was directly dependent on the evidence of the polygraph examiner and the presiding officer's personal beliefs, with no scientific investigation into the nature of the tests. There are a number of cases that concluded that polygraph evidence is unreliable and inaccurate and the results of these test should not be admitted into evidence at all.

There are several constitutional issues surrounding the use of polygraph evidence and the possible infringement of the rights of the individual. In the single case<sup>200</sup> to date that had the opportunity to deal with the right to privacy and polygraph tests the court opted out of dealing with the

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<sup>200</sup> See note 161.

constitutional issues by using prior obtained consent to side step the issue. It remains to be seen when and how our labour tribunals will deal with the different constitutional arguments advanced in the literature.

In America, the use of polygraph testing is limited by the Employee Polygraph Protection Act which regulates the use and conduct of these tests. Pre-employment screening is only allowed in limited industries where security concerns are very high. Specific incident testing is also controlled and may only be done in very limited circumstances.

Given the mushrooming of the use of polygraph testing in South Africa, the known unacceptable practises of some polygraph examiners and the risks involved in the misuse of the procedures, South Africa desperately needs to make a policy decision on the admission and use of polygraph tests. We can either follow the American example by limiting its application, use, and consequences or prohibit the use of polygraph testing in total.

Should we decide to prohibit polygraph testing the best solution would be to enact an amendment to s 8 of the Employment Equity Act and include polygraph testing under prohibited psychological or similar assessments based on the fact that these tests are an arbitrary ground of unfair discrimination.

The sound legal argument supports a complete prohibition of polygraph testing because of its scientific unreliability and invalidity. How can it be fair to introduce polygraph evidence against a certain group of employees (i.e. security services) but exclude its use against other employees when the reason for exclusion is scientific invalidity and unreliability?

The reality however, is that the possibility of polygraph testing being prohibited any time soon is very slim and for some time still labour practitioners, employers and employees will have to deal with these test results as part and parcel of labour disputes and the evidence adduced at our labour tribunals.

It is worthwhile then, to assess the requirements for presenting polygraph evidence or how best to defend a matter in the face of adverse polygraph findings.

The party wishing to present polygraph evidence should not just accept that the presiding officer in the matter will simply allow the evidence. As with any form of evidence to be admitted and afforded some weight, polygraph evidence should be presented in a specific manner.

Polygraph evidence is in fact documentary hearsay evidence if the polygraph examiner does not testify. The opinion of the examiner has to be supported by the examiner's own evidence in order to carry any weight (and in fact in order to be admitted at all). It has been suggested<sup>201</sup> that the party wishing to introduce polygraph evidence must –

- call the examiner;
- present evidence proving that the examiner is an expert – his testing experience;
- Prove accuracy of the report including presenting the details of the different questions asked; and
- Provide raw data which was evaluated.

In *Boonzaier v HICOR Trading Limited*<sup>202</sup> the CCMA provided some guidelines that should be followed if an employer wants to introduce polygraph evidence at arbitration supporting the suggestion made above. The commissioner added that the emotional state of the subject should also be proven, which means that details of the nervousness and general conduct of the subject should be provided.

The view taken by the commissioner regarding presenting of the evidence in *Boonzaier* was supported in *Zoned & Another v Floccotan (Pty) Ltd.*<sup>203</sup>

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<sup>201</sup> Massey (note 184).

<sup>202</sup> (1999) 10 (3) SALLR 1 (CCMA).

<sup>203</sup> *Zoned & Another v Floccotan (Pty) Ltd*, case no KN 2845, (1997) unreported.

There can therefore be no doubt that the polygraph examiner should be called to present their methodology, questions, experience and deductions made from the test results. The polygraph examiner should be consultant and warned of the possible attacks that may be leveled at the evidence. It is imperative that the representative of the party adducing the polygraph evidence is well informed as to the current state of polygraph evidence admissibility in our tribunals.

It is clear that the current position in South African law is that of unpredictability. The possibility of the presiding officer at a labour dispute tribunal, whether it be the CCMA, relevant bargaining council, or labour court, allowing polygraph evidence to be introduced is probably greater than the presiding officer ruling the polygraph evidence to be excluded totally.

The issue of discrediting this evidence then rests on the shoulders of the legal representative for the party disputing this evidence or with the individual themselves.

The Promotion of Access to Information Act<sup>204</sup> embodies the constitutional right to access to information. In terms of s 50 of the Act an individual may request access to the records of a private body where the record is necessary for the protection or exercise of any right. This private body may include an employer.<sup>205</sup>

The first action in representing or advising an employee dismissed following a failed polygraph test would be to request the polygraph test from the employer. This request should not just relate to the abbreviated report supplied by the polygraph examiner but should include the charts and original consent, the summary of the pre-test interview, the exact questions asked and the summary of the employee's reaction when told that the test was failed.

The nature of the exact questions asked is important in order to assess the possibility that the formation of the questions and the way in

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<sup>204</sup> Promotion of Access to Information Act, 2 of 2000.

<sup>205</sup> Bonthuys (note 61).

which it was asked caused unusual arousal in the subject<sup>206</sup> and resulted in the polygraph examiner concluding that the subject failed the test.

Secondly, the representative, should if financially possible, have the tests assessed by a second independent polygraph examiner. This would not in all cases be possible but may, given the subjective nature highlighted before, be worth the money and effort. Mention was made that polygraph examiners are influenced by their training, social beliefs, prior knowledge of the incident etc. This influence that the personal preferences of the examiner have on the test should never be ignored or underestimated.

Thirdly, anyone tasked with the cross examination of a polygraph expert should educate themselves on the procedures and literature surrounding the criticism of polygraph tests. As highlighted above, many of the commissioners simply accepted the word of the polygraph examiner and took the test results into account without even a slight investigation into the background or the circumstances of the test. Fairness dictates that each litigant, whether an employee who failed the test or not, be afforded the best possible defence and mere acceptance of the test does not play into the hands of fairness.

The controversy surrounding polygraph tests is most probably here to stay with opposing schools of thought flooding psychology, medical, and legal journals and the internet alike.

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<sup>206</sup> Tredoux & Pooley (note 14) at 826.

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