Practical implications
Practical implications

The results of the current thesis have a wide range of practical implications. Performing under stressful circumstances is an inherent part of police work. Over the past decades the police has increasingly often been confronted with serious crimes that involve the use of firearms (e.g., Barclay et al., 2003; Timmer & Pronk, 2011) and – in The Netherlands – more cases are reported that involve the direct use of force against officers (e.g., Naeyé, 2006; Naeyé & Bleijendaal, 2008). Against this background, it is inevitable that – at some point – every officer will end up in a situation in which he or she will experience anxiety. The current thesis shows that, in these cases, officers will interpret situations as more threatening, have more attention for threat, and are more likely to show stimulus-driven responses. As a result, anxious officers can be expected to shoot earlier, make more decision errors, and shoot less accurately.

The current findings provide a different perspective on the shooting ability of police officers than what is seen during regular shooting tests. For example, averaged over the different experiments, police officers’ shot accuracy under anxiety was around 40% to 80%, while on annual shooting tests, 99% of officers is able to score well over 90% (see Chapter 1). At the same time, however, the current findings closely match with figures obtained from real-life incidents, where police officers’ shot accuracy is typically around 50% (Timmer, 2005). All in all, these findings confirm that anxiety is an important element of real-life incidents and that in order to accurately measure police officers’ shooting ability, test circumstances need to be more representative of the real-world (e.g., Dicks et al., 2010; Mann et al., 2010; Nieuwenhuys, Canal-Bruland et al., 2012; see Pinder et al., 2011, for an overview of this literature).

Recommendations

Knowing that police officers’ actual shooting ability is different from what may be expected on the basis of their performance on annual shooting tests, several recommendations can be formulated. These concern the work of individual officers, police training and examination, and crime scene investigation.
Officers
With respect to the work of individual officers, the current findings suggest that to
ensure good decision making under stressful circumstances (e.g., shoot or don’t shoot),
police officers should take enough time to base their decisions on information that is
actually available in the environment. That is, under anxiety, there is a strong tendency
to respond quickly on the basis of threat-related inferences and expectations rather
than objective visual information (see Chapters 5 and 7). In this respect, taking a little
bit more time to respond may prevent serious errors, while the safety of officers is not
largely affected. Next, when officers are confronted with an opponent who threatens to
shoot them with a firearm, immediately firing back before escaping the opponent’s line
of fire may be safer and more effective than immediate avoidance (Chapter 8). As such,
enforcing goal-directed shooting strategies (e.g., fire-step) may be more functional
than using avoidance-based shooting strategies (e.g., step-fire). Finally, to ensure good
shot accuracy under anxiety, police officers should (a) visually focus on where they
intend to hit the offender and (b) take enough time to execute their shot. That is,
under anxiety, officers tend to take less time for aiming and speed-up their shooting
performance (see Chapter 3). When officers are able to force themselves to look at
their target and take a fraction of a second extra to aim, shot accuracy is tremendously
improved (Chapter 4).

Police training and examination
The current thesis shows that under realistic, stressful circumstances, police officers’
shooting ability is considerably worse than during annual shooting tests. If the
intention of annual shooting tests is to provide a reliable estimate of police officers’
shooting ability in real-life, then test circumstances need to be more reflective of
the real world. With respect to anxiety, the current thesis offers several possibilities
in terms of how this may be achieved (e.g., colored-soap cartridges, electrical
knife, shootback canon), while at the same time maintaining the safety of officers.
In addition, besides focusing on shot accuracy, annual shooting tests should also
incorporate shooting decisions.
Second, the large discrepancy that is observed between test outcomes and police
officers’ shooting performance under anxiety indicates that (a) more time is needed
for training and (b) that training needs to better reflect real-life circumstances.
With respect to shot accuracy, the current thesis shows that by training with anxiety
police officers can improve their performance under stressful circumstances within a relatively small number of practice sessions (Chapter 4). In addition, it may be beneficial to select and practice shooting strategies that appear to be most effective under realistic (stressful) circumstances (Chapter 8).

**Crime Scene Investigation**

Regarding the legal investigation of officer-involved shootings (crime scene investigation), the current findings may also be informative. That is, by showing how anxiety affects police officers’ shooting decisions and shot accuracy, shooting incidents may be better understood from the perspective of involved officers. For example, under anxiety, increased expectations of threat may interfere with visual information that is present within a developing incident and, as such, may cause officers to make serious errors in decision making (see Chapters 5). In addition, police officers’ shooting ability is strongly affected under anxiety, making it understandable that fired shots often miss their target (see Chapter 3). All in all, given that officers have very little time to train (Chapter 1) – and because effects of anxiety on shooting behavior can be very robust (Chapter 7) – the extent to which officers can personally be held responsible for their actions may need to be reconsidered (see also Payne, 2006).