This is the author's original manuscript of an article published by Elsevier in the Journal of Applied Research on Memory and Cognition in September 2016, available online: http://dx.doi.org/10.1016/j.jarmac.2016.06.013

The Thin Blue Line-Up: Comparing Eyewitness Performance by Police and Civilians

Annelies Vredeveldt

VU University Amsterdam

Peter J. van Koppen

VU University Amsterdam

Author note

Annelies Vredeveldt, Department of Criminal Law and Criminology, VU University Amsterdam, The Netherlands; Peter J. van Koppen, Department of Criminal Law and Criminology, VU University Amsterdam, The Netherlands.

We thank Linda Kesteloo, Dan Reisberg and Lisa Fournier for their helpful feedback on an earlier version of this manuscript and Craig Leach for helping us devise the title.

Correspondence concerning this report should be addressed to Dr. Annelies Vredeveldt, VU University Amsterdam, Faculty of Law, De Boelelaan 1105, 1081 HV Amsterdam, The Netherlands. E-mail: anneliesvredeveldt@gmail.com

Abstract

Police officers are often believed to provide more reliable testimony than civilian eyewitnesses. We reviewed the available empirical evidence for this belief. There is some evidence to suggest that police officers do indeed report more accurate details about witnessed events than civilians do, particularly concerning crime-relevant details. That research finding does not translate directly to practice, however, since an average difference between police and civilian witnesses does not mean that a particular police officer in a specific case should be believed over a particular civilian eyewitness. More importantly, police officers are no better than civilians at identifying a perpetrator from a line-up and may even be more likely to make a false identification. Because eyewitness misidentifications have far more severe consequences than misreported event details, expert witnesses in court should warn decision-makers that police officers are at least as likely as the average eyewitness to falsely identify an innocent person.

Keywords: eyewitness memory; line-up identification; observation; police; civilian; confidence

The Thin Blue Line-Up: A Comparison of Eyewitness Performance by Police and Civilians

In a court of law, a sworn statement from a police officer about his or her own observations may carry considerable weight. Statements made by civilian eyewitnesses, on the other hand, are often viewed with more skepticism. In The Netherlands, a distinction between police officers and civilians has even been incorporated in the law: a single statement by a civilian eyewitness is not sufficient to convict, but a single statement by a police officer is.[1] Many people, including jurors and judges, believe that police officers are better eyewitnesses than civilians (e.g., Benton, Ross, Bradshaw, Thomas, & Bradshaw, 2006; Deffenbacher & Loftus, 1982; Noon & Hollin, 1987; Yarmey, 1986; Yarmey & Jones, 1983).

Why would police officers perform better as eyewitnesses than civilians? We have heard various outlandish theories on this question, including one attorney's claim that police officers develop superior night vision as a result of working night shifts (Reisberg, 2016, personal communication). Of course, this is nonsense. Police officers have the same visual system as any other human being and are thus similar to other humans in many respects.

Another claim is that police officers are better at identifying perpetrators because they have been specifically trained in encoding and recognizing faces. Research shows, however, that face recognition training programs are not effective (see e.g., Malpass, 1981; Malpass, Lavigueur, & Weldon, 1973; Woodhead, Baddeley, & Simmonds, 1979). Similarly, instructions that improve recall of events, such as mental context reinstatement and eye-closure, typically do not improve face recognition performance (e.g., Searcy, Bartlett, Memon, & Swanson, 2001; Smith & Vela, 1992; Vredeveldt, Tredoux, Kempen, & Nortje, 2015). In light of the fact that

[1] Note that there is an important practical reason for this: many small offences, such as a parking offence or a broken bike light, would go unpunished if a single police statement were not sufficient evidence (see also Bleichrodt, 2015).

people encode and recognize faces every day, it is perhaps not surprising that additional training of a few hours or even several days does not improve face recognition performance further. Besides a few exceptions (e.g., prosopagnosics), *all* people are experts at recognizing faces.

Although face-specific training does not help, police officers may still be better at lineup identification tasks because, as some attorneys have claimed, police officers are keenly aware of the relevant issues. For example, they know that a lineup can be biased and that instructions can bias their decisions. This argument involves two assumptions: a) that police officers are indeed aware of these issues and b) that this awareness leads to improved performance. From survey research among police personnel, we know that many if not most police officers are acutely unaware of how memory works and how lineup variables affect decisions (see e.g., Benton et al., 2006; Odinot, Boon, & Wolters, 2015). For example, Odinot and colleagues found that half of the police officers in their sample still believed that memory works like a video camera. Moreover, even if police officers are aware of potential biases, that does not mean that they can overcome those biases. Research shows that even people who have been warned about the existence of cognitive biases or the dangers of post-identification feedback, still fall prey to those biases and external influences (see e.g., García-Bajos & Migueles, 2003; Lampinen, Scott, Pratt, Leding, & Arnal, 2007; Lindner, Echterhoff, Davidson, & Brand, 2010). Thus, it seems unlikely that an awareness of relevant issues would improve police officers' lineup identification performance.

Perhaps a more plausible claim is that police officers are more likely to stay calm in stressful situations. One of the things that police officers have in common with civilians, is that a high level of stress during a witnessed incident impairs their subsequent memory performance (see Hope, this issue, for an overview). It is possible, however, that it takes a greater level of

danger to produce stress in a police officer. As far as we know, there is no research examining whether the threshold at which the average police officer experiences stress differs from that of the average civilian. However, correlational research does show that officers with additional martial arts training perform better in high-pressure arrest and self-defense situations (Renden, Landman, Savelsbergh, & Oudejans, 2015) and experimental research shows that training in high-stress situations can significantly improve shooting performance (Nieuwenhuys & Oudejans, 2011) and arrest and self-defense skills (Renden, Savelsbergh, & Oudejans, 2016). If training or experience in stressful situations helps police officers to stay calm, then that might benefit their subsequent memory performance.

In this article, we will assess whether research findings support the belief that police officers are better eyewitnesses than civilians. In our discussion of differences between police officers and civilians, we will distinguish between reporting about events and line-up identification tests. We will also comment on confusions regarding the experts' consensus on this topic. Finally, we will draw some conclusions based on our review of the research.

Observation and Recall of Events

Research on differences in incident reports by police and civilian witnesses has involved widely varying tasks that require varying skills. Some studies have assessed observation skills, others memory performance, and yet others a combination of observation and memory.

In studies assessing observation skills, researchers want to know whether police officers are better than civilians at detecting criminal and non-criminal details *while* they are watching a scene (Ainsworth, 1981; Smart, Berry, & Rodriguez, 2014; Tickner & Poulton, 1975). Research on the detection of actions and people in a scene revealed little overall difference between police officers and civilians, but did reveal some small differences in the type of details to which each

group paid attention. For example, police officers were more likely to falsely detect a theft that did not actually take place (Tickner & Poulton, 1975).

If witnesses report about crimes after the fact, for example in investigative interviews or in the courtroom, a complicating variable is introduced: memory. The question arises whether police officers have a better memory for witnessed incidents than civilians. Research findings on this issue are mixed. Some studies revealed no overall differences between police and civilians in the amount or accuracy of recalled information about a witnessed event (Kaminski & Sporer, 2016; Smart et al., 2014; Stanny & Johnson, 2000; Verinis & Walker, 1970), but in other studies, police officers did remember significantly more correct details about witnessed events than civilians, without an increase in errors (Christianson, Karlsson, & Persson, 1998; Clifford & Richards, 1977; Kalteis, 2013; Lindholm, Christianson, & Karlsson, 1997; Thomassin & Alain, 1990; Yuille, 1984). The difference between these two sets of studies might be related to the type of information reported by participants, which will be explored in more detail below.

When police officers provide written or oral incident reports, they can often rely not only on their memory of what happened, but also on external aids such as notes that they took at the crime scene or during real-time observations (e.g., perpetrator descriptions or details about the vehicle). Yet, to our knowledge, only two studies to date have assessed this combination of observation and memory (one of which was unpublished; Marshall & Hanssen, 1974, as cited in Ainsworth, 1981; and the other one recently published; Vredeveldt, Knol, & Van Koppen, 2015). In both studies, it was found that police officers reported more correct information about the witnessed event than civilians. Marshall and Hanssen found that police officers also reported more false details, whereas Vredeveldt and colleagues found that police officers were equally or even more accurate than civilians.

Beyond overall differences in reporting about witnessed incidents, perhaps a more interesting finding is that police officers report more crime-relevant information, for example about perpetrators, weapons, and vehicles, but not more crime-irrelevant information, for example about victims, bystanders, and contextual setting (Kalteis, 2013; Kaminski & Sporer, 2016; Lindholm et al., 1997; Smart et al., 2014; Vredeveldt, Knol, et al., 2015). It seems likely that this difference occurs already at the encoding stage of memory; that is, police officers pay attention to different things than civilians do.

The idea that police officers have a different perceptual focus is supported by the results of an early experiment in which experienced police recruits, novice police recruits, and psychology students were presented with a violent scene in one eye and a neutral scene in the other eye (Toch & Schulte, 1961). As a result of this presentation method, participants do not see the two images as superimposed, but rather see only one image at a time. When asked to describe what they saw, experienced police recruits were more than twice as likely as novice recruits and students to describe the violent scene instead of the neutral scene. In other words, the experienced police recruits had been trained to become 'perceptually sensitive' to potential violence in the environment. In a similar vein, police officers are significantly more likely than civilians to interpret an ambiguous scene as crime-oriented (Tickner & Poulton, 1975; Verinis & Walker, 1970). In light of those findings, it is perhaps not surprising that police officers also report more crime-relevant details about witnessed events.

Line-up Identification

The vast majority of known wrongful convictions involving eyewitness error were not due to a witness misremembering some detail about the crime, but rather to a mistaken identification (see e.g., Gross, Jacoby, Matheson, Montgomery, & Patil, 2005; Innocence Project, n.d.). From an

applied perspective, it is therefore crucial to assess differences between civilian and police witnesses in their ability to identify the perpetrator from a line-up.

Most studies have revealed no significant differences between police officers and civilians in overall person identification accuracy (Christianson et al., 1998; Kaminski & Sporer, 2016; Lindholm et al., 1997; Smart et al., 2014; uniformed police in Vredeveldt, Knol, et al., 2015), although a few studies found that police officers are somewhat more likely to make false identifications (significant for uniformed police in Kalteis, 2013; a non-significant tendency in Kaminski & Sporer, 2016; significant for one out of four line-ups in Smart et al., 2014; and significant for police recruits in Thomassin & Alain, 1990). The latter finding may be a result of police officers being more likely to choose someone from the line-up (i.e., response bias; see Thomassin & Alain, 1990). Thus, the research shows that police officers perform either equally well as or worse than civilians on perpetrator identification line-ups. There does seem to be one exception, however: Vredeveldt and colleagues found that detectives specialized in covert observations were significantly more likely than both civilians and uniformed police to identify the perpetrator from a target-present line-up. This suggests that expertise in carrying out observations may benefit subsequent person identification, but additional research involving specialized groups of police officers is required before we can draw firm conclusions about the influence of this type of expertise.

Another way in which police officers might differ from civilians, is in the level of confidence expressed in their lineup decision.[2] In other forensic contexts, such as lie detection, police officers are typically more confident in their decisions than civilians, even though their

[2] They may also differ in terms of their confidence in memories about the event, but only one study to date has assessed that type of confidence (Christianson et al., 1998). They found that police officers and recruits were more confident in their responses to open questions than civilian teachers and students, but no significant differences in confidence in responses to multiple-choice questions.

decisions are no more accurate (see e.g., Masip, Alonso, Herrero, & Garrido, 2016; Meissner & Kassin, 2002). If police officers are also more confident about their lineup identification decisions, that could have important consequences in legal cases, given that decision-makers are easily swayed by a highly confident witness (see e.g., Brewer & Burke, 2002; Cutler, Penrod, & Dexter, 1990). Surprisingly, though, none of the studies that assessed mean confidence in lineup decisions found significant differences between police officers and civilians (Christianson et al., 1998; Kalteis, 2013; Kaminski & Sporer, 2016; Thomassin & Alain, 1990). Thus, the typical pattern of overconfident police officers was not observed in the context of lineup identification decisions. Nevertheless, compared to civilians, police officers have been found to rate their encoding conditions as more favorable, are more willing to testify about their identification in court and display weaker correlations between confidence and accuracy (Kaminski & Sporer, 2016; Smart et al., 2014).

Although line-ups usually concern person recognition, they can also involve object recognition. Two of the aforementioned studies included an object line-up, and both found significant differences between police and civilian eyewitnesses. Participants in the study by Lindholm et al. (1997) viewed a video in which a perpetrator seriously wounds a cashier with a knife. When subsequently asked to identify the perpetrator's knife from a target-present line-up containing eight knives, police officers were significantly more likely to make a correct identification (39%) than civilians were (19%). Vredeveldt and colleagues' (2015) participants viewed a video of a drug transaction in a hotel lobby and were subsequently asked to identify a painting that had been displayed in the lobby, from a target-present or target-absent line-up containing six paintings. Civilian eyewitnesses were significantly more likely to identify the correct painting from the target-present line-up (85%) than both uniformed police officers (55%)

and specialized detectives (50%).[3] The finding that police officers are better than civilians at identifying a knife, but worse at identifying a painting in the background, fits the pattern we observed for incident reporting—again, it seems that police officers pay more attention to crime-relevant details and less to crime-irrelevant details than civilian witnesses do.

The Experts' Opinion

There seems to be some confusion in the literature about the experts' opinion on differences between civilian and police eyewitnesses. Based on some early research findings on observation skills (Ainsworth, 1981; Tickner & Poulton, 1975) and face recognition abilities (Malpass, 1981; Woodhead et al., 1979), authors in the 1980s asserted that the expert opinion *should be* that police officers are no better as eyewitnesses than civilians (e.g., Deffenbacher & Loftus, 1982; Kassin, Ellsworth, & Smith, 1989; Noon & Hollin, 1987). Despite the fact that more recent evidence has revealed that police officers may actually provide superior incident reports, authors in recent years have simply adopted that assertion from the 1980s (see e.g., Benton et al., 2006; Houston, Hope, Memon, & Read, 2013; Kassin, Tubb, Hosch, & Memon, 2001; Odinot et al., 2015). Some authors have even claimed that experts agree that there is a research basis for the statement that police officers are no more accurate as eyewitnesses than the average person.[4] A survey of 64 legal psychology experts, however, revealed that experts do not actually agree on this topic at all (Kassin et al., 2001): 72% indicated either that the evidence was inconclusive or that they did not know. Additionally, only 39% believed that the statement that

[3] There were no significant differences on the target-absent line-up.

[4] Specifically, it has been claimed that the survey among experts conducted by Kassin and colleagues (2001) showed "a 75% agreement that there was a research basis for the conclusion that trained observers are no better or worse than untrained eyewitnesses" (Houston et al., 2013, p. 640). The 75% agreement reported by Kassin et al. actually referred to a different question though, namely whether the expert's *own opinion* was based on research. That is a subtle but important difference—an expert's opinion might be that the evidence on the issue is inconclusive, and that opinion may be based on research. That does not mean that there is a research basis for the statement that police are no better as eyewitnesses than civilians.

police officers are no better as eyewitnesses than the average person “is reliable enough for psychologists to present in courtroom testimony”. Thus, it seems that the experts are divided on this issue.

To determine more conclusively whether police officers are better eyewitnesses than civilians, a meta-analysis could be conducted (see Sporer, Zimmerman, & Kaminski, 2016). We suspect that a meta-analysis would show that, on average, police officers recall significantly more crime-relevant details about witnessed events than civilians do. Yet, it is not immediately apparent how that information could be used by expert witnesses in court. Even if we disregard the methodological limitations and low ecological validity of most studies on this topic (e.g., nearly all civilian samples consisted of undergraduate students), the finding that police officers remember a few more details on average does not mean that the testimony of a specific police officer in a particular case is more reliable than that of a civilian eyewitness (see also Faigman, 2010). We therefore do not believe that expert testimony on the superiority of police officers’ recall of crime-relevant event details would offer a lot of added value in the courtroom.

Conclusion

When discussing eyewitness memory, it is crucial to distinguish between reporting about a witnessed event and identifying a perpetrator from a line-up. There does seem to be some research support for the idea that police officers are better than civilians at recalling crime-relevant event details, but there is virtually no evidence that police officers are better at person identifications—if anything, they may be more likely to falsely identify an innocent person. Crucially, eyewitness errors in the form of mistaken person identifications typically have far more severe consequences than eyewitness errors in the form of misreported event details. We therefore believe that the most important task for an expert witness on this topic would be to

emphasize that police officers are at least as likely as the average person to falsely identify an innocent person.

References

Ainsworth, P. B. (1981). Incident perception by British police officers. *Law and Human Behavior, 5,* 231–236. doi:10.1007/BF01044766

Benton, T. R., Ross, D. F., Bradshaw, E., Thomas, W. N., & Bradshaw, G. S. (2006). Eyewitness memory is still not common sense: Comparing jurors, judges and law enforcement to eyewitness experts. *Applied Cognitive Psychology, 20,* 115-129. doi:10.1002/acp.1171

Bleichrodt, F. W. (2015). *Conclusie over ambtsedig proces-verbaal, 26 mei 2015*. (ECLI:NL:PHR:2015:1016). Retrieved from http://uitspraken.rechtspraak.nl/.

Brewer, N., & Burke, A. (2002). Effects of testimonial inconsistencies and eyewitness confidence on mock-juror judgments. *Law and Human Behavior, 26,* 353–364. doi:10.1023/a:1015380522722

Christianson, S.-A., Karlsson, I., & Persson, L. G. W. (1998). Police personnel as eyewitnesses to a violent crime. *Legal and Criminological Psychology, 3,* 59–72. doi:10.1111/j.2044-8333.1998.tb00351.x

Clifford, B. R., & Richards, V. J. (1977). Comparison of recall by policemen and civilians under conditions of long and short duration of exposure. *Perceptual and Motor Skills, 45,* 503–512. doi:10.2466/pms.1977.45.2.503

Cutler, B. L., Penrod, S. D., & Dexter, H. R. (1990). Juror sensitivity to eyewitness identification evidence. *Law and Human Behavior, 14,* 185–191. doi:10.1007/bf01062972

Deffenbacher, K. A., & Loftus, E. F. (1982). Do jurors share common understanding concerning eyewitness behavior? *Law and Human Behavior, 6,* 15–30. Retrieved from http://www.jstor.org/stable/1393703

Faigman, D. L. (2010). Evidentiary incommensurability: A preliminary exploration of the problem of reasoning from general scientific data to individualized legal decision-making. *Brooklyn Law Review*, 1115-1136.

García-Bajos, E., & Migueles, M. (2003). False memories for script actions in a mugging account. *European Journal of Cognitive Psychology, 15*, 195–208. doi:10.1080/09541440244000102

Gross, S. R., Jacoby, K., Matheson, D. J., Montgomery, N., & Patil, S. (2005). Exonerations in the United States 1989 through 2003. *The Journal of Criminal Law and Criminology, 95*, 523–560. Retrieved from http://www.jstor.org/stable/3491344

Hope, L. (2016). Evaluating the effects of stress and fatigue on police officer performance during and after use of force incidents: A challenge for research, training, practice and policy. *Journal of Applied Research in Memory and Cognition, in press*.

Houston, K. A., Hope, L., Memon, A., & Read, J. D. (2013). Expert testimony on eyewitness evidence: In search of common sense. *Behavioral Sciences & the Law, 31*, 637–651. doi:10.1002/bsl.2080

Innocence Project. (n.d.). Eyewitness misidentifications. Retrieved from http://www.innocenceproject.org/understand/Eyewitness-Misidentification

Kalteis, M. (2013). *Sind Polizeibeamte besser? Eine empirische Untersuchung zu Identifizierungsleistungen von Polizeibeamten und Studierenden.* (Magistra der Naturwissenschaften), Universität Wien, Wien. Retrieved from http://othes.univie.ac.at/31151/

Kaminski, K. S., & Sporer, S. L. (2016). Sind Polizisten/-innen bessere Augenzeugen/-innen? *Recht und Psychiatrie, 34*, 18-26.

Kassin, S. M., Ellsworth, P. C., & Smith, V. L. (1989). The "general acceptance" of psychological research on eyewitness testimony: A survey of the experts. *American Psychologist, 44*, 1089–1098.

Kassin, S. M., Tubb, V. A., Hosch, H. M., & Memon, A. (2001). On the "general acceptance" of eyewitness testimony research: A new survey of the experts. *American Psychologist, 56*, 405–416.

Lampinen, J. M., Scott, J., Pratt, D., Leding, J. K., & Arnal, J. D. (2007). 'Good, you identified the suspect...but please ignore this feedback': Can warnings eliminate the effects of post-identification feedback? *Applied Cognitive Psychology*, *21*, 1037–1056. doi:10.1002/acp.1313

Lindholm, T., Christianson, S.-A., & Karlsson, I. (1997). Police officers and civilians as witnesses: Intergroup biases and memory performance. *Applied Cognitive Psychology, 11*, 431–444. doi:10.1002/(SICI)1099-0720(199710)11:5<431::AID-ACP470>3.0.CO;2-9

Lindner, I., Echterhoff, G., Davidson, P. S. R., & Brand, M. (2010). Observation inflation: Your actions become mine. *Psychological Science, 21*, 1291–1299. doi:10.1177/0956797610379860

Malpass, R. S. (1981). Training in face recognition. In G. Davies, H. Ellis, & J. Shepherd (Eds.), *Perceiving and remembering faces* (pp. 271–285). London: Academic Press.

Malpass, R. S., Lavigueur, H., & Weldon, D. E. (1973). Verbal and visual training in face recognition. *Perception & Psychophysics, 14*, 285–292. doi:10.3758/BF03212392

Masip, J., Alonso, H., Herrero, C., & Garrido, E. (2016). Experienced and novice officers' generalized communication suspicion and veracity judgments. *Law and Human Behavior, 40,* 169-181. doi:10.1037/lhb0000169

Meissner, C. A., & Kassin, S. M. (2002). 'He's guilty!': Investigator bias in judgments of truth and deception. *Law and Human Behavior, 26,* 469–480. doi:10.1023/a:1020278620751

Nieuwenhuys, A., & Oudejans, R. R. D. (2011). Training with anxiety: Short- and long-term effects on police officers' shooting behavior under pressure. *Cognitive Processing, 12,* 277-288. doi:10.1007/s10339-011-0396-x

Noon, E., & Hollin, C. R. (1987). Lay knowledge of eyewitness behaviour: A British survey. *Applied Cognitive Psychology, 1,* 143–153. doi:10.1002/acp.2350010207

Odinot, G., Boon, R., & Wolters, L. (2015). Het episodisch geheugen en getuigenverhoor. *Tijdschrift voor Criminologie, 57,* 279-299. doi:10.5553/TvC/0165182X2015057003001

Renden, P. G., Landman, A., Savelsbergh, G. J. P., & Oudejans, R. R. D. (2015). Police arrest and self-defence skills: Performance under anxiety of officers with and without additional experience in martial arts. *Ergonomics, 58,* 1496-1506. doi:10.1080/00140139.2015.1013578

Renden, P. G., Savelsbergh, G. J. P., & Oudejans, R. R. D. (2016). Effects of reflex-based self-defence training on police performance in simulated high-pressure arrest situations. *Ergonomics, in press*.

Searcy, J. H., Bartlett, J. C., Memon, A., & Swanson, K. (2001). Aging and lineup performance at long retention intervals: Effects of metamemory and context reinstatement. *Journal of Applied Psychology, 86,* 207–214. doi:10.1037//0021-9010.86.2.207

Smart, S. M., Berry, M. A., & Rodriguez, D. N. (2014). Skilled observation and change blindness: A comparison of law enforcement and student samples. *Applied Cognitive Psychology, 28,* 590–596. doi:10.1002/acp.3021

Smith, S. M., & Vela, E. (1992). Environmental context-dependent eyewitness recognition. *Applied Cognitive Psychology, 6,* 125–139. doi:10.1002/acp.2350060204

Sporer, S. L., Zimmerman, L., & Kaminski, K. S. (2016). Police vs. laypersons as eyewitnesses: A systematic review and meta-analysis. *Manuscript in preparation*.

Stanny, C. J., & Johnson, T. C. (2000). Effects of stress induced by a simulated shooting on recall by police and citizen witnesses. *The American Journal of Psychology*, *113*, 359–386. doi:10.2307/1423364

Thomassin, L., & Alain, M. (1990). Performance of witnesses when giving evidence and making eyewitness identification. *Canadian Police College Journal, 14,* 233–246.

Tickner, A. H., & Poulton, E. C. (1975). Watching for people and actions. *Ergonomics, 18,* 35–51. doi:10.1080/00140137508931438

Toch, H. H., & Schulte, R. (1961). Readiness to perceive violence as a result of police training. *British Journal of Psychology, 52,* 389-393. doi:10.1111/j.2044-8295.1961.tb00805.x

Verinis, J. S., & Walker, V. (1970). Policemen and the recall of criminal details. *Journal of Social Psychology, 81*, 217. doi:10.1080/00224545.1970.9922443

Vredeveldt, A., Knol, J. W., & Van Koppen, P. J. (2015). Observing offenders: Incident reports by surveillance detectives, uniformed police, and civilians. *Legal & Criminological Psychology*. doi:10.1111/lcrp.12087

Vredeveldt, A., Tredoux, C. G., Kempen, K., & Nortje, A. (2015). Eye remember what happened: Eye-closure improves recall of events but not face recognition. *Applied Cognitive Psychology, 29*, 169–180. doi:10.1002/acp.3092

Woodhead, M. M., Baddeley, A. D., & Simmonds, D. C. V. (1979). On training people to recognize faces. *Ergonomics, 22*, 333–343. doi:10.1080/00140137908924617

Yarmey, A. D. (1986). Perceived expertness and credibility of police officers as eyewitnesses. *Canadian Police College Journal, 10*, 31–52.

Yarmey, A. D., & Jones, H. P. T. (1983). Is the psychology of eyewitness identification a matter of common sense? In S. M. A. Lloyd-Bostock & B. R. Clifford (Eds.), *Evaluating witness evidence: Recent psychological research and new perspectives* (pp. 13–40). Chichester, UK: Wiley.

Yuille, J. C. (1984). Research and teaching with police: A Canadian example. *Applied Psychology, 33*, 5–22. doi:10.1111/j.1464-0597.1984.tb01412.x