Chapter 6

What we have learned about human inferences at the crime scene
1. INTRODUCTION

The aim of the studies reported in this dissertation was to gain more insight in the role that information plays in the assessment of a crime scene and the search for and selection of forensic traces. The four studies that are presented in Chapters 2 through 5 provide evidence that context information plays a crucial role in the assessment of a crime scene. That influence can be beneficial as well as detrimental. However, entirely removing contextual information from the crime scene investigation is not only impossible but may even be counter-productive to the investigation, as it would reduce the efficiency of processing the crime scene.

In this chapter, I first discuss what can be learned from the four studies presented in this dissertation. I then discuss the strengths and weaknesses of the research and present opportunities for future research on this topic. Finally, I consider the practical implications of the current research. More specifically, I focus on what we have learned about the influence of information on the crime scene investigation and how that knowledge can be transferred to the practical work of crime scene investigators.

2. THE KEY FINDINGS AND WHAT WE LEARNED FROM THEM

In the studies I presented in this dissertation, I focused on crime scene investigators’ process of gathering and interpreting information. At times, trying to gain more insight in that process is at odds with the method that was used—namely, psychological experiments. In experiments, typically one experimental group of subjects – for instance, crime scene investigators – receives a different input than another group of comparable control subjects. Usually, the researcher then assesses the differences in output of subjects in the experimental and control conditions and tries to derive what went through the subjects’ minds from these different responses. However, a mental process is something that is difficult to measure, and often hard to reconstruct from the result of that process. As such, discussing a process sometimes, if not often, requires one to go beyond what is found in the experiments. That is a step of interpretation that is, of course, open to discussion. Nevertheless, I will attempt to make that step in the present discussion chapter.

In the first study, presented in Chapter 2, we focused on the process of gathering and transferring information. We wanted to examine which information a crime scene investigator receives before entering a scene. In Chapter 2, I reported on what kind of information about the crime scene various parties gathered and how the information is transferred from one party to the other. Results show that crime scene investigators receive limited information from emergency call responders and forensic team leaders before they head to a crime scene. The information they do receive and do want to receive mainly concerns the location of the incident and the persons involved (e.g. victim,
offender). Other parties, such as a uniformed police officer or forensic medical examiner, provide most of the information they receive at the scene. Although emergency call responders and forensic team leaders offer relatively little information to the crime scene investigators, all parties rather quickly label an incident. A presumed cause of death is quite easily shared, possibly as a means to help the crime scene investigators. Forensic team leaders acknowledge how difficult it is to be truly open-minded once the nature of an incident is labelled. Nevertheless they rely heavily on the so-called forensic vision as a protective tool against distorting assessments of the scene.

There also appears to be a lack of a genuine understanding of the danger that providing contextual information embodies and the concept of bias. Almost all participants said they were aware of the biasing influence of contextual information. Yet, during the interviews, various statements demonstrated otherwise, and, in practice, little action is undertaken to guard against biasing influences. The interviews revealed major differences in participants’ need for information. Since there are few guidelines for gathering and sharing information, especially for the forensic team leaders and crime scene investigators, it can be assumed that these differences persist. That is undesirable as differences in this information process may cause arbitrariness and could influence the consistency of how similar cases are handled. This study shows that there are no formal guidelines for the recording of investigative information that crime scene investigators receive in the initial stage of the investigation. As a result, crime scene investigators record information at their own discretion. That, again, means there is a great variety of working methods. It also means that not all information is given in their crime scene report. Incomplete, missing or even misleading information may impact the interpretation of the report in the on-going police investigation because only hindsight permits the determination of what information was relevant.

Based on the study described in Chapter 2, it can be assessed that the manner in which emergency call responders and forensic team leaders dispatch a crime scene investigator can have a major influence on how a crime scene is evaluated. It was also demonstrated that most crime scene investigators consider at least some information necessary before they start an investigation, preferably about possible dangers and the persons involved. Therefore, context information given prior to the vetting of a crime scene is considered important. That raised the question of how information contributes to the assessment of a crime scene and the reconstruction of events.

The aim of the study presented in Chapter 3 was to gain additional insight in what kind of information is needed to reconstruct events at the crime scene. It was investigated how context information and receiving feedback in the form of answers to self-invented questions affect the reconstruction of events leading up to a crime scene. In this study, we asked the mock investigators to record their narratives of the crime. The results demonstrate that the crime stories mainly consist of action items. This
WHAT WE HAVE LEARNED

finding is in line with Pennington and Hastie (1993) description of a good narrative. In general, crime scene investigators are the most interested in Person-items (i.e. information on both the victim and other people involved). That is in line with the findings presented in Chapter 2, namely, that crime scene investigators are foremost interested in background information about the persons involved. It should be noted that crime scene investigators thus consider information about the key actors to be the most relevant information to reconstruct events. That is at odds with what we know from studies about evidence in criminal cases, which demonstrated that the identity of the perpetrator is just one element of the reconstruction of the crime, besides the other six criminalistic Wh-questions.

In our study, the narratives of participants who received contextual information contained significantly more factual elements than interpretations compared to the narratives of those who did not receive contextual information before assessing the scene. That effect was not present for participants who were allowed to ask questions while writing down their narratives. The narratives of participants who were allowed to ask questions did not contain more factual elements compared to the narratives of participants who were not allowed to ask questions. That leads to the contention that receiving prior information is different for crime scene investigators than receiving answers to questions that are formulated during the investigation with a certain hypothesis or scenario in mind. The former may serve as a framework at the start of the investigation to see and understand the facts of a crime and thus helps with the reconstruction of events. The latter may not serve that purpose.

The study presented in Chapter 3 taught us that it is difficult to start the reconstruction of events at a crime scene without any prior information and that the information can be used as a framework to reconstruct those events. This finding raised the question to what extent prior information influences the interpretation of a crime scene.

This question was examined in the study reported in Chapter 4. In that experiment it was examined whether different prior information influences crime scene investigators’ interpretations and decision-making at crime scene. For this experiment we used an ambiguous mock crime scene, a murder that was staged as a suicide. It was expected that the crime scene investigators would have a different view of what had happened at the crime scene and would secure different traces depending on the prior information they received. The analyses that were conducted to test these hypotheses showed that participants indeed interpreted the crime scene differently, based on the information they received beforehand. That effect was especially present in the murder and suicide conditions. Firstly, the analyses show that if crime scene investigators are primed for a suicide scenario, then their first impression is indeed more often suicide than expected. Moreover, fewer crime scene investigators in the suicide condition than expected remain indecisive about what happened. Notably, remaining indecisive until the investigation
at the crime scene has ended is considered to be the right attitude in order to prevent tunnel vision.

In the murder condition the opposite was found. When primed for a murder scenario, fewer crime scene investigators than expected have suicide as a first impression, and more investigators than expected remain indecisive for the time being. Furthermore, the results demonstrate that when primed for a suicide scenario, investigators are more confident in their initial judgement of the crime scene compared to when they are primed for a murder scenario. In all conditions, participants secured roughly the same crime-related traces, irrespective of the prior information they received.

With the interpretation of these results, it should also be noted that the base rate of causes of death is extremely in favour of suicide. In the Netherlands, approximately 1,850 people commit suicide annually, while some 100 people are maliciously killed (Centraal Bureau voor de Statistiek, 2016). That means that a crime scene investigator who, prior to entering a crime scene, expects a suicide is more often correct than a crime scene investigator who expects a murder scene. Choosing suicide as a cause after being primed with a suicide scenario may be more natural than choosing murder as the most likely cause. At the same time, it demonstrates that choice is more detrimental to the investigation. Typically, crime scene investigators scrutinise a suicide scene much less than a murder scene.

From the study presented in Chapter 4, we learned that after investigating a crime scene, investigators are also influenced by the information they received prior to the investigation, regardless of which traces they secured during the investigation. As such, the influence of the initial information they received, influences the scenario investigators have in mind when entering the crime scene and its influence is still reflected in their final impression when exiting the crime scene.

In the study presented in Chapter 4 we found no influence of prior information on the selection of crime-related traces by experts. However, that may be a consequence of the fact that experienced crime scene investigators collect traces more based on routine. In the study presented in Chapter 5, we attempted to gain more understanding of the process of finding traces at the crime scene, by comparing experts and novices. In this study, the role of expertise was examined in the same ambiguous crime scene as presented in Chapter 4.

Experienced crime scene investigators who had limited knowledge of cognitive bias but had extensive experience with crime scene investigations were compared to applied forensic science students who recently had courses on cognitive bias but had limited experience with crime scene investigations. The results showed that the students secured more crime related traces compared to the experienced crime scene investigators, irrespective of the total number of secured traces. The results furthermore demonstrated that there is no difference between experienced crime scene investigators
and inexperienced students in the interpretation of the crime scene at the start of
the investigation and after finishing the investigation. It seems odd that although
investigators and students do not differ in the interpretation of the crime scene, all
of them shift their opinion towards murder, compared to the initial assessment of the
scene. Processing the crime scene leads to a different interpretation of the scene. This
finding is somewhat contradictory to research findings on belief perseverance, which
show that people have the tendency to maintain a belief despite opposing evidence
(Koehler, 1991). However, in our study, participants were apparently able to update their
belief based on new information (i.e., a thorough investigation of the crime scene).

Our findings from the last two studies may be somewhat blurred by two factors we
found when looking at the data from a more qualitative perspective. First, it is often
the case that different crime scene investigators collect the same traces for different
reasons. For instance, one investigator may secure the knot in the neck of the victim
to seek support for the scenario that a person committed suicide. Another investigator
may secure the same trace to seek support for a murder scenario. Therefore, crime scene
behaviour does not always allow conclusions about what an investigator’s intentions
are. Second, much of the behaviour of crime scene investigators is not steered by their
beliefs; rather, it is steered by their interpretation of the crime scene or the scenarios
they intend to test. Much, if not most, of their behaviour is merely routine behaviour.
For example, a large bloodstain, provided it is seen, is always sampled regardless of the
scenario a crime scene investigator has in mind.

If a researcher, like me, is aiming to study the influence of prior beliefs on behaviour
at crime scenes, these two factors must be seen as error variance, causing the potential
blurring of the effects one is trying to unravel.

With the studies presented in this dissertation I provide insight into the need for
information that crime scene investigators have and how that information subsequently
influences inferences made at the crime scene. The knowledge gained by the studies
contributes both to theoretical discussions about these kinds of decision-making
processes, as well as to the field of practise.

In the next sections I will discuss the scope of the research, strengths and weaknesses
of the research and what kind of scientific insights the research has yielded.

3. STRENGTHS AND WEAKNESSES OF THE STUDIES

In this section, I will discuss the potential strengths and limitations of the studies
presented in this thesis. This dissertation is a first step to gaining a better understanding
of the influence of information on forensic inferences at the crime scene.

I have sought to secure the external validity of the results by including crime scene
investigators and other police officers as participants in two out of four studies, hence
increasing the generalisability of the findings. Furthermore, experienced crime scene investigators were consulted when the experiments described in Chapters 3, 4 and 5 were designed, and the mock crime scene was constructed. This was done to make the experiments as realistic as possible while maintaining a controlled environment. In all the studies, the sample size was quite small, which limits their statistical power. However, it should be noted that the forensic investigation unit is a specialised department, and the total number of crime scene investigators in the Netherlands is limited. Given that limitation, the number of crime scene investigators who participated in the studies is substantial.

Another limitation concerns the fact that for each experiment only one type of case, consisting of one crime scene was included, which limits the generalisability of the findings.

A further limitation includes the use of virtual crime scenes. In the studies presented in Chapters 3, 4 and 5 pictures of crime scenes were used. Participants indicated they missed the feel of a real crime scene. Furthermore, with the use of a dummy, it was not possible for the participants to include information that can be derived from the victim’s body in their assessment of the scene. In death investigations that information is essential. Although these choices are potential limitations of the studies because they may have lowered the external validity of the experiments, these were deliberate choices. In that manner, with virtual crime scenes we sought to maximise the internal validity and minimise variance in order to better understand the cognitive processes involved in reasoning and decision-making at the crime scene. We aimed to control the experimental setting without giving in too much on external validity.

The scope of this thesis was limited to the investigation of ambiguous crime scenes with dead bodies, because it was hypothesised that, in these cases, prior information plays the most crucial role. There are, of course, many other types of crime scenes in which context information may be important as well. To gain more insight into the role context information plays in crime scene investigations, the role context information has on decision-making when there is a victim who is still alive should be investigated. It would be especially interesting to study what happens when the context information, such as that provided by witnesses, conflicts with the information provided by the victim.

One can argue that the fact that participants were presented with a fictitious case file and that there were no consequences based on the decision participants made are limitations of these studies. It may have impacted the way participants made decisions concerning the evidence at the crime scene, especially in the studies described in Chapters 4 and 5. Indeed, in the study presented in Chapter 4, a substantial number of participants explained that the most likely scenario was not a conclusion but rather an evaluation of an uncertain situation. They wanted to clarify that they did not jump to
conclusions. Most participants wrote down two possible scenarios (murder or suicide), and the majority of the participants indicated that they would have to wait for the lab results of the traces before they could come to a definite conclusion. However, when real crime scenes are investigated the situation is also uncertain and often the crime scene investigation is finished before all the lab results get back.

In all the experiments, it was clear to participants that they were taking part in an experimental study. That knowledge may have influenced their behaviour. One could therefore argue that it makes the findings of the studies less generalisable. It can also be argued, however, that for that reason, crime scene investigators acted on their best behaviour, tried to be more open-minded and evaluated information more critically than they would have in real life. Even in the current setting, I found differences between the groups depending on the information that was provided to them. One could argue that those differences will only be larger in a more naturalistic setting.

3.1. Measuring forensic inferences at the crime scene

Decision-making at the crime scene is a dynamic process that is difficult to grasp. In the studies displayed in this dissertation we presented scenes in a virtual environment. There are several advantages and disadvantages of the use of mock crime scenes that I have discussed in the previous section. However, with the use of these virtual crime scenes I have developed new methods to measure decision-making at the crime scene. The use of virtual crime scenes furthermore enables researchers to examine these dynamic decision-making processes in more depth.

A great advantage of doing psychological experiments is that the ground truth is known. This knowledge makes it possible to assess whether the participants in the study made errors, made bad judgements or did well. In the studies presented in this dissertation, that would mean that we would know whether or not an investigator wrongly interprets a crime scene. That is commonly regarded as a great advantage of these types of studies (see, for instance, De Gruijter, 2017). Having an established ground truth can be highly beneficial in experimental research on decision-making at crime scenes. It can be measured if the correct scenario is mentioned and also if and which crime-related traces are secured. Furthermore, it can provide information about what plausible scenarios and crime-related traces the investigators may have missed. Since with an established ground truth it is also known which traces are absent in the scene. It has been documented that the absence of evidence is considered less important than the presence of evidence in legal decision-making (e.g. Eerland, Post, Rassin, Bouwmeester, & Zwaan, 2012), but sometimes the absence of certain traces may help differentiate between scenarios. It can be assessed if the absence of traces that may be expected in a certain scene influences the interpretation of that scene.
3.2. Traces as a measurement for decision-making at the crime scene

In the studies presented in this dissertation, I focused on information rather than on forensic traces. In the original research plan I intended to give more attention to traces as a measurement for decision-making at the crime scene than I eventually did. When conducting my research, I gradually realised that it is very difficult to ascertain why a crime scene investigator secures certain traces. There are often multiple explanations for securing traces and having them analysed. The provided context information may be one explanation, but there may also be other explanations, such as routine activities or coincidence. Furthermore, in many cases, the same traces have to be secured and analysed in order to verify or falsify a certain hypothesis. Therefore, it is difficult to use the selection of specific traces as a measure to assess the influence of context information on decision-making at the crime scene.

In the studies described in this dissertation, no materials were included with which visual attention could be measured. Hence, there was no possibility to measure which traces participants were actually seeing. Inferences of what was seen could be based on the forensic traces that participants wanted to secure. If a trace was not mentioned, the assumption could be made that it was not seen. In order to gain more knowledge of the influence of context information on the visual attention of crime scene investigators, future studies could include materials, such as eye-trackers, to measure visual attention. It should be noted, however, that using eye-trackers in real scenes would diminish the ecological validity of the study.

4. PERFORMANCE

A recurring question during the discussion of the findings was whether it is appropriate to provide a value judgement based on the decisions made in the experiments. With a known ground truth, it can be determined that some participants performed better than others if they arrived at the right conclusion or secured more crime-related traces than others.

In this particular kind of study, however, ground truth has a particular meaning. It means that the researchers know what events took place that led to the image produced at the crime scene as well as what crime-related traces can be found. If such is done in a manner in which not only the ground-truth-event leads to the traces but also in which the reverse is true, namely that the traces can only without a doubt lead to that particular ground-truth-event, then there is no problem. If, on the contrary, the researchers tried to design an ambiguous experimental crime scene that can be interpreted in various ways, ground truth obtains another role. It can no longer be maintained that the experiment has a ground truth as is common in the traditional psychological experiment, as the clues do not unambiguously lead to one scenario.
However, even if ground truth could be established without doubt, it is questionable as to whether using it for judging crime scene investigators’ behaviour would be fair. To my knowledge, crime scene investigators do not have a clear definition of ‘good performance’ in regard to the interpretation and evaluation of traces and the crime scene. In one study, the critical skills of well-performing crime scene investigators were described (Kelty, Julian, & Robertson, 2011) However, in that study, peers who nominated others as top-performers provided the definition of ‘excellent performance’, which involved the highest DNA and fingerprint identification rates, though not necessarily the rationale behind certain decisions. Therefore, ‘desirable behaviour’ at a crime scene remains undefined. Based on what we know about conformation bias (see Nickerson, 1998), it can be argued that arriving at a most-likely scenario in the early stages of the crime scene investigation is undesirable. As a consequence, investigators should stay open-minded and consider multiple possible scenarios at least until the lab results are available. One of the problems with bias is that it leads to premature conclusions about the nature and causes of crimes. The ideal investigator is more often portrayed as someone who is open-minded and who considers alternative scenarios in order to minimise the risk of tunnel vision and errors (Ask & Granhag, 2005; Rassin, 2010). On the other hand, it is inevitable that decisions are made at the crime scene. It is impossible to secure everything that is present at the scene. Therefore, crime scene investigators have to make decisions about the relevance of traces and may also decide that a particular scenario is so much more likely than other scenarios that it is unwise to spend money and resources on testing unlikely alternative scenarios. The findings in this dissertation demonstrate that it is perhaps most important to ensure the transparency of the decision-making process by explicating assumptions and documenting why certain decisions have been made at a certain point in the investigation. In short, entertaining a limited set of particular scenarios early in the processing of a crime scene is necessary to do the work but is nevertheless hazardous.

5. MANAGING INFORMATION AT THE CRIME SCENE

Following up on studies showing that experts at forensic laboratories are susceptible to expectancy effects, a number of researchers have attempted to find solutions to that problem. One of the proposed solutions to mitigate bias in the forensic laboratory is to omit domain-irrelevant or extraneous information (e.g. Cooley & Turvey, 2007; Dror, 2013; Stoel, Berger, Kerkhoff, Mattijssen, & Dror, 2015). ‘Extraneous information’ is defined as details outside a forensic scientist’s area of expertise (Risinger et al., 2002). When analysing ammunition, for example, experts do not need to know how many shots were fired during the crime or whether a suspect has confessed. Domain-relevant information, on the other hand, falls within scientists’ area of expertise and is necessary
to help them to answer the questions they are asked about the evidence submitted to them. In the case of a bullet, for instance, knowing what it hit after it was fired is relevant in order to explain any damage it has incurred.

Thus, the solutions outlined above look promising in theory, but applying them in practice is complicated. This holds especially true for crime scene investigations. First, the distinction between domain-relevant and domain-irrelevant information is not always clear. In one case, for example, a witness statement may be relevant or even essential in answering the forensic-technical question, whereas in another case it could exert undue influence. Moreover, at the outset of an investigation, the information that is required to help answer forensic questions is not always apparent. That makes it difficult to decide what information should be shared with the investigators and what to withhold from them. As previously mentioned, it is difficult, if not impossible, to isolate context information at a crime scene, as the crime scene itself is a source of context information as well.

A different take on the dilemmas presented above involves not trying to manage information at the crime scene at all but instead providing crime scene investigators with all the information available. It solves the problem of defining ‘domain-relevant’ and ‘domain-irrelevant’ information in each specific case, as all information is considered equally valuable. It can be argued that when traces are collected, one needs as much context as possible. Investigation at that level involves constant interplay between the information being gathered and the working scenario regarding what has transpired. That scenario is updated when new details become known, which in turn influences what traces are looked for subsequently and how they are interpreted. Moreover, it is impossible to conduct a crime scene investigation without some context information, because otherwise no distinction could be drawn between relevant and irrelevant evidence. The findings presented in this dissertation demonstrate that context information can serve as a framework to help with the interpretation of the scene.

In other words, clues at the crime scene cannot be isolated and examined blindly. Analysing traces in the laboratory, on the other hand, should be done with as little context as possible.

6. FUTURE RESEARCH

The studies discussed in the current dissertation demonstrate that contextual information impacts the way in which events at the crime scene are reconstructed and how a crime scene is interpreted. Therefore, the information provided during different stages of an investigation should be carefully considered. As there has been limited research conducted on this topic, this dissertation should be considered as a starting point in that line of research. In the current dissertation, I have attempted to sketch a
wider image of the role that prior information plays in the investigation of the crime scene and the importance of carefully considering that information. Still, many questions remain unanswered. In order to increase awareness of the topic and to improve decision-making at crime scenes, future research is needed. With a better understanding of what information is necessary and how it impacts crime scene processing, the providence of prior information can be better managed, and guidelines for gathering and sharing information can be drafted.

First of all, the current studies should be repeated to test the robustness of the findings. Second, future studies may vary numerous factors to expand knowledge about the topic. The studies presented in Chapters 2 and 3 revealed that information about persons involved in an event are of particular interest to investigators. Investigators stated that they need that kind of background information to get an impression of the situation they may encounter. Therefore, in future studies, different types of contextual information about the victim could be provided to participants to further study the impact victim characteristics may have on the investigation of a crime scene. Does it matter for the investigation if the victim is, for instance, famous or infamous? The more important or well known a victim is, the more public attention there is for the criminal investigation, including the crime scene investigation. However, it is not established that more attention equals better decision-making. In this dissertation, the victim in all the cases was an adult female. Future studies could examine the role of the victim characteristics on the decisions made at the crime scene. Other variations with victim characteristics may include the age, gender, sexual orientation, socio-economic status or religious affiliations of the victim.

Furthermore, in future studies the type of crime scene could vary. In the current dissertation, only cases with suspicious deaths were included. It may also be important to include, for instance, a crime scene of a robbery, to assess the influence of context information on less serious crimes. Also, it could be studied whether it is of influence to the decisions investigators make whether the victim is dead or alive.

In a previous section, I provided a detailed description regarding why it is impossible to investigate a crime scene blind, without any context information. In order to enhance effective and informed decision-making at crime scenes, the focus should be on managing the information (Osborne et al., 2016). However, in order to manage information, it should first be established how information should be evaluated, and which information is considered to be the most important. Therefore, future studies could focus on who provides the information. For instance, researchers could manipulate the source of the context information in order to gain more insight into the role the provider plays. In Chapter 2, only emergency call responders and forensic team leaders were included in the interviews. Other sources that may provide information to crime scene investigators include uniformed police investigators, forensic medical
examiners, the officer in charge and the tactical police unit. Some sources are potentially considered more important than others; thus, investigators might attribute more value to the information they provide compared to information from other sources. This can be taken into account when providing information.

Lastly, prior information is only one of the elements that might impact interpretations and decision-making at the scene of crime. Other elements could include experience, base-rate knowledge and recent cases that come across as similar, but also factors as fatigue and the weather. It is important to unravel the influence of prior information compared to these other elements

7. PRACTICAL IMPLICATIONS

As argued in this dissertation, evaluating information is an integral part of processing crime scenes. It is impossible, as well as undesirable, to try and keep information away from crime scene investigators. However, the studies presented in this dissertation also show that information can unduly influence decision-making at a crime scene. It is therefore of great importance to consider that information with care. Crime scene investigators have great professional autonomy, and, to date, there are few guidelines on how they should collect and record information. Moreover, some crime scene investigators do not consider the handling of context information to be a key element of their job. The findings presented in this dissertation suggest otherwise. Decisions made at the crime scene can have a major impact on the rest of the criminal investigation. In order to gain more insight into decision-making at the crime scene, it is necessary to know what information crime scene investigators have at their disposal. Also, the scenarios an investigator considers, as well as the way in which collected information contributes to a particular scenario should be explicitly stated.

Therefore, guidelines on how this information should be recorded are crucial. Missing elements of information in crime scene reports make it difficult to reconstruct decision-making at a crime scene in hindsight. It is crucial that crime scene investigators feel more responsible for properly recording information, as it is an integral part of their job. It is also important that reports are written soon after an incident has taken place in order to prevent forgetting the information over time. Without a proper recording of information, it is impossible to recall why certain decisions regarding trace evidence and the crime scene investigation were made at a certain time during the investigation. Proper documentation is vital in order to make well-founded inferences at crime scenes. It also enables all parties involved to learn from mistakes and prevent them in the future.
8. CONCLUSION

With this dissertation, I have tried to gain more insight into the hitherto relatively unexploited research area of decision-making at crime scenes. Investigating a crime scene involves complex information processing with different types of visual, oral and written information that all have to be weighed and considered carefully. In the current dissertation, I have demonstrated that contextual information impacts decision-making at a crime scene. It can be beneficial as well as detrimental. Although this may be in line with findings from previous psychological research on expectancy effects, this conclusion may come as a surprise to the police. Too often, one relies on experience and the ‘forensic vision’ as a protective tool against bias. The crime scene investigation is often the start of the criminal investigation, and the initial assessment of the crime scene is an important first step in the investigation. All further decisions about physical evidence are based on the initial perception and interpretation of a crime scene. A proper crime scene investigation is thus of vital importance to the criminal investigation that follows. It is important to think about where crime related traces might be found in each specific crime scene. Instead of banning information from the crime scene investigation, the focus of future research should be on managing that information to maximise the utility of the information at the scene and minimise the risk of bias.
REFERENCES


