IN THE HIGH COURT OF SOUTH AFRICA
(WESTERN CAPE DIVISION, CAPE TOWN)

Case No. **SS01/2016**

In the matter between:

THE STATE

and

ANDILE CAKASAYO	Accused No. 1
MELIKHAYA CAKASAYO	Accused No. 2
NKOSITHANDILE CAKASAYO	Accused No. 3
NYAMEKO DAKI	Accused No. 4

JUDGMENT DELIVERED ON 30 JULY 2019

SIEVERS, AJ

INTRODUCTION

[1] On 25 July 2013, at around lunch time, a shooting incident occurred at the Nyanga Taxi Terminus. Two men died as a result of the incident and two men were injured.

[2] Arising from the incident the four accused were arraigned on two counts of murder,; two counts of attempted murder; together with charges of being in unlawful possession of firearms and ammunition read with the provisions of section 51 (1) of the Criminal Law Amendment Act, 105 of 1997.

[3] The State adduced the evidence of an eye witness Celani Twazi ("Twazi"), the ballistic evidence of Warrant Officer Engelbrecht ("Engelbrecht") and Warrant Officer Daniels ("Daniels") together with a plan of the scene of the shooting prepared by Constable N Tshali ("Tshali"). The four accused all testified that they had not been present at the scene of the shooting.

EYE WITNESS: CELANI TWAZI

[4] Twazi testified as follows: Twazi owned and operated taxis in Nyanga and was part of the Kiki Murray Taxi Association affiliated to CATA.

[5] Twazi had prior knowledge of Andile Cakasayo ("Andile"), Accused 1 as they both frequented the taxi rank in Nyanga and he would also see him when he visited his brother Zola Cakasayo ("Zola") who lived close to Twazi in Philippi. Andile had been a taxi owner since around 2012.

[6] Twazi knew Melikaya Cakasayo, Accused 2 by the nickname "Sgidi" They had worked together at the rank since 2012 and attended meetings together. Sgidi was also a taxi owner.

[7] Nkosithandile Cakasayo, Accused 3 was known to Twazi as "Diesel". He too was a taxi owner, a member of Kiki Murray and they had worked together at the rank since 2012.

[8] Nyameko Daki, ("Daki") Accused 4 was also known to Twazi. He did not see him much at the taxi rank but would see him along the road and at Phumlani's car wash. Twazi frequented this car wash and Phumlani also drove taxis.

[9] On the morning of 25 July 2013 Twazi travelled with Zithulele Luthuli ("Luthuli") to the taxi rank where they were advised to attend Wynberg Magistrates' Court where one of their members was to appear for a bail application. They arrived at court before 9h00 and found other members present. Andile arrived with Zola who Twazi overheard saying that he felt as if his "*body is pumped full of bullets*". After the member had been granted bail, Twazi and the other occupants of Luthuli's vehicle drove to Khayalitsha where they ate lunch. They thereafter drove to the taxi rank to attend a meeting.

[10] Luthuli drove the vehicle, Twazi was seated in the front left passenger seat, Bongani Mququ ("Mququ") sat behind him in the rear left passenger seat and Sikhumbule Silwana ("Silwana") sat behind the driver Luthuli in the right rear passenger seat.

[11] Having entered the taxi rank and turning towards the parking area Twazi observed Zola and Daki standing next to a vehicle which he identified as belonging to Daki. Luthuli reversed and parked his vehicle parallel to Daki's vehicle. Twazi observed Andile ahead of the vehicle in front of the Kiki Murray office.

[12] As Luthuli turned off the ignition Twazi heard shots from where Zola and Daki were standing. Twazi leant forward and could see them from the waistline upwards. They were approximately 1.5 metres from the driver's door and they both had a firearm in each hand.

[13] When he lifted his head Twazi saw Andile approaching the vehicle from the front and firing a firearm at them. At the same time he noticed Pumlani, who was to the right of Andile, approach and fire a firearm at them.

[14] Twazi exited the vehicle and ran towards a passage exiting the taxi rank which was roughly at nine'o clock to the direction in which the vehicle was facing. At this time he saw Sgidi and Diesel eight to ten metres ahead of him. They each had a firearm and were shooting at him but he was able to run between them.

[15] Twazi had heard something falling as he got out the vehicle and when he looked back he saw that Mququ had fallen to the ground.

[16] Twazi caught a taxi home to Phillippi and did not report the incident to the police whom he believed had connections with the accused. A few days later, after his vehicles were removed from the rank, he left for the Eastern Cape.

[17] Six months to a year later an investigating officer Constable Wilson ("Wilson") visited him in the Eastern Cape. A police officer Mathenthana accompanied Wilson and translated

Xhosa to English and *vice versa*. They wrote down what he said. He met up with Wilson on a later occasion in Cape Town when further information was written down.

[18] Under cross examination Twazi's first statement, which reflects that it was taken in Cape Town on 11 May 2014, was read back to him. It was pointed out that it makes no mention of Sgidi and Diesel carrying firearms or shooting at him. He stated that he had told the police this and did not know why it was not in the statement. Wilson denied this.

[19] While Twazi stated that Wilson had phoned him to meet at Medeira Police Station in the Eastern Cape, where the statement was made, Wilson said that Twazi had merely arrived at the police station with Mququ and that he had not been phoned.

[20] Twazi's second statement, purportedly deposed to in Cape Town on 23 August 2014, was read to him and it was pointed out that it makes no mention of Andile. Twazi stated that he had given the statement in Cape Town, Wilson said that this had occurred in East London.

[21] With regard to the statements it is to be noted that the state advocate's heads of argument quite correctly stated:

> *"At this juncture it may be appropriate to mention that there were deficiencies in the manner in which the police conducted the investigation which ranged from ineptitude, to dereliction of duty, to blatant carelessness when handling and recording of the handling of exhibits and to a clear lack of understanding or gravitas*

when taking and commissioning the sworn statements which formed the basis of the state's prosecution of the accused."

[22] It became clear from the evidence that the police regularly dated and commissioned statements in the absence of the witness, on a different date and at a different location to where the statements had been made.

[23] It was further put to Twazi that the state's amended summary of substantial facts alleged that on his arrival at the Nyanga taxi terminus he saw Zola, Phumlani, the four accused and Anele Nyameli armed with firearms. That all of the aforementioned had pointed their firearms at the vehicle in which he was seated and fired numerous shots at its occupants. Twazi replied that he had not seen Anele.

[24] Twazi testified under cross-examination that on returning to Cape Town from the Eastern Cape same time after the incident, Diesel and another man had tried to shoot him. He clearly never told Wilson this as this incident would have had serious implications for the accused's bail and would have led to further charges being brought. This second shooting was not referred to at all in Twazi's statements.

[25] The State did not lead the evidence of several witnesses that were placed on the scene of the incident by the summary of substantial facts. They include Bongani Mququ, Anele Nyameli and Thamsanqa Nkungwana, alleged to be a bystander wounded during the shooting.

[26] It was submitted on behalf of the accused that in the light of the above the evidence of Twazi, a single witness, is not sufficiently credible or reliable to justify a factual finding that any of the four accused were involved in the shooting of Nyanga terminus on 25 July 2013.

SINGLE OR IDENTIFYING WITNESS

[27] Section 208 of the Criminal Procedure Act, 51 of 1977 provides that an accused may be convicted of any offence on the single evidence of any competent witness.

[28] In **R v Mokena** 1932 OPD 79 it was held that the evidence of a single witness should be clear and satisfactory in every material respect, the witness should have no interest or prejudice, his evidence should not contain contradictions, he should not have previous convictions for dishonesty and should have had a proper opportunity for observation.

[29] This explanation of the cautionary rule serves as a guideline and must not be applied as a rigid rule of thumb test or formula in considering the credibility of a single witness. See **S v Sauls** 1981 (3) SA 172 (A) at 179 – 180.

[30] In **S v Teixera** 1980 (3) SA 755 (A) at 763 D – 764 B it was held that when the name of a witness, who should be able to cast light on an important issue in the case, is on the list of state witnesses and the State does not call that witness an inference may be drawn that the witness would contradict the evidence of the single witness.

[31] Evidence of the identity of an offender is also to be treated with caution. In **R v Masemang** 1950 (2) SA 488 (A) at 493 it was stated that even an honest witness quite often makes a positive identification of the wrong person.

[32] In the case where the witness has known the person previously it is important to test the degree of previous knowledge and the opportunity for a correct identification, with regard being had to the circumstances in which it was made. See **R v Dlala** 1962 (1) SA 307 (A) at 310 C – D.

[33] In this regard it is to be noted that Accused 1 testified that he barely knew Twazi prior to the trial. Accused 2 said that he did not know Twazi, had never seen him and was not familiar with the nickname Sgidi. Accused 3 stated that he had only seen Twazi at the taxi rank, that he did not know him and that he was, not familiar with the nickname Diesel. Similarly Accused 4 stated that he did not know Twazi.

[34] In **S v Mthetwa** 1972 (3) SA 766 (A) at 768A the court held:

> *"Because of the fallibility of human observation, evidence of identification is approached by the Courts with some caution. It is not enough for the identifying witness to be honest: the reliability of this observation must also be tested. This depends on various factors, such as lighting, visibility, and eyesight; the proximity of the witness; his opportunity for observation, both as to time and situation; the extent of his prior knowledge of the accused; the mobility of the scene; corroboration; suggestibility; the accused's face, voice, build, gait, and dress; the result of*

identification parades, if any; and, of course, the evidence by or on behalf of the accused. The list is not exhaustive. These factors, or such of them as are applicable the particular case, are not individually decisive, but must weighed one against the other, in the light of the totality of the evidence, and the probabilities."

[35] In Hiemstra's Criminal Procedure at page 3-8 it is stated that substantial errors in identification occur in connection with an event that is highly personal and very stressful. There is said to be no significant relationship between the confidence with which it is made and the accuracy of the identification in a highly stressful setting.

[36] The State submitted that the evidence on the identity of the accused by Twazi, was independently corroborated by the ballistic evidence, viewed together with the plan prepared by Tshali.

THE BALLISTIC EVIDENCE

[37] The ballistic evidence adduced by the state accordingly falls to be considered. The accused submitted that there was insufficient scientific basis for admitting the evidence seeking to link a particular component of spent ammunition to a particular firearm, and that the court should therefore exclude all of the ballistic evidence tendered by the state as being inadmissible.

[38] In the alternative, it was submitted that the state's ballistic witnesses, Engelbrecht and Daniels were insufficiently qualified to express the opinions that they did; that they

alternatively failed to give adequate evidence as to their ability to express such opinions; that they failed to demonstrate their reasons for forming the conclusions to which they testified, and in carrying out their investigations had failed to apply themselves properly to making the identifications that they purported to make.

[39] The evidence of the opinion of a witness in relation to an issue before the court is, generally speaking, inadmissible in our law in both civil and criminal matters. It is inadmissible because it is irrelevant. The opinion of the presiding judicial officer, based on facts found proved, is decisive of the issue concerned.

[40] An exception to this rule is the evidence of an expert. Such an expert may "*assist the court to reach a conclusion on matters on which the court itself does not have the necessary knowledge to decide. It is not the mere opinion of the witness which is decisive but his ability to satisfy the court that, because of his special skill, training or experience, the reasons for the opinions he expresses are acceptable.*" (emphasis supplied).

Erasmus Superior Court Practice, 2nd Edition, D1-490-491.

[41] A review of the approach to be adopted to this sort of evidence and the safeguards that a court should consider before placing reliance on expert evidence was undertaken by Vally J in **Twine and Ano v Naidoo and Ano. [2017] ZAGPJHC 288** (17 October 2017).

[42] The principles set out in **Twine** included the following:

(a) The admission of expert evidence should be guarded, as it is open to abuse.

(b) Expert witnesses are allowed to explain their opinions, but are not the ones that determine the fact or facts in issue. That determination resides within the exclusive province of the judicial officer. An expert witness is not allowed to usurp this function, nor is a judicial officer allowed to abdicate this responsibility.

(c) The experts' evidence must be capable of being tested. It must be verifiable.

(d) A court is not bound by, nor obligated to accept, the evidence of an expert witness.

(e) The court must actively evaluate the evidence. There is no need for the court to be persuaded with the competing opinions of more than one expert witness in order to reject the evidence of that witness.

[43] Boruchowitz J in ***S v Mkhize and Others***, 1999 (1) SACR 256 (WLD), analysed the manner in which ballistic evidence ought to be presented and why, in that instance, he found himself unable to rely on the evidence of the official of the SAPS Ballistics Laboratory. In Mkhize, the witness was unable to produce photographic evidence in support of the conclusions that he drew of matches between particular firearms and spent ammunition components, because the exhibits concerned had been lost. The learned judge found that without such photographic evidence, a statement of the opinion of the expert, that he had observed a match, could not be accepted. In relation to certain other evidence in respect of which photographs were produced, he found that, on consideration of the reasoning of the witness, it was not possible for the court to accept his evidence that there was in fact a match demonstrated by the photographs.

[44] It is accepted that when ammunition is fired by a firearm, components of that ammunition, in particular the bullet and the cartridge case, acquire marks from their contact with the barrel, breech face, chamber, and firing pin and, in the case of automatic weapons, the cartridge ejector.

[45] It is stated by proponents of forensic ballistics that these marks can be used to identify ammunition components that have been fired by the same firearm and to identify the particular firearm that fired the ammunition component by comparing that component to test ammunition fired by the firearm in question.

[46] Evidence relating to such purported identification has been admitted by courts of law in this country and elsewhere over a considerable period of time and, in numerous instances, a conviction of accused persons has resulted where such evidence is used as corroborative or even as principal evidence to found the conviction.

[47] The following fundamental propositions are not in dispute:

47.1 fired ammunition components can be used to ascertain certain gross, or class, characteristics of the weapon which fired them, thus:

47.1.1 a bullet of a particular calibre can only have been fired by a firearm using or permitting the use of that calibre of ammunition;

47.1.2 a rifled barrel of a firearm will impart grooves to a bullet fired through it that will establish the number of lands in that barrel and also the direction of that rifling;

47.1.3 a spent cartridge with a central primer has been fired by a firearm using a firing pin, but a rim fire cartridge case has been fired in a different type of firearm;

47.1.4 a cartridge case bearing an ejector mark has been fired by an automatic weapon;

47.1.5 ammunition fired by weapons from a particular manufacturer may bear marks that enable an examiner to determine the identity of that manufacturer;

47.1.6 these characteristics can usually be detected by a macroscopic, rather than a microscopic, examination;

47.1.7 these characteristics, as a whole, are known as class characteristics and therefore cannot be used to link fired ammunition components to an individual firearm;

47.1.8 imperfections in the firearm that come into contact with the ammunition in the firing process impart marks, often microscopic, to the ammunition components;

47.1.9 imperfections that caused such marks can, in the manufacturing process of the firearm, be common to a series of such firearms made in the same manufacturing plant, but will not necessarily be found in all firearms made by that manufacturer. These are known as sub-class characteristics and therefore can also not be used to link fired ammunition to an individual firearm;

47.1.10 due to a number of variable factors, identical marks will not be made on all ammunition fired by the same firearm;

47.1.11 ammunition components fired by different firearms may well bear certain matching marks. Research has shown that up to 25% of such random matching marks may occur;

47.1.12 marks made by imperfections occurring only in a particular firearm are referred to as individual characteristics.

[48] Practitioners in the field of firearm identification state that it is possible, by examining the marks on ammunition components to determine that sufficient individual characteristics are present to identify ammunition components as having been fired by the same firearm and, if a questioned firearm is available, to compare the ammunition components to fired test ammunition and thereby to establish that the questioned components were fired by the questioned firearm. In order to do so, the examination must take account of the fundamental propositions set out above and, in particular, must allow for the occurrence of sub-class characteristics and for the possibility of the ammunition compared having been fired by different firearms, but bearing random matching marks.

[49] Use is made of a comparison macroscope to examine the components for matching characteristics. A comparison macroscope enables the examiner to superimpose and to juxtapose portions of the image of two components to ascertain whether marks appear on the components in the same relative positions. If there is sufficient correspondence, the examiner will declare the components to have been fired by the same firearm.

[50] An American organisation, the Association of Firearms and Toolmark Examiners ("AFTE") was formed in 1969 in an effort to standardise the practice of identification of (*inter alia*) firearms in this way. It publishes a journal to which its members contribute articles on the subject. Although not members of the association, Engelbrecht testified that the ballistics arm of the South African Police Service Forensic Laboratory subscribes to its principles.

[51] AFTE is "*Theory of Identification*" reads as follows:

> "*1. The theory of identification as it pertains to the comparison of toolmarks enables opinions of common origin to be made when the unique surface contours of two toolmarks are in "sufficient agreement".*
>
> *2. This "sufficient agreement" is related to the significant duplication of random toolmarks as evidence by the correspondence of a pattern or combination of patterns of surface contours. Significance is determined by the comparative examination of two or more sets of surface contour patterns comprised of individual peaks, ridges and furrows. Specifically, the relative height or depth, width, curvature and spatial relationship of the individual peaks, ridges and furrows within one set of surface contours are defined and compared to the corresponding features in the second set of surface contours. Agreement is significant when the agreement in individual characteristics exceeds the best agreement demonstrated between toolmarks known to have been produced by different tools and is consistent with agreement demonstrated by toolmarks known to have been produced by the same tool. The statement that "sufficient agreement" exists between two toolmarks means that the agreement of individual characteristics is of a quantity and quality that the likelihood another tool could have made the mark is so remote as to be considered a practical impossibility.*

3. *Currently the interpretation of individualization/identification is subjective in nature, founded on scientific principles and based on the examiner's training and experience*".

[52] The definition of "*sufficient agreement*" is circuitous. It states the proposition that an examination must be made of the striation pattern of the two samples which are being compared. It accepts that tool marks produced by different tools may demonstrate some agreement, and stipulates that the extent of the agreement must exceed the "*best agreement demonstrated*" in tool marks made by different tools. This would appear to imply that there is some objectively ascertainable measure of this "*best agreement*". This is not so, as appeared from the evidence of Engelbrecht and Daniels in this case. In fact, each examiner of tool marks and firearms is expected to form his or her own mental picture of a "*best known non-match*" (as it was referred to in the evidence) as a standard against which the correspondence between the examined components is measured.

[53] It follows that the "*best known non-match*" of each examiner will differ and therefore that the threshold against which the "*sufficient agreement*" is measured will differ.

[54] As appears from the authorities cited above, expert evidence is intended to assist a court in coming to a conclusion in cases where the expert is better qualified than the presiding judicial officer to interpret certain facts or to conduct certain analyses. It is, however, essential that the expert should be able to explain to the presiding officer how the conclusion is arrived at, or how the analysis was undertaken, as well as the principles underlining the process. In the case of pattern-matching disciplines, the expert must be

capable of explaining and illustrating why the conclusion of a match is, in his opinion, justified.

[55] If this is not, or cannot be, done, the judicial officer has no way of assessing the weight to be attached to the opinion.

[56] This is the problem with the firearm identification in the present matter. The examiner can show photographs of the two objects being compared. But the conclusion that the striations on the two photographs are a match is a result of a process taking place in the mind of the examiner that is opaque to the presiding judicial officer because the examiner cannot explain or demonstrate the best known non-match that he or she used. This was confirmed by Engelbrecht and Daniels. It is also opaque to the examiner because he or she cannot say which of the apparently matching striations are random. The sub-class characteristics could not be meaningfully differentiated from individual characteristics. For the same reason the presiding officer cannot assess the sub-class characteristics.

[57] For these reasons, it was submitted on behalf of the accused that the evidence of both Engelbrecht and Daniels ought to be ruled inadmissible.

[58] Alternatively, it was submitted that the evidence adduced from Engelbrecht and Daniels is inadequate to support a finding, beyond reasonable doubt, that their identification of ammunition components and firearms is correct. Their evidence will now be considered in detail.

[59] The 62 individual evidence bags collected at the scene of the shooting by Tshali, containing ammunition components, being cartridge cases, spent bullets and bullet fragments, were examined by Engelbrecht between 29 August 2013 and 9 September 2013. He expressed the opinion that the cartridge cases had been fired from six different firearms and grouped the cartridge cases in accordance with the weapons that he said had fired them.

[60] Engelbrecht accepted that he had made an error in that he placed the cartridge case, which he marked A24, in the group of cartridge cases fired by the third firearm, as well as in the group of cartridge cases fired by the fifth firearm. He said that this cartridge case in fact belonged with those that he identified as having been fired from the latter firearm.

[61] Engelbrecht kept no detailed notes of how he arrived at this classification, nor did he keep photographs of each of the matches and, other than his word, no supporting evidence can be tested objectively in relation to his findings. In this regard the purported confirmation of his findings by Warrant Officer Gerber is of no value. It emerged during the evidence that the confirmation pages contain exactly the same error in relation to cartridge case A24, they confirm the results in exactly the same order, and this was apparently done on the same day, using the same comparison macroscope, notwithstanding that Engelbrecht testified that this examination had taken a full day of his time. Engelbrecht conceded that the situation in the laboratory at the time was not satisfactory and that steps had been taken to improve matters '*met die verloop van hierdie saak.*' Daniels confirmed that things have now changed and systems improved.

[62] The three bullets extracted from the body of the deceased in the post-mortem by Dr Alli, were examined by Engelbrecht between 7 and 8 October 2013. These three bullets could not be linked to any of the other five bullets or bullet fragments found at the scene of the shooting.

[63] On 15 January 2014 Engelbrecht received a Norinco semiautomatic pistol with serial number 603931. This firearm was licenced to Zola Cakasayo (since deceased and originally accused number 1 in this case). According to his affidavit and as he testified in the witness box, Engelbrecht fired two test rounds through this firearm and identified cartridge case A32 found at the scene of the crime with test cartridge case 1 (TC1) fired through this weapon. In support of his evidence, he produced exhibits with photographs of the primers and part of the sides of the two cartridge cases taken with the use of a comparison macroscope.

[64] During cross-examination, Engelbrecht was shown enlarged photographs by the defence.

[65] Engelbrecht's evidence regarding these photographs fell short of proof that the two cartridge cases were fired by the same firearm. The following aspects of his evidence militated against such a finding:

65.1 Engelbrecht confirmed that the two cartridge cases were of different manufacture. He accepted that there may be differences between such cartridges that cause marks made during the firing process to be imprinted

on the cartridge cases differently, due to harder or softer materials, coatings and the like;

65.2 Engelbrecht conceded the importance of the angle of the light directed at the surface being examined, because the image seen through the viewfinder of the macroscope is one of shadows cast by ridges and valleys of the striation marks on the surface. He conceded that the macroscopes used in the forensic laboratory do not have the means of calibrating the angle of the light and thus the light source of each of the exhibit stages is separately adjusted by hand and judged by eye. He also conceded that on the photographs the lighting was not the same on both sides of the macroscope;

65.3 Engelbrecht accepted that research has shown that up to 25% of apparently matching striations, on two exhibits, may be random, having been made by different firearms;

65.4 Engelbrecht accepted that subclass characteristics may be present on the exhibits examined by him yet stated that he was unable to identify any subclass characteristics on the two exhibits photographed by him, not because he was able to state that there were none, but because he was unable to distinguish a subclass characteristic from an individual characteristic. This was also the evidence of Daniels;

65.5 When asked to mark, on a photostatted copy of the exhibit what he considered to be the correspondences which (*ex hypothesi* exceeding his best-known non-match) were such as to satisfy him that there was sufficient agreement between the two exhibits, he first drew a series of outlines which bore no relation to the striation marks appearing on each side of the dividing line of the comparison macroscope. Engelbrecht stated confidently that these were the "*patterns*" which enable him to make the identification. The training material to which the court had access which is used in training the examiners who testified, shows that it is the existence of striations which appear in the same relative position on the two exhibits being examined, and which are shown by comparison macroscopy to be identical on both sides of the dividing line of the macroscope, which enable the ammunition to be identified as having a common origin (according to the AFTE theory);

65.6 The literature to which reference was made in the trial also suggests that recent research proposes that the use of a standard based on a number of continuous matching striations (CMS) is probably a more reliable way of establishing a match, because such continuous matching striations are less likely to be caused randomly and, provided a sufficient number is stipulated as a baseline, less likely to be affected by possible subclass characteristics. Both Engelbrecht and Daniels testified that the use of CMS was not part of their curriculum.

65.7 Engelbrecht in a second attempt sought to identify matching striations on a photostat copy of the exhibit. A close examination of the striations which he stated were matching, revealed that they did not exhibit the sort of correspondence of striations that would be expected if these two exhibits had been produced by the same firearm. An example of the sort of correspondence that might be expected in this situation is to be found in the extracts from *Heard*, Handbook of Firearms and Ballistics, 1997, which was submitted as an exhibit, that handbook being part of the training material that the SAPS examiners are required to study. It was clear, that neither of the images produced by Engelbrecht and submitted to the court as evidence supporting his opinion, bear the slightest resemblance to these figures.

65.8 Engelbrecht confidently, asserted that his error rate was zero, and that there was no possible doubt that his identified matches were correct.

[66] The court was thus left with the *ipse dixit* of a witness the extent of whose training is unclear, whose knowledge of error rates, and in particular his own error rate is poor at best and who showed no understanding at all of the dangers of bias that, in his discipline particularly, can lead to erroneous identification.

[67] With regard to bias, as appeared from the covering letter from the investigating officer Wilson, when the Norinco pistol was submitted to the forensics laboratory for examination, Engelbrecht was advised that the weapon concerned had been seized from a person who was a suspect in relation to the case. The danger of confirmational bias is thus clear and real.

[68] Precautions which might be taken to minimise the risk of such bias were not taken. The safety-measure of an independent confirmation of examination results is lacking. A fellow examiner, who is told that his colleague has made a particular match, is likely to seek confirmation rather than to differ from the conclusion. The second examiner has the comfort of knowing that the first examiner has made an identification, and his confirmation in turn strengthens the conviction of the first examiner that a correct match has been made.

[69] The court can thus not find that a match has been established between the firearm of Zola Cakasayo and any of the ammunition components found at the scene of crime.

[70] On 12 May 2014, Engelbrecht received three evidence bags containing fired bullets and bullet fragments. The bags, he said, contained 11 bullets and fragments. These evidence bags emanated from the post-mortem examination conducted by Dr Alli on 26 July 2013. According to Dr Alli's affidavit, the post-mortem was conducted on 31 July 2014, but this date, as he conceded during cross-examination is clearly incorrect. In this regard there is a further unexplained discrepancy in the evidence. Dr Alli testified that seven pieces of metal were extracted from the body of the deceased and placed in the aforesaid evidence bags.

[71] On the same date, Engelbrecht received a further fired bullet which he marked C9. He also received two fired bullets marked B47 and B49.

[72] After completing his examination, Engelbrecht concluded that the exhibits that were removed from the body of the deceased, the bullet marked C9 and the bullet

fragment, B47 recovered at the scene of the shooting, were fired by the same firearm. This would mean that seven shots were fired at the scene by this firearm. Again, in the absence of detailed notes and/or photographic confirmation, the accuracy of his conclusions cannot be tested.

[73] On 20 August 2014, Engelbrecht received a 9mm Parabellum Star semiautomatic pistol bearing serial number 1999287. This firearm was licenced to Melikhaya Cakasayo, Accused 2. It was recovered by the Police from his possession.

[74] Engelbrecht fired two test rounds through this weapon and compared the fired test ammunition with the evidence components recovered from the scene of the shooting. He concluded, after examination, that cartridge case marked A15, recovered from the scene of the shooting, was fired from the firearm of accused number two. His report was submitted as an exhibit.

[75] In order to illustrate his findings, Engelbrecht submitted two court charts admitted in evidence, showing the primer of test cartridge 2 and the primer of cartridge A15, and also a portion on the side of the two cartridges. As in the case of the court charts referred to above, the defence produced enlarged photographs of the digital images, which were submitted into evidence.

[76] An examination of the enlarged photographs shows a limited number of apparently matching striations, but also shows clear evidence of areas where there is no similarity at all between the striations on two cartridge cases. Given the uncertainty regarding the lighting angles, the limited number of matches, the possibility of random matching

striations and subclass characteristics, Engelbrecht's identification of these two cartridge cases as having been fired by the same firearm cannot be accepted. Engelbrecht conceded, in the course of his evidence, that the photographs submitted to court represented the best matches that he had found. The inference, is that the similarities between the other cartridges that he placed into the same group as cartridge case A15, which totalled nine in all, did not exhibit sufficiently close matches to either test cartridge one or test cartridge two which he fired through the Star semiautomatic pistol.

[77] There is thus insufficient evidence to establish, beyond reasonable doubt that the weapon licenced to accused number two was used in the shooting.

[78] In regard to this examination, a letter from the investigating officer accompanied the pistol, which gives rise to the same concerns regarding conformational bias as existed in relation to his previous identification. Similarly, the reliability of the confirmation by Captain Jones, reflected on the exhibit is questionable for the reasons set out above.

[79] On 9 September 2014, Engelbrecht received a 9mm Parabellum Norinco semiautomatic pistol bearing serial number 400747. He also received the other exhibits which have been collected in the course of the investigation. Engelbrecht fired two test rounds through this firearm and compared the cartridge cases and bullets with the other exhibits. He concluded, after examination, that the firearm had fired the bullets and bullet fragments taken from the body of the deceased, as well as the bullet marked C9 and the bullet fragment marked B47. His report in this regard was handed in.

[80] The firearm was recovered from accused number one and was licenced to him. This firearm was sent to Engelbrecht with a covering letter by the investigating officer stating that the weapon had been seized from a suspect who had been arrested in connection with the shooting. In support of his conclusion that the firearm had been used to fire bullet C8, Engelbrecht submitted two court charts.

[81] The risk of confirmational bias, together with the limited number of striations on two bullets that match and the criticisms of the evidence of Engelbrecht previously, apply to his identification in this regard too. He also confirmed that the court charts represented the best match that he had been able to find, and accordingly the inference must be that the matches between the other test bullet and any of the other bullets, 11 in number, which he said had been fired from the same firearm, are less clear.

[82] There is however a further reason to doubt the correctness of this identification. Engelbrecht was unable to match any of the cartridge cases collected at the scene of the shooting with the test cartridge cases that he fired through this weapon. Taking account of the fact that, if his identification is correct, the firearm concerned fired 11 rounds at the scene and, being a semiautomatic pistol, ejected 11 cartridge cases, it is surprising that not one of these cartridge cases appears to have been recovered. No rational explanation can be advanced for this, and for this reason as well, Engelbrecht's identification cannot be accepted as an identification beyond reasonable doubt.

[83] Daniels' evidence was no more acceptable than that of Engelbrecht.

[84] Daniels was confused about whether she had examined the exhibits using 3D or 2D imaging. The criteria for each is different.

[85] Daniels was adamant that there is no possible doubt about the correctness of the matches that she found.

[86] Daniels' evidence related to a firearm that was, according to the State's case, recovered from a vehicle being driven by Daki, Accused 4 when the vehicle was stopped at a roadblock in Beaufort West. Two test rounds were fired by Warrant Officer Stals using this weapon, and one of the test cartridge cases was used to place an image on the SAPS IBIS system.

[87] Daniels testified that she was asked to examine various cartridge cases from the scenes of various shooting incidents in the Western Cape which had been identified by the IBIS system as possible matches with test cartridge case 2 that emanated from the test firing by Stals. She explained that the IBIS system is a computer matching system that selects possible matches with other ammunition components whose images have been loaded onto the system, using an algorithm. From a number of possible matches, a member of the SAPS Forensic Laboratory selects those that he or she considers reasonable possibilities, by visually comparing the digital images which are provided by the IBIS system. The physical exhibits concerned are then collected and handed to one of the examiners at the SAPS forensic laboratory for visual examination under the comparison macroscope.

[88] As appeared from her evidence, and as confirmed in her report Daniels concluded that each one of the 20 questioned exhibits, including the fired cartridge case A48 collected

at the scene of the shooting with which the accused are charged, had been fired by the firearm concerned.

[89] In support of this conclusion, Daniels submitted two court charts. An enlargement of the digital image used to prepare the first court chart was handed in. As appears from the enlarged photograph, and as Daniels conceded in her evidence, the two cartridge cases were not aligned in the same relative position when the striations, which purport to show a match, were photographed. Accordingly, this court chart does not assist Daniels in providing material on the basis of which the court is able to determine whether her statement, that the two exhibits matched, is correct or not. A match may be thought to exist because a number of striations can be made to align with each other under the comparison macroscope. If care is not taken to ensure that the exhibits are properly aligned and that the lighting angle is the same on both exhibits, mistaken identification can occur.

[90] Because both witnesses accepted that for there to be a match, the examiner needs to find a second set of marks on an exhibit which show the same degree of correlation, it was a strictly speaking unnecessary to examine the second chart. However, when this exhibit is examined closely, it suffers from the same defect as the exhibits produced by Engelbrecht. Although it is so that certain of the striations do match up, there are a number of non-matching striations and, taking account of the possibility of random matching striations and unrecognised subclass characteristics, no weight can be attached to this court chart either.

[91] Daniels confirmed that she adjusts the light sources by hand to be able to see all the marks and simply judges by her eye whether they are striking the two exhibits at the

same angle. Daniels adjusts continuously throughout the examination. This can cause problems and care must be taken not to rely too heavily on apparent matches which might result from the incorrect angle of lighting.

[92] Daniels also exhibited a lack of proper understanding of the concept of confirmational bias, despite having studied the same materials as did Engelbrecht. The danger of confirmational bias is particularly strong in her case because not only had the computer algorithm apparently identified a match, but her colleague who selected the 20 examples from the IBIS matches, had concluded that there is a strong possibility that the ammunition components have a common origin. In addition, the person who confirmed her findings had access to her findings in advance of confirmation.

[93] It was submitted on behalf of the accused that it is highly improbable that the same firearm was used at each of the 20 different crimes scenes over a period of time by apparently different perpetrators. Some of the incidents are separated by a matter of days only.

[94] At the request of the prosecution, Daniels submitted two further court charts at the end of her evidence in chief. As appears from her evidence, a semi-circular pattern of striations shown to the right of the firing pin impression on each of the cartridges are characteristic of this particular model of Norinco pistol, and therefore do not of themselves assist in identifying a common origin from a single firearm of the cartridges concerned.

[95] The ballistic evidence adduced by the State suffers from a number of glaring weaknesses. The calibre of the two witnesses, Engelbrecht and Daniels, is not such that

the court can place any degree of reliance on the accuracy of their opinions. It is neither probative in itself, nor corroborative of any other evidence.

[96] Accordingly the ballistic evidence did not satisfy the requirements set out in **Twine** and **Mkhize** above.

[97] In **R v Ndlovu** 1945 (SA) 369 (A) at 386 it was stated:

> ***"I may sum up the law as follows: In all criminal cases it is for the crown to establish the guilt of the accused, not for the accused to establish his innocence. ... It can discharge the onus either by direct evidence or by proof of facts from which a necessary inference can be drawn. One such fact, from which (together with all the other facts) such an inference may be drawn, is the lack of an acceptable explanation by the accused. Notwithstanding the absence of such an explanation, if on review of all the evidence, whether led by the Crown or the accused, the jury are in doubt whether the killing was unlawful or intentional, the accused is entitled to the benefit of the doubt."***

[98] The State urged the court to take a step back and consider the mosaic of all the evidence as a whole. See **S v Hadebe & Others** 1988 (1) SACR 422 (SCA). In doing so regard is had to the evidence of the accused.

THE ACCUSEDS' EVIDENCE

[99] Andile, Accused 1 testified as follows:

99.1 On the relevant day Andile attended Wynberg Magistrates' Court with his brother Zola. Andile left his firearm in the cubbyhole of Zola's vehicle in order to enter the court building. Thereafter he went back to Zola's house, from where he left in his own vehicle for Nyanga terminus. He had left his firearm in the cubbyhole of Zola's vehicle.

99.2 Thus, Andile was at Nyanga terminus on the day in question. He was waiting for his food at a food outlet housed in a shipping container when he heard shots being fired. He observed a chaotic scene of people in the parking area of the terminus. He ran away, behind the container, in the direction of the police station. He stopped a taxi and took a lift to his brother's house.

99.3 Andile had left his Hilux bakkie at the rank, with his keys in an office housed in another shipping container. His brother arrived later, bringing Andile's Hilux with the assistance of another man. Andile had left his licensed firearm in the cubbyhole of his brother's vehicle. When he got his firearm back it was not missing any cartridges. He denied being involved in the shooting. His firearm was handed over to the police by his lawyer, while he was in custody after his arrest.

[100] Melikhaya, Accused 2 testified that he was at home on the day of the incident. He heard about the incident later that evening when he went to a shebeen which he attends each night to collect money from his staff. His firearm was under his control on the day in question. He denied being involved in the shooting. He stated he knew one of the

deceased, but not the other and that he had no problem with either of them. He said he didn't know Twazi.

[101] Nkosithandile, Accused 3 testified that he was not at Nyanga terminus on the day of the shooting. He stated he had travelled to Vredendal along with two other men to view a vehicle. His firearm was locked in his safe at home, and he had the only key. He knew the one of the deceased but not the other; and that he had no problem with either of them. He denied any involvement in the shooting. Jalisile Magadlelana also testified for the defence. He stated he was present with Accused 3, and another man, Xolilizwe Cupiso, when they drove to Vredendal on the day of the incident. The State, in terms of Section 236, handed in the bank statement of Xolilizwe Cupiso for the day of the incident which reflected a purchase in Vredendal.

[102] Daki, Accused 4 testified as follows:

102.1 On the day of the Nyanga incident he was at home in Delft. He stated he didn't know either of the deceased or Twazi. He denied being involved in the shooting. He stated he couldn't confirm that the VW caddy present at the scene was his without seeing the registration number. He stated he wasn't driving it that day.

102.2 With regard to his being stopped and searched outside Beaufort West on 24 May 2014, he stated he had no knowledge of a firearm being in his vehicle whilst he was driving it. He explained that his employee had driven the vehicle the day before his arrest, returning it late the previous evening

to his house in Delft. He didn't search the vehicle before he left Cape Town early that morning. He also stated his vehicle was opened and searched whilst he was face down in handcuffs on the road.

[103] It is to be noted that the four accused were arrested 13 months, 12 months, 27 months and 10 months respectively after the shooting incident. This delay could be expected an impact on the evidence of each accused in respect of their recollection of what they were doing on the day of the incident.

POSSESSION-ACCUSED 4

[104] With regard to the firearm found in Daki's motor vehicle at Beaufort West the State failed to established that it was in his possession.

[105] The concept of 'possession', when found in a penal statute, comprises two elements, a physical element (corpus) and mental element (animus). Corpus consists either in direct physical control over the article in question or mediate control through another. The element of *animus* may be broadly described as the intention to have *corpus*. In **S v Adams** [1986] 2 ALL SA 602 (A), the Appellate Division held;

> ***"As a basic minimum there must be this mental element. Moreover, under sec. 2(1) the onus is clearly on the State to prove that the accused person was in possession of a dangerous weapon, and this onus would include the burden of establishing beyond a reasonable doubt the existence at the relevant time of this mental element."***

[106] The presumption in Section 117 (2) for such *animus* to be presumed on the basis of pure physical control is conditional on the taking of reasonable steps. In ***Zumani and others v S*** [2015] JOL 32872 (GJ) the court stated that:

> *"A logical and necessary step in the investigation of this case would have included examination of possible fingerprints. It is neither necessary nor appropriate to speculate as to what the outcome of such a procedure would have been. Fact of the matter is that this was not done and it accordingly cannot be said that the State has taken sufficient steps necessary to fulfil the condition in order for the presumption to apply."*

[107] In this matter the firearm was not dusted for fingerprints. The presumption can thus not apply.

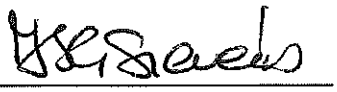
CONCLUSION:

[108] The evidence of the State does thus not sustain a conviction of Accused 4 on an amended version of count 9.

[109] Adopting a holistic approach to all of the evidence placed before the court a reasonable doubt with regard to the guilt of the accused remains. The forensic evidence cannot be used to corroborate Twazi's evidence. As Twazi's evidence cannot be accepted as sufficiently reliable and satisfactory on its own it follows that the State has not established the guilt of the Accused, on any of the charges, beyond a reasonable doubt.

[109] It is ordered that:

The four accused are acquitted on all charges.



SIEVERS, AJ
Acting Judge of the High Court