



Police Conflict Management, Volume II

Training and Education

Edited by Mario S. Staller
Swen Koerner · Benni Zaiser

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Editors

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Introduction: Training and Education for Police Conflict Management

Mario S. Staller, Swen Koerner, and Benni Zaiser

Volume II of the Palgrave Macmillan book series on “Police Conflict Management” expands the focus of the previous volume to learning settings that equip the police to address the challenges and seize the opportunities discussed in Volume I (*Challenges and Opportunities in the 21st Century*). As such, *Police Conflict Management Volume II: Training and Education* focuses on learning settings that play a prominent role in providing police officers with the knowledge structures, competencies, attitudes, and values they need to professionally conduct their duties

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in alignment with the ideals of a democratic society. Acknowledging potentially considerable variations in the systems of police training across different countries and types of jurisdiction, the chapters thereby strive to address basic and overarching aspects of conflict management training. Despite factual differences of forms and programs, the approaches presented certainly provide an impetus for examining their applicability to the very national context of police education.

Like the first volume, this one is also guided by the prerogative of reflexivity, calling for the analysis of preconditions and consequences of scientific perspectives themselves (Koerner & Staller, 2022).

The development of the book series across two volumes as well as the goal we are pursuing with it was discussed in the Introduction to Volume I. We encourage readers who are interested in how this project came together to give it a read and also learn about the review process of the two volumes.

Like the first volume, the current volume also consists of 17 chapters.

Chapter 2 starts by providing didactical *Criteria for the High Quality Training of Police Officers*. The authors aim at supporting trainers by providing guidance for training sessions that can form criteria to evaluate and monitor the didactical quality of sessions. Chapter 3 focusses on a key aspect of high-quality police training that can be deemed relevant in every context: representativeness. By introducing the constraints-led approach, the authors present a promising pedagogical framework for the design of effective learning environments in police training, which meet the demands of operational environments. Chapter 4 zooms in on *Coaching Police Conflict Management* by conceptualizing the daily practice of police trainers as coaching. By introducing the professional coaching model in police training, the authors clarify the ideal image of the police trainer: a reflective practitioner who finds situational solutions to problems of training practice, based on interwoven knowledge structures and implements them virtuously. That science in particular can provide a valuable knowledge resource for police training is demonstrated to the reader in Chapter 5 using the example of sport psychology research. As the authors show, the tactical training of police officers can benefit from the application of sport psychology principles and practices to tactical training. Chapter 6 puts police training into an

important ethical perspective of global relevance: the authors discuss *Moral Injury as a Challenge in a Value-Driven Profession* by providing *Insights from Ethics for the Education and Training of Police Agents*. The authors argue that knowledge of ethical theories and recognizing the underlying dimensions of moral conflicts and dilemmas can help police officers to better understand professional conduct and better deal with different layers of responsibility for the outcome of (in)actions. Chapter 7 raises the exciting question of the extent to which police training is influenced by martial arts myths, contrary to the usually desirable orientation towards scientific knowledge. Using the example of martial arts narratives in police conflict management training, the chapter shows how these narratives bridge the gap between training and reality and justify the effectiveness of training systems. Chapter 8 focuses on *Police Checks and Arrests Escalating into Conflict* by discussing *Coping Principles and Strategies Taught in Swiss Police Academies Drawn from Research in Social Psychology*. As such, the authors provide a country-specific and vivid overview of the training and education of police officers in Switzerland. Chapter 9 shifts the focus on contemporary potentials for development towards *Police Training in Virtual Reality*. The authors discuss the potential of *How Officers Perform and Grow under Stress* within virtual environments and argue that virtual reality offers the possibility of real-time tracking of stress levels and performance parameters in full and representative environments under high experimental control. Chapter 10 touches on recurrent issue of police conflict management by dealing with persons in mental crisis. In *Trialogic Interventions: An Innovative Anti-Stigma Module for De-escalation Trainings*, the authors present the current state of evidence for this innovative approach to improve policing the mentally ill. An evidence-informed approach to general de-escalation training is the focus of Chapter 11. The authors provide guidance to police trainers and curriculum designers by highlighting a range of theoretical issues at the heart of effective de-escalation training and present practical advice for developing, implementing, and evaluating de-escalation training scenarios. Also geared toward the importance of police de-escalation skills, Chapter 12 provides an outline of *De-escalation Fundamentals* by providing an interdisciplinary breakdown of

evidence-based, relevant insights. It provides the reader with the knowledge of factors that underly de-escalation and determine how and why it works. With *Police Hostage and Crisis Negotiation Training*, Chapter 13 highlights a specific operational and training context. The Chapter provides *Foci, Protocols, and Best Practice Principles* for current hostage and crisis negotiation training for police officers from a variety of international perspectives. By emphasizing the importance of *Tactical Gaze Control and Visual Attention in Law Enforcement*, Chapter 14 discusses control strategies that prioritize critical regions of a suspect and that have the potential to reduce the danger of limited perception under stress. Geared towards police training in South Africa, Chapter 15 zooms in on professional shooting tests by presenting *A Qualitative-Descriptive Study and Critique* of the current national practice. With reference to *Police Training and Police Violence in Scandinavia*, Chapter 16 reviews the current literature on the police use of force in five scandinavian countries and the Scandinavian peoples' perception of them, exploring both the similarities and differences among national contexts. Finally, by the example of the German Federal Police, Chapter 17 discusses *Leadership as a Mental Shield*. The authors provide an answer to the question of how leaders of specialized police units can promote inner resilience and mental stability through the training of tactical and cognitive-behavioral adaptability.

Individual chapters have a Key Takeaway section at the end, containing derivations, hints, and recommendations for action. Here we asked all authors to summarize the important key points of their own contribution with regard to three different populations:

1. **Police officers**, understood as frontline workers and street level bureaucrats. Of course, the other populations could also be police officers, yet in the Key Takeaway section they refer to the population that resolves conflict and is engaged in conflict management with citizens directly.
2. **Conflict management trainers**, understood as individuals that are assigned to the task of providing learning opportunities for police officers (the frontline workers) as it relates to the management of conflictual situations. As such, this term refers to individuals that

are also known as force trainers, de-escalation trainers, communication trainers, firearms instructors, personal protection and self-defense trainers, tactical trainers, and so on.






3. **Police decision-makers**, as a term for the individuals that are in charge of changing policy concerning police conflict management as well as the corresponding training and education.

Reference

Koerner, S., & Staller, M. S. (2022). Towards reflexivity in police practice and research. *Legal and Criminological Psychology*, 27(2), 177–181. <https://doi.org/10.1111/lcrp.12207>



Criteria for the High Quality Training of Police Officers

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Reviewer: Laura Voigt

In recent years, police training organizations have started to adopt educational models and articulated philosophies of learning. Contemporary educational approaches that are either developed in police contexts or adopted in the police domain are for example “high impact learning

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that lasts” (HILL; Dochy & Segers, 2018), “andragogy or adult learning theory” (e.g., Knowles, 1978), “ecological training models” (Button et al., 2021; Davids et al., 2012), “non-linear pedagogy” (Chow, 2013), and “cognitive load theory” (Van Merriënboer & Sweller, 2005).

The didactical criteria presented in this chapter are compatible with different educational models/didactical approaches used in the police context, and can be applied regardless of the specific training structure of organizations, the professional philosophy of instructors, or the level of trainees (that is from recruits to highly specialized units). In addition, the criteria show an excellent fit with the “promising practices” that Bennell and colleagues (2020) identified for de-escalation and the use of force training for police officers.

The criteria have been used in the systematic observation of police training across European Law enforcement agencies (Kleygrewe et al., 2022), the virtual reality (VR) training of police officers (Hutter et al., 2022), and in the evaluation of self-defence training of correctional officers (Koedijk et al., 2019). Outside of the police context they have been used to monitor and improve training quality in an elite sport setting and in curriculum development for nurse practitioners (Renden & Dikken, 2022).

The seven didactical criteria are: well-designed practice situation, clear assignment, high quality instruction, proper use of model learning, variation and differentiation, opportunities for self-regulation of the learning

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process, and constructive and motivating feedback. Below, we explain each didactical criterion in detail, give a brief rationale for the criterion, and provide examples of good practices from the police training context. As such we aim to make the criteria understandable and applicable for police training practitioners. Finally, we summarize the guidelines in a practical worksheet that police organizations can use to plan and monitor their training.

1 Well-Designed Practice Situation

Training needs to lead to better performance on the job. But, in the words of coach Lombardi, practice does not make perfect, only perfect practice makes perfect. The design of the practice situation sets the stage for good practice. There are several aspects to consider in designing practice situations, mainly: realism, evoking desirable actions by design, and self-efficacy.

Realism

To have maximum impact in real life, practice conditions need to resemble performance conditions as closely as possible. Representative learning design postulates that learning happens through the interaction between the learner and the environment (Pinder et al., 2011). Relevant characteristics need to be present in practice to increase the likelihood of transfer. Police training has been criticized for fragmenting, instead of integrating, skills components in training (Cushion, 2018; Staller & Körner, 2020). Fortunately, realistic training¹ is becoming more recognized and applied in research and practice (e.g., Andersen et al., 2016; Körner & Staller, 2022; Renden et al., 2017). In line with problem-based learning approaches and representative learning design, a well-designed

¹ There is a debate as to whether the term “realism” or “representativeness” should be used (see Staller et al., 2017). We use the terms “realistic” and “realism” here, but our recommendations on “realistic training” are grounded in representative learning design and thus technically point to representative training.

practice situation confronts trainees with realistic problems and realistic solutions. Solving realistic problems will require decisions and actions that are also needed in reality, thus assuring that practically relevant decisions and actions are being trained. Moreover, training with realistic problems supports the transfer of trained skills, because situations on duty will more easily trigger the trained and engrained responses when the resemblance with the practice situation is recognized by officers (e.g., Andersen et al., 2016). Last but not least, the relevance of the training will be univocally clear to trainees when realistic problems are used, leading to high(er) levels of motivation and engagement within the training.

Inherently coupled to training with realistic problems, the practice situation should allow for realistic solutions. The learning and motivational benefits of this are probably obvious, though this design aspect of training demands deliberate attention. Oftentimes officers are taught an ideal or textbook way of solving a problem as we want officers to be capable of executing their tasks to the highest of standards. Or, less idealistically, instructors may exhibit “be like me” tendencies, preaching solutions that are their favourite repertoire, but not necessarily that of each individual trainee. Due to practice circumstances (such as realistic stress), or personal characteristics such as motor abilities or physical build a realistic (i.e., feasible) solution to the presented problem may deviate from the ideal or preferred solution. An instructor may, for example, want trainees to control a suspect by getting a grip on the head of the suspect, as the head is considered the “steering wheel” of the body. For shorter officers having to control a tall suspect, this may not be a realistic solution to the problem of controlling the suspect. Placing the intended effect (control of the subject) centre-stage in training and allowing trainees to train with ways that work for them to achieve that effect (instead of prescribed “ideal” techniques) is an example of allowing for realistic solutions.

Realistic problems and realistic solutions should be placed in a realistic context, resembling the on-duty context in at least the aspects that are most relevant. For example, before entering a training scenario, officers may take time to discuss their goal based on dispatch information and situation assessment, make a brief plan and assign roles, and make use

of closed-loop communication in doing so. In reality, time pressure will be on, and the officers may rush to navigate to the incident with sirens screaming. Then the steps of making a plan, checking back in communication, and so on, even if officers *should* be taking them, are simply not that feasible anymore. Letting trainees prepare for their action in a scenario of total calm is thus not a realistic context. To make the context more realistic, instructors can add loud noise and time pressure to the officers' preparation. A second example is our observation that correctional officers practise self-defence skills in an area with plenty of space to move, make distance, flee, and so on, whereas in reality they mostly interact with prisoners in very confined spaces, such as cells and hallways. The instructors of these correctional officers accordingly become really creative when there is a lack of mock cells or other small spaces in their training hall and start making use of toilet blocks to increase the realism of the context.

Stress is an essential component of the on-duty context of police officers, particularly for situations in which they have to de-escalate or use force. A common saying in policing is that officers step towards situations where all “normal” human beings run away from, which is not to say that officers aren't phased by threat, emotions, and stress—yet they are expected to act professionally, effectively, and proportionally, despite their affective responses to stressful situations. Stress impacts our perceptual, cognitive, and motor processes and abilities (e.g., Andersen et al., 2016; Di Nota & Huhta, 2019; Nieuwenhuys & Oudejans, 2012, 2017). Through training with elevated levels of stress, police officers practise skills with stress-induced changes in perception, cognition, and motor abilities. This equips them with ways of acting that are still feasible and effective under stressful circumstances (e.g., Andersen et al., 2016; Nieuwenhuys & Oudejans, 2011; Renden et al., 2017), and trains them to suppress naturally occurring, but non-effective, action tendencies triggered by stress (Di Nota & Huhta, 2019; Giessing et al., 2019; Landman et al., 2016). Finally, experiencing stress in training acquaints police officers with their stress responses and may help them discover their personal preferences in stress management and recovery from stress (e.g., Andersen et al., 2015).

Evoking Desirable Actions by Design

A well-designed practice situation invites the desired behaviour in the trainee by its design. As an example, police instructors shared that officers on the shooting range often swing their hand and gun forward from the holster to the shooting position instead of pulling it up from the holster before pointing forward. We asked them to create an environment (not instruction) that would force pulling up the gun. Their solution was to place a piece of cardboard right in front of the officers up to mid-body. This cardboard forced them to pull up the gun before pointing forward to avoid hitting the cardboard. The officers subsequently experienced that their shots were more accurate with that movement pattern, reinforcing the correct technique.

Another avenue to implicitly invite effective behaviour of trainees is to include indicators of effects that police officers achieve with their action, thus forcing them to focus their attention on the effect of their movements on the environment instead of the movement execution itself (external focus of attention; Wulf, 2013; see also Sect. 3). For example, instructors could hold their hand where the elbow of the officer would go if they properly pulled up the gun before pointing forward. The officer's external focus of attention could then (just for experiencing the proper technique) be to tap the instructor's hand with the back of their elbow before shooting. Another, bit more holistic, example of external focus of attention comes from the practice of restraining techniques. Instructors gave half the trainees (the "suspects") wads of paper to put in their pockets and the instruction to try to take the wads out of their pockets. The other half of the trainees were instructed to prevent the "suspects" from taking out the wads of paper. The design of this exercise adds an external focus of attention, while "automatically" evoking restraining and fixating techniques.

We find the constraints-led approach (Davids et al., 2008) an applicable framework to design practice situations that evoke skillful behaviour. Following a constraints-led approach, instructors should, in the design of practice situations, consider environmental, individual, and task factors (i.e., constraints) that impact learning and performance. The

cardboard and elbow tapping to force the pull-up movement are examples of using constraints to evoke behaviour; making sure that stress levels are elevated in trainees is another example of constraint manipulation to enhance training.

Self-Efficacy

As a last point for well-designed practice situations we want to underline the importance of self-efficacy: the belief that one is capable of performing an action successfully (Bandura, 1986). Practice situations should be designed in such a way that officers are challenged, but will also experience success. Apart from the benefits of success for learning and engagement with training, instructors are aware that police officers are out on duty again after training, where they need a proper level of confidence. Thus training should build self-efficacy up, not break it down. Also, the likelihood that officers apply skills and techniques they have practised is much higher when they are confident of their capabilities to do so.

2 Clear Assignment

At first glance the criteria of “clear assignment” and “high quality instruction” may seem to overlap. We consider the assignment in training to communicate *what* is going to be trained, what the trainees should achieve or strive towards in the training exercise. Instruction is then about the *how* they should act, and aims to steer trainees towards competent ways of achieving the assignment.

A clear assignment is important for multiple reasons. First of all, the assignment gives direction to the behaviour of the trainees. Direction, together with intensity of behaviour, forms the core of motivation, which is, in turn, at the very heart of learning (e.g., Wulf & Lewthwaite, 2016). Second, in training we want trainees to attune to relevant information, select and explore action possibilities, and execute and expand these action possibilities (e.g., Araújo & Davids, 2011). A clear assignment

drives these processes in trainees. Third, a clear assignment enables feedback for the trainee. If trainees know what they should achieve, they have a point of reference that informs them whether they were successful or not (Hodges & Franks, 2002).

Assignments, and their associated functions, work best when the assignment is unequivocally clear, without room for misunderstanding. A clearly formulated assignment allows for a yes/no check afterwards as to whether the assignment was successfully completed. Such a yes/no check with trainees offers a method for a quick round of evaluation, and it enables them to evaluate their actions on their own, reinforcing learning in the absence of an instructor.

To motivate trainees for the assignment (and thus have them engage with the direction and feedback opportunities that a clear assignment provides), it is important that the relevance of the assignment is clear to them. This may also enhance transfer. Powerful ways to communicate the relevance of the assignment are to link the specific assignment to on-duty incidents, or to ask trainees for examples that they have encountered on duty. In one of our training observations, the assignment for the trainees was to remain under cover while approaching an armed suspect. After explaining the assignment, the instructor took out his phone, and showed the trainees a brief video of a real-life incident where one of the officers failed to stay under cover and was shot. It only took a minute of training time, but the relevance of the assignment was crystal clear and the trainees were subsequently very engaged in the exercise.

As a last pointer to make optimal use of clear training assignments, instructors can give trainees a say in the specific assignment they want to train in. This provides autonomy to the trainees and makes them train with assignments that are meaningful for them. Autonomy is one of the basic needs that enhances intrinsic motivation (Ryan & Deci, 2000) and motor learning (Wulf & Lewthwaite, 2016). The benefits of making trainees active agents in their learning processes are further emphasized in Sect. 6.

3 High Quality Instruction

Instruction aims at optimizing performance. It focuses on how objectives are best reached and on making officers as competent as possible. Still, there is no single ideal way of executing tasks, nor does an instructor need to spell out the way trainees should act. On the contrary, we argue, in line with non-linear pedagogy (Chow, 2013; Körner & Staller, 2018), the constraints-led approach (Davids et al., 2008), and the ecological approach (Button et al., 2021), that “many roads lead to Rome” and that the function of instruction should be to help trainees figure out what works best for them.

An important key to high quality instruction lies in how it is processed by trainees, with particular attention to the cognitive load placed on them. Cognitive load theory (Van Merriënboer & Sweller, 2005) asserts that instructors should reduce this load that stems from purely processing the way instruction is offered, to keep as much working memory available as possible for actual learning processes. Mugford et al. (2013) offer various suggestions for how cognitive load can be managed in police training. Our key message is that instructors should carefully prioritize instruction points and keep the number of pointers low. A helpful approach in our experience is to have police officers identify foundational “success factors” for their training objective. By these factors we mean actions that are a “must” for successful completion, or that make successful execution much more likely. For example, in training how to apprehend and restrain a suspect in a safe way, instructors identified that if police officers manage to keep the suspect’s arms fixed close to the body, then an efficient and low-risk apprehension is very likely. Their instruction for officers practising apprehension was then solely “Fix the arms tightly to the body”. If success factors are identified correctly, that is instructors maximally peel back to the foundational prerequisites for success, then this leads to an instruction of only one or two pointers, while assuring that these few pointers are relevant and helpful.

The literature on implicit motor learning offers additional recommendations of how to reduce the cognitive load associated with instruction. We highlight two of them here: external focus of attention and the use of

metaphors. Both are examples of giving instructions in only a few words and with relatively low cognitive load.

External focus instruction directs the trainees' attention to the effects of the movements on the environment, as opposed to the body movements themselves (i.e., internal focus of attention) (Wulf, 2013). Under "well-designed practice situation" we outlined ways to evoke external attention by manipulating the design of the situation (e.g., placing cardboard in front of policemen during shooting practice). Here, we outline how verbal instruction can be used to evoke external attention of the learners. For example, in training for a low kick, trainees may (be instructed to) focus on kicking the opposite person's thigh sideways (the external target and effect), instead of focusing on the angle and acceleration of their kicking leg, maintaining balance on their other leg, keeping their hands in front of themselves, and so on. External focus of attention has been proven to be effective for motor learning in multiple studies (for overviews, see Lewthwaite & Wulf, 2017; Wulf, 2013). An external focus of attention helps us to execute motor skills efficiently and effectively, possibly by generating more automatic motor control mechanisms.

A second way to reduce the cognitive load of trainees is the use of metaphors or analogies. A good metaphor summarizes a number of movement instructions in a simple, meaningful, mental image. In the example of the low kick, a possible metaphor would be to "slice" the leg of the opponent with your shin. A recent systematic review concluded that there is some evidence that analogy learning leads to better performance of motor skills (Kal et al., 2018).

Although we clearly advocate for instruction that uses principles of implicit learning, we want to acknowledge that there is a time and place for explicit instruction as well, particularly when training groups have only a limited movement repertoire to use as a reference for the to-be-trained skill, or when it is important that the police officers have declarative knowledge of their actions, for example when the trained skill has strict and complex judicial constraints, such as securing a suspect's head.

4 Model Learning

With model learning, the trainee observes a demonstration of a skill and subsequently imitates it. Model learning works because it helps trainees figure out how to execute a skill (Hodges & Franks, 2002), but it also works by activating the mirror neuron system of the observer (Di Nota & Huhta, 2019). Bandura (1986) outlines that learners should pick up, retain, and process the relevant information from the model, and be motivated to imitate the behaviour, for model learning to take place.

Model learning is widely and naturally applied by police instructors, mostly with themselves as the models. Due to their expertise they are likely to demonstrate correct execution, and the strength of expert models has consistently been shown in the motor learning literature (Hodges & Franks, 2002; Ste-Marie et al., 2012, 2020). Also, instructors, with expert command of the modelled skills, may in their demonstration be able to emphasize the pressure points in execution, helping trainees to pick up the relevant information.

Peers (fellow trainees) may also be useful models, though this seems much less used in practice. In fact, in some cases, imperfect peer models of a skill may be even more beneficial for learning and self-efficacy than a perfect expert model. If trainees watch a peer attempt a skill, they are not just trying to copy the model as they do with expert models, but they are actively engaging with figuring out the skill and how to attain the goal (Ste-Marie et al., 2020). If the group of trainees is of a similar skill level, then using a peer as a model will also create a fit between the modelled behaviour and the developmental phase of the trainees. This is important because a fitting model demonstrates information that is relevant for the particular stage of development of the trainee. This may be a relatively simplified execution for beginners, leaving out redundant chunks of information in the case of advanced trainees. For the effect of model learning via mirror neurons it is important to realize that mirror neuron activation occurs only when the observed movements are meaningful to the observer. Again, with similar levels of expertise among trainees, the chance that the actions of the peer model are meaningful to the observing trainees is high, thus activating mirror neuron responses during observation.

As a last, but certainly not least, option, trainees can observe themselves as models by use of video. Several studies have demonstrated the effectiveness of self-modelling for the learning of skills and tactics (e.g., Maloney et al., 2013; Ste-Marie et al., 2013; Van Maarseveen et al., 2018). Both Bandura's social cognitive theory (1986) and current insights into the role of mirror neuron responses underline the importance of similarity between the model and the observer for learning to take place (e.g., Ashraf et al., 2021). Clearly, using the self as model provides the highest possible level of similarity between the model and the learner.

Research has, through numerous experiments, shown that using different models is more effective than only one (Ste-Marie et al., 2012, 2020). Also, to increase the chances that relevant information is picked up and processed by the trainees, repetition of a model, cueing the attention of the trainee, and showing the model under different viewing angles are recommended.

5 Variation and Differentiation

Variation and differentiation refer to the variability that is introduced in training. With variation the aim is to expose trainees to different practice situations. Variations may or may not differ in complexity from one to the next, but the goal is to present trainees with a new problem to solve, instead of repeating the same one. With differentiation the level of complexity is different from one practice situation to the next or from trainee to trainee, and the aim of differentiation is to challenge trainees at just the right level—neither too hard nor too easy (Di Nota & Huhta, 2019).

Variation in training is important for a number of reasons. First, on-duty police officers will always respond to situations that are unique in one way or another; they will thus need to adapt trained skills to the specific situation (e.g., Bennell et al., 2020; Körner & Staller, 2021; Mugford et al., 2013). To be able to do so, they will need to practise adaptation and develop flexibility. Moreover, it is well established that skills that are learned under variable learning circumstances contribute

to both retention of a skill and transfer of the skill to such circumstances (Ranganathan & Newell, 2013). In general, practice without variation leads to fast, but maybe short-lived, gains in performance, as long as the task remains exactly the same. This is hardly useful for skills that are infrequently applied on-duty and with tasks and situations that are never the same. Instead, Bernstein (1996) aptly introduced the concept of “repetition without repetition”, suggesting that trainees repeat the process of finding a solution and the means to solve the problem, but not the solution itself. The acknowledgement and deliberate use of variation in the training context *and* in execution by the trainees lies at the very heart of non-linear pedagogy as currently advocated for police training (e.g., Körner & Staller, 2018).

Although variation should be applied when practising one specific task only, instructors can additionally insert so-called contextual interference into their training sessions. This means that several skills are trained in an interleaved way, thus varying not only the situation for one skill, but also mixing up skills, so the execution of the skills interfere with each other and force trainees to search for a new solution with every new challenge. Instructors may for example set up a carousel-style training session, in which in the first situation officers need to apprehend and handcuff a suspect, in the second they apply various self-defence techniques, and in the third situation they are required to use a weapon or to switch from pepper spray to their Taser, for example. This randomized practice (skills are “randomly” required) leads to better retention and transfer of the practised skills than with blocked practice (training blocks in which only one skill is practised; e.g., Wright & Kim, 2019).

Differentiation is, by definition, a form of variation, but the aim here is not variation per se, but rather adapting the difficulty level of practice to the competency level of the trainee(s). An approach that applies differentiation systematically is the challenge point framework (Guadagnoli & Lee, 2004). According to this framework, there is an optimal functional task difficulty (i.e., optimal challenge point) for learning. Functional task difficulty refers to how challenging the task is relative to the skill level of the individual performing the task and to the conditions under which it is being performed. If the functional task difficulty is too low, then there will not be sufficient information available for the trainee to learn

from. If the functional task difficulty is too high, then there will be too much information available for the trainee, and learning will be impeded. Instructors may want to increase the difficulty of the practice situation with small increasing steps, until trainees start making mistakes. As soon as mistakes occur, the instructor can dial down the difficulty a bit. This helps them target the challenge point of the trainees. Moreover, in this way instructors can manipulate the chances of success for trainees when they feel success would benefit their learning, self-efficacy, or motivation.

Differentiation can be achieved by varying the difficulty of assignments, or the complexity in the practice situation (e.g., light versus dark circumstances, high versus low stress, no bystanders versus many). This is indeed commonly done in the police training practices we have observed. Differentiation through the use of training aids is less widely applied, in our experience. Particularly modern technologies, such as VR, offer possibilities to switch training aids on or off; for example a projected line of fire from a service weapon to help with aiming training, visual cues to support proper patterns of scanning an area, or instant feedback devices for “keeping a partners six” (keeping a six refers to the hands of a clock, thus indicating the area behind somebody, that can’t be viewed by that person as it is behind them for example).

6 Self-Regulation of the Learning Process

Traditionally, the view in police training seems to be that “instructor knows best”. However relevant the expertise of instructors, there is compelling evidence that “trainees know best” and that the learner should be an active agent in shaping the learning process. This didactical criterion of self-regulation of the learning process is informed by both Zimmerman’s (e.g., 2000, 2001) evidence for self-regulated learning for academic success and the efficacy of self-controlled practice for motor skill acquisition (e.g., Ste-Marie et al., 2019).

Zimmerman defines self-regulation as the control that trainees exert over their cognitions, emotions, behaviours, and motivation, by applying personal strategies to achieve their intended goals. These self-regulatory

processes enable them to practise in deliberate, goal-directed ways. Self-regulation resides, by definition, in the trainees themselves, but we suggest ways for instructors to reinforce and promote self-regulation processes in the trainee. Handing over control aligns very well with frameworks that are currently advocated for police training (particularly, but not solely, HILL and adult learning theory). Implementation may be challenging for instructors though, as it requires them to not act as instructors/experts, but much more as facilitators/enablers.

Zimmerman and Moylan (2009) distinguish three cyclical phases of self-regulated learning: the forethought phase, in which trainees analyse and plan what they are about to practise and muster the self-efficacy and motivation to do so; the performance phase, in which trainees execute the practice exercise while sustaining their attention and motivation and applying learning strategies; and finally the self-reflection phase, in which they evaluate their performance, and process their thoughts and feelings about it.

For the forethought phase we suggested in Sect. 2 that trainees can be given a voice in the assignment they want to train in. To clarify, this is not about what they would most enjoy, but about what would benefit their learning and performance on duty best. In general, a “clear assignment” is a prerequisite for the self-regulation of learning. Trainees can only figure out what they need to train at optimally if the training objective is clear.

In the performance phase trainees can be given control over the number of attempts they have and the difficulty of practice. Police officers may, on the shooting range, vary their distance to the target to find the sweet spot between challenge and success that they need to improve the most. Or officers may want to repeat (elements of) a specific scenario to improve, or to try to recreate a successful performance to gain more robust confidence, for example.

A specific way to self-regulate the complexity of training is to have trainees decide which tools or training aids they would like to use. Novice officers may for example choose between a hinge cuff (short and relatively rigid) or a chain cuff (longer and more flexible) to develop the skill of handcuffing and transporting suspects who resist. We observed that, given the choice to train with or without a pain stimulus in VR training,

many officers chose to have the pain. They felt that, though it would be more stressful and uncomfortable, it would benefit their training more. This example illustrates that providing self-regulation to trainees does not necessarily mean that they opt for the easiest way through.

The last phase is the self-reflection phase, and for this to take place it is important to allow trainees time to reflect on their performance before the instructor does. For self-regulation of learning, trainees can be asked for ways to improve, as opposed to the instructor correcting and instructing them for the next go. Also, instructors can let trainees self-regulate feedback, by allowing them to choose when they want feedback, what they want feedback on, and how they want feedback (verbal or demonstrative, for example). Note that the moments when trainees prefer feedback are not necessarily the same moments when instructors are inclined to give it. For example, a police instructor may give feedback to officers who fail at an assignment, whereas learners prefer to receive feedback after successful attempts, and this benefits their learning (e.g., van Maarseveen et al., 2018). Self-regulation will also be enhanced by “implicit feedback” built into the practice situation. This means that it is, during or after execution, clear to the trainee whether they are doing it right or not. This is the case with shots on a target where the point of impact is clear, but a bit more creative example is giving the suspect in a scenario a flashlight, which informs trainees approaching the suspect whether they are properly under cover or not. If the light doesn’t “touch” them, they are under cover. This allows the trainees to constantly self-monitor their execution, or just at moments when they feel they should check their cover.

The benefits of self-regulation of the learning process are well established and at least two pathways for its effectiveness have been tested (e.g., Sanli et al., 2013; Ste-Marie et al., 2019). Self-regulation benefits learning because the training becomes tailored to the trainee’s present level and needs for progression. The other effect is through motivation and self-determination. Positive effects of self-regulation on performance are found even when the amount of practice or feedback is exactly the same for a self-regulated learning group and a control group (as is the typical protocol for studies on self-regulation in skill acquisition), or

when the choices provided are arbitrary to the task (e.g., colour of mat to stand on; Wulf et al., 2018).

7 Constructive, Motivating Feedback

According to police instructors providing feedback is one of their most important tasks. It allows them to review trainees' performance, suggest avenues for improvement, and obtain input from trainees, while ensuring that what is being learned aligns with the training objectives (Kleygrewe et al., 2022). When applied correctly "feedback is one of the most powerful influences on learning and achievement" (Hattie & Timperley, 2007, p. 81). In the police context, feedback is however not always used optimally (Bennell et al., 2020), and the way it is provided differs among police organizations and among instructors in the same organizations (Kleygrewe et al., 2022).

Providing constructive and motivating feedback boils down to the question of *when*, *how*, and *why* to provide *what* information to trainees (Otte et al., 2020). As for *when* to provide feedback we refer back to Sect. 6. Using the preferences of trainees for when they want to receive feedback and allowing them time to reflect and figure out ways to improve or sustain performance benefits learning and motivation. Contrary to what we frequently observe in police training, we suggest providing feedback particularly after successful attempts. This is in line with the general preferences of learners, and promotes self-efficacy and enhances feelings of competence in trainees, which contributes to intrinsic motivation (Ryan & Deci, 2000). Feedback after successful attempts should recognize the success and focus on what went well and why success was attained, picking the performance apart in the same way that we do after failed attempts. It should thus go beyond "Great job!" or similar generic statements so as to have a proper effect on self-efficacy and motivation. As final pointers for when to provide feedback, we recommend positive reinforcement when trainees exert much effort, or when they clearly improve, even when that does not yet lead to success. In naming effort and improvement, feedback shapes a positive learning

environment where effort is valued and a growth mindset is stimulated (e.g., Dweck, 2017).

How feedback information is communicated to trainees differs largely among instructors, ranging from verbal feedback (pointing to mistakes or asking questions for example) to physical feedback (trainees experiencing, rather than being told, the effects of their action, for example through a pain stimulus; Kleygrewe et al., 2022). The most effective way to provide feedback depends on the personal style of the instructor and the preferences of trainees, but it should in any case be based on careful observation and analysis. Bennell and colleagues (2020) state that effective feedback is specific and clear, elaborate, yet presented in manageable units, and as unbiased and objective as possible. Instructors thus need to carefully observe the performance of trainees and conduct a thorough analysis to inform their feedback and the way they deliver it.

As for the content of feedback—the question of *what* is fed back—three things should be clear to the trainees: Where they are going? How are they going? And where to next? (Hattie & Timperley, 2007). With such feedback content trainees should understand the purpose of implementing the feedback, understand their current level of performance, and see the possibilities of trying to improve. We observed a group of police academy students who practised clearing a building. They first proceeded in single file, with the entire group waiting for the clearing of a room by one of the group members before they proceeded. In the feedback on the performance of the group, the instructor explained that in the case of threat they should be able to clear the building in under three minutes and should be able to use both the “roll-over” and “spear” methods, depending on the level of threat (where they are going). He then informed them that the building was very securely and thoroughly cleared by them and that all group members had been as safe as possible in the process, though it had taken them around 14 min, and that in that time a suspect in the building could have done much harm (how they are going). He then explained the roll-over method of clearing rooms, where the person in the front of the line enters the first room to be cleared, the group then proceeds to the next rooms, with each room entered by the person who is then the frontman, with each person returning to the tail of the line after communicating that a room was clear. He then suggested

they practised this roll-over pattern without too much need for speed, to get the hang of the pattern and communication first (where to next).

Particularly for information on how trainees are going and where they should go next, we return one last time to external focus of attention (Wulf, 2013). If the feedback evaluates the effect of the trainees' actions on the environment, it invites an external focus of attention. For example during training techniques to kick an aggressor back, the instructor can focus on the feedback as to how much the aggressor moved backwards as a result of the kick. When done properly this facilitates both self-evaluation and the exploration of more effective solutions by the trainees. They can use the effect their action has on the environment for self-evaluation: if the intended effect on the environment is present then apparently the execution was successful; if the effect was absent then something needs to be done differently. In addition, an external focus of attention helps trainees in their search for effective movement solutions to a problem (Wulf, 2013); that is, where to go next, based on the trainees' own motor system and repertoire and with a low cognitive load.

8 Conclusion

We started this chapter with the need to squeeze as much learning out of the limited training time of police officers. We have described seven didactical criteria for high quality training and translated these criteria into actionable suggestions for police instructors. The criteria integrate different contemporary theories of learning (non-linear pedagogy, ecological dynamics, representative learning design, etc.) and answer the call for more andragogic, learner-centred practices in police training, while proposing concrete ways of how to do that.

The criteria are concisely summarized in a worksheet (see Fig. 1). This provides tangible information for police organizations, police instructors, and police officers (as trainees). It lists the seven criteria, and provides questions which further operationalizes them and serve to monitor, evaluate, and improve training practices in the police domain.

- Is there a well-designed practice situation?**
- Is practiced with realistic problems?
 - Is practiced on realistic solutions?
 - Is practiced under realistic stress?
 - Is practiced with realistic context?
 - Options for gaining self-efficacy?
 - Does the practice situation require externally focused attention?
 - Is constraint-led approach used?
- Is there a clear assignment?**
- Is the purpose of the assignment clear?
 - Has the relevance of the assignment been named?
 - Is autonomy offered in the assignment?
- Is there high-quality instruction?**
- Is the effect of the action emphasised? (External attention)
 - Limited number of points for attention?
 - Relevant points of attention?
 - Use of metaphors?
 - Explicit instruction when needed/useful
- Is model learning used?**
- With teacher as an example
 - With peers as an example
 - With experts as an example
 - With own implementation as a model (video feedback)
 - Is a viewing assignment given?
 - Is the model repeated?
 - Is the model visible to everyone?
 - Is it a good quality model?
 - Does the model fit the learner's development phase?
- Is there variation and differentiation?**
- Does the practice situation offer variety?
 - Is the skill practiced randomly? (Instead of blocked/serial)
 - Is there differentiation between participants?
 - Is there differentiation within participants?
 - Is the challenge point framework used?
- Is there a possibility for self-regulation of the learning process?**
- Can participants vary the number of practice attempts?
 - Can participants vary difficulty in practice attempts?
 - Can participants choose which tools they use?
 - Can participants choose when they receive feedback?
 - Can participants choose where to receive feedback?
 - Can participants choose how they will receive feedback?
 - Is the trainee encouraged to think about possibilities for improvement?
 - Is "implicit feedback" provided?
- Is there constructive, motivating feedback?**
- Is feedback given after successful attempts?
 - Is it based on careful observation and analysis of execution?
 - Does it ensure understanding of the purpose of implementation?
 - Does it provide an understanding of current level?
 - Does it provide an understanding of the possibilities for improvement?
 - Is there time for reflection by the participant?
 - Are good results named?
 - Are improvements named?
 - Is effort named?
 - Does the feedback invite externally focused attention?

Fig. 1 Worksheet didactical criteria for high quality training

Key Takeaways**Police Officers**

Police officers can use the didactical criteria to obtain high quality training.

They may particularly want to take note of the criterion of self-regulation of learning, to learn how they can take control over their learning processes for optimal training outcomes.

Conflict Management Trainers

The criteria and the worksheet offer actionable suggestions to (further) improve the training of conflict management trainers. They can use them to design training, for reflection in action during training sessions, and as a reflection tool to be used after such sessions.

Police Decision-Makers

The criteria and the worksheet can be used to monitor and evaluate training practices in the organizations of police decision-makers.

References

- Andersen, J. P., Papazoglou, K., Nyman, M., Koskelainen, M., & Gustafsberg, H. (2015). Fostering resilience among police. *Journal of Law Enforcement*, 5, 3–13. <https://hdl.handle.net/1807/73820>
- Andersen, J. P., Pitel, M., Weerasinghe, A., & Papazoglou, K. (2016). Highly realistic scenario based training simulates the psychophysiology of real world use of force encounters: Implications for improved police officer performance. *Journal of Law Enforcement*, 5, 1–13.
- Araújo, D., & Davids, K. (2011). What exactly is acquired during skill acquisition? *Journal of Consciousness Studies*, 18, 7–23.
- Ashraf, R., Abdoli, B., Khosrowabadi, R., Farsi, A., & Pineda, J. A. (2021). The Effect of Modeling Methods on Mirror Neurons Activity and a Motor Skill Acquisition and Retention. *Basic and Clinical Neuroscience*, 0-0. <https://doi.org/10.32598/bcn.2021.3245.1>
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.

- Bennell, C., Blaskovits, B., Jenkins, B., Semple, T., Khanizadeh, A. J., Brown, A. S., & Jones, N. J. (2020). Promising practices for de-escalation and use-of-force training in the police setting: A narrative review. *Policing: An International Journal*, *44*, 377–404. <https://doi.org/10.1108/pijpsm-06-2020-0092>
- Bernstein, N. A. (1996). On dexterity and its development. In M. L. Latash & M. T. Turvey (Eds.), *Dexterity and its development* (pp. 1–244). Erlbaum.
- Button, C., Seifert, L., Chow, J. Y., Araújo, D., & Davids, K. (2021). *Dynamics of skill acquisition. An ecological dynamics approach*. Human Kinetics.
- Chow, J. Y. (2013). Nonlinear learning underpinning pedagogy: Evidence, challenges, and implications. *Quest*, *65*, 469–484. <https://doi.org/10.1080/00336297.2013.807746>
- Cushion, C. J. (2018). Exploring the delivery of officer safety training: A case study. *Policing: A Journal of Policy and Practice*, *14*, 166–180. <https://doi.org/10.1093/police/pax095>
- Davids, K., Araújo, D., Hristovski, R., Passos, P., & Chow, J. Y. (2012). Ecological dynamics and motor learning design in sport. In N. J. Hodges & A. M. Williams (Eds.), *Skill acquisition in sport: Research, theory and practice* (pp. 112–130). Routledge.
- Davids, K., Button, C., & Bennett, S. (2008). *Dynamics of skill acquisition: A constraints-led approach*. Human kinetics.
- Di Nota, P. M., & Huhta, J. M. (2019). Complex motor learning and police training: Applied, cognitive, and clinical perspectives. *Frontiers in Psychology*, *10*, 1797. <https://doi.org/10.3389/fpsyg.2019.01797>
- Dochy, F., & Segers, M. (2018). *Creating impact through future learning: The high impact learning that lasts (HILL) model*. Routledge.
- Dweck, C. (2017). *Mindset-updated edition: Changing the way you think to fulfil your potential*. Hachette UK.
- Giessing, L., Frenkel, M. O., Zinner, C., Rummel, J., Nieuwenhuys, A., Kasperk, C., Brune, M., Engel, F. A., & Plessner, H. (2019). Effects of coping-related traits and psychophysiological stress responses on police recruits' shooting behavior in reality-based scenarios. *Frontiers in Psychology*, *10*, 1523. <https://doi.org/10.3389/fpsyg.2019.01523>
- Guadagnoli, M. A., & Lee, T. D. (2004). Challenge point: A framework for conceptualizing the effects of various practice conditions in motor learning. *Journal of Motor Behavior*, *36*, 212–224. <https://doi.org/10.3200/JMBR.36.2.212-224>
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, *77*, 81–112. <https://doi.org/10.3102/003465430298487>

- Hodges, N. J., & Franks, I. M. (2002). Modelling coaching practice: The role of instruction and demonstration. *Journal of Sports Sciences, 20*, 793–811. <https://doi.org/10.1080/026404102320675648>
- Hutter, R. I. (V.), Koedijk, M., Schäfer, A., Maetzing, O., Kleygrewe, L., & Oudejans, R. R. D. (2022). *D7.5 SHOTPROS final training curriculum for DMA-SR*. Deliverable to the European Commission in the H2020 project SHOTPROS.
- Kal, E., Prosée, R., Winters, M., & Van Der Kamp, J. (2018). Does implicit motor learning lead to greater automatization of motor skills compared to explicit motor learning? A systematic review. *PLoS One, 13*, e0203591. <https://doi.org/10.1371/journal.pone.0203591>
- Kleygrewe, L., Oudejans, R. R. D., Koedijk, M., & Hutter, R. I. (2022). Police training in practice: Organization and delivery according to European law enforcement agencies. *Frontiers in Psychology, 12*, 1–13. <https://doi.org/10.3389/fpsyg.2021.798067>
- Knowles, M. S. (1978). Andragogy: Adult learning theory in perspective. *Community College Review, 5*, 9–20. <https://doi.org/10.1177/009155217800500302>
- Koedijk, M., Renden, P. G., Oudejans, R. R. D., & Hutter, R. I. (2019). Training for the job: Evaluation of a self-defence training programme for correctional officers. *Ergonomics, 62*, 1585–1597. <https://doi.org/10.1080/00140139.2019.1677947>
- Körner, S., & Staller, M. S. (2022). The Situation is quite different: Perceptions of violent conflicts and training among German police officers. *Frontiers in Education, 6*, 777040. <https://doi.org/10.3389/educ.2021.777040>
- Körner, S., & Staller, M. S. (2021). Police training revisited—Meeting the demands of conflict training in police with an alternative pedagogical approach. *Policing: A Journal of Policy and Practice, 15*, 927–938. <https://doi.org/10.1093/policing/paaa080>
- Körner, S., & Staller, M. S. (2018). From system to pedagogy: Towards a nonlinear pedagogy of self-defense training in the police and the civilian domain. *Security Journal, 31*, 645–659. <https://doi.org/10.1057/s41284-017-0122-1>
- Landman, A., Nieuwenhuys, A., & Oudejans, R. R. D. (2016). Decision-related action orientation predicts police officers' shooting performance under pressure. *Anxiety, Stress & Coping, 29*, 570–579. <https://doi.org/10.1080/10615806.2015.1070834>

- Lewthwaite, R., & Wulf, G. (2017). Optimizing motivation and attention for motor performance and learning. *Current Opinion in Psychology*, *16*, 38–42. <https://doi.org/10.1016/j.copsyc.2017.04.005>
- Maloney, S., Storr, M., Morgan, P., & Ilic, D. (2013). The effect of student self-video of performance on clinical skill competency: A randomised controlled trial. *Advances in Health Sciences Education*, *18*, 81–89. <https://doi.org/10.1007/s10459-012-9356-1>
- Mugford, R., Corey, S., & Bennell, C. (2013). Improving police training from a cognitive load perspective. *Policing: An International Journal of Police Strategies & Management*, *36*, 312–337. <https://doi.org/10.1108/13639511311329723>
- 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. <https://doi.org/10.1007/s10339-011-0396-x>
- Nieuwenhuys, A., & Oudejans, R. R. D. (2012). Anxiety and perceptual-motor performance: Toward an integrated understanding of concepts, mechanisms, and processes. *Psychological Research Psychologische Forschung*, *76*, 747–759. <https://doi.org/10.1007/s00426-011-0384-x>
- Nieuwenhuys, A., & Oudejans, R. R. D. (2017). Anxiety and performance: Perceptual-motor behavior in high-pressure contexts. *Current Opinion in Psychology*, *16*, 28–33. <https://doi.org/10.1016/j.copsyc.2017.03.019>
- Otte, F. W., Davids, K., Millar, S. K., & Klatt, S. (2020). When and how to provide feedback and instructions to athletes?—How sport psychology and pedagogy insights can improve coaching interventions to enhance self-regulation in training. *Frontiers in Psychology*, *11*, 1444. <https://doi.org/10.3389/fpsyg.2020.01444>
- Pinder, R. A., Davids, K., Renshaw, I., & Araújo, D. (2011). Representative learning design and functionality of research and practice in sport. *Journal of Sport and Exercise Psychology*, *33*, 146–155. <https://doi.org/10.1123/jsep.33.1.146>
- Ranganathan, R., & Newell, K. M. (2013). Changing up the routine: Intervention-induced variability in motor learning. *Exercise and Sport Sciences Reviews*, *41*, 64–70. <https://doi.org/10.1097/JES.0b013e318259beb5>
- Renden, P. G., & Dikken, J. (2022). *An innovative perspective on skill acquisition in nurse education: The constraints-led approach*. [Manuscript submitted for publication] Nutrition and Sport, The Hague University of Applied Sciences.

- Renden, P. G., Savelsbergh, G. J. P., & Oudejans, R. R. D. (2017). Effects of reflex-based self-defence training on police performance in high-pressure arrest situations. *Ergonomics*, *60*, 669–679. <https://doi.org/10.1080/00140139.2016.1205222>
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*, 68. <https://doi.org/10.1037/0003-066X.55.1.68>
- Sanli, E. A., Patterson, J. T., Bray, S. R., & Lee, T. D. (2013). Understanding self-controlled motor learning protocols through the self-determination theory. *Frontiers in Psychology*, *3*, 611. <https://doi.org/10.3389/fpsyg.2012.00611>
- Ste-Marie, D. M., Carter, M. J., & Yantha, Z. D. (2019). Self-controlled learning: Current findings, theoretical perspectives, and future directions. In N. J. Hodges & A. M. Williams (Eds.), *Skill acquisition in sport: Research, theory and practice* (pp. 119–140). Routledge.
- Ste-Marie, D. M., Law, B., Rymal, A. M., Jenny, O., Hall, C., & McCullagh, P. (2012). Observation interventions for motor skill learning and performance: An applied model for the use of observation. *International Review of Sport and Exercise Psychology*, *5*, 145–176. <https://doi.org/10.1080/1750984X.2012.665076>
- Ste-Marie, D. M., Lelievre, N., & St. Germain, L. (2020). Revisiting the applied model for the use of observation: A review of articles spanning 2011–2018. *Research Quarterly for Exercise and Sport*, *91*, 594–617. <https://doi.org/10.1080/02701367.2019.1693489>
- Ste-Marie, D. M., Vertes, K. A., Law, B., & Rymal, A. M. (2013). Learner-controlled self-observation is advantageous for motor skill acquisition. *Frontiers in Psychology*, *3*, 556. <https://doi.org/10.3389/fpsyg.2012.00556>
- Staller, M. S., & Körner, S. (2020). Training für den Einsatz II: Plädoyer gegen das Training isolierter Komponenten im polizeilichen Einsatztraining. *Die Polizei*, *111*, 223–231.
- Staller, M. S., Zaiser, B., & Körner, S. (2017). From realism to representativeness: Changing terminology to investigate effectiveness in self-defence. *Martial Arts Studies*, *4*, 70–77. <https://doi.org/10.18573/j.2017.10187>
- Van Maarseveen, M. J., Oudejans, R. R. D., & Savelsbergh, G. J. (2018). Self-controlled video feedback on tactical skills for soccer teams results in more active involvement of players. *Human Movement Science*, *57*, 194–204. <https://doi.org/10.1016/j.humov.2017.12.005>

- Van Merriënboer, J. J., & Sweller, J. (2005). Cognitive load theory and complex learning: Recent developments and future directions. *Educational Psychology Review*, *17*, 147–177. <https://doi.org/10.1007/s10648-005-3951-0>
- Wright, D. L., & Kim, T. (2019). Contextual interference: New findings, insights, and implications for skill acquisition. In N. J. Hodges & A. M. Williams (Eds.), *Skill acquisition in sport: Research, theory and practice* (pp. 99–118). Routledge.
- Wulf, G. (2013). Attentional focus and motor learning: A review of 15 years. *International Review of Sport and Exercise Psychology*, *6*, 77–104. <https://doi.org/10.1080/1750984X.2012.723728>
- Wulf, G., Iwatsuki, T., Machin, B., Kellogg, J., Copeland, C., & Lewthwaite, R. (2018). Lassoing skill through learner choice. *Journal of Motor Behavior*, *50*, 285–292. <https://doi.org/10.1080/00222895.2017.1341378>
- Wulf, G., & Lewthwaite, R. (2016). Optimizing performance through intrinsic motivation and attention for learning: The OPTIMAL theory of motor learning. *Psychonomic Bulletin & Review*, *23*, 1382–1414. <https://doi.org/10.3758/s13423-015-0999-9>
- Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In *Handbook of self-regulation* (pp. 13–39). Academic Press.
- Zimmerman, B. J. (2001). Theories of self-regulated learning and academic achievement: An overview and analysis. In B. J. Zimmerman & D. H. Schunk (Eds.), *Self-regulated learning and academic achievement* (2nd ed., pp. 1–37). Lawrence Erlbaum Associates.
- Zimmerman, B. J., & Moylan, A. R. (2009). Self-regulation: Where metacognition and motivation intersect. In D. J. Hacker, J. Dunlosky, & A. C. Graesser (Eds.), *Handbook of metacognition in education* (pp. 299–315). Routledge.



Empowering Police Trainers: Introducing the Constraints-Led Approach for the Design of Effective Learning Environments in Police Training

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Reviewer: Sixt Wetzler

1 Pedagogical Demands of Police Training

The police's accomplishment of operational tasks is related to a broad range of competencies. In order to ensure and foster the acquisition of the necessary skills, mandatory training for police officers is carried out by police organizations around the world (Bennell et al., 2007; Cushion,

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2020; Honess, 2016; Isaieva, 2019; Rajakaruna et al., 2017; Renden, Nieuwenhuys, et al., 2015; Wolfe et al., 2020). However, national and international findings point to a lack of coherence when comparing training and the field: the skills dealt with in training do not meet the demands in deployment, especially when facing conflict and violent encounters (Cushion, 2020; Jager et al., 2013; Renden, Landman, et al., 2015). The main reasons put forward for this issue are a lack of time as well as a lack of realism, which is primarily caused by adhering to inappropriate content (Jager et al., 2013; Renden, Nieuwenhuys, et al., 2015). As a consequence, it is argued that more time for training and/or the inclusion of a better system (e.g., self-defence or weapon system) could resolve the problem (Jager et al., 2013; Renden, Nieuwenhuys, et al., 2015).

When reflecting on the reasonable call for optimization in terms of time and content, it can easily be overlooked that both the effective use of time available for training as well as the selection and design of content cannot be thoroughly analysed without addressing pedagogical issues. Police training is a professional teaching and learning setting and as such inherently constitutes a domain of pedagogical practice, reflection, and research. The training is set in place with the intention to equip officers with operational skills for the field. The design and delivery of the training is, at its core, a pedagogical decision-making process based on knowledge and skills: Which problems should be addressed in training and why? Which solutions are appropriate and how can the acquisition of related skills be fostered? How can exercises be designed accordingly? Which implementation is best suited for an optimal use of the available time? When should feedback be given to trainees and how should it be designed?

Questions such as these clearly suggest the important role pedagogy plays within police training, while also highlighting the corresponding pedagogical demands the training imposes on the trainers in charge. The pedagogy of police training comprises at its core (a) the intentional and

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goal-directed practice of planning and delivery (*what is done, how, and for whom*) as well as (b) the reflection of the underlying assumptions of said practice (*why it is done*). In the following it is assumed that pedagogy is of great importance for the desired integration of training and the field. In accordance with this train of thought, the internationally known constraints-led approach (CLA) is introduced as a practical and evidence-based pedagogical approach worth being recognized by police training and police trainers—such as Mel.

Mel has recently become a police trainer. Her own training for the police service was not long ago. During this time, Mel had already thought that being a trainer could be just the right thing for her. She likes the multi-faceted work of the police and now especially likes being a trainer. The latter emotion was primarily evoked by the training she was able to experience for herself during her police education. Specifically, her former police trainer, Dave, made a lasting impression on her. With Dave one learned useful things, which Mel attests became quickly evident during the first practical phases in the field. Dave had always managed to make people want to join in with the training, and Mel would like to teach this way as well. While pedagogy was a part of her police trainer education, in comparison to technical content like tactics, shooting, or arrest and self-defence techniques, the issue of teaching came up short.

2 Constraints-Led Approach

The example of Mel illustrates the core pedagogical challenge that police training poses for the job of trainer. It is a professional teaching and learning setting. In order to impart officers with the skills for coping with operational demands (Cushion, 2018; Körner & Staller, 2020; Staller & Körner, 2020), the ability to effectively design learning environments is a key competence for professional police trainers. For these requirements, the internationally renowned CLA offers promising guidelines. Having its roots in sport, the CLA can be understood as a “principled approach to skill learning”, open to being transferred to different “pedagogical settings” (Renshaw & Chow, 2019, p. 104).

However, the CLA does not advocate for a blind transfer. Instead, as a reflective approach to teaching and learning, it advocates for police training as a professional decision-making process based on the best currently available information. As such, CLA-based police training is created by questioning the guiding assumptions and underlying principles of learning and teaching: “What is your model of the learner and the learning process that underpins your pedagogical practice?” (Chow et al., 2016, p. 173). In a first step, the CLA requires police trainers (a) to understand the rationale for their decisions in planning learning environments and their implementation. Moreover, these decisions should (b) be based on the best currently available pedagogical and scientific information. As a pedagogically engaged and reflective police trainer, Mel would thus ask herself what concepts and assumptions underpin her idea of training. She would then derive new questions such as: What is her model of the learning process? And what conception does she have of police officers as learners?

Guiding Assumptions and Key Concepts

The CLA is based on assumptions about the human being, more specifically one central assumption about human behaviour itself, namely that it is *constraints-led*, that is shaped and conditioned by a number of internal and external factors which interact as constraints (Renshaw & Chow, 2019). Example: During a vehicle check, the driver hands over his ID with a friendly smile. The police officer smiles as well and thanks him. The police officer’s behaviour can be explained by the task that is to be accomplished (vehicle check) and the citizen’s behaviour (friendly smile). Moreover, further factors that are unknown variables in our example may affect the situation. For instance, situational circumstances like the time of day and place of work control may suggest a certain “normality”, while the condition of the police officer, who may have had enough sleep and initiated the vehicle inspection in a good mood, influenced the situation as well. The task to be fulfilled, environmental conditions, and one’s own emotional state—from the CLA’s point of view, these are the decisive constraints from whose interaction human behaviour results.

Constraints

The CLA refers to the seminal work of Karl Newell (2020), who distinguishes between organismic, environmental, and task constraints:

- *Organismic constraints* refer to all internal conditions of the individual, i.e., relatively permanent (e.g., sex, height, weight) or variable physical, motivational, emotional, and cognitive states.
- *Environmental constraints* comprise all natural and social environmental factors that are also either variable (bystanders, temperature, light conditions, soil conditions) or stable (e.g., equipment, gravity) in nature.
- *Task constraints* include the specific factual focus (e.g., vehicle check) and the normative and organizational frame of a task that is to be accomplished.

From the CLA's perspective, the three types of constraints function as behaviour-enabling restrictions: they shape behaviour, depending on their nature and condition, while restricting certain possibilities that thereby open up other possibilities (Torrents et al., 2020). If constraints change, behaviour changes. Using the above example of the vehicle check: less sleep, a different time of day, or a provocative gesture could each have resulted in a different behaviour and different interactional outcomes. It is important to note that constraints have no meaning by themselves. Their meaning is always relative to the context of a task accomplishment in which they make a difference. When defending against a knife attack, for instance, tailwind effectively plays no role, whereas light conditions do. In the context of long jump in sports, for example, the conditions are different. Here a tail wind influences the jumping performance and even minimal changes in air resistance (and in the earth's gravitational force, Araujo & Davids, 2018) have a potential influence on the outcome.

Organismic constraints play a prominent role when dealing with environment- and task-related constraints. As individual preconditions, they form the decisive frame of reference as well as the filter for the sensory reception, processing, and use of environment- and task-related

constraints. If the police officer in the above example possesses a positive conception of mankind and society, this could be the necessary cognitive filter for professional friendliness despite any provocative gestures by the driver that may arise. Constraints become behaviourally relevant only when they are actually being perceived. If, for example, the police officer fails to notice an ambiguous hand movement by the driver during the vehicle control, she may have missed a potentially important piece of information. If not perceived, the hand movement does not constitute a constraint in the present moment. In a subsequent moment this could change; and so could the behaviour.

Perception–Action Coupling

When constraints are perceived, they provide information from which eventual behaviour results. This mechanism is also the basis for human movement behaviour. If the police officer perceives the driver's hand movement as situationally relevant information, this can initiate not only verbal behaviour but also physical movements, such as a change in body position or the movement of her own hand towards the firearm. According to James Gibson (1979), the CLA assumes that movement and perception are circularly coupled (perception–action coupling) and reproduce each other. Perception initiates movement and movement initiates and changes perception. If the police officer changes her body and hand position, a new situation and a new perspective on that situation is created, which in turn leads to another movement, which in turn produces a new situation and perception, and so on. Gibson formulates the recursive connection between perception and movement as: “So we must perceive in order to move, but we must also move in order to perceive” (Gibson, 1979, p. 223).

Non-Linearity and Non-Identity

Constraints function as constraining sources of information from the perspective of the person acting. Constraints generate opportunities for action, so-called affordances (Renshaw & Chow, 2019). From the

CLA's perspective, the simultaneously constraining and enabling relationship between the individual and the environment is not based on a strictly linear relationship of cause and effect (Chow et al., 2016). On the contrary, their relationship seems to be non-linear in nature: a given cause can lead to different outcomes depending on internal states (perception, emotional situation, etc.) and external circumstances. The driver's hand movement (a) may or may not be perceived by the police officer, (b) may be classified as harmless or as a threat, and (c) may lead to the drawing of a firearm or to the officer switching to an alert safety posture. Moreover, the movement of one's hand toward the firearm can be accomplished in a variety of ways. According to the CLA, the latter is based on the organizing principle of neuro-biological degeneracy in humans.

This principle states that the human body can achieve functionally equivalent actions and their respective goals by coordinating structurally different components of the system (Edelman & Gally, 2001). For example, at the motor level, there are many ways to grasp a glass of water with the intent to drink from it. This becomes clear when we reimagine our movements on the level of a human's six main joints (ankle, knee, hip, shoulder, elbow, and wrist) while assuming that there are two angular positions for each of these joints, which means that there are more than 2^{12} possible movement variations. When including the three planes of motion (sagittal, frontal, transversal planes) as well as the rhythmic sequencing of motion, the number of possible variations increases to $(2^{12})^4$, that is 281 trillion possibilities (Schöllhorn, 2011). This highly simplifying assumption (limited to a few joints and two angular positions) already underlines the variability of movement as an empirical fact. Almost a century ago the Russian movement scientist Nikolai Bernstein had already measured that cyclic movements such as the human gait show no identical movement execution in one individual's repeated use (Bernstein, 1967). Even in the case of supposedly identical movements, no execution is identical to the previous one. What is true for them is even more true for complex movements: every single execution of a movement is *repetition without repetition*.

The police officer's body and hand movement in the example of the vehicle control can thus be realized in different ways. Moreover, in the

case of a trained movement leading to an attentive safety posture, the motion will never be identical to the trained movement of this type. From the CLA's perspective, this is an unproblematic occurrence. On the contrary, when taking the aforementioned principles of degeneracy, motor degrees of freedom, and repetition without repetition (Bernstein, 1967) into account, it actually constitutes the solution. The extent to which the respective action is functional, that is establishes control over the situation, is determined in the situation itself and, of course, by further, primarily normative (e.g., service regulations) constraints that influence the performance of the task.

Practical Application

The CLA draws its ideas for the design of effective learning environments from the model of human behaviour presented above. For police trainers who want to use the CLA for the design, delivery, and reflection of their training, a mental examination of the fundamentals of the organization of human (movement) behaviour is the key to effectively using the approach's potential. Possible consequences for the practice of teaching and learning resulting from the assumption of the existence of constraints, for example the perception–action coupling as well as non-linearity and non-identity, differ greatly from previous assumptions about training design. They deviate heavily from traditional paradigms of teaching and learning, such as linear-trainer-centred practices oriented toward prescriptive solutions (Koerner & Staller, 2020). Engaging with the CLA in police training requires the adoption of two main principles. First, individualization along organismic constraints becomes the guiding orientation. Second, within the CLA, the operational environment, which includes representative tasks and environmental constraints as key variables of mission accomplishment, plays a major role (see Fig. 1).

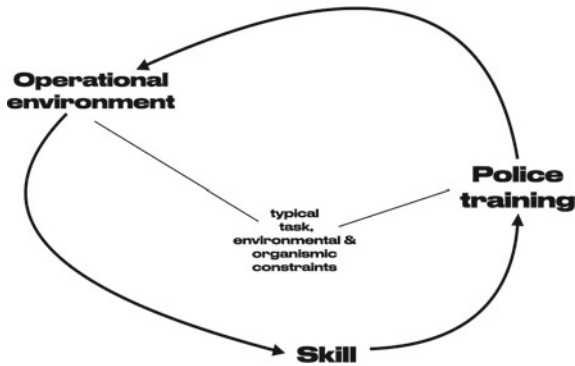


Fig. 1 Organismic, task, and environmental constraints: from operational environment to police training

Representative Learning Design

Like her trainer and role model Dave, Mel wants the participants of her training to learn useful things for their deployment. In order to support the trainees' acquisition of skills and abilities in this area, Mel takes a differentiated look at the key requirements of the field. She reflects on her own deployment experiences and those of colleagues (Koerner & Staller, 2019), analyses research on violence as well as conflict characteristics of police operations (Ellrich et al., 2011; Jager et al., 2013), reviews available material in the print media and on the Internet, compares the results with the contents of the training curriculum, discusses those with fellow trainers, and reflects on possible biases stemming from her own socialization (she has been practising martial arts since the age of 13; Mel knows that this can influence her perception of possible solutions to conflicts). Mel is thus already in the midst of one of the most central tasks that the CLA imposes on her: the identification of key variables of the operational environment, that is the in-depth analysis of what happens "outside".

By emphasizing the role of task and environmental constraints, the CLA creates a relationship between training as a learning environment on the one hand and the operational environment on the other (see Fig. 1). In terms of a representative training design, the aim is to support the participants' acquisition of skills and abilities by implementing the

constraints that are characteristic for the officers' performance in the field into the training process (Staller et al., 2017). This is a necessary condition for supporting officers' transfer of skills (see Fig. 1). If, for instance, moments of surprise, aggression, high dynamics, and associated stress reactions play a central role in police conflict and violent situations (Jager et al., 2013; Renden et al., 2015), the task of a CLA-based training is to recreate these moments in training in the form of constraints, as if at a mixing desk. If moments of boredom, interpersonal friendliness, cognitive resistance to announced measures, or emotional impairment play a recurring role in police operations, these constraints must also be dealt with in training. If "in reality" these or further characteristics of the operational situation suddenly change or influence each other, these *changes* must also be represented in police training.

Using the example of our police trainer: Mel could address the vehicle control during training and provoke different behaviours of the police officer trainees by deliberately changing *constraints*. A possible constraint to change could be the expected sequence of events during the vehicle control: the driver's cooperation as well as a possible refusal, the use of provocations, ambiguous behaviour, or a sudden exit out of the vehicle accompanied by aggression towards the police officer could all function as constraints. Furthermore, environmental constraints such as the number of people in the car, the behaviour of the securing colleague, the lighting conditions, the noise level, or even the mental/physical state that the police officer is in prior to the situation could be manipulated. The latter could for example be influenced by physical or cognitive stress or relaxation exercises. These and other constraints can be systematically or randomly interspersed in the training sessions.

For police trainers like Mel who want to use the CLA, the following is highly important. The CLA does not only require trainers to take on the respective simulator roles. Rather, the trainees themselves have to take on the role of the citizens. By putting themselves in different civilian roles, police officers (a) become more familiar with key variables of the operational environment, (b) experience it from the perspective of their "real" interactional partners, and (c) enable colleagues to deal with valid and reality-based stimuli as well as to develop solution-related competencies. As the trainees take over the simulator role for each other, the training (d)

improves due to many high-quality interactions and learning opportunities that are aligned with key variables of real-world police operations. Finally, in this way (e) the resources of the trainers and training staff can be used efficiently.

The core idea of the CLA is to “play” with constraints in a meaningful way, such as on a mixing desk, in order to empower learners to functionally behave as if on deployment (Renshaw et al., 2019). The concept of constraints provides a blueprint for police training. An essential task of the trainer is the representative constraining of simulator scripts. In order for training participants to be able to simulate and play their role as well as possible, representative scripts must be designed; for example, for the role of “friendly”, “concerned”, “aggressive”, or “violent” citizens. The scripts can be easily imported into the training, for example via index cards, and can be used instantly. They inform the simulator succinctly about goals, backgrounds, and concrete behaviours (language, physical behaviour, etc.) of the citizen, and can be distributed, exchanged, or randomly drawn by participants.

The measure for the evaluation of the functional behaviour of the trainees results from the analysis of operational demands of frontline policing: if the element of surprise plays a recurring role in deployment, tasks in training are to be constrained in such a way that they virtually provoke situational attention in the participating police officers, that in turn can function as a resource for the reduction of surprise reactions. In addition to the task manipulation employed by the simulative operator—e.g., the sudden change of “normal” interaction into an attacking action—situational awareness can also be constrained by the spatial design of the training environment, for example by areas, angles, and corners of the operational environment that do not allow full visibility. In addition, sudden noises as well as darkness influence the learners’ perceptions, increase their stress levels, and thus change the individual frame of reference for processing relevant task-specific information (see Table 1).

In the CLA, police trainers become responsible designers of information-rich learning environments representative of the field. As at a mixing desk, they design effective environments in which active engagement with learners can be used to adjust the environments to the

Table 1 Examples of how police officers' situational awareness can be encouraged by manipulating constraints

Constraints on behaviour	Example of manipulation	Desired skill	Key variable of operational environment
Organismic	<ul style="list-style-type: none"> • Let eyes close • Distract • Fatigue due to load • ... 		
Task	<ul style="list-style-type: none"> • Protect others • ... • Protect oneself • ... 	<ul style="list-style-type: none"> • Situational awareness 	<ul style="list-style-type: none"> • Perception of many stimuli
Environment	<ul style="list-style-type: none"> • Dim light • Creating spaces that cannot be seen • ... 		

specific perceptual, motor, cognitive, and affective requirements of the operational environment. The exercises are to be designed in such a way that (dys)functional behaviour is immediately feedback (see Table 1). For example, a lack of situational awareness should be feedback as directly as possible, while being immanent in the exercise and allowing for the experience of consequences. Task-immanent feedback (Sigrist et al., 2012) can for example be provided by the simulator's continuation of a surprising attack until a situationally adaptive, functional solution emerges. Curriculum content, scientific data, and professional expertise provide further guidance for the evaluation of functional behaviour. In addition to the knowledge of the characteristics of the application environment, the CLA demands a focus on the individual from police trainers like Mel.

Individuality

The CLA places the individual at the centre. It is no coincidence that the human being as an organism has a prominent position in Newell's triangle of constraints (see Fig. 1). Organismic constraints create the

central individual frame of reference for the reception, processing, and use of task- and environment-specific information, thus shaping an individual's "reality". If participants in police training lack motivation, this is likely to limit the learning process (Honest, 2016). If, for instance, the double-leg take-down is on the programme as a technical option against massive acts of resistance, police training still has to deal with individuality. For example, with the individuality of those who come from martial arts or have the physical and biomechanical prerequisites for combative solutions—they will likely be happy when practising this solution. If the group is sufficiently heterogeneous, however, the individuality of those who will have their practical and motivational problems with the double-leg take-down due to their biographical and/or physical preconditions must also be taken into account. They may need completely different and possibly non-physical means for handling the act of resistance (communication, getting help from colleagues, etc.). This is a key characteristic of CLA-based police training, that is it provides room for different individual and situational solutions to problems of the same kind.

The emphasis on individuality in the CLA entails that ideal technical solutions, for example delivered by the trainer, are seen as *possible* examples, precisely because their successful application under representative constraints (surprise, aggressiveness, ambiguity, etc.) depends on the particular individual constraints and situational circumstances. The fact that a solution that worked for almost everyone in isolated training settings but does not work in more complex situations is precisely because complex situations confront the individual with other distinct features of the (seemingly identical) situation. The major find of a recent empirical study analysing police recruits' knife defence performance was: if police officers were *unexpectedly* attacked with a knife, the ideal techniques trained beforehand disappeared in favour of adaptive, messy solutions (Koerner et al., 2020).

It is important to address the fact that the relativization of one-size-fits-all solutions in the CLA is not a plea for a vague pedagogical "principle of hope". On the contrary the CLA argues with empirical evidence, for example with biomechanical degrees of freedom in the area of human movement, or with degeneracy as a property of the neuro-biological

system which is used to achieve identical goals by coupling different components of the system (see section “[Non-Linearity and Non-Identity](#)”). In sport, evidence for functional non-linearity and adaptivity in performance situations is abundant (Barris et al., 2014; Hristovski et al., 2006; Orth et al., 2017; Seifert et al., 2014), making the application of the CLA in police training a promising endeavour (Koerner, 2021; Koerner & Staller, 2020; Koerner et al., 2020). Putting the individual at the centre of the CLA does not marginalize the role of the police trainer within the training process. In addition to designing representative tasks that enable participants to focus on individual problem-solving skills relevant to specific demands of the field, the trainer’s task design as well as mode of delivery deserve further attention: in a CLA-based training the instruction is short, concise, and focused on the objective of the activity. Due to its orientation towards task objectives and its targeted focus of attention centred on the outcome of the action (*external focus of attention*, Moy et al., 2015), this style of delivery has a notable autonomy-supporting effect.

Mel had never conceptualized it this way before, but in fact these are the two central styles of delivery she has encountered so far in school, college, and police training settings:

- (a) *Internal-linear*: A demonstration of the solution that is to be executed as well as a verbal explanation of important technical features of the execution. The learning goal is to reproduce a specific ideal solution. As an example, the instructions for defending against a knife stab could be: “Bend the elbow between 90 and 120 degrees, slightly spread and tighten the fingers, block the knife-carrying arm on its line of attack, use a lateral rotation of the hips ...”.
- (b) *External-non-linear*: Emphasizing the action’s objective. The learning goal is to find appropriate individual and situational solutions based on specific principles. Instructive orders for the example of defending against a knife stab could be: “Don’t get hit!” or “Bring something between you and the attacking arm”.

As a trainer, setting an external focus of attention means avoiding detailed technical instructions as well as guided solutions that are perceived as generally valid, while instead asking the participants to explore and test possible solutions themselves. This instructional style accommodates people's basic need to experience themselves as self-determined (Ryan & Deci, 2000). In turn, experiencing autonomy positively affects motivation, which in turn positively affects the learning process (Moy et al., 2015). From the CLA's perspective, the externalizing style of delivery is not only beneficial from a motivational point of view, it is also consistent with the biological disposition of humanity: behavioural degrees of freedom and degeneracy ultimately state that consistency in outcome does not require consistency in execution. The same person as well as different performers can produce comparable outcomes in different ways. Autonomy finds its biological justification here.

Enabling the trainees to explore and find their own solutions with the assistance of the CLA does not mean that "anything goes". Whether the solution found in each case is functional, that is effectively neutralizes the problem at hand (e.g., a physical attack), becomes apparent in the situation itself. In this context, it must be taken into account that the individual solution, for example against a physical attack, is framed within a supra-individual normative framework and is decisively limited by it as well. After all, an officer's individual solution may be functional, but illegal; or it may be functional and legally compliant, but risky and questionable from a health perspective. This is where feedback as another central and consciously designed mechanism of the CLA comes into play. Feedback on the success or failure of, for instance, a knife defence in training is seen as (a) immanent in the CLA due to the design of the task, which, for example, provides clear simulation rules for when and how success or failure is indicated. On the other hand, (b) feedback can be given externally by the trainer. If the police trainer recognizes that an important principle of action could help the participants' attempt to solve the task, they can verbally provide this principle in an external fashion. In the example of a knife attack: "Put something between you and the knife" or "Create distance between you and the knife". Again, it would be up to the participants to create their own

solutions for the newly introduced principle. The feedback on the functionality of the solution also includes the aforementioned health and safety issues (“Is this healthy?” etc.) as well as normative requirements (“Is the solution legally and ethically appropriate?” etc.). Although the CLA clearly emphasizes the importance of exploring and stabilizing individual solutions to situationally variable tasks made possible by the deliberate design of constraints, this does not exclude technical templates provided by the trainer. However, for a CLA-based training it is mandatory that the technical standard fluently adapts to the individual and situational constraints and changes accordingly.

In the CLA, the orientation towards individuality poses further demands on police trainers, especially in the field of diagnostics. In order to constrain tasks in a meaningful way they need to gain an insight into which sources of information a learner prefers to refer to, or not to refer to, when completing a task. Individual *rate limiters* (Correia et al., 2019) are of particular importance here, that is those characteristics of a learning individual that temporarily limit the performance of certain functional solutions. For instance, a coordination and strength deficit in the legs limits the functional incorporation of kicking techniques when defending against a knife attack. The same applies to attentional and perceptual processes, and so on. The CLA in particular emphasizes that individual constraints enable the learning of different task solutions in the first place (Boulton & Cole, 2016).

Empirical Data

In recent years, a considerable number of empirical studies have shown that the CLA can foster individual problem-solving skills in different areas of sport performance (Arias et al., 2012a, 2012b; Hristovski et al., 2006; Maloney et al., 2018; Práxedes et al., 2018, 2019). However, in the police domain applications of the CLA are still in their infancy (Koerner & Staller, 2020). Recent findings of an empirical study on knife defence performance of recruits in the German federal police indicate that the CLA can also be used effectively in police training (Koerner et al., 2020). In this study a traditional trainer- and technique-centred

teaching approach, which was identified as the standard at the same training site in a previous field study (Staller et al., 2021), and a CLA-based training on knife defence, were compared. Regarding a knife attack with the highest grade of realism, that is an attack carried out by surprise and with a high amount of aggressiveness, the CLA-based training group were hit less and solved the attack faster and more often than the “traditional group”, indicating a higher level of problem-solving skills in the CLA group (Koerner et al., 2020).

3 Conclusion

The CLA approach depicts ways of operationalizing the demands of complex, real-world, frontline policing in police training and thus functions as a key mechanism for the coherence between training and deployment. The CLA not only provides practical guidance for the planning and delivery of police training designs, but also allows for a reflection of its application along the standards from which it is derived. As such, the CLA contributes to the pedagogical empowerment of police trainers. The CLA assumes that human behaviour is led by constraints. Based on this premise, the CLA draws the pedagogical consequence of enabling learners to explore and use behaviour-specific information through deliberate manipulation of task, environmental, and individual constraints, through which functional behaviour can emerge. By using the CLA, police trainers become designers of information-rich learning environments. As at a mixing desk, they design (a) representative learning environments in which (b) they can adjust the settings to better reflect the relevant perceptual, motor, cognitive, and affective demands of the eventual operational environment.

Key Takeaways

The CLA is one of the practical tools that police trainers can use to design their training. The approach does not claim to be unique. In fact,

from a practical point of view, there is much to be said for using pedagogical models in a variety of ways, depending on the learning objectives and respective prerequisites of the participants. By introducing the CLA to the police domain, practical implications on several levels have to be taken into account.

Police Officers

The CLA focuses on the individual officer as a learning system with individual constraints. For police officers, the CLA creates representative, field-related tasks that enable the acquisition and transfer of useful competencies for deployment, taking into account their individual frame of reference (organismic constraints) as a basis for action. Depending on the way in which tasks are designed and set up, police training based on the CLA supports the learners' autonomy, thus having a positive effect on motivation and thereby supporting the learning process itself. Police officers explore their own viable solutions in training and are supported by the trainers in their development potential (e.g., individualized support for "rate limiters").

Conflict Management Trainers

For police trainers like Mel, the CLA offers a practical tool for the design and reflection of police training. The CLA requires the police trainer to (1) identify key variables and characteristics of deployment, (2) identify the participants' individual frames of reference, (3) design the training (constraining) according to the insights gained in areas (1) and (2) and continually redesign it, and (4) reflect on pedagogical decisions about training design, taking into account the fundamentals of the approach. The CLA sees itself as a further contribution to existing training models and methods that does not replace them, but coexists with them.

Police Decision-Makers

The profession of the police trainer is primarily a *pedagogical profession*. This fact must be taken seriously during decisions at the organizational level, for example by further strengthening the pedagogical components in police training as well as the education of police trainers. A curricularly embedded and institutionally lived pluralism of evidence-based training methods and reflection models is conducive to the quality of police training, especially if decisions for or against a specific training

design are to have an evidence-based and reflective basis (as opposed to reasons of fashion or tradition).

The principle of “individuality” emphasized in the CLA is also accompanied by the challenge of reviewing existing curricularizations of police training and their respective learning objectives or competencies in particular. A technical curriculum validates the execution of a technical solution (and makes it legally secure in terms of auditing). From the CLA’s point of view, however, there are justified doubts about the representativeness of technical learning objective operationalizations outside the learning environment. For a training that claims to meet the demands of deployment it would be necessary to switch—at least gradually—from a technical learning objective to a problem-solving expertise. The focus would therefore not be on the reproduction of a certain predefined solution, but on generalizable solution principles that give room for individual interpretation design within the legal framework.

References

- Araujo, D., & Davids, K. (2018). The (sport) performer-environment system as the base unit in explanations of expert performance. *Journal of Expertise*, 3(1), 144–154. https://www.journalofexpertise.org/articles/volume1_issue3/JoE_2018_1_3_AraujoDavids.pdf
- Arias, J. L., Argudo, F. M., & Alonso, J. I. (2012a). Effect of the ball mass on the one-on-one game situation in 9–11 year old boys’ basketball. *European Journal of Sport Science*, 12(3), 225–230. <https://doi.org/10.1080/17461391.2011.552637>
- Arias, J. L., Argudo, F. M., & Alonso, J. I. (2012b). Effect of basketball mass on shot performance among 9–11 year-old male players. *International Journal of Sports Science & Coaching*, 7(1), 69–79. <https://doi.org/10.1260/1747-9541.7.1.69>
- Barris, S., Farrow, D., & Davids, K. (2014). Increasing functional variability in the preparatory phase of the takeoff improves elite springboard diving performance. *Research Quarterly for Exercise and Sport*, 85(1), 97–106. <https://doi.org/10.1080/02701367.2013.872220>

- Bennell, C., Jones, N. J., & Corey, S. (2007). Does use-of-force simulation training in Canadian police agencies incorporate principles of effective training? *Psychology, Public Policy, and Law*, 13(1), 35–58. <https://doi.org/10.1037/1076-8971.13.1.35>
- Bernstein, N. (1967). *The co-ordination and regulation of movements* (Vol. 13). Pergamon Press. [https://doi.org/10.1016/0006-8993\(69\)90278-9](https://doi.org/10.1016/0006-8993(69)90278-9)
- Boulton, L., & Cole, J. (2016). Adaptive flexibility. *Journal of Cognitive Engineering and Decision Making*, 10(3), 291–308. <https://doi.org/10.1177/1555343416646684>
- Chow, J. Y., Davids, K., Button, C., & Renshaw, I. (2016). *Nonlinear Pedagogy in Skill Acquisition*. <https://doi.org/10.4324/9781315813042>
- Correia, V., Carvalho, J., Araújo, D., Pereira, E., & Davids, K. (2019). Principles of nonlinear pedagogy in sport practice. *Physical Education and Sport Pedagogy*, 24(2), 1–16. <https://doi.org/10.1080/17408989.2018.1552673>
- Cushion, C. J. (2018). Exploring the delivery of officer safety training: A case study. *Policing: A Journal of Policy and Practice*, 5(4), 1–15. <https://doi.org/10.1093/police/pax095>.
- Cushion, C. J. (2020). Exploring the delivery of officer safety training: A case study. *Policing: A Journal of Policy and Practice*, 5(4), 1–15. <https://doi.org/10.1093/police/pax095>
- Edelman, G. M. & Gally, J. A. (2001). Degeneracy and complexity in biological systems. *Proceedings of the National Academy of Sciences*, 98(24), 13763–13766.
- Ellrich, K., Baier, D., & Pfeiffer, C. (2011). *Gewalt gegen Polizeibeamte. Befunde zu Einsatzbeamten, Situationsmerkmalen und Folgen von Gewaltübergriffen [Violence against police officers: Findings on officers, situational characteristics and consequences of violent assaults]* (pp. 1–145). Kriminologisches Forschungsinstitut Niedersachsen e.V. [https://www.gdp.de/gdp/gdp.nsf/id/kfn_gewalt/\\$file/Zwischenbericht3.pdf](https://www.gdp.de/gdp/gdp.nsf/id/kfn_gewalt/$file/Zwischenbericht3.pdf)
- Gibson, J. J. (1979). *The ecological approach to visual perception*. Psychology Press.
- Honess, R. (2016). *The mandatory delivery of ongoing training within the police service of England and Wales and its relationship to the andragogical principle of self-motivation*.
- Hristovski, R., Davids, K., Araújo, D., & Button, C. (2006). *How boxers decide to punch a target: Emergent behaviour in nonlinear dynamical movement systems*, 5, 1–14.

- Isaieva, I. (2019). Police training in the system of professional training for federal police force in Germany. *Comparative Professional Pedagogy*, 8(4), 54–59. <https://doi.org/10.2478/rpp-2018-0054>
- Jäger, J., Klatt, T., & Bliesener, T. (2013). *NRW-Studie: Gewalt gegen Polizeibeamtinnen und Polizeibeamte [North Rhine-Westphalian study: Violence against police officers]*. Christian-Albrechts-Universität.
- Koerner, S. (2021). *Nonlinear pedagogy in police self-defence training: Concept and application* (Doctoral thesis). Pädagogische Hochschule Freiburg.
- Koerner, S., & Staller, M. S. (2019). “Es ist ja immer irgendwie eine andere Situation...” - Konflikt- versus Trainingserfahrungen von Polizist*innen. [“It’s always a different situation...”—Conflict-versus training experiences of police officers]. In M. Meyer & M. S. Staller (Eds.), *Teaching is learning: Methods, contents and role models in the didactics of martial arts—8th Annual Symposium of the dvs Kommission “Kampfkunst und Kampfsport”* (pp. 21–22). Universität Vechta.
- Koerner, S., & Staller, M. S. (2020). Police training revisited—Meeting the demands of conflict training in police with an alternative pedagogical approach. *Policing: A Journal of Policy and Practice*, 15(2), 927–938. <https://doi.org/10.1093/police/paaa080>
- Körner, S. & Staller, M. S. (2020). Training für den Einsatz I: Plädoyer für ein evidenzbasiertes Polizeiliches Einsatztraining [Training for the Field I: Plea for an Evidence-Based Police Training]. *Die Polizei*, 11(5), 165–173.
- Koerner, S., Staller, M. S., & Kecke, A. (2020). “There must be an ideal solution...” Assessing training methods of knife defense performance of police recruits. *Policing: An International Journal, Ahead-of-Print* (ahead-of-print). <https://doi.org/10.1108/pijpsm-08-2020-0138>
- Maloney, M. A., Renshaw, I., Headrick, J., Martin, D. T., & Farrow, D. (2018). Taekwondo fighting in training does not simulate the affective and cognitive demands of competition: Implications for behavior and transfer. *Frontiers in Psychology*, 9, 25. <https://doi.org/10.3389/fpsyg.2018.00025>
- Moy, B., Renshaw, I., & Davids, K. (2015). The impact of nonlinear pedagogy on physical education teacher education students’ intrinsic motivation. *Physical Education and Sport Pedagogy*, 21(5), 1–22. <https://doi.org/10.1080/17408989.2015.1072506>
- Newell, K. (2020). *Constraints on the development of coordination* (pp. 341–360). Martinus Nijhoff Publishers.
- Orth, D., van der Kamp, J., Memmert, D., & Savelsbergh, G. J. P. (2017). Creative motor actions as emerging from movement variability. *Frontiers in Psychology*, 8, 1903. <https://doi.org/10.3389/fpsyg.2017.01903>

- Práxedes, A., Álvarez, F. D. V., Moreno, A., Gil-Arias, A., & Davids, K. (2019). Effects of a nonlinear pedagogy intervention programme on the emergent tactical behaviours of youth footballers. *Physical Education and Sport Pedagogy*, 24(4), 1–12. <https://doi.org/10.1080/17408989.2019.1580689>
- Práxedes, A., Moreno, A., Gil-Arias, A., Claver, F., & Villar, F. D. (2018). The effect of small-sided games with different levels of opposition on the tactical behaviour of young footballers with different levels of sport expertise. *PLoS One*, 13(1), e0190157. <https://doi.org/10.1371/journal.pone.0190157>
- Rajakaruna, N., Henry, P. J., Cutler, A., & Fairman, G. (2017). Ensuring the validity of police use of force training. *Police Practice and Research*, 18(5), 1–15. <https://doi.org/10.1080/15614263.2016.1268959>
- Renshaw, I., Davids, K., Newcombe, D., & Roberts, W. (2019). *The constraints-led approach*. Routledge.
- 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(9), 1496–1506. <https://doi.org/10.1080/00140139.2015.1013578>
- Renden, P. G., Nieuwenhuys, A., Savelsbergh, G. J. P., & Oudejans, R. R. D. (2015). Dutch police officers' preparation and performance of their arrest and self-defence skills: A questionnaire study. *Applied Ergonomics*, 49, 8–17. <https://doi.org/10.1016/j.apergo.2015.01.002>
- Renshaw, I., & Chow, J.-Y. (2019). A constraint-led approach to sport and physical education pedagogy. *Physical Education and Sport Pedagogy*, 24(2), 1–14. <https://doi.org/10.1080/17408989.2018.1552676>
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78.
- Schöllhorn, W. I. (2011). Erfolg durch Abwechslung. *Physiotherapie*, 6, 32–35.
- Seifert, L., Komar, J., Barbosa, T., Toissant, H., Millet, G., & Davids, K. (2014). Coordination pattern variability provides functional adaptations to constraints in swimming performance. *Sports Medicine*, 44(10), 1333–1345. <https://doi.org/10.1007/s40279-014-0210-x>
- Sigrist, R., Rauter, G., Riener, R., & Wolf, P. (2012). Augmented visual, auditory, haptic, and multimodal feedback in motor learning: A review. *Psychonomic Bulletin & Review*, 20(1), 21–53. <https://doi.org/10.3758/s13423-012-0333-8>
- Staller, M. S. & Körner, S. (2020). Training für den Einsatz II: Plädoyer gegen das Training isolierter Komponenten im polizeilichen Einsatztraining

- [Training for deployment II: Plea against the training of isolated components in police training], *Die Polizei*, 111(6), 223–230.
- Staller, M. S., Koerner, S., Heil, V., Klemmer, I., Abraham, A., & Poolton, J. (2021). The structure and delivery of police use of force training: A German case study. *European Journal for Security Research*, 7(1), 87–112. <https://doi.org/10.1007/s41125-021-00073-5>
- Staller, M. S., Zaiser, B. & Koerner, S. (2017). From realism to representativeness: Changing terminology to investigate effectiveness in self-defence. *Martial Arts Studies*, 4, 70–77. <https://doi.org/10.18573/j.2017.10187>.
- Torrents, C., Balague, N., Ric, A. & Hristovski, R. (2020). The motor creativity paradox: Constraining to release degrees of freedom. *Psychology of Aesthetics, Creativity, and the Arts*, 15(2), 340. <https://doi.org/10.1037/aca0000291>
- Wolfe, S., Rojek, J., McLean, K., & Alpert, G. (2020). Social interaction training to reduce police use of force. *The ANNALS of the American Academy of Political and Social Science*, 687(1), 124–145. <https://doi.org/10.1177/0002716219887366>



Coaching Police Conflict Management

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Police officers need to be capable of effectively managing conflict in police–citizen encounters in alignment with the goals of society. Concerning professional conduct within these settings, there are a plethora of factors contributing to the competence of quality policing (Norris & Norris, 1993). While competence (or expertise) might be

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an essential ingredient for professional police conduct, it is the result of a continuous development of the individual that has to be regularly renewed (Staller & Körner, 2021). Depending on their current operational assignments, police officers need the skills, knowledge, attitudes, belief system, and so on that allow them to professionally perform that duty (Bennell et al., 2022). Society, and police organizations as part of it, have to ensure that, when individuals perform that societal task of policing, they have learnt (and further continue to learn) what is needed.

Police trainers¹ are mandated by police organizations to develop these learning environments, including what is taught and how it is taught. While we fully acknowledge that specific organizational regulations constrain the work of police trainers (Cushion, 2022), there is always room for the trainer's agency.

In the current chapter we focus on the police trainer and what they do on a daily basis, which we conceptualize as *coaching*. We start with a brief conceptualization of learning as the basis for understanding the process that police trainers are focused upon. We then go on to conceptualize what we understand by *coaching* and provide a coaching model consisting of six knowledge dimensions that aims at (a) helping and supporting police trainers within their daily activity and (b) providing a framework for police organizations concerning learning and development for their trainers.

1 A Broad Conceptualization of Learning

Human development is a continuous, never-ending process that is dependent of various contexts and interactions within these contexts (Huston & Bentley, 2010; Osher et al., 2018). We refer to this change in the individual's system state and capacity due to interaction with the environment as *learning*. As such our conceptualization of learning

¹ We refer to police trainers as any professional that is responsible for learning settings within the systems of the police and that aim at developing the competence (or expertise) of police officers to engage in police–citizen interactions, including the management of conflict. We stick to the term “trainer” since it is a widely accepted term, even though we feel that coach would be a much better fit for these individuals.

extends to what is—depending on the literature—referred to as training, development, and/or education (Aguinis & Kraiger, 2009; Huisjes et al., 2018) in organizational contexts (for a more thorough discussion on our conceptualization of learning, see Staller & Koerner, 2022a).

By referring to our broad understanding of learning we do not point towards a specific setting or activity where such learning has occurred. Also, our understanding extends beyond traditional views, where learning in training settings is concerned with intended changes, also being referred to as the *learning outcomes* (Illeris, 2007). Instead, we contend that police officers are subject to various interactional contexts within their training (beyond explicit learning outcomes), where learning has the potential to occur and that ultimately unfolds its impact when performing their daily duty.

From our perspective, learning is an interactional process between individuals and information leading to permanent changes in the individual system's capacity. As such, information—as the individual's counterpart—potentially to be acted upon, is omnipresent: experiences, training activities, drills, learning material, thoughts, something we hear, something we see, or something that happens to us. As such, as soon as we interact with our physical or social environment, or with stored or generated information in our minds, we learn. This understanding of learning entails—but does not limit learning to—the mental processes that take place in the individual and that can lead to intended and unintended changes.

Our broad conceptualization of learning is more equivalent to the definition of Illeris (2007) who defines learning as “any process that in living organisms leads to permanent capacity change and which is not solely due to biological maturation or ageing” (p. 3). Adopting such a broad conceptualization has major consequences, especially concerning learning to manage conflictual situations in the line of police work. These premises form the basis of our account:

- Premise 1: Learning is a continuous, contemporaneous process;
- Premise 2: Learning is not fully controllable;
- Premise 3: Learning is done by the individual.

Concerning premise (1), learning is more than engaging in explicit learning settings such as de-escalation training, police use of force training, personal protection training, or firearms training. Vast amounts of research show that learning takes place in formal, non-formal, and informal learning settings (Ichijo & Nonaka, 2007). Learning encompasses explicit as well as implicit processes (Hoy & Murphy, 2001). Learning even occurs when it is not intended to.

This directly refers to premise (2). If, and when, and to what extent learning occurs eludes external control. External information that the individual acts upon can be influenced, for example, through the presentation of knowledge, setting up learning experiences that, in turn, manage what and who individuals engage with. However, the effects—namely what is learned through these interactions—remains vague. Also, interactions that the learning individual will have with the learning material, thoughts, or people are often beyond the control of external influences and remain at the discretion of the individual, which points to premise (3). Ultimately, learning is done by the individual. It is a highly individualized and constructivist process.

According to the paradigm of ecological dynamics, individual, task, and environmental constraints provide individual affordances and opportunities for learning which allow the trainee or learner to attune to information and to specify and guide their learning process (Seifert et al., 2019). As ecological psychology emphasizes, the learning individual attunes (consciously and subconsciously) to different sources of information, for example learning material, peer groups, social media, or one's own thoughts (Staller, Koerner, & Zaiser, 2022; Wood & Williams, 2017). Also, different intensity levels of interaction (e.g., (un)conscious, (de)motivated) are heavily dependent on the individual's capacities and state at the moment of interaction (Gorges & Kandler, 2012; Vansteenkiste et al., 2004).

Furthermore, learning as a change in the individual's capacity posits that the starting point of any learning process is the current system state that is altered through interaction with information. As such, the starting point is always highly individual, depending on different capacities and internal (e.g., emotional and motivational) states (Orth et al., 2018). Finally, each interaction and the subsequent alteration in the individual's

state provides another opportunity for interaction. Using those experiences to learn from is at the heart of experiential and reflexive learning theories (Brookfield, 1998; Kolb, 2015; Schön, 1983).

2 Coaching in Police Conflict Management

Based on the assumption that learning (to engage in policing practices and manage conflicts) is at the heart of organizational endeavors to provide police officers with opportunities for meaningful interactions, police organizations assign, recruit, and/or develop professional personnel to foster learning of officers. These personnel are referred to as police trainers, instructors, or coaches (Staller & Koerner, 2021a). From our understanding, *coaching* most adequately describes the core activity of these personnel. Even though the term *coaching* “exists (happily) without academic consensus” (Cushion & Lyle, 2016, p. 109), we adopt a conceptualization that holistically fosters the learning process. From our perspective the terms *instructor* and *trainer* carry the notion of an isolated individual that fosters learning on the side of the police officer through the transmission of information (via instructing and/or training) that allows for the development of the knowledge, skills, and abilities needed. This notion of a one-sided process is supported by observations within police learning settings that point towards a prevalence of mechanistic, behavioral approaches to training (Basham, 2014; Birzer, 2003; Cushion, 2020; Körner & Staller, 2018; Staller, Koerner, Heil, Klemmer et al., 2021). These approaches seem to be underpinned by an understanding of learning that Cushion (2022) describes as a “construed [...] unproblematic process of transmission and assimilation” (p. 2) and this reflects this one-sidedness. Within such an approach to learning, learners are conceptualized as machines that react based on the input of the machine handler—the trainer or instructor. Here, components of the learning system relate to each other with linear cause and effect relationships, leading to fixed preplanned programs and clear conceptions about what is right or wrong in any given training activity. An alternative view would be to conceptualize the learner as a complex adaptive

system that is a co-producer of the learning process (see Pol et al., 2020 for an extensive discussion of these two perspectives).

Within such a conceptualization, learning would occur through interpersonal synergy (Orth et al., 2018) instead of a one-sided top-down process as *instructing*, *informing*, and *telling* (which is heavily in line with a traditional *training approach*) may infer. An interpersonal-synergy approach would consist of “softer pedagogical approaches” (Woods et al., 2021), where the trainers’ own role is reflected as being part of an interactive complex endeavor, where guidance towards individual task solutions in a complex environment are key. Within such a systemic approach to learning, the coach, like the learner, is part of the learning system (Kade, 2004; Orth et al., 2018). As such, learning is co-created by the two actors and takes place on both sides.

This interpersonal synergy is highly complex, where alterations in one specific aspect (e.g., the mood of the trainer, an injury of the police officer) may impact the whole system. Under the assumption of complexity, control cannot be exerted by the controlling of cause and effect relationships (see premise 2 of learning). Control can only be exercised via insights into the complex structure of coaching-related knowledge domains. With this insight, the police trainer has the potential to perform the core activity of coaching: decision-making (Staller & Koerner, 2022b). Trainers have to continuously make decisions that may relate to macro-strategic goals, meso-planning goals, or micro-moment-to-moment goals based on emerging information within the specific learning system. It requires the application of explicit and implicit knowledge in decision-making related to the specific setting and achievement of learning, development, and performance goals of police officers. This is done by negotiating and considering the specific contexts and requirements of the organization. The judgments and decisions made are embedded in long-term strategic goals related to daily practice. Professional judgment and decision-making are a dynamic, forward-and-backward-looking, regulatory process that continuously monitors learning and development steps and adjusts them according to the progress made and the emergence of new learning goals (Martindale & Collins, 2013; Martindale et al., 2017). Coaching requires professional knowledge and a skill base that emphasizes understanding, perceiving,

simulating, diagnosing, solving, planning, dealing with uncertainty, reflecting, and self-regulating (Abraham, 2015).

This conceptualization recognizes that coaching is a decision-making process occurring in complex, dynamic, and unanticipated situations and that is highly context-specific (Staller & Körner, 2021; Turner et al., 2012). What works well in one situation may not be effective in another. A good coach in judo or Thai boxing does not necessarily have to be a good trainer in the police use of force; a good trainer for SWAT officers does not have to be a good trainer for regular officers on patrol (Staller & Körner, 2021).

3 A Coaching Model

In order to assist police trainers with the complexity of coaching, we have developed (Staller & Zaiser, 2015) and refined (Staller, 2021) a coaching model for the specific context of police conflict management. The model is focused on six different dimensions of knowledge: who, what, how, the coaching self, the coaching context, and the actual coaching practice. To express the professional nature of coaching practice, we named it the Professional Coaching Model (Koerner & Staller, 2022; Staller & Koerner, 2022b).

From a practical point of view, the coaching process within this model can be seen as a series of decisions. These are initiated by a goal and eventually tested against that goal to choose the best option for a particular training situation (Abraham & Collins, 2011). This process is then repeated endlessly to adapt to changes in situations and over different time spans (i.e., micro, meso, and macro). In order to make optimal decisions, the police trainer needs a sound understanding of the six knowledge domains and their mutual interactions in order to systematically plan, conduct, and reflect on training sessions (see Fig. 1).



Fig. 1 Professional Coaching Model for police training (Source Staller, 2021)

Knowledge Dimension 1: Understanding the “Who”

The knowledge dimension “Who” focuses on the learning individual—the police officer in a training setting. Who is the individual? What are his or her wants and needs? What does the person need to be particularly motivated? What demotivates the individual?

The background for this is that training and developing people in teaching–learning settings is a complex bio-psycho-social process (Bailey et al., 2010; Collins et al., 2012; MacNamara et al., 2011). A deep understanding of the learner’s wants and needs is therefore essential to designing optimal learning environments that are challenging, motivating, and relevant (Abraham & Collins, 2011). The extent to which a person experiences a particular situation as challenging and/or motivating or classifies a training content as relevant to him or her depends on the person’s subjective experience. To the extent that learners’ wants and needs are not served in training settings, there is a risk of reduced motivation (Hones, 2016, 2020) with subsequent negative consequences for learning new skills (Kanfer, 1996). Simply put, if you are not motivated to learn, you will learn little.

For this purpose, police trainers need knowledge structures that provide (a) explanatory approaches to motivation and engagement in training at a general level, and (b) specific bodies of knowledge about the learners in the specific training programs of operational training. The focus here is on theories and concepts that make it possible to understand the subjective experience of the learners and to design the learning environment in such a way that a motivational and positive learning climate is made possible. On a general level, this includes theories of motivation (e.g., self-determination theory), group dynamic processes, or the motivational effects of pedagogical training approaches; on a specific level, the socio-cultural context of police learning settings or the individual motivational structures of police officers are important. Research in the field of police training provides some key findings for both levels in terms of learners' wants and needs. For example, the learning content in police training was not perceived as relevant if officers could not apply the content in their specific work environment (Honest, 2016, 2020). This was also confirmed by officers in the study (Staller, Koerner, Heil et al., 2022a).

Knowledge Dimension 2: Understanding the “What”

Police trainers need knowledge structures regarding the content of police training: What should be learned and trained? This refers to (a) theories and (action) concepts on aggression, violence and interaction dynamics, communication, and (non-)physical conflict management, and (b) the requirements of the learners' specific operational environments. Based on this—and in alignment with any existing curricula—the content of police training can be created.

The content that is taught in police training is directly linked to the understanding of the “who”. The relevance of any content should be high, given that the time for training is perceived to be always too short (Jager et al., 2013; Renden et al., 2015). It is worth noting that relevance reflects an individual value that connects to performance in the field but also to the motivation to engage with the content (Abraham &

Collins, 2011). While normatively one could think that the two relevance criteria are the same, current research shows that what is needed in the field does not necessarily reflect the relevance criteria as to why learners are motivated to engage with certain content (Koerner et al., 2021; Staller, 2022).

The diversity of police tasks requires different performance models for different user groups. For example, the demand on police officers on patrol is more focused on citizen-oriented interactions between police and civil society, whereas special tactical teams or undercover officers take different approaches to police–citizen interactions. The content of training should therefore be based on the demands and requirements of the specific performance environment than on the various alternatives for addressing those requirements (e.g., firearms training, self-defense, verbal communication). Expertise in conflict situations is the result of individual information-based interaction between the learner and the environment. However, the environment differs depending on the task. The specific characteristics of the police mission (e.g., citizen-oriented policing on patrol, domestic violence intervention, tactical hostage intervention) influence the level of complexity of the situation. Viewed through a systems theoretical perspective, complexity includes different levels and dimensions (Luhmann, 2009). The degree of complexity of a situation depends on the type and number of influencing variables with factual, temporal, and social relevance (Staller & Körner, 2020). Here, it becomes clear that police–citizen contact is complex and allows for a multitude of possible courses of action and interaction. The more complex the situation, the more difficult it becomes to determine “the right” action. On a pedagogical level, this means that the more complex the situation is, the more principle-based a to-be-learned solution might be without neglecting the potential for alternative solutions. For the practice of police training, this means that the design of learning and testing environments should focus on individual and situational “right” actions—actions that suffice to attain the intended outcome.

Concerning the selected training content, the time available for training must also be considered. As a rule of thumb, the less training time available, the more principle-based the techniques and tactics taught should be (Staller et al., 2020).

Knowledge Dimension 3: Understanding the “How”

The third knowledge dimension of “how” focuses on questions that relate to the design of the learning environment, that is, police training. Which training activities should be carried out and how should they be designed? Answering these questions requires knowledge structures about (training) pedagogical theories and concepts in order to optimally design learning opportunities for the participants. Three aspects seem particularly important: (a) developing a functional relationship between trainer and learner, (b) moderating the expectations and perceptions with which learners enter a training setting, and (c) designing effective learning environments for the acquisition of professionally relevant skills.

The Functional Relationship Between Learners and Police Trainers

In terms of building functional relationships between learners and outreach trainers, it is important to behave in a way that lets learners know they are cared for, respected, and trusted (Abraham et al., 2015; Sagar & Jowett, 2012). Also, it seems to be important for police trainers to be trustworthy, hardworking, and knowledgeable, as this positively impacts people’s willingness to respect that person (Langdon, 2007). Therefore, it seems important for trainers to demonstrate these qualities, along with caring, equality in interactions, and shared goals, in order to build quality relationships with learners. With regard to police training in particular, initial studies show that the trainer serves as a role model for recruits and that the learners greatly appreciate being treated as equals (Staller, Koerner, Heil et al., 2022a). Also, interview data from recruits of a German special unit suggest that feelings of being cared for, respected, and trusted are functional elements that foster learning performance (unpublished data).

Expectations and Perceptions of Learners

The design of training activities is closely linked to the expectations and perceptions with which learners participate in police training. Learners may have specific assumptions about what training is best and what they subjectively need. For example, the need for safety and orientation in technique execution on the one hand contrasts with more chaotic forms of training that promote adaptive behavior and variability. A recent study with police trainees regarding the training of defensive actions against knife attacks showed that non-linear training (with many chaotic elements) led to more adaptive and situation-adapted behavior, though the subjective perception of the participants differed (Koerner et al., 2021). Thus, the subjectively perceived relevance of training activities is an important aspect in the planning and reflection of coaching. In terms of the perceived relevance of training content, studies showed that Australian patrolling officers wished that more verbal-communication and de-escalation skills were integrated into police training (Rajakaruna et al., 2017), whereas German officers pointed out the relevance of effectively interacting with individuals in crisis (Wittmann et al., 2020). In addition and related to the last aspect of designing effective learning environments, the police officers in several studies reported the need for more realistic training (Rajakaruna et al., 2017; Staller, Koerner, Heil, Abraham et al., 2021).

Designing Effective Learning Environments in Police Training

Training programs must be designed in such a way that what is learned and trained there can be transferred into practice, that is, can be applied there. The selection of (training) pedagogical strategies must be measured against this. Several different approaches exist in training pedagogy and motor research, and their situation-specific, well-reflected selection is an important aspect of professional coaching (Collins & Collins, 2020). Accordingly, police trainers need declarative knowledge structures about

different approaches and their mode of action in order to use them situationally, adaptively, and effectively (Staller et al., 2020). An essential aspect seems to be knowledge about the underlying learning theories (Olson & Bruner, 1996). Here, it is not a matter of understanding and implementing “the one” teaching–learning theory, but of understanding the advantages and disadvantages of different theories and making them applicable in practice in a situationally justified way.

Knowledge Dimension 4: Understanding the “Context”

Coaching in police training is highly contextual (Cushion, 2022; Staller & Körner, 2021). The context in which police trainers work influences, limits, and enables what they do. This includes the social, cultural, and political context of the work environment. For police training, this includes resources, logistical and physical constraints, organizational or institutional values, laws and regulations, accepted practices and traditions, and the expectations of others (e.g., classes, other police trainers, learners, supervisors). For example, the assigned learner’s specific use (e.g., patrol officer vs. criminal investigator), the given regulations regarding the operational skills to be trained, and the resources available for that purpose significantly influence what is possible in training. In addition, the societal and political climate, the current values of the police organization itself, including individuals at the management level, and the immediate supervisors influence the context and culture of daily police training practices. For example, in Germany a politically communicated orientation towards a more robust police force (Behr, 2018, 2019) influences decisions about what to teach in training. A deep understanding of the dynamics of power and dominance relations between learners and police trainers and the influence of dominant traditions in training is an important basis for overcoming problematic coaching approaches. An examination of one’s own coaching philosophy allows for professionalization opportunities here (North, 2013). In addition, there is a basic understanding of theories of socialization in the police context and in deployment training, such as cop culture (Myhill & Bradford, 2013) and the mindset regarding the conduct of police work

(Li et al., 2021; McLean et al., 2019; Stoughton, 2015). Knowledge of these contextual factors forms the basis for reflections on the factors influencing one's actual practice in police training.

Knowledge Dimension 5: Understanding the “Self”

The fifth dimension, understanding the self, comprises the sum of one's own knowledge, beliefs, values, and behavior, which is considered essential for continuous personal development and for ensuring the quality of one's own practice of action (Buchheit, 2017). Here, interpersonal and intrapersonal knowledge structures can be differentiated. Skills and abilities and knowledge in these two areas are regularly emphasized (Abraham & Collins, 2015; Gilbert & Baldis, 2014).

Interpersonal knowledge refers to structures that enable the trainer to communicate appropriately and effectively with learners, peers, supervisors, and others (Bowes & Jones, 2006). For police training in particular, findings indicate that effective communication with supervisors is an essential, albeit sometimes frustrating, aspect of police training (unpublished data from Körner et al., 2019a, 2019b). Therefore, developing these interpersonal skills may prove useful in communicating ideas, discussing problems, or negotiating change within the organization.

The intrapersonal knowledge of trainers relates to their self-understanding of their own role and allows for introspection and reflection (Côté & Gilbert, 2009). This includes aspects such as one's coaching philosophy and values, self-reflection and self-control, lifelong learning, and self-regulation (Till et al., 2019). The coaching philosophy, especially with regard to one's own vision, perspective on learners, and the environment, was identified as a central aspect in the work of continuously successful coaches in sport (Lara-Bercial & Mallett, 2016). Coaches had a clear philosophical viewpoint regarding their goals, values, and beliefs with their philosophy focusing on (a) adopting a learner-centered perspective, (b) advocating for high moral values (e.g., loyalty, honesty, respect), and (c) achieving a work–life balance for athletes and coaches. This provided them with a strong sense of purpose and direction in their approach. With regard to lifelong learning, the constant pursuit of

knowledge and self-improvement has been identified as an essential characteristic of specialized coaches in sport (DeMarco & McCullick, 1997; Grant & Dorgo, 2014; Koehler, 2022).

To what extent these results can be generalized to police training must remain unanswered at this point. Due to the structural similarity of the profession, these results can serve as initial orientations. With regard to police training, it has been postulated that self-reflection and the search for knowledge sources for continuous learning are essential characteristics for the acquisition of expertise in coaching (Staller & Zaiser, 2015; Staller, Koerner, Heil et al., 2022b; Staller, Koerner, Abraham et al., 2022). Preliminary data concerning police trainers in a German Special Forces Unit (unpublished data) also indicate the relevance of a reflected coaching philosophy for eliciting performance improvements and learners motivation, and sustaining a healthy working climate, which has the potential to protect against radicalization within these sub-systems of the police (Koehler, 2022).

Knowledge Dimension 6: Understanding the “Process”

The five dimensions discussed previously (Who, What, How, Context, Self) provide a set of concepts, principles, and theories that inform the actual practice of coaching in police training. Trainers draw from the knowledge structures of these interdependent dimensions to arrive at decisions during planning, implementation, and reflection. A key aspect of planning is knowing what learners should know and be able to do as a result of the coaching process (Staller, 2021). Intended learning goals emerge from an analysis of the learners’ needs in relation to their current context and form the basis for long-, mid-, and short-term plans with specific outcome, performance, and process goals. These goals serve as reference points from which trainers can evaluate and adjust their planning, implementation, and reflection. As such, planning provides a “tentative map” to follow and clarifies expectations against which development can be evaluated and from which alternative coaching strategies can be adopted to address and respond to changing learner needs and/or contextual changes (e.g., resources). Trainers can only intervene if

the need for action is identified during the long-, medium-, or short-term planning process or during the actual training activity. In order to identify the need for action, police trainers must be constantly alert to important moments or disruptions (Körner & Staller, 2019). Deliberate and purposeful planning can help the trainers uncover anomalies by articulating clear expectations against which current observations of reality can be compared and which might otherwise be overlooked (Jones et al., 2013). The ability to think in this way as events occur in the coaching process is also referred to as reflection-in-action (Martindale & Collins, 2012; Schön, 1983). By clearly articulating expectations prior to a coaching event, the opportunities to reflect-in-action and draw on this momentum as a reflection prompt after the coaching event increase (i.e., reflection-on-action). Reflective practice is generally viewed as a continuous interaction between planning and execution through which one's experiences can be more thoroughly appreciated, which in turn leads to more effective professional practice (Schön, 1983). In relation to police training, the reflective practitioner has been highlighted as a goal to strive for in the education and development of trainers (Körner & Staller, 2018).

Based on assumptions about the continuous planning, implementation, and reflection process of coaching, there cannot be a fixed and rigid planning strategy for police trainers. Rather, a planning strategy must be continuous, dynamic, and adaptive, enabling the coach to respond to changes in learners and the environment (Abraham et al., 2015; Kiely, 2012). To help trainers address this complex and dynamic requirement, planning and reflection frameworks that help them to clarify their own expectations and foster connections between desired goals and associated coaching strategies are appropriate (see for the German context: Staller, Koerner, & Zaiser, 2021; Staller & Koerner, 2021b).

In terms of police training, for example, the complex and ongoing process of planning, implementation, and reflection at the heart of coaching is not yet fully recognized. The background here seems to be one of outdated concepts of learning and teaching, which cannot be changed overnight (Cushion, 2020). However, the first attempts to understand coaching as a complex and adaptive process are also

emerging internationally (Cushion, 2022; Koerner & Staller, 2020; Nota & Huhta, 2019; Staller, Koerner, Heil et al., 2022a; Staller & Körner, 2021).

4 Conclusion

The conceptualization of coaching in police training as a complex and adaptive process replaces outdated notions of what trainers do. Based on a broad conceptualization of learning, which highlights the interpersonal synergy of trainer and learner as an interwoven system, we have described the Professional Coaching Model as a helping tool for trainers and police organizations alike. The six dimensions of knowledge presented highlight that professional coaching requires well-founded knowledge structures and virtuosity in dealing with the daily demands in general as well as in any situational context. The model clarifies the ideal image of a police trainer and points towards the goal of learning and development: a reflective practitioner who, based on interwoven knowledge structures, finds situational solutions to any problems concerning training practice and implements them virtuously.

Key Takeaways

The conceptualization of coaching in police conflict management training has implications for different levels of the police organization. Professional conduct as a conflict management trainer requires cooperation and support on the different levels.

Police Officers

Police officers are not directly affected by the conceptualization of coaching described above. Nevertheless, they can support the professional conduct of trainers tasked with conflict management training. Since coaching is primarily a pedagogical process, the expectations of the learners should also focus on this. Police trainers do not necessarily have to be professional police officers themselves—their expertise lies in designing learning environments that enable the development of operational expertise.

Conflict Management Trainers

The Professional Coaching Model offers conflict management trainers a framework for (a) their own continuing professional development and (b) their on-site practice. Regarding their own continuing professional development, the self-reflected identification of optimization potential concerning knowledge structures enables systematic further development as a trainer. In relation to coaching, the model provides a general overview of the relevant knowledge areas that influence the outcome of coaching events. The following questions related to the individual knowledge areas could be useful here.

Related to the knowledge dimensions, this means:

- What do I know about my participants? Which bio-psycho-social theories do I know that are important for understanding the participants? How can I use these theories and concepts to improve my coaching practice? (The who dimension.)
- What possibilities and principles of conflict resolution do I know? Am I sufficiently competent in this? Do I know the content and rationale structures of the curriculum and do these correspond to the requirements of the reality of policing? (The what dimension.)
- Which possibilities of designing learning activities do I know and which learning theories underlie them? How can I use these meaningfully and in which situations so that sustainable learning is likely and the performance is also retrievable in the case of use? (The how dimension.)
- What are my values, attitudes, and beliefs about coaching in police training related to conflict management? What images of people, learners, police officers, and citizens do I have? What distortions am I subject to in my thinking from time to time? What are the blind spots in my perspective that I have possibly overlooked? (The self dimension.)
- Do I know the working context of my participants? How well do I know the constraining conditions and problems of my learners' work? What possibilities do I have for shaping my working context? How can I help shape this context and make it useful for my training? (The context dimension.)

- How structured am I in my planning and reflecting regarding my training session and the embedding in the big picture of police officer learning? At which points do I react flexibly, intuitively, and on-the-spot, and at which points do I plan and reflect analytically? According to which structure do I carry out my planning and reflection? (The process dimension.)

Police Decision-Makers

Coaching in police conflict management training is primarily a pedagogical process. This goes hand in hand with the recognition, promotion, and development of thought and decision processes in relation to coaching. The competence of one's own operational action is a not unimportant, but nevertheless smaller, aspect in the overall picture of the required knowledge structures of a trainer. Professional conduct as a police trainer requires the structures within the organization to enable, evaluate, and expand the acquisition of knowledge based on the six knowledge dimensions described in the Professional Coaching Model. These are:

- Coach learning for police trainers: A well-founded coach education and development program for police trainers focuses on the six knowledge dimensions and their interconnection. Trainers are enabled to align their actions with the requirements of the individual training situation through planning and reflection processes.
- Continuing professional development of police trainers: Trainers must be provided with structures to deepen, broaden, and also revalue their knowledge (and application) in the different dimensions. It should be ensured that the need of police trainers to deepen certain dimensions corresponds to the needed dimensions.
- Supervision of police trainers: The virtuoso handling of the knowledge dimensions and the situational weighing of sometimes contradictory possible solutions for a given training situation requires continuous reflection. Supervision for police trainers by specially trained personnel (e.g., coach developers, expert trainers) could be helpful here.
- Highly qualified education, development, and supervision personnel: All of the aforementioned structural prerequisites in relation to police trainer learning require coaching by highly qualified personnel. Such

persons use scientific evidence, focus on the relevant knowledge structures in the overall view, and adapt them to the needs of the police trainers. Especially in view of the attention to scientific findings and to ensure the continuous transfer into the police organization, it seems purposeful to have external coach developers or appropriate personnel (e.g., expert trainers) regularly trained and employed externally.

Professional police trainer conduct is adaptive and takes the situational circumstances (e.g., context and learners) seriously. This means that no two training processes are alike. A standardization of training processes in the sense of prescribing what should be trained in which way does not seem to make sense here. Rather, police trainers must be enabled to deal with the requirements of the current training situations in a reflected manner and to develop solution strategies for the specified goals that are individually tailored to the learners.

References

- Abraham, A. (2015). *Understanding coaching as a judgement and decision making process: Implications for coach development practice* [unpublished doctoral thesis]. University of Central Lancashire.
- Abraham, A., & Collins, D. J. (2011). Effective skill development: How should athletes' skills be developed? In A. Button & H. Richards (Eds.), *Performance psychology: A practitioners guide* (pp. 207–229). Churchill Livingstone. <https://doi.org/10.1016/b978-0-443-06734-1.00015-8>
- Abraham, A., & Collins, D. J. (2015, September 25). Professional judgement and decision making in sport coaching: To jump or not to jump. In *12th International Naturalistic Decision Making Conference*, 9–12 June 2015, McLean, VA, USA.
- Abraham, A., Sáiz, S. L. J., Mckeown, S., Morgan, G., Muir, B., North, J., & Till, K. (2015). Planning your coaching: A focus on youth participant development. In C. S. Nash (Ed.), *Practical sports coaching* (pp. 16–53). Routledge.

- Aguinis, H., & Kraiger, K. (2009). Benefits of training and development for individuals and teams, organizations, and society. *Annual Review of Psychology*, 60(1), 451–474. <https://doi.org/10.1146/annurev.psych.60.110707.163505>
- Bailey, R., Collins, D. J., Ford, P., MacNamara, Á., Toms, M., & Pearce, G. (2010). *Participant development in sport: An academic review*. Sports Coach UK.
- Basham, B. B. (2014). Police instructor or police educator? *Salus Journal*, 2(1), 99–109.
- Behr, R. (2018). “Die Polizei muss ... an Robustheit deutlich zulegen”: Zur Renaissance aggressiver Maskulinität in der Polizei [“The police must... be much more robust”: On the renaissance of aggressive masculinity in the police]. In D. Loik (Ed.), *Kritik der Polizei* (pp. 165–180). Campus Verlag.
- Behr, R. (2019). Gewalt und Polizei [Violence and police]. *Aus Politik Und Zeitgeschichte*, 21–23, 24–28.
- Bennell, C., Jenkins, B., Blaskovits, B., Semple, T., Khanizadeh, A.-J., Brown, A. S., & Jones, N. J. (2022). Knowledge, skills, and abilities for managing potentially volatile police-public interactions: A narrative review. *Frontiers in Psychology*, 13, 818009. <https://doi.org/10.3389/fpsyg.2022.818009>
- Birzer, M. L. (2003). The theory of andragogy applied to police training. *Policing: An International Journal of Police Strategies & Management*, 26(1), 29–42. <https://doi.org/10.1108/13639510310460288>
- Bowes, I., & Jones, R. L. (2006). Working at the edge of chaos: Understanding coaching as a complex, interpersonal system. *Sport Psychologist*, 20(2), 235–245.
- Brookfield, S. D. (1998). Critically reflective practice. *Journal of Continuing Education in Health Professions*, 18(4), 197–205. <https://doi.org/10.1002/chp.1340180402>
- Buchheit, M. (2017). Outside the box. *International Journal of Sports Physiology and Performance*, 12(8), 1001–1002. <https://doi.org/10.1123/ijsp.2017-0667>
- Collins, D., & Collins, L. (2020). Developing coaches’ professional judgement and decision making: Using the ‘Big 5.’ *Journal of Sports Sciences*, 39(1), 115–119. <https://doi.org/10.1080/02640414.2020.1809053>
- Collins, D. J., Bailey, R., Ford, P. A., MacNamara, Á., Toms, M., & Pearce, G. (2012). Three worlds: New directions in participant development in sport and physical activity. *Sport, Education and Society*, 17(2), 225–243. <https://doi.org/10.1080/13573322.2011.607951>

- Côté, J., & Gilbert, W. (2009). An integrative definition of coaching effectiveness and expertise. *International Journal of Sports Science & Coaching*, 4(3), 307–323. <https://doi.org/10.1260/174795409789623892>
- Cushion, C. J. (2020). Exploring the delivery of officer safety training: A case study. *Policing: A Journal of Policy and Practice*, 14(1), 166–180. <https://doi.org/10.1093/police/pax095>
- Cushion, C. J. (2022). Changing police personal safety training using scenario-based-training: A critical analysis of the ‘dilemmas of practice’ impacting change. *Frontiers in Education*, 6, 796765. <https://doi.org/10.3389/educ.2021.796765>
- Cushion, C. J., & Lyle, J. (2016). Conceptualising sport-coaching—Progressing the field. In R. Wegener, M. Loebbert, & A. Fritze (Eds.), *Zur Differenzierung von Handlungsfeldern im Coaching* (pp. 101–111). Springer VS. https://link.springer.com/content/pdf/10.1007%2F978-3-658-12140-2_7.pdf
- DeMarco, G. M., & McCullick, B. A. (1997). Developing expertise in coaching: Learning from the legends. *Journal of Physical Education, Recreation & Dance*, 68(3), 37–41. <https://doi.org/10.1080/07303084.1997.10604909>
- Gilbert, W. D., & Baldis, M. W. (2014). Becoming an effective strength and conditioning coach. *Strength and Conditioning Journal*, 36(1), 28–34. <https://doi.org/10.1519/ssc.0000000000000026>
- Gorges, J., & Kandler, C. (2012). Adults’ learning motivation: Expectancy of success, value, and the role of affective memories. *Learning and Individual Differences*, 22(5), 610–617. <https://doi.org/10.1016/j.lindif.2011.09.016>
- Grant, M. A., & Dorgo, S. (2014). Developing expertise in strength and conditioning coaching. *Strength and Conditioning Journal*, 36(1), 9–15. <https://doi.org/10.1519/ssc.0000000000000028>
- Honess, R. (2016). *The mandatory delivery of ongoing training within the police service of England and Wales and its relationship to the andragogical principle of self-motivation* [Unpublished dissertation]. Canterbury Christ Church University.
- Honess, R. (2020). Mandatory police training: The epitome of dissatisfaction and demotivation? *Policing: A Journal of Policy and Practice*, 14(1), 191–201. <https://doi.org/10.1093/police/paz076>
- Hoy, A. W., & Murphy, P. K. (2001). Teaching educational psychology to the implicit mind. In B. Torff & R. J. Sternberg (Eds.), *Understanding and teaching the intuitive mind* (pp. 145–184). Lawrence Erlbaum.

- Huisjes, H., Engbers, F., & Meurs, T. (2018). Higher education for police professionals: The Dutch case. *Policing: A Journal of Policy and Practice*, 14(2), 362–373. <https://doi.org/10.1093/police/pay089>
- Huston, A. C., & Bentley, A. C. (2010). Human development in societal context. *Annual Review of Psychology*, 61(1), 411–437. <https://doi.org/10.1146/annurev.psych.093008.100442>
- Ichijo, K., & Nonaka, I. (Eds.). (2007). *Knowledge creation and management: New challenges for managers*. Oxford University Press.
- Illeris, K. (2007). How we learn. *Routledge*. <https://doi.org/10.4324/9780203939895>
- Jager, J., Klatt, T., & Bliesener, T. (2013). *NRW-Studie: Gewalt gegen Polizeibeamtinnen und Polizeibeamte [North Rhine-Westphalian study: Violence against police officers]*. Christian-Albrechts-Universität zu Kiel.
- Jones, R. L., Bailey, J., & Thompson, A. (2013). Ambiguity, noticing, and orchestration: Further thoughts on managing the complex coaching context. In P. Potrac, Wade Gilbert, & J. Denison (Hrsg.), *The Routledge Handbook of Sports Coaching* (271–283). Routledge.
- Kade, J. (2004). Erziehung als pädagogische Kommunikation [Education as pedagogical communication]. In D. Lenzen, *Irritationen des Erziehungssystems: Pädagogische Resonanzen auf Niklas Luhmann* (pp. 199–232). Suhrkamp.
- Kanfer, R. (1996). Self-regulatory and other non-ability determinants of skill acquisition. In P. M. Gollwitzer & J. A. Bargh (Eds.), *The psychology of action linking cognition and motivation to behavior* (pp. 404–423). Guilford Press.
- Kiely, J. (2012). Periodization paradigms in the 21st century: Evidence-led or tradition-driven? *International Journal of Sports Physiology and Performance*, 7(3), 242–250. <https://doi.org/10.1123/ijsp.7.3.242>
- Koehler, D. (2022). From superiority to supremacy: Exploring the vulnerability of military and police special forces to extreme right radicalization. *Studies in Conflict & Terrorism*, 1–24. <https://doi.org/10.1080/1057610x.2022.2090047>
- Koerner, S., & Staller, M. S. (2020). Coaching self-defense under COVID-19: Challenges and solutions in the police and civilian domain. *Security Journal*, 35(1), 118–132. <https://doi.org/10.1057/s41284-020-00269-9>
- Koerner, S., & Staller, M. S. (2022). Coaching im polizeilichen Einsatztraining: Eine Konzeptionalisierung der täglichen Praxis [Coaching in police training: A conceptualization of daily practice]. *SIAK-Journal*, 1, 55–65. https://doi.org/10.7396/2022_1_e

- Koerner, S., Staller, M. S., & Kecke, A. (2021). "There must be an ideal solution...": Assessing linear and nonlinear pedagogical approaches to knife defence performance of police recruits. *Policing: An International Journal*, 44(3), 483–497. <https://doi.org/10.1108/pijpsm-08-2020-0138>
- Kolb, D. A. (2015). *Experiential learning* (2nd ed.). Pearson Education.
- Körner, S., & Staller, M. S. (2018). From system to pedagogy: Towards a nonlinear pedagogy of self-defense training in the police and the civilian domain. *Security Journal*, 31(2), 645–659. <https://doi.org/10.1057/s41284-017-0122-1>
- Körner, S., & Staller, M. S. (2019). Situativität im Coaching [Situativeness in coaching]. In M. Meyer & M. S. Staller (Eds.), *„Lehren ist Lernen: Methoden, Inhalte und Rollenmodelle in der Didaktik des Kämpfens“ : internationales Symposium; 8. Jahrestagung der dvs Kommission „Kampfkunst und Kampfsport“ vom 3. - 5. Oktober 2019 an der Universität Vechta; Abstractband* (p. 43). Deutsche Vereinigung für Sportwissenschaften (dvs).
- Körner, S., Staller, M. S., & Kecke, A. (2019a). „Weil mein Background da war ...“ – Biographische Effekte bei Einsatztrainern*innen [“Because my background was...—Biographical effects for police trainers]. In M. Meyer & M. S. Staller (Eds.), *„Lehren ist Lernen: Methoden, Inhalte und Rollenmodelle in der Didaktik des Kämpfens“: internationales Symposium; 8. Jahrestagung der dvs Kommission „Kampfkunst und Kampfsport“ vom 3. - 5. Oktober 2019 an der Universität Vechta; Abstractband* (pp. 17–18). Deutsche Vereinigung für Sportwissenschaften (dvs).
- Körner, S., Staller, M. S., & Kecke, A. (2019b). „Pädagogik..., hat man oder hat man nicht...“ – Zur Rolle von Pädagogik im Einsatztraining der Polizei [“Pedagogy... did you or did you not...”—The role of pedagogy in police training]. In M. Meyer & M. S. Staller (Eds.), *„Lehren ist Lernen: Methoden, Inhalte und Rollenmodelle in der Didaktik des Kämpfens“: internationales Symposium; 8. Jahrestagung der dvs Kommission „Kampfkunst und Kampfsport“ vom 3. - 5. Oktober 2019 an der Universität Vechta; Abstractband* (pp. 13–14). Deutsche Vereinigung für Sportwissenschaften (dvs).
- Langdon, S. W. (2007). Conceptualizations of respect: Qualitative and quantitative evidence of four (five) themes. *The Journal of Psychology*, 141(5), 469–484. <https://doi.org/10.3200/jrlp.141.5.469-484>
- Lara-Bercial, S., & Mallett, C. J. (2016). The practices and developmental pathways of professional and Olympic serial winning coaches. *International Sport Coaching Journal*, 3(3), 221–239. <https://doi.org/10.1123/iscj.2016-0083>

- Li, D., Nicholson-Crotty, S., & Nicholson-Crotty, J. (2021). Creating guardians or warriors? Examining the effects of non-stress training on policing outcomes. *The American Review of Public Administration*, 51(1), 3–16. <https://doi.org/10.1177/0275074020970178>
- Luhmann, N. (2009). Zur Komplexität Von Entscheidungssituationen. *Soziale Systeme*, 15(1), 3–35.
- MacNamara, Á., Collins, D. J., Bailey, R., Toms, M., Ford, P., & Pearce, G. (2011). Promoting lifelong physical activity and high level performance: Realising an achievable aim for physical education. *Physical Education and Sport Pedagogy*, 16(3), 265–278. <https://doi.org/10.1080/17408989.2010.535200>
- Martindale, A., & Collins, D. J. (2012). A professional judgment and decision making case study: Reflection-in-action research. *The Sport Psychologist*, 26(4), 500–518. <https://doi.org/10.1123/tsp.26.4.500>
- Martindale, A., & Collins, D. J. (2013). The development of professional judgment and decision making expertise in applied sport psychology. *The Sport Psychologist*, 27(4), 390–399. <https://doi.org/10.1123/tsp.27.4.390>
- Martindale, A., Collins, D., & Morton, V. (2017). Cognition at the crime scene: Identifying cognitive demands on professional judgement & decision making expertise of crime scene examiners. In J. Gore & P. Ward (Eds.), *Naturalistic decision making and uncertainty: Proceedings of 13th bi-annual international conference on naturalistic decision making* (Vol. 20, pp. 226–231). University of Bath.
- McLean, K., Wolfe, S. E., Rojek, J., Alpert, G. P., & Smith, M. R. (2019). Police officers as warriors or guardians: Empirical reality or intriguing rhetoric? *Justice Quarterly*, 37(6), 1–23. <https://doi.org/10.1080/07418825.2018.1533031>
- Myhill, A., & Bradford, B. (2013). Overcoming cop culture? Organizational justice and police officers' attitudes toward the public. *Policing*, 36(2), 338–356. <https://doi.org/10.1108/13639511311329732>
- Norris, C., & Norris, N. (1993). Defining good policing: The instrumental and moral in approaches to good practice and competence. *Policing and Society*, 3(3), 205–221. <https://doi.org/10.1080/10439463.1993.9964669>
- North, J. (2013). Philosophical underpinnings of coaching practice research. *Quest*, 65(3), 278–299. <https://doi.org/10.1080/00336297.2013.773524>
- Nota, P. M. D., & Huhta, J.-M. (2019). Complex motor learning and police training: Applied, cognitive, and clinical perspectives. *Frontiers in Psychology*, 10, 167–220. <https://doi.org/10.3389/fpsyg.2019.01797>

- Olson, D. R., & Bruner, J. S. (1996). Folk psychology and folk pedagogy. In *The handbook of education and human development* (pp. 9–27).
- Orth, D., van der Kamp, J., & Button, C. (2018). Learning to be adaptive as a distributed process across the coach–athlete system: Situating the coach in the constraints-led approach. *Physical Education and Sport Pedagogy*, 24(2), 146–161. <https://doi.org/10.1080/17408989.2018.1557132>
- Osher, D., Cantor, P., Berg, J., Steyer, L., & Rose, T. (2018). Drivers of human development: How relationships and context shape learning and development. *Applied Developmental Science*, 24(1), 1–31. <https://doi.org/10.1080/10888691.2017.1398650>
- Pol, R., Balagué, N., Ric, A., Torrents, C., Kiely, J., & Hristovski, R. (2020). Training or synergizing? Complex systems principles change the understanding of sport processes. *Sports Medicine—Open*, 6(1). <https://doi.org/10.1186/s40798-020-00256-9>
- Rajakaruna, N., Henry, P. J., Cutler, A., & Fairman, G. (2017). Ensuring the validity of police use of force training. *Police Practice and Research*, 18(5), 507–521. <https://doi.org/10.1080/15614263.2016.1268959>
- Renden, P. G., Nieuwenhuys, A., Savelsbergh, G. J. P., & Oudejans, R. R. D. (2015). Dutch police officers' preparation and performance of their arrest and self-defence skills: A questionnaire study. *Applied Ergonomics*, 49(c), 8–17. <https://doi.org/10.1016/j.apergo.2015.01.002>
- Sagar, S. S., & Jowett, S. (2012). Communicative acts in coach–athlete interactions: When losing competitions and when making mistakes in training. *Western Journal of Communication*, 76(2), 148–174. <https://doi.org/10.1080/10570314.2011.651256>
- Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. Basic Books.
- Seifert, L., Papet, V., Strafford, B. W., Coughlan, E. K., & Davids, K. (2019). Skill transfer, expertise and talent development: An ecological dynamics perspective. *Movement & Sport Sciences—Science & Motricité*, 19(6), 705–711. <https://doi.org/10.1051/sm/2019010>
- Staller, M. S. (2021). *Optimising coaching in police training* [Unpublished doctoral dissertation]. Leeds Beckett University.
- Staller, M. S. (2022). *The primacy of “badassness”: On the function of martial arts in police and military special forces*. Martial Arts, Tradition and Globalisation: 7th Martial Arts Studies Conference at the University of Lausanne, June 30–July 3, 2022.
- Staller, M. S., & Koerner, S. (2021a). Instructor, trainer, sifu, coach or professor: Reflections on the use of terminology in police learning settings

- dealing with physical conflict management. *NBP. Nauka, Bezbednost, Policija*, 26(2), 7–17. <https://doi.org/10.5937/nabepo26-34869>
- Staller, M. S., & Koerner, S. (2021b). Professionelles Coaching: Eine Planungs- und Reflexionsstruktur für das polizeiliche Einsatztraining [Professional Coaching: A planning and reflection concept for police training]. *Die Polizei*, 111(9), 300–306.
- Staller, M. S., & Koerner, S. (2022a). (Non-)learning to police: A framework for understanding police learning. *Frontiers in Education*, 7, 730789. <https://doi.org/10.3389/educ.2022.730789>
- Staller, M. S., & Koerner, S. (2022b). Was Einsatztrainer*innen tun: Professionelles Coaching [What police trainers do: Professional coaching]. In M. Staller & S. Koerner (Eds.), *Handbuch polizeiliches Einsatztraining, Professionelles Konfliktmanagement—Theorie, Trainingskonzepte und Praxiserfahrungen* (pp. 559–576). Springer Gabler. https://doi.org/10.1007/978-3-658-34158-9_30
- Staller, M. S., Koerner, S., Abraham, A., & Poolton, J. M. (2022). Topics, sources and applicability of coaching knowledge in police training. *Frontiers in Education*, 7. <https://doi.org/10.3389/educ.2022.730791>
- Staller, M. S., Koerner, S., Heil, V., Abraham, A., & Poolton, J. (2021). German police recruits' perception of skill transfer from training to the field. *International Journal of Police Science & Management*, 24(2), 124–136. <https://doi.org/10.1177/14613557211064057>
- Staller, M. S., Koerner, S., Heil, V., Abraham, A., & Poolton, J. (2022a). Police recruits' wants and needs in police training in Germany. *Security Journal*, 89, 113. <https://doi.org/10.1057/s41284-022-00338-1>
- Staller, M. S., Koerner, S., Heil, V., Abraham, A., & Poolton, J. (2022b). The planning and reflection of police use of force training: A German case study. *Security Journal*, 36(1), 118–140. <https://doi.org/10.1057/s41284-022-00333-6>
- Staller, M. S., Koerner, S., Heil, V., Klemmer, I., Abraham, A., & Poolton, J. (2021). The structure and delivery of police use of force training: A German case study. *European Journal for Security Research*, 7(1), 87–112. <https://doi.org/10.1007/s41125-021-00073-5>
- Staller, M. S., Koerner, S., & Zaiser, B. (2021). PR-EV: Eine Planungs- und Reflexionsstruktur für das Gewaltreduzierende Einsatzmodell [PR-EV: A planning and reflection concept for the violence-reducing deployment model]. *Kriminalistik*, 75(5), 297–302.
- Staller, M. S., Koerner, S., & Zaiser, B. (2022). Der/die reflektierte Praktiker*in: Reflektieren als Polizist*in und Einsatztrainer*in [The reflective

- practitioner: Reflecting as a police officer and police trainer]. In M. S. Staller & S. Koerner (Eds.), *Handbuch polizeiliches Einsatztraining, Professionelles Konfliktmanagement—Theorie, Trainingskonzepte und Praxiserfahrungen* (pp. 41–59). Springer Gabler. https://doi.org/10.1007/978-3-658-34158-9_3
- Staller, M. S., & Körner, S. (2020). Komplexe Gewaltprävention: Zum Umgang mit Gewalt auf individueller Ebene [Complex violence prevention: Coping with violence on an individual level]. *Österreichische Zeitschrift Für Soziologie*, *45*(S1), 157–174. <https://doi.org/10.1007/s11614-020-00413-0>
- Staller, M. S., & Körner, S. (2021). Regression, progression and renewal: The continuous redevelopment of expertise in police use of force coaching. *European Journal for Security Research*, *6*(1), 105–120. <https://doi.org/10.1007/s41125-020-00069-7>
- Staller, M. S., Körner, S., & Abraham, A. (2020). Beyond technique—The limits of books (and online videos) in developing self defense coaches’ professional judgement and decision making in the context of skill development for violent encounters. *Acta Periodica Duellatorum*, *8*(1), 1–16. <https://doi.org/10.2478/apd-2020-0009>
- Staller, M. S., & Zaiser, B. (2015). Auf dem Weg zur Expertise als Einsatztrainer: Selbst-bestimmtes Lernen im Rahmen der regelmäßigen Dienstverrichtung [On the way to expertise as a police use of force trainer: Self-directed learning in the context of daily routine]. *Polizei & Wissenschaft*, *4*, 39–49.
- Stoughton, S. W. (2015). Law enforcement’s “warrior” problem. *Harvard Law Review Forum*, *128*(225), 225–234.
- Till, K., Muir, B., Abraham, A., Piggott, D., & Tee, J. (2019). A framework for decision-making within strength and conditioning coaching. *Strength and Conditioning Journal*, *41*(1), 14–26. <https://doi.org/10.1519/ssc.00000000000000408>
- Turner, D., Nelson, L., & Potrac, P. (2012). The journey is the destination: Reconsidering the expert sports coach. *Quest*, *64*(4), 313–325. <https://doi.org/10.1080/00336297.2012.706886>
- Vansteenkiste, M., Simons, J., Lens, W., Sheldon, K. M., & Deci, E. (2004). Motivating learning, performance, and persistence: The synergistic effects of intrinsic goal contents and autonomy-supportive contexts. *Journal of Personality and Social Psychology*, *87*(2), 246–260. <https://doi.org/10.1037/0022-3514.87.2.246>
- Wittmann, L., Jörns-Presentati, A., & Groen, G. (2020). How do police officers experience interactions with people with mental illness? *Journal of Police*

and Criminal Psychology, 36(2), 220–226. <https://doi.org/10.1007/s11896-020-09398-8>

Wood, D. A., & Williams, E. (2017). The politics of establishing reflexivity as a core component of good policing. In S. Armstrong, J. Blaustein, & A. Henry (Eds.), *Reflexivity and criminal justice: Intersections of policy, practice and research* (pp. 215–236). Palgrave Macmillan. https://doi.org/10.1057/978-1-137-54642-5_10

Woods, C. T., Rudd, J., Gray, R., & Davids, K. (2021). Enskilment: An ecological-anthropological worldview of skill, learning and education in sport. *Sports Medicine—Open*, 7(1), 33. <https://doi.org/10.1186/s40798-021-00326-6>



Sport Psychology Applied to the Tactical Training of Law Enforcement Officers

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1 Introduction

This chapter identifies a role for sport psychology in the tactical training of law enforcement officers (LEOs) with specific attention to the use of deadly force. The chapter has two parts: Sect. 2 provides a conceptual and theoretical introduction to sport psychology, with brief reviews

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of the literature on the use of deadly force and medical errors; Sect. 3 provides a description of a program incorporating sport psychology into the use of deadly force training, which includes didactic instruction, mental rehearsal training, high-fidelity simulation, and tactical and psychological debriefings.

The goal of the chapter is to provide concepts and guidelines for implementing sport psychology practices with LEOs, and to prepare trainers to do so. The training program draws on research, theory, and established practice in sport performance psychology. It is designed to teach sport performance mental skills in a way that transfers effectively from sport to LEO tactical performance, and from tactical training to line-of-duty performance. A program evaluation of the initial training experience revealed perceptual-cognitive disruption and intensified emotional and psychophysiological response across LEO trainees (Heil, 2003). Subsequent examination of heart rate during training is consistent with the psychophysiological state associated with high stress, high demand environments (Heil, 2022). Cognitive-perceptual disruption and intensified psychophysiological response during simulation is consistently reported in post-training psychological debriefing (Heil, 2020). Continued iterations of the simulation training over a nearly 20 years duration as a collaboration between sport psychologists and the Roanoke Police Department tactical team suggests that training is consistent with the lived experience of LEO use-of-force and is perceived as value-added in training. Post-simulation debriefing with both academy trainees and staff forms the basis of an ongoing review and revision of the program and which is summarized in a training manual (Heil et al., 2022). The key elements that have been identified as contributing to effective simulation training are realistic setting and scenario, cognitive complexity, and perceptual and psychophysiological challenges. Factors that require systematic attention and modification with staff from training to training include working the training as a scripted activity, live coaching as the scenario unfolds, and a balanced critique of performance. To the extent that training simulates the mind-body state of the performance environment, skill transfer from training to performance is facilitated (Bergmann et al., 2021; Hodges & Lohse,

2022). Whether this training transfers truly to performance is an unanswered question and one which is challenging to address. Psychologists and LEO trainers are encouraged to draw on the concepts and practices presented here, integrate them into their work, and evaluate their efficacy.

2 Theory and Research

Because there are inherent and obvious limits on controlled experimental research in law enforcement, it is prudent to draw on other relevant scholarly work, in particular, sport and performance psychology. This section provides: (1) an overview of sport psychology theory, research, and practice; (2) a selected review of the literature on deadly force; and (3) an examination of the applied research on medical errors as a model from which to consider risk assessment and decision making in law enforcement. Defined holistically, sport psychology is the systematic study of psychological aspects of sport and physical activity (Weinberg & Gould, 2019). Applied sport psychology (or what is sometimes known as “sport and performance psychology”) is a branch concerned with understanding, creating, and sustaining peak and optimal human performance (Williams et al., 2021). As a practice, sport and performance psychology is a positive psychology that is relevant not only to sport but to other performance domains (Anshel et al., 2019; Murphy, 2012), including law enforcement (Heil, 2019), medicine (Kaulfuss et al., 2021), and the military (DeWiggins et al., 2010; Ruzs, 1993; Zinsser et al., 2004).

Significant differences notwithstanding, sports athletes and LEOs using force share a parallel performance challenge. Each group seeks to achieve maximal performance by implementing a complex set of cognitive and motor skills in a high stress environment which demands rapid decision making. Yet there are obvious and compelling differences between athletes and law enforcement officers, including the opportunity to learn from experience. While athletes will encounter many iterations of critical moments over the course of a career, LEOs are called on to use deadly force rarely, and often with minimal forewarning (Scofield & Kardouni, 2015). For medical providers and LEOs, the cost of errors may

be injury or death. Unlike sports athletes and medical providers, LEOs are themselves routinely at risk of severe injury and death in use-of-force encounters.

The field of sport and performance psychology has taken the lead in examining links between the brain and behavior under performance pressure, and in so doing establishing a broadly based cognitive neuroscience of performance. The mental skills training utilized by sport psychologists to assist athletes in honing a skilled performance is evidence-based (Feltz & Landers, 1983; Weinberg, 2008). Sport and performance psychology theory and research can be selectively applied to other performance domains based on the specific task demands shared across disciplines. For example, brain imaging research with soccer players that looks at the response to rapidly occurring and unpredictable events has identified an underlying cognitive neuroscience of rapid decision making (Bishop et al., 2013). How these findings could be transferable to tactical performance domains is an area for further exploration. Moreover, the literature on optimal psychological states in sport (cf. Swann et al., 2017) that describes how athletic performers shift from flow states (e.g., letting it happen) to clutch states (e.g., making it happen) could be applicable to law enforcement environments.

Sport and Performance Psychology

Unlike critical incidents in law enforcement, competitive sport happens on a known timeline, and within a bounded field of play. In addition, sport performance is readily quantifiable, with a wide range of objective (e.g., times and distance) and subjective metrics (e.g., ratings in gymnastics) for evaluating performance. This, in turn, allows for research and practical testing of theory and interventions which blend psychological skill building with coaching. Sport psychology encompasses a wide range of areas, including mental skills training, goal setting, team building, group dynamics, and mental health (Anshel et al., 2019; Murphy, 2012). This chapter focuses on mental training as applied to LEOs.

Sport and performance psychology rests on well-established psychological concepts and related practices including the individual zone of

optimal functioning (colloquially known as the “zone”) (Hanin, 2000), flow (Csikszentmihalyi, 2014), attention control theory (Eysenck et al., 2007; Nideffer, 1976), and mindfulness (Gardner & Moore, 2017). The “zone” model states there is a functional relationship between individuals’ emotions and performance (Hanin, 2000; Hanin & Ekkekakis, 2014). According to Hanin (2000), achieving optimal performance in sport or any performance domain is predicated on identifying and leveraging the positive and negative emotions that contribute to peak performances. Flow theory describes positive, optimal experience as individuals being fully immersed in an intense activity and becoming completely absorbed in the present moment (Csikszentmihalyi, 2014; Heil, 1998; Nakamura & Csikszentmihalyi, 2009). Like flow, mindfulness involves full awareness and acceptance of the present moment where one strives to observe and act in a non-judgmental way (Gardner & Moore, 2017). Attentional control theory is derived from cognitive neuroscience. The theory suggests anxiety increases an individual’s attention to perceived threats, albeit often in a maladaptive way, and adversely affects skilled performance by inhibiting attentional shifting and other executive cognitive functions (Eysenck et al., 2007). Decrements in performance can be mitigated through strategies that help manage attentional focus, including simulation training, distraction drills, and concentration cues (Zeplin et al., 2014). The study and practice of sport and performance psychology continues to evolve and is the subject of ongoing scholarly discourse (Swann et al., 2018).

Sport and performance psychology curricula include training in human anatomy, biomechanics, exercise physiology, motor learning, and other psychosocial aspects of human performance. Sport psychologists are expected to attain a core knowledge and competency in human movement and appreciate the mental and physical aspects of performance (Aoyagi & Portenga, 2010; Portenga et al., 2017). For example, the certified mental performance consultant (CMPC) credential is the professional standard for sport psychologists who want to utilize mental skills training with performers within four high-performance domains: sport, tactical/military, the performing arts, and business (Association for Applied Sport Psychology, n.d.). To achieve the CMPC, a candidate must hold a degree in psychology or exercise science and must have

received training in exercise science and sport psychology, completed the necessary coursework to meet eight distinct knowledge areas, obtained at least 400 hours consulting in high performance settings, and successfully passed an international certification exam (Vealey et al., 2019).

The current performance psychology milieu in public safety is largely influenced by popular works such as those by Klinger (2004) and Grossman (1996, 2004). This is likely a function of several factors including the resonance of these works with the lived LEO experience, the relatively sparse research literature on tactical performance in public safety, and the inherent difficulties in translating and delivering scholarly work to its end users (Ferguson, 2015). Sport psychology, with its growing literature, evidence-based practices, and penchant for practical application, can help create a stronger foundation for LEO training and tactical performance.

In addition, there are other relevant works in the performance psychology domain that offer insight into training. For example, in a review by Renshaw et al. (2019), the authors highlight the importance of not thinking about performance improvement for athletes as an isolated process (i.e., attention, memory, thinking). Rather, as the research purports, there is a lack of evidence that “brain training” is sufficient and translatable to improved performance. The authors emphasize taking an ecological dynamic approach, which proposes that the human body is a complex system that is continually adapting and interacting with the environment. This further encourages training that is realistic relative to the performance, with the authors emphasizing the importance of continued research on effective performance improvement interventions (Renshaw et al., 2019).

Use of Deadly Force

Among the many skills required of a LEO, the use of force is an inherently high-pressure, high-risk activity, influenced by an array of factors including training, the LEO mindset, organizational culture, and societal norms and expectations. While the role and function of the LEO has been evolving over time, the current view of him or her as a “guardian”

(Rahr & Rice, 2015) is built on two distinct but contrasting mindsets and related skillsets: the psychologist and the tactical athlete (Heil, 2019, 2021). The role of the tactical athlete unfolds in a context of threat, is LEO-driven, and is characterized by a commanding presence notable for a demeanor that is authoritative and decisive. In contrast, the role of the psychologist unfolds within the context of compassion and is characterized by a supportive presence that is patient and accessible. Another critical skillset is the ability to shift rapidly and effectively from tactical athlete to psychologist and back, which relies on self-regulation of cognition and psychophysiological intensity. For example, a domestic violence call could begin as a threatening encounter but shift to a situation better suited to compassion. Alternately, it could appear to be a situation of compassion but shift rapidly to one of threat.

The majority of sworn officers will not experience an officer-involved shooting during their careers. Citing statistics from the U.S. Department of Justice, Miller (2020) notes that the use of physical force, of any kind, by law enforcement is less than 1.5 percent of all police encounters with members of the community. While some have argued this number doesn't fully capture the use-of-force incidents in the United States due to the voluntary nature of reporting by state and local agencies (Cesario et al., 2019; Jennings & Rubado, 2017), the likelihood of encounters between LEOs and the community turning deadly is significantly less than 1 percent (Ross & Brave, 2017).

Nonetheless, a requisite skill set for today's LEO is the ability to use force effectively under the pressure of life and death consequences. Use-of-force decision making has a profound impact on the community, the law enforcement agency, and the officer. The relative infrequency and unpredictability of deadly force encounters creates a significant training challenge, both physically and mentally. Law enforcement is also a mostly sedentary occupation with intermittent and intense bursts of physical activity (Orr et al., 2020). Unlike traditional athletic occupations which require sport-specific, physical training, the majority of law enforcement agencies do not offer comparable training programs in-house (Dawes et al., 2021). Moreover, LEOs rarely have access to a sport psychology professional to assist them with the mental aspects of performance. This can lead to situations where an officer does not use deadly force when

it is appropriate to do so, or uses it when not appropriate. For example, an officer who is not physically fit to go “hands on” with a perpetrator, may escalate to the use of deadly force (Torres, 2020). Given the complex nature of the work of the LEO, it essential they have appropriate training for the safety of the community and themselves.

Applying sport psychology principles to the use of deadly force might be viewed dubiously by law enforcement personnel. Unlike most athletes who compete in highly structured environments, LEOs must train to perform in environments that are more rapidly and dramatically changing. While some might question the efficacy of traditional sport psychology approaches in training law enforcement on the appropriate use of deadly force, we argue sport psychology is appropriate given its holistic focus. Unlike other branches or specialty areas in psychology, sport psychology addresses both the physical and mental aspects of human movement. As a case in point, one of the largest employers of sport psychologists is the United States Army and its Holistic Health & Fitness (H2F) Program. This program is designed to enhance mental and physical readiness for combat deployment and reduce the likelihood of injury among soldiers (Payne, 2020).

Sport and performance psychology complements the cognitive neuroscience literature that explores cognitive and psychophysiological self-regulation in tactical settings, particularly the antecedents of optimal decision making in the use of deadly force. In an exploratory analysis of the relationships among stress, training, and performance in the use of deadly force scenarios, Baldwin et al. (2022) recently identified several factors associated with improved performance, which include: assessing the situation as volatile, uncertain, complex, and ambiguous; recognizing threat cues; feeling competent with varied intervention options; having strong de-escalation skills; and being able to maintain the tactical advantage. There has been recent research focusing on making police training situations realistic in order to improve performance, enhance the safety of the officer and the community, and reduce use-of-force errors (Andersen et al., 2018; Giessing et al., 2019; Nieuwenhuys & Oudejans, 2011). The interventions discussed in the articles are similar in nature to the training described in this chapter.

It is essential to note that education and training do not completely mitigate cognitive biases associated with errors in police decision making and conflict management. As indicated by Staller et al. (2022), reflective practices that acknowledge bias at the individual and organizational levels, coupled with legislative and other policy mandates to reduce the impact of these biases, are also warranted.

Medical Errors, Risk, and Decision Making

There is a well-developed literature in medical practice that examines decision making, risk assessment, and medical errors. It provides a context from which to understand the performance demands of the LEO in use-of-force situations. Both medical practice and LEO use-of-force occur in a context within which errors can lead to injury and death, and in which decision making is often complex and may require rapid decisive action. The intent of this section is to illuminate the myriad ways in which errors occur in healthcare to draw parallels to the LEO environment, and in so doing move toward training-based solutions.

An early model of evaluating negative outcomes was developed by Reason (1990), termed the “Swiss Cheese Model” (SCM). Reason’s model has been used in many industries (e.g., aviation, marine, railway, nuclear, and healthcare; Larouzzée & Guarnieri, 2015). The SCM helps to identify problems leading to negative outcomes within organizational function and individual behavior. The SCM model has been utilized regularly in the healthcare industry, within which thousands of avoidable injuries and deaths occur yearly (Makary & Daniel, 2016). The model hypothesizes that, even with safeguards in place (i.e., multiple preventive practices that operate collectively like a stack of slices of Swiss cheese), critical incidents will happen when “holes” align in the different layers of prevention implemented within the medical system.

The SCM model suggests that multiple factors typically contribute to an accident (characterized broadly as active and latent failures), by breaching the layers of prevention in place, and resulting in a negative outcome. There are specific defenses, barriers, and safeguards typically put in place in organizations to prevent errors from occurring. However,

where these preventative efforts are momentarily breached and “holes” in the system align, errors may occur (Reason, 2000). Whether it is LEOs or medical providers, these errors can lead to injury or death.

Carver et al. (2021) highlighted several factors in healthcare that result in increased likelihood of errors, including: misdiagnosis; actions that are either improperly performed or are inappropriate for a given situation (e.g., surgical errors, unnecessary procedures); communication failures (which are a function of underlying system problems); non-adherence to recommendations; and urgency. Problems with diagnosis, whether incorrect or delayed, are a major contributor to medical error. This operates similarly in law enforcement when officers fail to accurately assess risk, whether by over-estimates of danger or by failure to properly identify true risk, leading to actions that are not appropriate for a given level of threat or to a failure to act altogether.

Carver et al. (2021) also identified communication issues as a significant contributor to medical errors. At the core of decision making is information. When information is absent, delayed, or incorrect, the best course of action is undermined. Communication of complex information is inevitably challenging, especially within an urgent, dynamically unfolding environment, as may be the situation in both medical (e.g., responding to emergency “codes”) or law enforcement (e.g., active shooter situations). Factors that may undermine communication in medical care include absent or poor communication among medical providers, poor professional rapport, incomplete information documentation, and language barriers between persons with medical conditions and medical providers. Communication concerns have been an issue in law enforcement as well. The risk of error is magnified in the absence of accurate information from citizens, dispatch/emergency communications, or among officers present at or arriving on scene.

Medical errors also occur with regularity as a consequence of non-adherence to medical recommendations (Carver et al., 2021). Failure to comply with LEO-issued directives similarly results in increased risk of adverse outcomes for both LEOs and citizens (Aveni, 2008). The intersection of psychiatric problems and non-compliance is particularly problematic, especially in communicating with citizens suffering thought disorders or who otherwise have language processing difficulties (Sklar

et al., 2007). The LEO experiences a high frequency of encounters with citizens suffering from mental illness, who may be non-compliant for a variety of reasons, ranging from failure to attend appropriately to instructions, to acute anxiety, to the “cognitive fog” of major mental illness. About one in five shootings involve suspects experiencing mental illness (DeGue et al., 2016).

When there is elevated performance pressure, errors are more likely to occur (Akinola & Mendes, 2011). This is a critical lens from which to examine error, because with urgency and pressure to perform, errors increase as a result of failed self-regulation of cognitive and psychophysiological processes. Through mental skills training, ideally there is better communication and more effective assessment of threat situations, resulting in better decisions, more effectively implemented action, and reduced injury and death.

While it is important to acknowledge the many layers within the SCM model (e.g., organizational, departmental, cultural), and their respective roles in managing error, for the purposes of this chapter the focus will be on the individual. Arguably, the human factor element of performance under pressure is the final common pathway of action, providing an opportunity to override more broadly based system errors.

3 Training Program Overview

From Theory to Practice

According to conventional wisdom, an athlete who has previously performed in a championship, or a LEO who has previously faced a deadly force encounter, brings the benefit of prior experience, a sense of having been there before, which translates into an enhanced ability to perform under pressure. For the LEO, skill transfer from training to critical incident is a formidable challenge. There is a low frequency of “learn by experience” opportunities, that is, the LEO is seldom exposed to the environment in which deadly force is a proper choice. This raises the question of how to best prepare the officer to perform at a first deadly force encounter.

The training program described here draws on fundamental concepts in psychology (e.g., context and state-dependent learning), evidence-based practices in sport performance psychology, and established customs and practices in LEO training (Heil, 2020). Context and state dependent learning in performance are widely embraced concepts in psychology, deeply rooted in biological function, and applicable to a wide range of contexts. Radulovic et al. (2017) describe “state” as “a condition of the brain, mind, or individual as a whole ... inherent to every component of neural activity from molecular, cellular, circuit and global network activity, to consciousness itself” (pp. 92–93). Research on context and state dependent learning in sport performance psychology, while limited, reinforces the conventional wisdom that learning is situational (Bergmann et al., 2021; Hodges & Lohse, 2022).

Program Overview

The use-of-deadly-force training program developed by the Roanoke Police Department includes didactic instruction, sport-psychology-based mental training, and high-fidelity simulation training with post-event tactical and psychological debriefings. Collectively, the goals are to facilitate the consolidation of learning and optimize the transferability of LEO tactical skills from training to the true performance environment. The simulation reported here is designed for the academy-based training of LEO recruits.

Debriefings provide a context for both a review of tactical performance and an examination of the individual psychological response to training. The simulation is videotaped and reviewed in a group setting, providing a cross-check between remembered and actual experience, and leveraging observational learning (Bandura, 1962). This psychological debriefing draws on the concepts presented didactically and provides an opportunity for the trainees to engage in a self-examination of their personal stress response as exhibited in the context of a LEO tactical environment, albeit a simulated one.

Didactic Training

The didactic component includes training in self-administered first aid, tactical emergency communications, and a two-part sport psychology seminar: (1) the psychology of survival and (2) sport psychology for the LEO. The initial sport psychology segment is a two-hour lecture on the psychology and neuroscience of performance under pressure. This is followed by a one-hour introduction to sport psychology mental training which includes skill-based practices relevant to law enforcement.

The psychology of survival lecture presents research and theory from medical and psychological science. This is assimilated with principles and practices culled from case studies and anecdotes in law enforcement (e.g., Klinger, 2004), the military (Grossman, 1996, 2004), outdoor sport and survival literature (e.g., Gonzalez, 2003), and from the Asian martial arts tradition (e.g., Herrigel, 1953). The goal of the lecture is to reconcile the lore and lived experience of those who have encountered high stress situations with the psychology and neuroscience of mind and body at the extremes of performance.

The psychology of survival lecture addresses four questions: (1) Can a coyote chew off its own leg? (2) Does the lion hear its own roar? (3) Can time slow down? (4) Can a martial arts master become invisible? The content provided addresses pain processing, perceptual changes (e.g., visual tunneling), automated behavior, and cognitive disruption (e.g., memory lapse). It is intended to normalize the distinct and potentially disruptive mindset experienced in extreme stress, and to emphasize the role of training in adapting to cognitive and psychophysiological disruptions during performance. The lecture includes a detailed case study review of outdoor athlete Aron Ralston's self-rescue (Ralston, 2005) by severing his arm after being trapped for over 100 hours in a remote wilderness environment.

The concluding section proposes a survival mindset characterized by: (1) expectations that pain can and will be tolerated; (2) a positive interpretation of risk; (3) an overriding goal focus; (4) absorption in the "work in progress", that is, a focus on task over stress; (5) acceptance of cognitive and perceptual change under stress; and (6) the assumption of a limited duration to resolution.

The sport psychology for the LEO seminar provides an introduction to sport psychology mental training, with specific examples relevant to LEO work. It introduces methods designed to develop psychological skills, including psychophysiological intensity control (regulated breathing, systematic muscle relaxation) and the use of mental rehearsal methods to anticipate and prepare mentally for critical incidents. Specific applications to policing include: a single, simple breath when cueing the radio as a way of modulating voice; focusing/refocusing methods during shooting; and a deliberate, constructed, mental rehearsal technique.

The LEO mental rehearsal training activity presents an “if-then” scenario in which the officer mentally practices a response to a use-of-force scenario, employing tactical skills in conjunction with related psychological skills. It begins with a visualization designed to set the stage for the inner theater in which the scenario unfolds, while engaging the LEO in a performance mindset. The following rehearsal script is preceded by a brief intensity control method which incorporates breathing regulation and systematic muscle relaxation, which was practiced earlier in the sport-psychology-based didactic training sequence:

Prepare to engage your imagination. Be aware that in your imagination you can create any situation you have experienced or any situation you can envision. To begin, imagine you are in uniform. Notice the feel of the boots on your feet and the feel of your body armor. Envision the gear on your belt. In your imagination, reach one-by-one for each piece of gear. As you reach for your gear, focus on a relaxed and natural feeling in your shoulders. Now imagine you are seated in your patrol car. You are aware of the work and personal materials you have with you, and where they are in the vehicle. In your imagination cue your radio, after first taking a deep breath, you sign on, imagining you are speaking on the out breath. You are thinking the thoughts and feeling the feelings of a LEO on duty.

Now imagine you are driving down the interstate. A car passes you at high speed, driving erratically. You turn on lights and sirens, beginning a controlled pursuit. You initiate communication with dispatch by taking a deep breath as you cue the radio. The suspect vehicle then pulls to the side of the road. The driver exits the vehicle taking a position of cover at the front of the vehicle behind the engine block. In response, you pull off to the side of the road, and as you do, you see an object in the suspect's hand. As

you exit the vehicle, you draw your weapon and move to cover. As you move to cover, you see the suspect point a handgun at you, and hear gunshots. You draw your weapon and establish a sight picture as the shooter ducks behind the vehicle out of sight. After a moment, the shooter rises up and fires again, in response you return fire, before he ducks behind cover. You reposition more effectively and re-establish a sight picture as you relax your shoulders in conjunction with an outbreath. You begin communication with dispatch, providing information on the situation as it has unfolded thus far, and guidance on how responding LEOs should approach the scene. Suddenly, an individual exits the vehicle from the passenger side. As you shift focus you see hands in the air as the passenger runs from the scene. You re-establish focus on where you last saw the shooter, who then shortly after rises up. You immediately return fire, and see the shooter fall forward on the hood of the car, drop the gun and fall to the ground, with both hands and gun in view. You resume communication with dispatch. Shortly after, other LEOs arrive and establish control of the scene. You then reholster your weapon. Take a deep breath. In a moment I will ask you to open your eyes.

High-Fidelity Simulation

High-fidelity simulation refers to scenario training which attempts to optimize the realism and challenges faced so as to create the real feel of the performance context (to the extent reasonably possible) with the aspirational goal of optimizing the transfer of skills from training to critical incidents. Effective simulation requires dynamic action in a rapidly changing environment, which presents ongoing decision points that offer multiple options for action (e.g., whether the best action in a given moment is use of force, officer rescue, or finding cover). The high-fidelity training scenario referenced here includes shoot–don't shoot decision making, use of a service weapon, tactical movement, verbal commands, radio communication, response to a simulated injury, “officer-down rescue”, and managing a weapon malfunction. It is directed by live actors operating according to a loosely constructed script that allows for a limited amount of improvisation as the scenario unfolds, with the goal of forcing ongoing decision making in an evolving dynamic environment.

Constructing and conducting high-fidelity simulation training is labor intensive and detail sensitive. Creating an effective scenario begins with constructing an environment that is as realistic as possible relative to the setting, personal gear (e.g., Simunition), radio traffic, and so on. This is a relatively straightforward process but is limited by finances, resources (e.g., substantial staff commitment), and the logistics of detail. Creating the mindset of a high stress environment is equally important but far less straightforward. For example, Binsch et al. (2021) developed a virtual reality military-based simulation which includes increasing levels of perceptual challenge and increasingly complex operational tasks. However, the predicted effect on physiological measures (e.g., heart rate variability) was not found across an increasingly demanding set of performance scenarios. This appears to be a function of the inherent limits of virtual reality training, possibly due to the absence of movement and dynamic action.

The psychological challenge of the high-fidelity simulation is in recreating the feel of mind and body in a critical incident, characterized by a high level of psychophysiological intensity (e.g., accelerated heart rate) and cognitive-perceptual disruption. There are factors built into the simulation training to accentuate these effects, by creating psychophysiological and cognitive-perceptual challenges. The scenario is preceded by a brief fast run at the simulation setting, which raises the heart rate and creates a psychophysiological load. Immediately before entering the tactical environment, the LEO trainee has one foot placed in a boot filled with ice—simulating injury by limiting mobility and adding perceptual inputs. The simulation environment is darkened, with actors verbalizing, while music plays loudly, with other intermittent sound manipulations (e.g., police siren). The anticipated assessment of performance by supervisors and peers relative to one's competence in the use of force enhances performance pressure.

The efficacy of the simulation is reflected in the routine report of a wide range of cognitive-perceptual disruptions and accelerated heart rate (Heil, 2020). For example, virtually all trainees report some degree of cognitive-perceptual disruption, while most report an absence of awareness of the ice boot as the scenario unfolds (of 100 ice boot exposures, 88 reported near complete loss of awareness of it, while only 12

reported intermittent or persistent disruption) (Heil, 2022). Heart rate (as measured by a portable personal use device) commonly falls in a range from 155 to 175 beats per minute, even when officers are momentarily in a static position (e.g., posted-up behind cover) (Heil, 2022).

Psychological Debriefing

Once the simulation is implemented, the next critical step in optimizing training is extracting lessons learned. An individual tactical debriefing in the simulation environment immediately follows completion of the scenario. A psychological debriefing follows subsequently, which references and reinforces the lessons of the didactic training, normalizes the stress–performance relationship, and leverages observational learning.

The psychological debriefing is done in a small group setting of typically three to five participants. This shared experience offers the benefits of a traditional “campfire debriefing” as described by Grossman (1996), mimicking the historic practice of soldiers gathering around a campfire at the conclusion of fighting and informally reviewing the events of the day.

In advance of the debriefing, the trainees create a hand-drawn map of the scene and provide estimates of the time duration of the simulation, and of heart rate. The debriefing interview includes a four-phase structured inquiry, which asks progressively more specific and focused questions. It includes: (1) a guided narrative review, (2) a video referenced inquiry; (3) a directed inquiry regarding psychophysiological and cognitive-perceptual function; and (4) a review of awareness checks. This sequenced interview is designed to illuminate an experience that is inherently difficult to articulate. In the first phase, a series of open-ended questions guide the participant in a sequential review of the incident from beginning to end (with questions like: “What was the first thing going through your mind when you were being fired on?” “Then what happened?”). Prior to the second phase of inquiry, the trainee reviews the video of their simulation. This is followed by a series of open-ended questions that compare and contrast recall with the video record. Differences commonly reported between recall and video review range

from an altered sense of time passing, to actual lapses of memory for certain actions. A third phase of inquiry asks directed questions regarding psychophysiological intensity and cognitive-perceptual disruption (e.g., “What did you notice about physical functions like heart rate?” “Did you notice any effects on hearing?”). In the fourth and last phase, specific directed questions are asked such as “Did you notice the ice in the boot?” or “Did you hear the radio playing in the background?”. This last phase of questioning serves as an awareness check, calling attention to cognitive-perceptual change that might otherwise not be reported. This sequenced interview is conducted in consideration of a situational awareness paradox—how to report on what is out of awareness or otherwise unreported in recall.

The group video review also provides multiple replays of the event and creates an opportunity to learn from other LEO behavior, and thus leverages observational learning (Bandura, 1962). The psychological debriefing concludes with a post-event, balanced, self-critique exercise which functions as a psychological after-action report. This exercise is designed to bring closure to the training experience and optimize its learning potential. At the conclusion of the simulation training there is a group review and critique of the training experience, incorporating feedback from trainees and instructors.

Training as Stress Inoculation

A fundamental goal of the training is to prepare officers to perform effectively in critical incidents by implementing the principles and practices that facilitate effective performance under stress. However, it can be argued that high-fidelity simulation and related interventions described here function as stress inoculation training (Meichenbaum, 2017) by providing exposure to a realistic high-stress performance environment, and by normalizing the response to stress in the context of a critical incident. Research by Mineka and Zinbarg (2006) links severity of traumatic response to one’s sense of control over the event and its aftermath. Better training translates into a better sense of control during the incident, and to better performance. Traumatic stress is related to both quality

of performance (what was done, and how effectively) and the outcome (the extent and severity of the injury). The better trained for a critical incident, the better the LEO will likely perform. With better performance come fewer issues psychologically and administratively. With a more realistic understanding of the effects of critical incident stress, the LEO is better able to manage the aftermath of critical incidents.

4 Concluding Comments

This chapter has provided concepts and guidelines for implementing sport psychology practices with LEOs, and for preparing trainers to do so—specifically in the use of deadly force. This is in recognition of the broad applicability of sport psychology theory, research, and practice, and the relative absence of LEO-specific research. That said, there is a deliberate attempt to integrate sport performance theory and practice with LEO-lived experience, which is accomplished by a collaborative process of review and revision between sport and performance psychologists and LEOs. The training program described here draws on fundamental concepts in psychology, evidence-based practices in sport performance psychology, and established customs and practices in LEO training. Ideally, through improved training, there is better communication, more effective assessment of threat, better decision making, more effective action, and reduced injury and death.

Key Takeaways of the Chapter Police Officers

- Sport and performance psychology training concepts and practices are well suited to LEO work, and can be integrated effectively into day-to-day police practices;
- Cognitive and perceptual disruptions observed in LEO critical incidents are consistent with those reported by athletes in critical competitive moments, and are viewed within a positive framework via flow and “zone” theories;

- Realistic high-fidelity simulation training can improve understanding of performance under stress, and train self-regulation skills in critical incidents.

Conflict Management Trainers

- Integrating sport and performance psychology concepts and practices into police training can build psychological skills for LEOs;
- Sport and performance psychology provides a positive framework to assess and understand cognitive-perceptual distortion commonly reported in association with critical incidents;
- Collaborating with sport psychologists is a value-added for critical incident training.

Police Decision-Makers

- Integrating sport psychologists into LEO training brings an added dimension to preparation for performance under stress and the inherent challenges of critical incident response;
- Successfully integrating sport performance psychologists into LEO training requires that leadership create the opportunity for engagement within the rank and file of the agency;
- Although resource intensive and detail sensitive, high-fidelity simulation training fills a unique niche in facilitating the transfer of psychological skills from training to critical incidents.

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References

- Akinola, M., & Mendes, W. B. (2011, June). Stress exacerbates shooting errors among police officers. In *IACM 24th Annual Conference paper*.
- Andersen, J. P., Di Nota, P. M., Beston, B., Boychuk, E. C., Gustafsberg, H., Poplawski, S., & Arapaia, J. (2018). Reducing lethal force errors by modulating police physiology. *Journal of Occupational and Environmental Medicine*, *60*(10), 867–874. <https://doi.org/10.1097/JOM.0000000000001401>
- Anshel, M., Gardner, F., Labbe, E., Petrie, T., & Petruzzello, S. (Eds.). (2019). *APA handbook of sport and exercise psychology*. APA Books.
- Aoyagi, M. W., & Portenga, S. T. (2010). The role of positive ethics and virtues in the context of sport and performance psychology service delivery. *Professional Psychology: Research and Practice*, *41*(3), 253–259. <https://doi.org/10.1037/a0019483>
- Association for Applied Sport Psychology. (n.d.). *CMPC certification fact sheet*. https://appliedsportpsych.org/site/assets/files/33107/cmpc_certification_fact_sheet.pdf
- Aveni, T. (2008). *The MMRMA deadly force project: A critical analysis of police shootings under ambiguous circumstances*. The Police Policy Studies Council.
- Baldwin, S., Bennell, C., Blaskovits, B., Brown, A., Jenkins, B., Lawrence, C., McGale, H., Semple, T., & Andersen, J. P. (2022). A reasonable officer: Examining the relationships among stress, training, and performance in highly realistic lethal force scenario. *Frontiers in Psychology*, *12*. <https://doi.org/10.3389/fpsyg.2021.759132>
- Bandura, A. (1962). Social learning through imitation. In M. R. Jones (Ed.), *Nebraska symposium on motivation* (pp. 211–274). University of Nebraska Press.
- Bergmann, F., Gray, R., Wachsmuth, S., & Höner, O. (2021). Perceptual-motor and perceptual-cognitive skill acquisition in soccer: A systematic review on the influence of practice design and coaching behavior. *Frontiers in Psychology*, *12*, 772201. <https://doi.org/10.3389/fpsyg.2021.772201>
- Binsch, O., Bottenheft, C., Landman, A., Roijendijk, L., & Vermetten, E. H. G. J. M. (2021). Testing the applicability of a virtual reality simulation platform for stress training of first responders. *Military Psychology*, *33*(3), 182–196. <https://doi.org/10.1080/08995605.2021.1897494>

- Bishop, D. T., Wright, M. J., Jackson, R. C., & Abernethy, B. (2013). Neural basis for anticipation skill in soccer: An fMRI study. *Journal of Sport & Exercise Psychology, 35*(1), 98–109. <https://doi.org/10.1123/jsep.35.1.98>
- Carver, N., Gupta, V., & Hipskind, J. E. (2021). *Medical error*. StatPearls Publishing.
- Cesario, J., Johnson, D. J., & Terrill, W. (2019). Is there evidence of racial disparity in police use of deadly force? Analyses of officer-involved fatal shootings in 2015–2016. *Social Psychological and Personality Science, 10*(5), 586–595. <https://doi.org/10.1177/1948550618775108>
- Csikszentmihalyi, M. (2014). *Flow and the foundations of positive psychology: The collected works of Mihaly Csikszentmihalyi*. Springer.
- Dawes, J., Lentine, T., Johnson, Q., Lockie, R., Orr, R., & Sorace, P. (2021). Strength and conditioning program design considerations for law enforcement officers. *Strength and Conditioning Journal, 43*(6), 110–114. <https://doi.org/10.1519/SSC.0000000000000680>
- DeGue, S., Fowler, K. A., & Calkins, C. (2016). Deaths due to use of lethal force by law enforcement. *American Journal of Preventive Medicine, 55*(5, Supplement 3), S173–S187. <https://doi.org/10.1016/j.amepre.2016.08.027>
- DeWiggins, S., Hite, B., & Alson, V. (2010). Personal performance plan: Application of mental skills training to real-world military tasks. *Journal of Applied Sport Psychology, 22*, 458–473. <https://doi.org/10.1080/10413200.2010.500606>
- Eysenck, M. W., Derakshan, N., Santos, R., & Calvo, M. G. (2007). Anxiety and cognitive performance: Attentional control theory. *Emotion, 7*(2), 336–353. <https://doi.org/10.1037/1528-3542.7.2.336S>
- Feltz, D., & Landers, D. M. (1983). The effect of mental practice on motor-skill learning and performance: A meta-analysis. *Journal of Sport Psychology, 2*, 210–220.
- Ferguson, C. J. (2015). “Everybody knows psychology is not real science”: Public perceptions of psychology and how we can improve our relationship with policymakers, the scientific community, and the general public. *American Psychologist, 70*(6), 527–542. <https://doi.org/10.1037/a0039405>
- Gardner, F. L., & Moore, Z. E. (2017). Mindfulness-based and acceptance-based interventions in sport and performance contexts. *Current Opinion in Psychology, 16*, 180–184. <https://doi.org/10.1016/j.copsyc.2017.06.001>
- Giessing, L., Frenkel, M. O., Zinner, C., Rummel, J., Nieuwenhuys, A., Kasperk, C., Brune, M., Engel, F. A., & Plessner, H. (2019). Effects of coping-related traits and psychophysiological stress responses on police

- recruits' shooting behavior in reality-based scenarios. *Frontiers in Psychology*, 10, 1523. <https://doi.org/10.3389/fpsyg.2019.01523>
- Gonzalez, L. (2003). *Deep survival: Who lives, who dies and why: True stories of miraculous endurance and sudden death*. W. W. Norton.
- Grossman, D. (1996). *On killing: The psychological cost of learning to kill in war and society*. Little, Brown, and Company.
- Grossman, D. (2004). *On combat: The psychology and physiology of deadly conflict in war and in peace*. PPCT Research Publications.
- Hanin, Y. L. (Ed.). (2000). *Emotions in sport*. Human Kinetics.
- Hanin, J., & Ekkekakis, P. (2014). Emotions in sport and exercise settings. *Companion to sport and exercise psychology* (pp. 107–128). Routledge.
- Heil, J. (1998, August). Police line of duty shootings: Applying sport psychology “flow theory” [Conference presentation]. In *Twenty-fourth international congress of applied sport psychology*.
- Heil, J. (2003). *Law enforcement officer survival training program evaluation: The psychological impact of simulation*. Unpublished report.
- Heil, J. (2019, October). *Principles of high-fidelity simulation & their application to police deadly force training*. Poster Presentation at the Association for Applied Sport Psychology Conference.
- Heil, J. (2020, November 5). *High fidelity simulation in deadly force training* [Video in seminar]. Society for Police and Criminal Psychology 2020 Online Conference.
- Heil, J. (2021, August). *Sport psychology applied to police tactical training*. American Psychological Association Annual Convention 2021, Virtual.
- Heil, J. (2022, September 25). Integrating sport performance into critical incident stress management [Paper presentation]. In *Society for Police and Criminal Psychology 2022 Conference*.
- Heil, J., & Roanoke Police Department. (2022). *Police officer survival training manual: Psychological debriefing plan & rationale*. Unpublished manuscript. Available from author.
- Herrigel, E. (1953). *Zen in the art of archery*. Pantheon Books.
- Hodges, N. J., & Lohse, K. R. (2022). An extended challenge-based framework for practice design in sports coaching. *Journal of Sports Sciences*, 40(7), 754–768. <https://doi.org/10.1080/02640414.2021.2015917>
- Jennings, J. T., & Rubado, M. E. (2017). Preventing the use of deadly force: The relationship between police agency policies and rates of officer-involved gun deaths. *Public Administration Review*, 77(2), 217–226. <https://doi.org/10.1111/puar.12738>

- Kaulfuss, J. C., Kluth, L. A., Marks, P., Grange, P., Fisch, M., Chun, F. K. H., & Meyer, C. P. (2021). Long-term effects of mental training on manual and cognitive skills in surgical education—A prospective study. *Journal of Surgical Education*, 78(4), 1216–1226. <https://doi.org/10.1016/j.jsurg.2020.11.005>
- Klinger, D. (2004). *Into the kill zone: A cop's eye view of deadly force*. Jossey-Bass.
- Larouzeé, J., & Guarnieri, F. (2015). From theory to practice: Itinerary of Reasons' Swiss Cheese Model. In *Safety and reliability of complex engineered systems: ESREL* (pp. 817–824).
- Makary, M. A., & Daniel, M. (2016). Medical error—The third leading cause of death in the US. *British Medical Journal*, 353, 1–5. <https://doi.org/10.1136/bmj.i2139>
- Meichenbaum, D. (2017). Stress inoculation training: A preventative and treatment approach. In *The evolution of cognitive behavior therapy* (pp. 101–124). Routledge.
- Miller, L. (2020). *The psychology of police deadly force encounters: Science, practice, and policy*. Thomas.
- Mineka, S., & Zinbarg, R. (2006). A contemporary learning theory perspective on the etiology of anxiety disorders: It's not what you thought it was. *American Psychologist*, 61(1), 10–26. <https://doi.org/10.1037/0003-066X.61.1.10>
- Murphy, S. (2012). *The Oxford handbook of sport and performance psychology*. Oxford University Press.
- Nakamura, J., & Csikszentmihalyi, M. (2009). Flow theory and research. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 195–206). Oxford University Press.
- Nideffer, R. M. (1976). *The inner athlete*. Thomas Crowell.
- Nieuwenhuys, A., & Oudejans, R. R. (2011). Training with anxiety: Short- and long-term effects on police officers' shooting behavior under pressure. *Cognitive Processing*, 12(3), 277–288. <https://doi.org/10.1007/s10339-011-0396-x>
- Orr, R., Hinton, B., Wilson, A., Pope, R., & Dawes, J. (2020). Investigating the routine dispatch tasks performed by police officers. *Safety*, 6(4), 54–62.
- Payne, J. M. (2020). Leading the change to holistic health and fitness. *Military Review*, pp. 66–70. <https://www.armyupress.army.mil/Portals/7/military-review/Archives/English/ND-20/Payne-Holistic-Health-1.pdf>
- Portenga, S. T., Aoyagi, M. W., & Cohen, A. B. (2017). Helping to build a profession: A working definition of sport and performance psychology.

- Journal of Sport Psychology in Action*, 8(1), 47–59. <https://doi.org/10.1080/21520704.2016.1227413>
- Radulovic, J., Jovasevic, V., & Meyer, M. A. (2017). Neurobiological mechanisms of state-dependent learning. *Current Opinion in Neurobiology*, 45, 92–98.
- Rahr, S., & Rice, S. K. (2015). *From warriors to guardians: Recommitting American police culture to democratic ideals*. US Department of Justice, Office of Justice Programs, National Institute of Justice.
- Ralston, A. (2005). *Between a rock and a hard place*. Atria Books.
- Reason, J. (1990). *Human error*. Cambridge University Press.
- Reason, J. (2000). Human error: Models and management. *British Medical Journal*, 320, 768–770.
- Renshaw, I., Davids, K., Araujo, D., Lucas, A., Roberts, W. M., Newcombe, D. J., & Franks, B. (2019). Evaluating weaknesses of “perceptual-cognitive training” and “brain training” methods in sport: An ecological dynamics critique. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.02468>
- Ross, D. L., & Brave, M. (2017). Vital statistics and arrest-related deaths. In *Guidelines for investigating officer-involved shootings, arrest-related deaths, and deaths in custody* (pp. 19–40). Routledge.
- Rusz, E. (1993). *Mental preparedness training in army school and special police forces* [Paper Presentation]. 8th World Congress in Sport Psychology.
- Scofield, D. E., & Kardouni, J. R. (2015). The tactical athlete: A product of 21st century strength and conditioning. *Strength & Conditioning Journal*, 37(4), 2–7.
- Sklar, D. P., Crandall, C. S., Loeliger, E., Edmunds, K., Paul, I., & Helitzer, D. L. (2007). Unanticipated death after discharge home from the emergency department. *Annals of Emergency Medicine*, 49(6), 735–745. <https://doi.org/10.1016/j.annemergmed.2006.11.018>
- Staller, M. S., Zaiser, B., & Koerner, S. (2022). The problem of entanglement: Biases and fallacies in police conflict management. *International Journal of Police Science & Management*, 24(2), 113–123. <https://doi.org/10.1177/14613557211064054>
- Swann, C., Piggott, D., Schweickle, M., & Vella, S. A. (2018). A review of scientific progress in flow in sport and exercise: Normal science, crisis, and a progressive shift. *Journal of Applied Sport Psychology*, 30(3), 249–271.
- Swann, C., Crust, L., Jackman, P., Vella, S. A., Allen, M. S., & Keegan, R. (2017). Psychological states underlying excellent performance in sport: Toward an integrated model of flow and clutch states. *Journal of Applied*

- Sport Psychology*, 29(4), 375–401. <https://doi.org/10.1080/10413200.2016.1272650>
- Torres, J. (2020). Predicting law enforcement confidence in going ‘hands-on’: The impact of martial arts training, use-of-force self-efficacy, motivation, and apprehensiveness. *Police Practice and Research*, 21(2), 187–203. <https://doi.org/10.1080/15614263.2018.1500285>
- Vealey, R. S., Galli, N., & Harmison, R. J. (2019). CMPC[®] Certification as a milestone, not a millstone: A response to Scherzer and Reel. *Journal of Clinical Sport Psychology*, 13(3), 345–350.
- Weinberg, R. (2008). Does imagery work? Effects on performance and mental skills. *Journal of Imagery Research in Sport and Physical Activity*, 3(1), 1–21.
- Weinberg, R. S., & Gould, D. (2019). *Foundations of sport and exercise psychology* (7th ed.). Human Kinetics.
- Williams, J. M., Krane, V., & Mann, M. E. (2021). Sport psychology: Past, present, future. In J. M. Williams & V. Krane (Eds.), *Applied sport psychology: Personal growth to peak performance* (pp. 1–18). McGraw-Hill.
- Zeplin, S., Galli, N., Visek, A., Durham W., & Staples, J. (2014) Concentration and attention in sport. *SportPsychWorks*, 2(1). <https://www.apadivisions.org/division-47/publications/sportpsych-works/concentration-and-attention.pdf>
- Zinsser, N., Perkins, L. D., Gervais, P. D., & Burbelo, G. A. (2004). Military application of performance-enhancement psychology. *Military Review*, 84(5), 62–65.



Moral Injury as a Challenge in a Value-Driven Profession: Insights from Ethics for the Education and Training of Police Agents

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Reviewer: Tamara Jaeger

1 Introduction

The withdrawal of military troops from Afghanistan in 2021, the dilemmas and pressures on nurses, doctors, and other care workers during the COVID-19 pandemic, and the (routine) work of police officers and agents resolving conflicts or observing tragedies can lead to moral distress or even moral injury. These phenomena result from the

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discrepancies between agents' moral norms and values, on the one hand, and their professional (in)action. These discrepancies can be experienced in everyday routine. For example, a police officer who cannot help a (potential) victim the way she would like to in scenarios of domestic violence or after an accident. Discrepancies can also be experienced in more rare events, such as a police officer using force to protect herself or others, injuring or even killing a person. In both examples, she may feel distressed about her action (or omission of action) and feel morally troubled—even if she has legally done the right thing. She might feel guilty and have a bad conscience even if she did what society, the police organisation, the law, all rational people, and a victim she saved with her use of force expected her to do. Even if called a “hero” after using force, one can experience moral distress which can lead to moral injury.

In this chapter, the phenomenon of moral injury will be further explored and differentiated from moral distress and post-traumatic stress disorder (PTSD). Then, an ethical perspective on action and inaction will be introduced, with the key terms of ethics that need to be defined to approach this topic, especially the terms “moral conflict” and “moral dilemma”. Theories of and approaches to ethics are briefly highlighted before it is argued that a knowledge of ethics can play a role in preventing moral injury or its healing. We will also argue that police organisations should be aware of their role in preventing and healing moral injury.

2 The Significance of Moral Injury

Moral Values, Norms, Judgements, and Ethics

Police officers are often motivated by *moral values*. It is not unlikely that they felt a calling for their job: they felt driven by moral values to help and protect others. Moral values, in general, are attached to “that which is good, desirable, or worthwhile and motivate purposeful

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action” (Lentz et al., 2021). Individuals are considered, in some theories and scientific disciplines, to have moral values as an inborn and inherent human quality or, as for example the standard view in sociology has it, individuals have moral values as a result of upbringing or following cultural patterns. In either case, moral values are shared across families and communities. Communities can be social groups (including religious or professional groups) or even whole societies. What is more, even on a worldwide scale, there is a broad, if not universal, recognition of the value, the special or absolute worth, of every human being (often framed as “human dignity”), as the Universal Declaration of Human Rights attests to. *Ethics*, now, can be considered as the systematic reflection of moral values and moral norms, with *moral norms* as prescriptions that safeguard moral values and tell people what they ought to do if they cherish these moral values. For example the absolute worth of a human being as a value is safeguarded by the moral norms of human rights. Ethics questions: whether values, norms, and *moral judgements* can be upheld from a logical, rational, and impartial point of view; whether they can and should be universalised, so that everyone or every member of a community should be motivated by them; and whether they can be rendered coherent with our other moral beliefs (Schröder-Bäck, 2022).

Thus, upholding certain moral values and norms can, in practice, motivate one to pursue a certain profession. The value of human dignity and the norms of human rights can, for example, motivate someone: to become a police officer; to intervene for the security, safety, and protection of individual human beings; to fight, among other things, neglect, abuse, exploitation, and other forms of violence, including manslaughter or murder. Now, what we will further explore is what it means when police officers want to uphold and live by their moral norms, values, and judgements but their professional practice comes into conflict with their moral beliefs. In other words, what if police officers cannot fully exercise their moral agency—the genuine human ability to act according to one’s judgement about what is right or wrong, good or bad.

Moral Injury

Defining “Moral Distress”

To explore this further, we first want to consider the concept of moral distress, in order to then discuss the overlap with, and difference from, the concept of moral injury. Following Jameton (1984, cited in Kolbe & de-Melo-Martin 2022) *moral distress* may occur when one has to omit doing what one considers to be the morally right thing; or when one has to do, in the course of one’s work, something that one believes is not morally right or good. Moral distress can thus arise when “institutional constraints make it nearly impossible to pursue the right course of action” (ibid.).

In a recent report about moral injury and moral distress by the British Medical Association (BMA, 2022, p. 3), moral distress was described as “the psychological unease generated where professionals identify an ethically correct action to take but are constrained in their ability to take that action”. They consider moral distress stems from the perception of “moral transgression”, which is the key term for understanding moral distress (and moral injury). The reason why one would not act according to one’s moral norms or values is “a lack of power or agency, or structural limitations, such as insufficient staff, resources, training or time”. Yet, one does not have to even be the person acting immorally; it can also be that one is only witnessing immoral behaviour but cannot stop or redress it.

Accordingly, executing orders that are incompatible with one’s own moral beliefs may cause moral distress. The closer and more immediate the relationship between the person acting—the professional—and the person who is affected by the agent’s action is, the more distressing a decision can be (Akram, 2021). A police commander deciding about some change in routines or implementing local tactics is more distant from the citizens than the police agent who has to implement police action and interact with citizens (e.g., implementing an order that allows less time to interact with citizens or where it takes a longer drive to come to help people in need; Blumberg, 2022).

In police contexts, not only can the inability to help be morally distressing, so too can the means used to help. The use of force—even

if deemed necessary to protect others, in order to prevent and prosecute crime, and fully legally backed up and proportionate—can be considered by those who execute it to be a moral problem. Using force to prevent violence can be experienced as *paradoxical* and thus burdensome (Schiewek, 2015, p. 493), also because proportionate and legitimate force can harm, hurt, humiliate, degrade, or even kill.

Defining Moral Injury and the Demarcation from Moral Distress

Moral injury (also) stems from moral transgressions, yet, in this case, the inner conflicts felt are *very substantial and serious*. These transgressions “can overwhelm one’s sense of goodness and humanity” (Sherman, 2015, p. 8) and people might feel they have lost their moral innocence or goodness. As a consequence, police officers might ask themselves: “is this the kind of job I want to do? Or: am I this kind of person?” (Eikenaar, 2022). They might fundamentally question themselves and their trusted colleagues and superiors (Blumberg, 2022).

The *moral feelings* of guilt, shame, remorse, regret, sense of betrayal for doing or not doing—as a consequence of inability or orders—of actions in professional contexts are central to moral injury. The perception of one’s own moral transgression provokes “feelings of severe shame, guilt, and anger” and disgust (Lentz et al., 2021). In short, it seems to—analytically—make most sense to call moral distress a feeling of guilt and remorse after a certain action or omission that transgresses personal moral norms and values. Yet, when this distress becomes chronic, persistent, or particularly deep, the *distress* becomes an *injury* that needs healing and that might leave a psychological scar.

However, especially in the police context, moral injury might not be the result of one single event but rather a series of events that stack up: moral injury seen as something “that develops slumbering, characterizing it as a ‘war of attrition’, in which police officers are constantly confronted with morally transgressive situations that eat away at them” (Eikenaar, 2022). Moral injury could thus result from repeated moral distress that

remains unsupported (by higher levels or social networks) or where moral distress meets (ethical or psychological) unpreparedness.

The demarcation between moral distress and moral injury is not set in stone but a matter of ongoing debate. Sometimes, moral distress is defined in terms of having *once* been in a stressful situation, where one was necessitated to act against one's moral beliefs (e.g., when a police officer uses force). Moral injury, on the other hand, is then the *trauma* resulting from transgressing one's ethical values *more often, repeatedly, or more severely*. These *time* or *intensity dimensions* are usually used to differentiate the two, and to explain why moral injury is considered to be in the realm of *illness* (as it combines suffering with an inability to reach one's goals).

These defining aspects are also included in the following definition:

Moral injury can arise where sustained moral distress leads to impaired function or longer-term psychological harm. Moral injury can produce profound guilt and shame, and in some cases also a sense of betrayal, anger and profound “moral disorientation”. It has also been linked to severe mental health issues. (BMA, 2022, p. 3)

In what follows, we will continue focussing on moral injury, keeping in mind the thin line between moral distress and moral injury.

Another Demarcation: Moral Injury and PTSD

Moral injury and PTSD are often discussed together. It is said that moral injury can lead to or contribute to PTSD (Papazoglou et al., 2020). Their differences and overlap are often presented in the context of therapeutic approaches. Yet, it is a relatively recent differentiation—and promising for analytic understanding, prevention, and therapy to keep both concepts apart. Thus, we present a short overview of the differences and similarities (Barnes et al., 2019; Blumberg, 2022; Centre for Research and Evidence on Security Threats, 2020; Harwood-Gross, 2020).

Both conditions *share* that there might be an event that triggers one of them or the other, such as an event that is felt like an “attack” on the

self. Similar symptoms can then follow, among them are anger, a feeling of alienation, guilt, shame, anxiety, frustration, depression, self-harm, nightmares and insomnia, loss of belief, self-medication, withdrawal, and avoidance behaviour. The *difference* is that PTSD starts with an event that is experienced as life-threatening, often to oneself but possibly also to others. It is often associated with the *fear* that one has experienced during that attack, which could have been a threat to life or health, but also as threatened or actual sexual or other violence, including torture. Symptoms that are more exclusive to PTSD are re-experience and hyper-vigilance.

Moral injury, on the other hand, starts with an event that is transgressing one's own moral beliefs. Sherman (2021, p. 135) formulates that a "moral threat" and "breaches of morality" cause moral injury. Usually, the bad feelings—shame, guilt, a feeling that the moral world is not in order anymore—follow sometime after the event. This event can be described as a violation of one's moral compass or conscience.

Conscience, Moral Conflict, and Moral Dilemma

Why Do Police Officers Transgress Their Morals At All?

Why do people act in ways they do not find in line with their moral values? Often, it is that orders have to be executed and a police officer is, as said above, necessitated to commit a certain action. This necessitation can be seen as *morally right from a social perspective* but *conceived as morally problematic by the individual*. It could be, among other things, that the law or the judicial system correctly, within the legal logic, prescribes a certain action that goes against the moral values of the police officer, for example the deportation of refugees, relocating a homeless person, or safeguarding a demonstration of people that uphold other morals or worldviews. The latter might be *conceived as paradoxical*, too: to uphold the important values of democracy and freedom of speech, one might have to protect those that demonstrate against these very values or other values of humanity.

Furthermore, police officers and agents have, of necessity, to take actions to resolve *conflicts*. They often have to take *difficult decisions* or are even faced with *perceived moral dilemmas* where no ideal solution seems possible. What makes it even more difficult, public safety personnel “must, quickly and in a complex situation, consider the risk–benefit of their actions and do what they feel will benefit the member of the public or the community prior to taking action” (Lentz et al., 2021).

Lastly, another risk factor for moral injury pertinent to police contexts is that certain topics remain taboo within police communities. Sometimes, a “culture of silence” prevails, including not reporting colleagues’ bad behaviour, for example, the use of disproportionate force (Ducharlet et al., 2021; Westmarland & Conway, 2020). In other words, the “cop culture” might be so dominant, and the sanctions of the professional group and peer pressure expected to be so severe, that one remains silent when faced with immorality and illegality, or one even participates in immoral and illegal behaviour.

Conscience as Moral Compass

Thus, the transgression of personal moral norms and values can be a cause of moral injury. It can also be framed as a transgression of conscience, a person’s moral compass. But what is the conscience, from an ethical point of view?

In philosophy, conscience describes the individual moral norms and values that a person has internalised and lives by. Thus, we human beings are moral beings. We have a morality, we have values, and we follow moral norms carved in ourselves in the form of the conscience. Norms and values are—as discussed above—inherent, inborn, and culturally and socially developed and adapted (and the conscience can, indeed, be modified through ethical reflection and changes in judgement). Ideally, our actions follow our values and respect shared norms.

Giubilini (2022) explains that “[t]hrough our individual conscience, we become aware of our deeply held moral principles, we are motivated to act upon them, and we assess our character, our behavior and ultimately our self against those principles”. The conscience is, following

a dictum of Immanuel Kant, like an inner courtyard or inner judge reflecting our (in)actions, our moral conduct. Giubilini (2022) follows this image and sees actors as being “split into two persons, one who acts and the other who observes the former’s conduct”. As a result, one can have a guilty conscience, that is to feel guilty when one has done something immoral—knowing it was morally bad and having had other options. For example a police officer can have a guilty conscience for having accepted a bribe—if there was no moral justification for accepting it (e.g., a starving family to support), but simply greed. Then, a guilty conscience means that one came to see or understand that what one has done was simply wrong or bad. Here, one feels *remorse for a good reason*, a moral and rational person sees and accepts the moral guilt and seeks redress or forgiveness.

Conscience and Difficult Choices

As mentioned, human beings can encounter *difficult choices* that are experienced as moral conflicts. They do not know what to do in certain situations. All alternative courses of conduct (including doing nothing) seem to violate one’s moral beliefs and conscience. No easy or clear solution seems possible. These difficult choices fall into two ethical categories.

First, after ethically analysing the situation, one might come to an answer that resolves the *moral conflict*. One now knows what to do—even if the course of action is not ideal and not without problems. But this one course of action, one of the alternative actions, is still better than all the others. After weighing all values and norms that are involved in the context and that will be affected by the decision, the one alternative action (or omission) overrides—or outweighs—the other, even if only narrowly. Examples could be to safeguard a certain demonstration or participating in deportation (see above).

Second, there are special moral conflicts that are called *moral dilemmas*. Despite the frequent use of the term in everyday language, a real moral dilemma in ethics is one where there is no clear answer after weighing up the alternative actions (and omissions). There is no

overriding possible answer (McConnell, 2018). An example could be a police officer who comes to a situation where she could only save one of two people in danger, other things being equal. It is better to help one than to help neither. But one person would still die while the other will be saved.

This would, arguably, be “only” an *extreme moral conflict*, not a true moral dilemma, if there were clear and morally significant differences, for example if one of the people has a good chance of being rescued by the police officer’s efforts, while the other does not (because trying to save the latter might most likely result in them both dying). These moral conflicts are also recognised in “triage”, a concept originating from military medicine, where on a battlefield, where the need for treatment greatly exceeds the medical resources available, only some can be saved. Medical personnel prioritise treating wounded soldiers according to the chances of survival with and without treatment. This concept was also deployed in intensive care units during peaks of the pandemic and reportedly caused moral distress and injury among clinical personnel, especially doctors (Camporesi & Mori, 2021; Feinstein et al., 2020).

One has to keep moral conflicts and moral dilemmas separate. For ethics this is key, and ethical reasoning can be about identifying the demarcation between the two when reflecting on a certain situation. Yet, both moral conflicts and moral dilemmas—and how one has dealt with them—can lead to feelings of guilt and make for a guilty conscience. It is possible for the conscience, the inner judge, to make a wrong judgement and erroneously call a moral conflict a moral dilemma, which might lead to a greater feeling of guilt. Therefore, recognising moral conflicts and, particularly, unsolvable moral dilemmas is a key to building one’s own judgements and finding justification for one’s action (or omission). When realising that—after scrutiny—one could not have acted differently, or that no alternative actions were better, one might respond more rationally to the guilty conscience and maybe even overcome or heal it. Also, to understand how different ethical theories frame or reconstruct dilemmas, and to see what theories accept as dilemmas, at all, can help to ease one’s conscience after difficult, but justified and ethically best, choices. We will need to explore these theories below.

3 Ethics: Education and Training

The Importance of Ethics

Understanding moral conflicts and moral dilemmas gives a hint as to why moral distress and injury are not only a matter of psychology, but also of ethics. Molendijk (2022, p. 2) argues that to address moral injury, philosophical ethics is also needed because it has “the expertise and vocabulary to tackle such questions”. We need ethics to understand what conscience, moral conflicts, and moral dilemmas are. Lentz et al. (2021, p. 10) also see a role for ethics and “moral training” to “support frontline personnel when they are faced with a moral dilemma”. They discuss and ultimately conclude in their systematic review that ethics and moral training can play a role in preventing moral injury. Education in ethics is key to raising “moral awareness” and to train the “ability to practice moral agency and judgement” (ibid., p. 11). Also, the first impulses from one’s conscience could be reflected on to see if the “moral compass” hints at a justifiable course of action (which, from an ethical point of view, could also lead to taking a stance of conscientious objection against an order, for example if superiors demand that a suspect is dealt with in a way that turns out to be racist).

Understanding one’s values and being prepared ethically “might not decrease moral distress” (ibid.) but might decrease its subsequent manifestation, namely moral injury. Similarly, for Sherman (2015, p. 10), the ability of “moral reflectiveness” is key to preventing and dealing with moral injury.

A Key Challenge: What Ethics, and How Taught and Trained?

An important and intended outcome for education in ethics is the gaining of *moral resilience*, through the development and exercise of *moral awareness* and *moral sensitivity*, “wisely discerning ethical challenges and principled actions” and “discovering meaning in the midst of adversity”, together in combination with *moral integrity* (Rushton,

2017, p. S13). *Moral integrity* here carries the meaning that one acts according to one's moral convictions—which might also mean that one recognises that one has to override some norms and values in certain situations for a greater good or absolute value, or that one recognises a true moral dilemma, where one cannot come up with an acceptable solution, whichever way one tries.

Yet, more efforts are needed to find out *what* and *how* ethics and moral training are offered and *delivered*. Lentz et al. (2021) propose that systematic education in ethics is essential and that a practical perspective is paramount. Ethics training must not be too abstract and theoretical. They summarise evidence from the literature that indicates that education in ethics that is too abstract is unhelpful. Rather, education in ethics imbedded in practical scenarios is more effective. Moral awareness, mastery of ethical thinking, and development of the capacity for moral judgement are key (Ducharlet et al., 2021; Lentz et al., 2021; Rushton, 2017; van Baarle et al., 2015; Wortel & Bosch, 2011).

Akram (2021) argues that learning certain ethical theories and normative frameworks could equip professionals to understand instructions that come into conflict with their initial moral judgement. This could be because they are carried out to the detriment of an individual—e.g., an individual patient in his context—but the organisation or the law takes a wider perspective in situations of resource constraints. Understanding these different underlying moral norms helps us to understand the reasoning behind the instruction, and thus this understanding might be helpful to prevent moral distress and injury. Ethical reflection—based on ethical theories, norms, and values—“can also be viewed as a method of intellectualization, i.e. the use of increased cognitive activity for its inherent affect-inhibiting potential to reduce the affective symptoms of moral distress and moral injury” (Akram, 2021, p. 4).

An Ethical Framework

Which normative frames are best for informing ethical reflection and reasoning in the police context? A classic account of police ethics is in

Kleinig's seminal work (1996). Elsewhere, we have proposed a complementary framework for police ethics (Schröder-Bäck, 2022) which we will briefly sketch out so as to present essential guiding norms, values, and virtues for further discussion. Our concisely sketched framework builds on the classic division of the three main methods of normative ethics: consequentialism, deontology, and virtue ethics. This is not about the intellectual and philosophical depth of the theories—that is important in other discourses (Schröder-Bäck et al., 2019). Rather, ethical frameworks need a smart didactical integration in practice-oriented education in ethics (using narratives, cases, scenarios from films, reports by and discussions with experienced practitioners, etc.).

Consequentialism and Utilitarianism

The first method or theory on which one can draw for normative guidance is *consequentialism*. This theory means that to judge if an action (or omission) is good or bad, one has to look at the consequences. One should aim at good consequences and try to avoid harm, pain, and suffering. In consequentialism, one is responsible for the consequences of one's actions *and* one's omissions of actions.

One version of this theory is *utilitarianism*—one of the most widely known approaches of ethical thinking in Western Anglo-American ethical discourse. Utilitarianism not only looks at the good and bad consequences but formulates the principle that one has to do that action (or omission) that maximises the happiness for all current and future people (some utilitarian thinkers take an even wider view and focus on sentient beings in general, involving species other than human beings). Depending on the different forms of utilitarianism this means to further utility—mainly framed as happiness, pleasure, or preferences—and to minimise suffering, pain, and premature death. Thus, when being confronted with a tough decision, a utilitarian has to apply the algorithm of furthering the most utility for all. Should a police officer shoot a hostage-taker threatening to kill his innocent hostage as a last resort measure? Probably yes. The benefit for the hostage and potential future hostages or victims of this perpetrator, the hostage and her family's relief

(versus mourning over her death), the feeling of security of people in a society knowing that the police protects them—all this would most likely outweigh the injury or even premature loss of life of the hostage-taker and the potential moral distress of the police officer. It is this *weighing up* of all potential and likely utility versus harm that tells one ultimately what to do. Maybe a difficult choice—but no dilemma.

In utilitarianism, the end—of achieving a better balance of utility—justifies the means. Torture, for example of the innocent young child of a terrorist forcing him to tell where the ticking time bomb is hidden, could thus be justified if that were the only way to save people (and thus their and their families' overall happy lives) and if this (exceptional) torturing does not leave society in fear of, for example, an almighty and brutal police force. For utilitarianism, there are no taboos.

Despite this theory promising an easy algorithm for action, in practice it is a real challenge to predict all of the expected outcomes (especially those which are indirect and long term), which one needs to know in order to weigh them up. And this might not always (or ever) be possible. In combination with another moral difficulty—would we really find it justified to torture innocent children in certain situations?—one should explore whether or not other ethical theories have something meaningful to say, too.

Deontology

Deontology, as a second method or theory, focuses rather on *the act itself*—not the consequences. The key philosopher of this ethical tradition, Immanuel Kant, said that it is actually impossible to foresee all consequences of an action and to judge whether they mean happiness or not to people, as people all have different individual sentiments. Thus, he argued, one must examine the act itself, to see if it itself is *universalisable*. This means, for him: Could everyone do this act in a similar situation? Would every rational being want this act to be done? And, furthermore, doesn't the action violate the absolute value of human dignity? Human dignity would be compromised if a person was used *only* as a means to the end of another person's will. In this tradition, absolute human

rights can be conceivable. (Note: consequentialists can accept and respect human rights as well, not as values in themselves, but rather as—and only as long as they function as—a means to the end of happy human beings.)

Shooting a hostage-taker is still acceptable from this theory's perspective. A hostage-taker would not be diminished in her human dignity, as she would not be instrumentalised or humiliated—quite the opposite: her personal decision to take a hostage is taken seriously and the goal is not to harm the hostage-taker but to protect the hostage (some deontologists would frame this as “double-effect”: the aimed-at effect is the protection of the hostage, not the killing of the hostage-taker, yet no other proportionate alternative way of protecting the hostage are available). Torturing people and children—even if this would guarantee saving many lives—is not acceptable, as the person being tortured is treated merely as a means to the end of saving others, and in torturing her, one violates her human dignity, as the torturer also seeks suffering through humiliation. For the deontologist, the scenario of the ticking timebomb is also no dilemma: it is simply forbidden to actively torture (innocent children). In *difficult moral situations*, deontology might lead one to either not act rather than doing something of inherent moral unworthiness, or to let chance decide; if one follows this interpretation of the deontological theory, throwing a coin and thus taking the decision is better than doing nothing. Other deontologists, however, would be happy to fall back on consequentialist thinking if—and only if—deontology cannot solve the problem: letting chance decide seems too absurd, and doing nothing is an even worse choice than the alternatives.

Virtue Ethics and Stoicism

Unlike the other two methods or theories presented above, *virtue ethics* does not ask What shall I do? What is the right action? Rather it focusses more on the character of people and the question: Who am I, who do I want to be? Virtue ethicists, often in an *Aristotelian* tradition, consider the right moral character trait to be in the middle of two extremes, called vices. Being calm or cool-headed means not to panic but also not to be totally indifferent. To be brave or courageous means not to be a coward

but also not to be careless, reckless, or light-headed. One has to find a middle ground between an excess (too much) and a deficiency (too little). And if one exercises one's virtue, other people also benefit from it. Thus, police officers, for example, should not anxiously flee from dangerous situations without a good reason; but neither should they recklessly run into danger zones, where the chance of their own death or injury is much higher than the chance of achieving the policing goals.

One approach of virtue ethics that is particularly hailed in the context of moral stress and injury is *Stoicism*, the ancient philosophy that has seen something of a revival in the current troubled times of pandemic threat, war in Europe, and economic challenges. Following the ethicist Sherman (2015, 2021), who also has a background in psychoanalysis, here is a sketch of how one can get insights from Stoic virtue ethics in modern times. Sherman mainly writes about soldiers and moral injury in war, yet this can plausibly be transferred to a police context.

For Sherman, the goal of a Stoic philosophy applied to situations where moral injury might occur is virtue, an inner strength combined with social support that builds resilience that, again, has to be paired with empathy, that is, reflected by reason (Sherman, 2021). A key Stoic approach is “preparedness”—so that human beings can act rationally and virtuously in times of distress, crisis, or external (time) pressure. *Preparedness* means to know the realities of war—for soldiers—or the professional world of police frontline officers, including the hard decisions that they have to take. These are decisions that are, and remain on reflection, morally difficult. Agents have to be aware that these difficulties, conflicts, and dilemmas cannot always be solved. This awareness through ethical preparedness can help them in mastering their emotions that otherwise would overwhelm them. Indeed, in virtue ethics, and particularly in Stoicism, one assumes that one can rationally influence one's emotions. This is not about repression, but about *understanding that*—even if one strives for the best one can do, and gives the best one can do in these situations—nevertheless, *moral costs might remain*.

Philosophically, this all makes sense—yet, if this empirically works, it is not well evaluated. How exactly a “Stoic attitude” can be achieved, along with its skills, is difficult to say. Thus, this brief presentation of

Sherman's approach, though insightful, yet requires its practicability and effectiveness to be tested in police education and training contexts.

Integrating Ethical Insights into One Framework

Coherentism is the ethical approach that tells us that we may draw on all different methods or theories to make good moral judgements and to justify actions or omissions of actions. This is because all methods or theories capture something of special moral worth. If a police officer shoots a hostage-taker threatening to murder his hostage, utilitarianism has a clear answer. Yet, acknowledging the human dignity of the hostage-taker, the value of human life, will also make it difficult for the officer to have the hostage-taker shot. Thus, in settings of education, training, and preparing for practice, trainers, teachers, and police officers and agents have to consider *multiple* methods and approaches, and bring them into discussion and consideration when making a final judgement. A final judgement can weave, for example, utilitarian thinking and deontology together, highlighting all the values pertinent here, but then also accepting, with the help of balancing and specification methods, that in the end the shooting of the hostage-taker was the right thing to do (without denying the special moral worth of the person shot). Also, other key principles of police ethics—such as *justice* and particularly *proportionality*—can and should be integrated to make final judgements.

This integrated sketched framework could be a basis for reflection and making moral judgements. One needs to frame, put into words with an ethical vocabulary, what is morally at stake, so as to understand the moral conflict, or even dilemma, and thus the root cause of moral injury and to prevent or heal it. Ethics helps to clarify what is at stake, to prioritise what one has to do, and to justify one's action. It helps in resolving moral conflicts and recognising real (but rare) dilemmas. This makes transparent and thus (self-)convincing decisions possible. Ethics informs deliberation about one's values and course of action. In this way, one justifies towards the community, the hierarchy, private social bonds, and all other relationships what one does (or has done), and which can maintain one's integrity (CDC, 2017).

Again, ethical preparation is the key to preventing moral stress and injury, given that, in the moment itself, there will be little time for deliberation. *But even in stressful situations, one can draw on prepared, reflected, sound, and theoretically well-supported judgements.*

Perspectives of Police Organisations' Influence on Moral Injury

Despite ethical training and reflection being able to assist the recognition of moral conflicts and dilemmas and also to support the prevention or healing of moral injury, other organisational-level aspects of the police are important for tackling moral injury, too (Blumberg, 2022). Molendijk, who always takes a relational perspective—putting the professionals into context and seeing them bound to colleagues, in hierarchies, and wider social networks—pronounces the organisational aspects that are influential in causing or preventing and healing moral injury (Molendijk, 2022; Molendijk et al., 2022). There are a number of key perspectives around this issue.

Firstly, the responsibility and support of the organisation for its members is pertinent. When police officers are for example charged with alleged illegal (but in their opinion moral) behaviour and are investigated, they often feel left alone by the organisation, even though they (might) think they did the right things and followed their strong moral beliefs. When investigated, they often feel abandoned. This is a risk factor for moral injury due to a lack of organisational support: “their faith in the organisation is destroyed” (Eikenaar; cf. Lentz et al., 2021). This, of course, neither means that what they did (or omitted to do) was objectively the right thing, nor that an investigation should not take place—quite the opposite. But one could envision there being a chance and a moral responsibility here to discuss—next to the legal investigation—also the moral side and support of police officers. Until a final (legal) judgement is drawn, a presumption of innocence should prevail and officers should be supported. This might be a space for pastoral care, as well. The sense of one's work is key to understanding and enjoying

work and also—in the sense of the moral value of one’s work—is a goal for action.

Another stressor that can lead to or contribute to moral injury is ineffective leadership. This, Simmons-Beauchamp and Sharpe (2022, p. 4) sees manifested and relevant for moral injury in the following characteristics:

- Rewarding loyalty to a leader’s personal and professional agendas;
- Berating and belittling employees in front of lower ranking officers;
- Dishonesty;
- Mismanagement of resources, causing a critical front-line staffing crisis;
- Minimizing or dismissing concerns about the lack of frontline resources and training leaving a workforce feeling unsafe and not supported;
- Leadership actions and inactions creating an unhealthy workforce not capable of effectively coping with line of duty deaths;
- Addressing critical staffing shortages only after the death of front-line officers;
- Leading through personal bias;
- Moral ambiguity.

In developing ethical leaders (Price, 2008) in police organisations, the correspondence between these professional vices and the impact they make on police officers, including the risk of developing or maintaining moral injury, should be understood and taught.

In general, Blumberg et al. (2020, p. 8) offer some approaches as “organizational solutions to the moral risks of policing”. Included among them is better and continuous training—also in ethics. Blumberg et al. further claim that one cannot rely on hiring people who are intrinsically good and know what the right thing to do is. People, they continue arguing, also get morally corrupted in practice. Thus, “attention must be paid to training efforts that are designed to keep officers healthy and ethical” (ibid.). In short, police organisations should offer ethical education and counselling to prepare for moral challenges in practice and to further moral resilience and, where needed, moral healing.

4 Conclusions

Moral distress and moral injury are phenomena that appear in professions where people are led by moral norms and values. When they cannot live up to their values in their professional life, they risk being morally distressed or injured. This means harm to them—but also harm to society, as professionals are missing and costs of care or early retirement rise. Thus, there are good reasons to explore the role of moral injury in the mental health of police officers with more rigour and to take this injury very seriously.

To tackle moral distress and injury is an interdisciplinary task. Also, the philosophical and ethical understanding of moral conflict and norms and guidance about what good moral action (or inaction) is and how ethics can support good judgement plays a role. From a philosophical point of view, it sounds convincing—in a rationalist paradigm—that knowing about morals, different methods and theories, moral conflicts and dilemmas could help one to understand why one has to act in a certain way, but cannot neatly solve all problems. However, to find out how effective ethics is in the prevention and healing of moral wounds and moral injury, more research is needed.

Key Takeaways of the Chapter

Police Officers

- Severe moral conflicts experienced in practice and a guilty conscience can cause moral distress and even moral injury.
- Both an ethical understanding of what moral conflicts and moral dilemmas are, and what moral norms and values are and how they are embedded in theories, can support one in making one's own sound ethical judgements.
- Reflecting ethically about one's actions (and omissions of actions) helps to prevent or heal moral injury.

Conflict Management Trainers

- Understanding moral conflicts and moral dilemmas gives a hint as to why moral injury is not only a matter of psychology, but also of ethics.
- Including profound reflection on moral norms, values, and ethical theories, and recognising the underlying dimensions of moral conflicts and dilemmas in education and training, can help us to understand professional conduct better and to deal with different layers of responsibility for the outcome of (in)actions.

Police Decision-Makers

- Ethical preparation of police officers is a key to preventing moral injury. Police decision-makers should thus make sure that ethical education, training, and reflection are integrated into educational programmes of police organisations and in their continuous educational training.
- Police organisations should support their officers with spaces for ethical training and reflection (along with psychological counselling).
- Police organisations should offer ethical education and counselling to prepare for moral challenges in practice and to further moral resilience and, where needed, moral healing.
- Next to conflicts and dilemmas that arise in frontline practice, one stressor that can lead to or contribute to moral injury is ineffective leadership in the police organisation. This needs attention also from the perspective of the prevention of moral injuries.

References

- Akram, F. (2021). Moral injury and the COVID-19 pandemic: A philosophical viewpoint. *Ethics, Medicine, and Public Health*, 18, 100661. <https://doi.org/10.1016/j.jemep.2021.100661>
- Barnes, H. A., Hurley, R. A., & Taber, K. H. (2019). Moral injury and PTSD: Often co-occurring yet mechanistically different. *The Journal of Neuropsychiatry and Clinical Neuroscience*, 31, A4-103. <https://doi.org/10.1176/appi.neuropsych.19020036>

- Blumberg, D. M. (2022). What should clinicians who care for police officers know about moral injury? *AMA Journal of Ethics*, 2, E126–132. <https://doi.org/10.1001/amajethics.2022.126>
- Blumberg, D. M., Papazoglou, K., & Schlosser, M. D. (2020). Organizational solutions to the moral risks of policing. *International Journal of Environmental Research and Public Health*, 17, 7461. <https://doi.org/10.3390/ijerph17207461>
- BMA (British Medical Association). (2022). *Moral distress and moral injury Recognising and tackling it for UK doctors*. BMA.
- Camporesi, S., & Mori, M. (2021). Ethicists, doctors and triage decisions: Who should decide? And on what basis? *Journal of Medical Ethics*, 47, e18. <https://doi.org/10.1136/medethics-2020-106499>
- CDC (Centers for Disease Control and Prevention (U.S.). Office of the Associate Director for Science. Office of Scientific Integrity. Public Health Ethics Unit). (2017). *Good decision making in real time: Public health ethics training for local health departments. Student's manual*. Atlanta: CDC.
- Centre for Research and Evidence on Security Threats. (2020). *Moral injury in child exploitation investigators*. <https://crestresearch.ac.uk/resources/moral-injury-in-child-exploitation-investigators/>. Accessed 7 July 2022.
- Ducharlet, K., Trivedi, M., Gelfand, S. L., et al. (2021). Moral distress and moral injury in nephrology during the COVID-19 pandemic. *Seminars in Nephrology*, 41, 253–261. <https://doi.org/10.1016/j.semnephrol.2021.05.006>
- Eikenaar, T. (2022). Relating to moral injuries: Dutch mental health practitioners on moral injury among military and police workers. *Social Science and Medicine*, 298, 114876. <https://doi.org/10.1016/j.socscimed.2022.114876>
- Feinstein, M. M., Niforatos, J. D., Hyun, I., et al. (2020). Considerations for ventilator triage during the COVID-19 pandemic. *The Lancet. Respiratory Medicine*, 8(6), e53. [https://doi.org/10.1016/S2213-2600\(20\)30192-2](https://doi.org/10.1016/S2213-2600(20)30192-2)
- Giubilini, A. (2022). Conscience. *The Stanford Encyclopedia of Philosophy* (Summer 2022 Edition). Edward N. Zalta (ed.). <https://plato.stanford.edu/archives/sum2022/entries/conscience/>
- Harwood-Gross, A. (2020). Treating “moral” injuries. A potentially debilitating condition in veterans, distinct from PTSD, results from crossing moral lines. In *Scientific American*. <https://www.scientificamerican.com/article/treating-moral-injuries/>. Accessed 7 July 2022.
- Kleinig, J. (1996). *The ethics of policing*. Cambridge University Press.

- Kolbe, L., & de Melo-Martin, I. (2022). Moral distress: What are we measuring? *The American Journal of Bioethics*. <https://doi.org/10.1080/15265161.2022.2044544>
- Lentz, L. M., Smith-MacDonald, L., Malloy, D., et al. (2021). Compromised conscience: A scoping review of moral injury among firefighters, paramedics, and police officers. *Frontiers in Psychology*, *12*, 639781. <https://doi.org/10.3389/fpsyg.2021.639781>
- McConnell, T. (2018). Moral dilemmas. *The Stanford Encyclopedia of Philosophy* (Fall 2018 Edition). In E. N. Zalta (Ed.). <https://plato.stanford.edu/archives/fall2018/entries/moral-dilemmas/>
- Molendijk, T. (2022). Warnings against romanticising moral injury. *The British Journal of Psychiatry*, *220*(1), 1–3. <https://doi.org/10.1192/bjp.2021.114>
- Molendijk, T., Verkoren, W., Drogendijk, A., et al. (2022). Contextual dimensions of moral injury: An interdisciplinary review. *Military Psychology*. <https://doi.org/10.1080/08995605.2022.2035643>
- Papazoglou, K., Blumberg, D. M., Chiongbian, V. B., et al. (2020). The role of moral injury in PTSD among law enforcement officers: A brief report. *Frontiers in Psychology*, *11*, 310. <https://doi.org/10.3389/fpsyg.2020.00310>
- Price, T. L. (2008). *Leadership ethics: An introduction*. Cambridge University Press.
- Rushton, C. H. (2017). Cultivating moral resilience. *American Journal of Nursing*, *117*, S11–S15. <https://doi.org/10.1097/01.NAJ.0000512205.93596.00>
- Schiewek, W. (2015). ‘Kritische Solidarität’—Zum Verhältnis von Seelsorge und Ethik in gewaltausübenden Organisationen. *Wege Zum Menschen*, *67*, 490–499.
- Schröder-Bäck, P. (2022). Ethische Reflexion für das Einsatztraining. In M. Staller & S. Koerner (Eds.), *Handbuch polizeiliches Einsatztraining* (pp. 693–711). Springer Gabler.
- Schröder-Bäck, P., van Duin, C., Brall, C., et al. (2019). Norms in and between the philosophical ivory tower and public health practice: A heuristic model of translational ethics. *South Eastern European Journal of Public Health* 2019. <https://doi.org/10.4119/UNIBI/SEEJPH-2019-212>
- Sherman, N. (2015). *Afterwar—Healing the moral wounds of our soldiers*. Oxford University Press.
- Sherman, N. (2021). *Stoic wisdom—Ancient lessons for modern resilience*. Oxford University Press.

- Simmons-Beauchamp, B., & Sharpe, H. (2022). The moral injury of ineffective police leadership: A perspective. *Frontiers in Psychology, 13*, 766237. <https://doi.org/10.3389/fpsyg.2022.766237>
- van Baarle, E., Bosch, J., Widdershoven, G., et al. (2015). Moral dilemmas in a military context. A case study of a train the trainer course on military ethics. *Journal of Moral Education, 44*, 457–478. <https://doi.org/10.1080/03057240.2015.1087389>
- Westmarland, L., & Conway, S. (2020). Police ethics and integrity: Keeping the ‘blue code’ of silence. *International Journal of Police Science & Management, 22*, 378–392. <https://doi.org/10.1177/1461355720947762>
- Wortel, E., & Bosch, J. (2011). Strengthening moral competence: A ‘train the trainer’ course on military ethics. *Journal of Military Ethics, 10*(1), 17–35. <https://doi.org/10.1080/15027570.2011.562372>



Martial Arts Myths in Police Use-of-Force Training

Sixt Wetzler

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Martial arts have been and still are trained by their practitioners with different objectives and charged with different meanings. According to their self-understanding, they can, for example, serve to maintain health and fitness, represent a path of personality development, be practiced as a competitive sport or performance, or serve to prepare for potentially violent conflicts (Wetzler, 2014). In this context, the term “martial arts” should be understood here as a generic term for all movement systems that, in a more or less direct or abstract form, have as their content the teaching of physical patterns for or from combat. In view of the (historical and geographical) diversity of the field (Kuhn & Ennigkeit, 2021) and the charging of individual systems with different

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meanings, a division into, for example, “martial arts—combat sports—self-defense training” (Channon & Jennings, 2014) seems helpful in everyday language use, but not suitable for an adequate description of the complex field (Wetzler, 2015). The word “art” is not meant to refer to a modern concept of art in the sense of “expression of human creative abilities”, but to be understood in its meaning of “knowledge of and ability to competently perform a complex action”. With regard to the field considered here, “art” has been used in Europe since the late Middle Ages in this meaning, for example as the “art of fencing” or the “ars dimicatoria” (Wetzler, 2014). Consequently, the police use-of-force (PUOF) training discussed in this chapter will also be included under the broad concept of “martial arts”. Such a classification may be perceived as inappropriate by individual actors who understand their training precisely in distinction to (allegedly) traditional systems. First, however, it will be used here for reasons of terminological simplification; second, it will become apparent in the further course of the chapter that a comparison of the intellectual meta-structure of modern training methods with that of historical systems can also be made fruitful for the reflection of today’s training practice.

In this comparative perspective, the “dimension of meaning” of martial arts as a preparation for potentially violent confrontations is particularly relevant. This dimension has accompanied martial arts ever since the latter came into the light of historical sources. It is, however, a misunderstanding to identify the preparation for violence as the “true core” of martial arts. Already with the wrestling depictions of Egyptian wall paintings from about 2000 BC, a compilation of techniques can be found whose context of use is to be sought in “sociable”—or, as it would be called today, “sporting”—competition (Decker, 1987). In addition to this “sporting” or playful use, the performative level of meaning—that is, martial arts for display in entertainment or ritual contexts—is also well attested worldwide (Zarrilli, 2010). Diversification into separate movement systems, each dedicated to training for only one of the possible levels of meaning, is possible in this context, but it did not and does not necessarily happen. A look at the self-image of today’s martial arts associations makes this obvious. For example, according to the German Karate Association (Deutscher Karate Verband, n.d.), karate “reflects the

philosophy of the Far East”, while at the same time being an “effective and practicable form of defense” that can also be practiced as a competitive sport (Deutscher Karate Verband, n.d.). Regardless of the question of whether and how training can do justice to such a comprehensive approach, this raises a fundamental problem from the perspective of PUOF training: namely, to what extent are techniques and movement patterns tailored to one specific level of meaning—such as a set of sporting rules or the viewing habits of an audience—intentionally or unintentionally transferred to the other(s)? A lack of ability or willingness to consider the different conditions of the diverse contexts of application in their complexity and to distinguish them from one another can encourage such transfers. To give a practical example. The fact that a technique or training method is effective for use in an Mixed Martial Arts (MMA) competition may suggest that it should also be integrated into self-defense training “for the street”—even though completely different contexts may have to be taken into account there.

1 Martial Arts Myths as a Legitimization Strategy

The attractiveness of transferring techniques and training methods from (full-contact) martial arts to civilian self-defense or PUOF training does not only lie in the techniques and methods themselves. It is probably also due to the desire to counter the uncertainty regarding the practical feasibility of the training by aligning this training with an empirically controllable reference point—in this case, successful implementation in competition. Thus, it operates with the following rationale: “(A) The training is purposeful because (B) it is based on the experience of full-contact competition.” The structure of this rationale encodes the core of the narratives (explicit or implicit) that will be described here as martial arts myths, where (B) can take different forms. Recognizing them allows one to reflect on one’s own training.

Martial arts myths of the type “(A) because (B)” are an essential part of the legitimization strategy of various martial arts and come into play especially when their practical applicability is to be assured. The term

“myth” is not used here in one of the two meanings that today’s colloquial language usually assigns to it, either with positive connotations as an object of fascination (“the myth of the Bowie knife”) or with negative connotations as a tall tale (“the healthy milk myth”). Instead, it is deliberately chosen and based on the discussion of the function of myths in religious studies by Aleida and Jan Assmann (Assmann & Assmann, 1998). Although martial arts are not religions, a look at the Assmanns’ definition of function shows that it can also be made fruitful in the context of martial arts. Briefly, the Assmanns refer to myth as a “founding, legitimizing, and world-modeling narrative” that “bindingly [regulates] the manifold orders of social life” (Assmann & Assmann, 1998, p. 180). Related to the phenomenon of martial arts, this definition can be interpreted as follows (Wetzler, 2013):

- (a) In its foundational function, the myth answers the question of where the techniques and training methods of the martial art in question come from. Historical processes, contradictions, and coincidences are faded out or homogenized into a uniform narrative. The origin of the respective martial art is tied back to a defined, (quasi-)historical moment and its present is linked to this moment through (fictitious) lines of tradition in order to suggest authenticity and to create identity.
- (b) Each martial art represents a historically evolved selection of techniques, tactics, and training methods from a much larger number of possibilities (Lorge, 2012). In its legitimating function, the myth justifies why precisely the selection of techniques, tactics, and training methods made is “correct”, that is, purposeful and suitable for guaranteeing dominance in a physical confrontation.
- (c) As phenomena of social interaction, martial arts tend to have a pronounced inside-outside thinking. In its world-modeling function, myth provides information about who belongs to one’s own group and who is part of the (potentially threatening) outside world. Thus, it not only determines against whom one’s own martial art may be used and who is suitable as a trainee (e.g., members of one’s own family, social class, institution, religion), but often also suggests the superiority of one’s own martial art over other systems.

For this chapter, the legitimizing function (b) is of particular importance. For a better understanding and as a basis for the reflection of current training practice, four typical embodiments of the legitimizing function of martial arts myths—i.e., possible (B) within the previously described logic of justification—will be briefly described in the following. Here and in the following Sect. 1.2, reference is made primarily to the self-representations of the respective martial arts, for example the websites of practitioners, or to popular sources (such as Wikipedia), not to academic works—it is a matter of “what is told”, not what can be historically or scientifically proven.

A standard configuration of martial arts myths is the attribution to an imagined, pseudo-historical, or exaggerated founding figure. Probably the best-known version of this myth is the notion (which is historically untenable) that kung fu was imparted to the monks of a Shaolin Monastery by the Indian monk Bodhidharma (Lorge, 2012). As alleged evidence for the effectiveness of a martial art, such founding figures are especially suitable if they are invincible fighters despite their apparent physical inferiority. For example, the nun Ng Mui and the young woman Yim Wing Chun, who was able to defeat a feared thug, serve as a mythical reference point for Wing Chun Kung Fu:

According to legend, the origins of WingTsun can be traced back to a Chinese nun, who in turn passed on the fighting style to her student. WingTsun was developed by women and is therefore ideally suited to defend against larger and stronger opponents. (Wing Tsun, 2017)

Or there is the blind Princess Josephina, who is said to have been a master of Filipino martial arts despite her visual impairment, and is considered one of the ancestors of Villabrilte-Largusa Kali (Villabrilte-Largusa Kali, 2021).

Zoomorphic Movement

Martial arts myths of zoomorphic movement are those narratives that seek the origin of a martial art in the animal kingdom. They claim that the more or less precisely named mythical founding figure received the

inspiration for the movement systematics and technique selection of the respective style from the animal kingdom. Thus Zhang Sanfeng, a Taoist monk of the twelfth century, observed a crane and a snake fighting and derived Taijiquan from their behavior (Wikipedia Zhang Sanfeng, 2020); the master Wang Lang created Tang Lang Kung Fu from his observation of a praying mantis defeating a cicada (Wikipedia Tang Lang Quan, 2020); and also of the already mentioned Ng Mui it is said that she formed her art after the movements of a crane fighting a fox (Wikipedia Wing Chun, 2021). The motif of zoomorphic movement is not limited to the Asian region: for example, an English fencing book of the seventeenth century describes that the ducking under the opponent's attack called "cavere" was developed by an Italian fencing master from the observation of cockfighting (G. A. [anonymous], 1639).

Anchoring in Geometry

The intellectual connection between martial arts and geometry can be traced back to the late Middle Ages in Europe. In the 1480s, for example, the Italian fencing master Filippo di Vadi wrote that fencing was "born of geometry" (Vadi, 1482–87, fol. 4r). Of course, it is the optimal use of angles that plays an important role in martial arts today, whether in boxing footwork, applying a lock, or using impact weapons and shields. Di Vadi and his followers, however, go a step further when they declare the martial art to be a science by referring to geometry: "la scienza t'asecure", di Vadi writes, "science will protect you" (ibid.). In a world view that understood the universe as created by God according to geometric rules, an absolute claim developed: a martial art that aligned itself with geometry was supposed to be true, beautiful, and correct, and consequently the path to invincibility (Greer, 2005; Wetzler, 2011).

Genesis "On the Battlefield"

A collectivized form of the mythical founder figure are those narratives that locate the origin of a martial art among a social or ethnic group that had to cope with the particularly violent circumstances of an (imagined)

past. Usually, the inferiority of the group in terms of weapons or numbers is emphasized—a disadvantage that was overcome by the invention of the respective fighting system. A well-known example is the development of karate by the inhabitants of Okinawa, who allegedly used it to defend themselves with empty (jap.: *kara*) hands (jap.: *te*) against the armed Japanese occupiers. There are several problems to this narrative—originally the term *kara* meant “Chinese”, pointing at the arts origin on the Asian mainland, the effectiveness of unarmed techniques against trained sword- and spearmen is to be doubted, and even the very existence of a historical ban on carrying weapons is to be doubted (Wittwer, 2005).

Mixed Forms and Function

The four types of martial arts myths described are not to be understood as a final collection. Further forms will be found, and often mixed forms are to be encountered, for example, mixing the motif of the mythical founder figure with that of zoomorphic movement (see above, Ng Mui). Common to all of them is the aforementioned legitimizing function, which—if the myth is “believed” by the practitioners—confirms the techniques, tactics, and training methods of the respective martial art as “correct” and “effective” and thus exempts them from critical scrutiny. Ashkenazi has described this for karate training at a Japanese university; he, too, refers to corresponding narratives as “mythical”:

Statements such as *this sort of blow will kill* are implicit and sometimes explicit in the training, but they are not susceptible to examination and empirical verification for legal and social reasons. The propositions are verified, if at all, by reference to what amounts to the mythical deeds of the predecessors: the activities of the founder and his teachers in Okinawa. (Ashkenazi, 2002, p. 110).

2 Martial Arts Myths in Modern Fighting Systems

What is the significance of the understanding of traditional martial arts myths for the conception and implementation of today's PUOF training? After all, it may be assumed that in a police context the teaching of techniques would hardly be legitimized by recourse to the movements of a praying mantis. Nevertheless, the consideration of martial arts myths makes sense if it can stimulate reflection on one's own training and, if necessary, make it possible to put unquestioningly accepted "truths" to the test. In the following, examples will show how the described myths also reverberate in modern training operations, or how their narrative cores still endure today in new guises.

The Close Quarter Combat Expert: A Mythical Founder Figure

The connection to a mythical founder figure can easily be found in modern close combat systems. While, for example, there can be no doubt about the historical existence of Imrich Lichtenfeld and his decisive importance for the emergence of Krav Maga, the Israeli method of close quarter combat and self-defense (Molle, 2022), it must be questioned to what extent the reproduction of his life story within Krav Maga does apply heroic exaggeration. This had already begun with Lichtenfeld's father: "During his service [...] he gained the reputation of being the officer who arrested the most murderers and violent criminals" (Sde-Or & Yanilov, 2003, pp. 223–224). This and the following passages are from a book that Lichtenfeld (in the Hebrew version of his name, Sde-Or) himself helped to write, although it remains unclear to what extent the texts were written by him or by others involved. In any case, the accounts of his deeds emphasize his extensive combat experience, even against numerically far superior groups of opponents:

Between 1936 and 1940, for example, Imi took part in countless violent clashes and street fights with anti-Semitic thugs, both alone and with his

group. He and his comrades-in-arms were often confronted with an angry crowd of hundreds and even thousands of people. (ibid., p. 225)

The text not only describes Lichtenfeld's victories in athletic competitions and street fighting, but also portrays him as an outstanding person in general—as an all-round movement talent, as an actor and ballet performer, who earned “thunderous applause from the audience and critics” (ibid., p. 224), as a self-sacrificing rescuer in distress for his fellow passengers fleeing the Nazis, as an instructor for the Israeli Special Forces, and finally as a person with a “fine sense of humor” and a “unique personality” (ibid., p. 227).

Imrich Lichtenfeld's accomplishments are not to be denied here. But it remains to be asked to what extent the publication of such a description—in addition to the obvious desire to prepare an honorable memory for him—also stems from the motivation to substantiate the quality of Krav Maga through a founding figure who appears “larger than life”.

In the further development of Krav Maga, that is, in the fragmentation into different varieties and organizations, the pattern of the mythical founder figure could then be duplicated. For example, by emphasizing, as in the case of Eyal Yanilov, a line of tradition as direct as possible to Lichtenfeld. The website of his association emphasizes that Yanilov, as Lichtenfeld's closest disciple, was seen by many as his logical successor (Krav Maga Global, 2021).

The question is: How many generations of trainers can pass on the system based on the practical experience of the founding figure before it “solidifies” into a codified form? In order to avoid the accusation of such “petrification”, the person at the top can be presented as an outstanding personality by listing his or her achievements. The homepage of Avi Nardia, another trainer from Israel, gives a whole list of Nardia's activities as a member and/or instructor of the Israeli army, police, and counter-terrorism unit (Avi Nardia Academy, 2018). Lists of this kind are part of the standard repertoire of martial arts self-promotion, especially of systems that have taken up the cause of training for “the real world”. Similar to police or military experiences, other areas of life with an affinity to violence are mentioned (e.g., work as a bouncer). Thus, Lee Morrison, founder of Urban Combatives, writes on his homepage

about gang-related experiences during his youth and his experiences as a bouncer:

my real education for understanding violence and predatory behaviour happened on the street! [...] What the door term provided me with was, in effect, a training laboratory that accelerated my learning curve, regarding what worked and what didn't in live violence confrontation. (Urban Combatives, 2020a)

It should not be debated whether and to what extent Avi Nardia was active as an official trainer, or how much violence Lee Morrison has experienced and practiced since his youth. However, it is worth discussing what significance such a catalogue has for the training of the “end users”. A trainer's own practical experience may potentially have a positive impact on his or her teaching concepts, but this is not automatic. The truism that the best soccer player is not necessarily the best soccer coach also applies here. Specifically formulated for the present topic, we have: “This difference between working in the field and working as a PUOF coach has not been thoroughly investigated. However, research in other professional domains has shown that practical competence in the subject matter itself does not make a coach effective or successful” (Staller & Körner, 2020, p. 1). Practical experience is subject to situational contingencies and subjective impressions, and it needs to be critically reflected and systematically translated to become fruitful for third-party training.

“Natural Reflexes”: Anthropology Instead of Zoomorphic Movement

In the self-description of modern self-defense or close combat systems, the myth of zoomorphic movement no longer seems to play a role. However, its central idea of anchoring combative movement in nature outside the everyday experiences of the practitioners and thus making it plausible can still be found in a modified form: namely, where the line of argumentation refers to the “natural human reflexes”, that is with recourse to anthropological constants that are preconsciously effective and merely have to be strengthened or directed by training. A Google

search for the terms “self-defense + natural reflexes” suggests that this argumentation is widespread, especially in Krav Maga, and the majority of hits can be attributed to the Israeli system. Historically, this might be traced to the work of Moshé Feldenkrais, who by his own admission taught members of the Haganah hand-to-hand combat in the 1920s, and described that in doing so he drew on the photographically recorded spontaneous reactions of his students:

I took a knife and I attacked each of them and I photographed them. [...] So that was the idea, to find out what was the first movement one does. And I built a system of defense for any sort of attack where the first movement is not what you think to do, what you decide to do, but what you actually do when you are frightened. (Leri, 1986, p. 13)

Not only Krav Maga, but other providers, like the ALPHA system, advertise themselves with recourse to “natural reflexes”: “The concepts and techniques of ALPHA are based on natural human reflexes and behaviours and are thus quasi fully automatic and retrievable within fractions of a second even in extreme situations under highest stress” (Sportschule Alpha Team, n.d.).

Frequently mentioned in this context is the use of the so-called “flinch response”, that is the reactionary raising of the arms to protect the head. Several systems that embrace training “for reality” and specifically address government audiences use this approach, such as Tony Blauer’s SPEAR system:

The SPEAR System is based on an 80,000 year old¹ genetic survival response [...] Your reptilian brain wants you to survive [...] The SPEAR System combines the fastest human response (the startle-flinch) with the strongest natural human kinetic movement. (The Spear System, n.d.)

Remarkable here is not only the recourse to 80,000 years of human development, but also the linkage to an animal level of consciousness, the “reptilian brain”—the analogy to the previously described myths of

¹ The time span of 80,000 years seems randomly chosen in this context; the evolution of modern *Homo sapiens* is usually placed at 200,000 to 100,000 BCE (Ingman et al., 2000).

zoomorphic movement is obvious. Again, this observation is not meant to deny the functionality of the “flinch response”. But the anthropological arguments as to why it should be suitable as a prominent core concept and the claim to absoluteness with which it is partly propagated as such remain to be critically questioned and, if necessary, put into perspective. The scholarly article by Renden et al. (2017) is revealing in this regard. They discuss the “flinch response” and assesses it positively: “The flinch is a highly reliable reflex-like response that could function as an effective protection mechanism” (ibid., p. 670). Here, however, the authors refer to Cobb and Pincus (2003). Their article, in turn, explicitly addresses the SPEAR system and was published in the journal *Law and Order*, which is not a scientific publication. Without citing sources, Cobb and Pincus make statements such as “Modern research has demonstrated that the S.P.E.A.R. System™ is based on the facts of neurophysiology” (Cobb & Pincus, 2003, p. 1). What kind of “modern research” is involved remains unclear. It is necessary to question the extent to which (commercial) martial arts practice, martial arts journalism, and practice-oriented scholarship collectively generate circular reasoning.

3 Reference to “Reality”: Anchoring in Geometry and “Reality Based” Systems

The notion that martial arts are grounded in geometry and must make it the maxim of their movement logic can be found not only in medieval fencing books, but also in the present. A concise example is the emphasis on the straight punch as the most important body weapon, as influentially voiced by Bruce Lee: “The art of straight hitting (punching in a straight and direct line) is the foundation of scientific skill. It is the result of thousands of years of careful analysis and thought” (quoted in Little, 1997, p. 59).

That the quality of the straight punch as the fastest technique could be derived from geometry—because the shortest connection between

two points is a straight line—is as obvious as it is wrong. Outside the geometrical drawing board, the shortest distance and the fastest way are not the same. The fastest way from A to B depends in physical reality on factors which are not determined by geometry, as the solution of the brachistochrone problem has already shown.² This is especially true for the human body with its dependence on anatomical preconditions—in the absence of telescopic arms, it must generate the vector of a punch from the overlapping circles of elbow and shoulder joint. This does not mean that a well-trained straight punch cannot be an effective tool in combat. However, its empirically proven suitability cannot be deduced from basic geometrical truths: Whether a straight line, a hook, a hammer fist, or another variant for striking is the fastest way for the human hand to reach a target is not a question of geometry, but of kinesiology.

As written above, the “anchoring in geometry” was not just intellectual gimmickry of medieval and early modern fencing book authors. It was based on the desire to reconcile martial practice with reality, which was understood as geometrically constructed. This hints at another analogy to modern martial arts practice: Even today, close combat systems market themselves as being entirely “reality based”—usually, however, without a precise description of what is to be considered “reality”, or according to which system a “reality based” training program differs from one that would not be “reality based”. The editors of this volume have pointed out the difficulties of the term and the vagueness of the arguments based on it, and as a consequence have suggested replacing it with the term or concept of “representativeness” (Staller et al., 2017). At least among providers of courses and training programs, this new terminology has not yet caught on; the effectiveness of “reality” as a selling point seems unbroken. When taking a closer look at such offers, the following two fundamental questions need to be considered.

First, in what ways are the “reality based” training concepts developed, implemented, and tested. Jim Wagner—by his own admission, the

² The brachistochrone problem, solved by Johann I. Bernoulli (1667–1748), asks the question: On which path does a ball roll fastest, from a point A to a lower point B? Intuitively, many people assume an inclined, straight path, i.e. the shortest distance between A and B, is the solution. In fact, however, it is a mathematically determinable cycloidal curve. On this curve, the ball develops a significantly higher speed.

founder of “the world’s original reality-based system” (Wagner, 2021)—claims to teach only those techniques that would work “in the streets or the battlefield”. The technical repertoire Wagner presents on video, however, seems little different from older approaches and would likely meet with divided expert response in terms of its practicality.³ Wagner also serves the commonplace of “realistic” systems to have “easy-to-learn and easy-to-teach training methods” (*ibid.*). The reference to simplicity, which is supposed to guarantee quick learnability and practicability, especially in comparison to “traditional” systems, can probably be seen as a further selling point. After all, it is questionable why the preparation for an unpredictable and in principle infinitely complex situation should be able to be accomplished in a shorter time than training in a closed system with a clearly defined framework such as sporting competitions. Wagner lists as possible “fields of action” for his system: “defense against terrorist bombings and small arms attacks, criminal style stabbings, carjackings, drive-by shootings, kidnappings, sexual assault, armed robbery, criminal chemical attacks, gang violence, school and workplace massacres, child abductions, sniper attacks—just to name a few” (*ibid.*).

Second, the claim to develop a “reality-based” system opens up a fundamental problem that has preoccupied philosophy for several millennia: What exactly is reality, and how can it be known to us? These questions are of very concrete importance in the context discussed here: What types of attacks are considered primary threats based on what data (keyword “risk analysis”)? To what extent are possible personal experiences of the protagonists of a system subjectively shaped? According to which premises is the assumed reality translated into techniques, tactics, and training principles? Without a well-founded and self-reflective examination of the patterns of interpersonal violence (*cf.* Collins, 2011) as a guideline for training design, terms such as “reality-based” ultimately remain empty words.

³ A huge selection of videos by and with Jim Wagner can be seen on YouTube, see e.g. his video “Reality-Based” (Fighting Spirit, 2018).

SWAT Teams and Navy Seals: Genesis on and Suitability for the Battlefield

The martial arts myth of “genesis on the battlefield” was addressed above as a collectivized form of the mythical founding figure. This is also true for its modern variations. Often not only are the depictions of the life story of the founder of the style linked to a particularly violent background, as described above, but the quality of the respective system is also to be proven by the fact that it was created for military or police units, or is trained by such units—thus there is an assumed genesis, not only on, but also for, the battlefield. This claim is often underscored by the use of military-looking signal words such as “CQC”, “tactical”, and “combative”. Examples of the “suitability for the battlefield” narrative are given by each of the systems already mentioned—Krav Maga,⁴ Urban Combatives, SPEAR, the Alpha System, and Reality Based Personal Protection:

“CKM [Commando Krav Maga] Military has been taught around the world to many unites [sic] including; the Israeli Army, U.S. Air Force, Canadian Special Forces, Jamaican Special Forces, and many more [...] Become the ultimate soldier with CKM Military!” (Commando Krav Maga, n.d.)

“Urban Combatives has been taught to all right up to elite special forces all over the World.” (Urban Combatives, 2020b).

“ALPHA’s core combat tactics were developed for the legendary U.S. Navy SEAL Team 6 (Counterterrorism Command) as early as the mid-1980s and are now trained by numerous elite units worldwide.” (Effektiver Selbstschutz, 2020)

“Over the last 20 years, the SPEAR SYSTEM™ has been integrated by law enforcement & military professionals around the world. It is street and battle proven.” (Blauer Spear, n.d.)

⁴ Moni Aizik’s Commando Krav Maga serves as an example here. In the extremely heterogeneous world of today’s Krav Maga, however, there hardly seems to be a variety that can do without the reference to military use.

“Although this [Jim Wagner’s Reality-Based Personal Protection] is a civilian personal protection system, police and military personnel often attend these courses [...] Not only have I had many professionals attend all my courses, but they tend to seek out my certified instructors as well.” (Wagner, 2021)

Such references are problematic in several respects: first, the requirements of military and police operations are not necessarily congruent; second, the booking of an instructor may be subject to diverse (e.g., institutional-organizational, economic, personal) premises and does not necessarily reflect an outstanding suitability of the respective system. In order to assess the quality of a training program, it would be logical to ask not which units have already been taught by a system, but whether and in how many cases the techniques or concepts taught in each case could be successfully implemented in action by members of these units.

4 Conclusion

The purpose of this chapter was in no way to discredit any of the system founders or instructors mentioned. Each of those named may have a wealth of experience (both practical and theoretical) and valuable knowledge to share. However, the narratives with which this knowledge is often substantiated and the respective practices legitimized are to be critically questioned. The individuals and systems mentioned were chosen because they have a certain degree of prominence. Without a doubt, corresponding patterns could also be found in the self-representation of many other modern martial arts. The structure of traditional martial arts myths was presented in order to identify such modern myths more clearly. While the old myths may seem absurd today, the new ones are often convincing on an intuitive level.

The identification and reflection of these modern myths is indispensable when, for example, training programs are to be created in the context of official training or decisions are to be made about the commissioning of external instructors. In view of the limited time and financial resources available, the training of civil servants should achieve positive

effects that are as immediate and sustainable as possible. The ultimate goal of their work is not only the fulfillment of police tasks, but above all the safety of police officers and citizens. Against this background, it is the duty of all decision-makers to place police operational training on a sound, scientific basis and to design it according to current, scientific findings.

Key Takeaways of the Chapter

Before providing specific guidance for the three groups of people involved, an overarching recommendation should be made. It applies to all those who take part in the conception, teaching, or acquisition of the contents of PUOF training. If a personal martial arts background exists, one's own theory and practice should first be examined for possible mythical patterns. How many statements of the self-practiced martial art have been internalized without deeper reflection? To what extent do they jeopardize the clear view of the necessities of PUOF training or of the techniques and methods of other instructors? How do you position yourself when experiences from the field or scientific findings contradict the doctrine of your own martial art? The recognition of possible, own "mythical biases" is the necessary condition to understand, classify, and judge the statements of others correctly.

Police Officers

Active forces are encouraged to:

- Approach the contents of the operational training with an open mind. Their own ideas about what physical confrontations look like and how to prepare for them must be put to the test.
- Adopt, at the same time, a constructively critical perspective on the training. They must communicate ambiguities, contradictions, and suggestions for improvement within the appropriate framework and to the appropriate extent. In this way, they contribute to improving the quality of the training in the long term.

Conflict Management Trainers

The trainers play a central role as mediators of training content between decision-makers and operational forces. It is their duty to:

- Critically question their personal martial arts backgrounds on the basis of the perspectives developed in this chapter;
- Adopt a scientific attitude when evaluating techniques, tactics, and training methods;
- Fully understand the training contents given by the decision-makers theoretically and practically and to adjust the teaching practice to them;
- Guarantee that their personal experience becomes fruitful for the trainees, but that the centrally prescribed training contents are not overlaid by their own approaches;
- Implement possible adjustments and readjustments based on new findings directly into teaching practice;
- Constructively “pick up” and involve trainees who already have their own martial arts background and to stimulate reflection on already internalized methods and doctrines on the basis of the previously developed perspectives.

Police Decision-Makers

Decision-makers in police organizations must:

- Be aware of the existence of modern martial arts myths as formulated by many systems and actively promote the development of this awareness at other levels of service.
- Be able to recognize the existence of such narratives (both among their own staff and third-party providers), critically challenge them, and communicate them to the agencies involved.
- When booking third-party providers, require them to present proof of their quality and of the instruction they offer, independent of any recourse to martial arts myths.
- Make it impossible for instructors to use operational training as a vehicle for placing their own martial arts and narratives, rather than following established guidelines.
- Ensure that training programs are developed and implemented by being based on scientific knowledge and correctly classified empirical values, rather than being guided by martial arts myths.
- Ensure, within the framework of quality assurance, that training programs do not generate myths themselves. This requires a continuous reflection process.

References

- Ashkenazi, M. (2002). Ritual and the ideal of society in karate. In D. E. Jones (Hrsg.), *Combat, ritual, and performance. Anthropology of the martial arts* (S. 99–118). Praeger.
- Assmann, A., & Assmann, J. (1998). Mythos. In H. Cancik, B. Gladigow, G. Kehrer, & J. Mohr (Hrsg.), *Handbuch religionswissenschaftlicher Grundbegriffe, IV. Kultbild – Rolle* (S. 179–200). Kohlhammer.
- Avi Nardia Academy. (2018). *Sometimes a Teacher, always a Student*. <https://avinardia.com/our-story>
- Blauer Spear. (n.d.). *There Are Only Three Fights*. <https://blauerspear.com/police-military-first-responders>
- Channon, A., & Jennings, G. (2014). Exploring embodiment through martial arts and combat sports: A review of empirical research. *Sport in Society: Cultures, Commerce, Media, Politics*, 17(6), 773–789. <https://doi.org/10.1080/17430437.2014.882906>
- Cobb, E., & Pincus, R. (2003). The SPEAR System™ and converting the finch response. *Law and Order*, 51, 150–159 [online: <https://static1.square-space.com/static/57413181e707eb88946df738/t/5a468764652deacfab959223/1514571622252/The+SPEAR+System.pdf>, ohne Seitenzahlen].
- Collins, R. (2011). *Dynamik der Gewalt: Eine mikrosoziologische Studie*. Hamburger Edition.
- Commando Krav Maga. (n.d.). *CKM Military*. <https://www.commandokravmaga.com/ckm-military/>
- Decker, W. (1987). *Sport und Spiel im Alten Ägypten*. Beck.
- Deutscher Karate Verband. (n.d.). *Was ist Karate?* <https://www.karate.de/de/karate/was-ist-karate.php>
- Effektiver Selbstschutz. (2020). *Alpha Combat System*. <https://www.effektiver-selbstschutz.de/alpha-combat-system/>
- Fighting Spirit. (2018). *Reality-Based*. https://www.youtube.com/watch?v=_oRgopJH_58
- G. A. [anonym] (1639). *Pallas Armata. The gentleman's armorie*. I[ohn] D[awson].
- Greer, J. M. (2005). Académie de l'Éspée Fechtkunst Und Esoterische Spiritualität. *Cultura Martialis*, 4, 30–40.

- Ingman, M., Kaessmann, H., Pääbo, S., & Gyllensten, U. (2000). Mitochondrial genome variation and the origin of modern humans. *Nature*, *408*, 708–713. <https://doi.org/10.1038/35047064>
- Krav Maga Global. (2021). *Why you should join KMG*. <https://krav-maga.com/blog/join-kmg-the-strongest-krav-maga-organization/>
- Kuhn, P., & Ennigkeit, F. (2021). Kampfsport und Kampfkunst. In A. Güllich & M. Krüger (Hrsg.), *Grundlagen von Sport und Sportwissenschaft*. Springer. https://doi.org/10.1007/978-3-662-53384-0_39-1
- Little, B. (1997). *The Tao of jeet kune do: A study in the way of Chinese martial art*. Tuttle.
- Leri, D. (1986). Moshe on Moshe [sic] on the martial arts. *Feldenkrais Journal*, *2*, 12–26.
- Lorge, P. A. (2012). *Chinese martial arts: From antiquity to the twenty-first century*. Cambridge University Press.
- Molle, A. (2022). *For Zion's sake: Krav Maga and the making of modern Israel*. Rowman & Littlefield.
- Renden, P. G., Savelsbergh, G. J. P., & Oudejans, R. R. D. (2017). Effects of reflex-based self-defence training on police performance in simulated high-pressure arrest situations. *Ergonomics*, *60*(5), 669–679. <https://doi.org/10.1080/00140139.2016.1205222>
- Sde-Or, I., & Yanilov, E. (2003). *Krav Maga: Abwehr bewaffneter Angriffe* (übers. M. Rosenstein). Weinmann.
- Sportschule Alpha Team. (n.d.). *Alpha Krav Maga*. <https://www.alpha-hom.de/alpha/>
- Staller, M. S., & Körner, S. (2020). Regression, progression and renewal: The continuous redevelopment of expertise in police use of force coaching. *European Journal for Security Research*, *6*(1), 105–120.
- Staller, M. S., Zaiser, B., & Körner, S. (2017). From realism to representativeness: Changing terminology to investigate effectiveness in self-defence. *Martial Arts Studies*, *4*, 70–77.
- The Spear System. (n.d.). *Physiology*. <https://www.thespearsystem.com/physiology>
- Urban Combatives. (2020a). *The Founder*. <https://urbancombatives.com/the-founder/>
- Urban Combatives. (2020b). *UC Defined*. <https://urbancombatives.com/about-uc/>
- Vadi, P. (1482–87). *Liber de arte gladiatoria dimicandi* [Roma Biblioteca Nazionale, MS 1342].
- Villabrilie-Largusa Kali: Lineage. (2021). <https://kali-lontayao.de/lineage/>

- Wagner, J. (2021). *About Reality-Based Personal Protection*. <http://www.jimwagnerrealitybased.com/aboutrealitybased.html>
- Wetzler, S. (2011). Hieb und Stich: Von der kulturellen Prägung kämpferischer Bewegung am Beispiel der europäischen Fechtkunst. In P. Kuhn, H. Lange, T. Leffler, & S. Lange (Hrsg.), *Kampfkunst und Kampfsport in Forschung und Lehre 2011* (S. 99–105). Feldhaus.
- Wetzler, S. (2013). Mythen der Kampfkunst. In S. Happ & O. Zajonc (Hrsg.), *Kampfkunst und Kampfsport in Forschung und Lehre 2012* (S. 81–92). Feldhaus.
- Wetzler, S. (2014). Vergleichende Kampfkunstwissenschaft als historisch-kulturwissenschaftliche Disziplin: Mögliche Gegenstände, nötige Quellen, anzuwendende Methoden. In S. Liebl & P. Kuhn (Hrsg.), *Menschen im Zweikampf: Kampfkunst und Kampfsport in Forschung und Lehre 2013* (S. 56–65). Feldhaus.
- Wetzler, S. (2015). Martial arts studies as Kulturwissenschaft: A possible theoretical framework. *Martial Arts Studies*, 1, 20–33. <https://doi.org/10.18573/j.2015.10016>
- Wikipedia Tang Lang Quan. (2020, August 16). https://de.wikipedia.org/wiki/Tang_Lang_Quan
- Wikipedia Wing Chun. (2021, Januar 16). https://de.wikipedia.org/wiki/Wing_Chun
- Wikipedia Zhang Sanfeng. (2020, Januar 24). https://de.wikipedia.org/wiki/Zhang_Sanfeng
- Wing Tsun – die effektive Kampfkunst zur Selbstverteidigung. (2017). <https://deine-selbstverteidigung.de/selbstverteidigung-wing-tsun.html>
- Wittwer, H. (2005). Jigen-Ryu: Sein Einfluss auf das Karate-Dō. *Cultura Martialis*, 5, 70–85.
- YouTube Straight Lines and Magic Circles (Martial Arts Studies Conference Cardiff 2016) (2016, Dezember 11). <https://www.youtube.com/watch?v=5i5C7EZmpk0>
- Zarrilli, P. (2010). Performing arts. In I. T. A. Green & J. R. Svinth (Eds.), *Martial arts of the world: An encyclopedia of history and innovation* (pp. 605–608). ABC-CLIO.



Police Checks and Arrests Escalating into Conflict: Coping Principles and Strategies Taught in Swiss Police Academies Drawn from Research in Social Psychology

Raoul Jaccard and Sébastien Cojean 

Reviewer: Bruce Taylor

1 Introduction

A study carried out with police officers in French-speaking Switzerland showed that they tended to value tactics aimed at controlling a situation and to value less those that were more focused on the citizen and on the emotional impact generated by the manner of communicating. The responses suggested a greater reluctance on the part of the trainees and junior officers to engage in behaviours which, in their opinion, could

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jeopardise their dominance, their relational distance from the citizen, and the procedures taught (Jaccard, 2007).

Consequently, special efforts were made in the context of teaching psychosocial skills in police schools in Switzerland to acquire knowledge and tools to reduce the risk of having to resort to coercive means to obtain compliance. By coercive means we mean in our development the use of physical force. The soft skills used to influence a recalcitrant person to finally comply are not understood as a means of coercion. Nevertheless, it does deny citizens the opportunity to refuse to obey a given order without facing heavier consequences.

This chapter presents the theoretical basis of the principles and means of coping taught on this subject in police schools in French-speaking Switzerland since 2013 and in the German-speaking part since 2019 (Institut Suisse de Police, 2013; Schweizerische Polizei-Institut, 2019).

2 The Identity Attack in the Interaction Between the Police and the Person Being Checked/Arrested

We all defend certain images we have of ourselves, or at least what we want others to have of us. As soon as this image is jeopardised, we tend to react by defending our identity (Tedeschi & Felson, 1994). Understanding this phenomenon—perceived identity attack—is crucial to improving our skills in understanding and managing conflict.

Several decades ago, research had already shown the link between perceived identity attack and police–civilian interactions that have led to the use of restraint measures (Allen et al., 2018; Toch, 1969; Westley, 1970). When a person challenges authority, it is important for the police officer to remember that it is not his or her own identity that

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is being targeted, but rather the authority that he or she represents in that situation (Tyler, 1990).

In general, no one likes to show a weak or ineffective identity, and we adopt behaviours to save face (e.g., seduction, humour, lies, aggression). This phenomenon is even stronger when it happens in front of an audience (Friedrich, 1980; Wilson & Brewer, 1993). When the situation allows it, it is therefore in the police officer's interest to avoid questioning a person in public—especially if it is a peer group.

The question arises as to the motivation of a person being stopped to attack a police officer (physically or verbally) when the latter is clearly in a position of strength. If, in general, defeat diminishes one's status in the eyes of others, participating in a good fight puts this loss into perspective (Short & Strodbeck, 1965). Even when immobilised on the ground, the teenager who has fought hard against two police officers can still display an identity as a determined, courageous, and tough person. Moreover, teens are indeed more likely to engage in risky behaviour (Allen & Brown, 2008).

Another element of the identity we defend is that of the autonomous person: we like to believe that we are free to choose. When our freedom is constrained, we tend to feel a form of discomfort. According to the theory of psychological reactance, this leads us to engage in actions to demonstrate that we can choose freely (Brehm & Brehm, 1981; Steindl et al., 2015). It is therefore understandable that any police action that constrains the person's freedom of action (e.g., loss of time) and expression, such as orders, requests, and violation of the personal/intimate zone (e.g., body search), constitutes a threat, and therefore an identity attack (Kerbrat-Orecchioni, 1989)—and these kinds of attacks are more likely to lead to aggression (DeWall et al., 2012; Rains, 2013). The question for the police officer is not, therefore, how to avoid threatening the identity of the person stopped—it does so by definition—but rather how to reduce or soften this threat and how, where possible, to allow him or her to save face.

The very nature of police work is therefore potentially conflictual (Bittner, 1990; Moreau de Bellaing, 2015). Whether or not the person stopped will ultimately comply with the officer's request depends on the individual, the communication skills of the people involved, and

many psychosocial and situational factors (Cojean et al., 2020; Wilson & Braithwaite, 1995). While the officer cannot control all these factors (e.g., the personality of the person being stopped, his or her alcohol level, or the fact that their partner has recently ended a relationship), the officer can nevertheless exert considerable influence on the way the interaction will unfold.

In this chapter, we will look at the factors that the officer can influence in the here and now to increase the chances of getting a reluctant person to comply without having to resort to coercion.

The theory is illustrated by means of a vignette:

You get a call regarding a drunken customer in the bar of a restaurant. The latter is aggressive towards the staff, who do not want to serve him any more alcohol. He refuses to leave the premises despite the manager's requests. When you arrive at the scene, you identify the man sitting at the bar, approach him, and greet him courteously:

Police officer (P): *Good Evening Sir.*

Intercepted (I): *What do you want?*

P: *We need to talk to you. Would you come outside with us? Thanks.*

I: *Why?*

P: *Well, it's none of the other customers' business. To respect your privacy, we'll go outside and discuss it quietly. Would you mind?* (Inviting hand gesture without physical contact).

P: *According to the law, the barman is no longer allowed to serve you because you show signs of intoxication. He asked you to leave and when you refused, he called us.*

I: *That's bullsh...! I can handle booze very well. So, I can still drink ... as long as I pay, it's my business. I'll go home when I want to.*

P: (calm but determined tone) *OK. Let's look at the situation, shall we? Sir, you are not going to be served any more, neither here nor elsewhere. The law is very clear on the matter. Do you understand?*

I: *YOU don't get it ... I'm not bothering anyone, I just want to have a quiet drink, so leave me alone!*

P: *Sir, our job is to preserve the peace and quiet of everyone ... you, the barman, the other customers and the neighbours.*

I: *F... you and your theories!*

P: *OK sir. Listen up. We're just trying to find a solution that satisfies everyone and we're giving you a choice* (calm and collected voice). *You now go home and finish your evening in peace; or you persist in your intention to be served in a bar and in that case, we have to take you to the station to sober up, without causing a disturbance to the public peace and without making you an easy prey for pickpockets. It's your choice.* (pause). *So what do you say?*

3 The Police Officer's Mental Preparation and Approach

To arrive prepared and alert to a situation, it is essential to understand what it is about and to quickly clarify the mission objectives to be achieved. Prior information from dispatch is a key on that matter (Johnson, 2018). In our example, the objective is for the person to leave the scene; ideally, he should go home, and if he does not cooperate, he should sober up at the police station for the sake of public peace and safety.

On the other hand, it is useful to visualise the situation, considering the information obtained beforehand. To do this, it is necessary to foresee the different ways in which the interaction could take place and anticipate reactions (Lipshitz & Strauss, 1997). Police officers must be prepared for the possibility of being physically attacked as soon as they arrive. However, practice shows that in most cases, even when drunk, the person will not immediately attack (for intoxicated persons, see Morabito et al., 2017). By using appropriate communication, which considers the elements presented in this chapter, there is a good chance that the police officers will be able to achieve their objective without having to resort to coercion.

Mental preparation also helps to gain a sense of control, which is particularly valuable when the situation is stressful (Cormier & Sheryllyn, 1991; Deffenbacher & McKay, 2000). In addition to improving preparation, the exchange with the partner helps to see the situation as a problem to be solved. There is a strong advantage in considering a

stressful situation as: an issue to be addressed; a challenge; an opportunity for development, mastery, or personal success; rather than perceiving it in negative terms such as a threat, a conflict, or trouble. Indeed, the way in which a problem is perceived is crucial to its resolution (Berthoz, 2003; D’Zurilla, 1986). Resources on the ego are also very useful when it comes to handling interaction with some provocative people (Staller et al., 2018, 2019).

Given the number of times the officer will encounter public provocation, it is in his or her interest to view it as a problem to be solved and to take anger as a signal to seek alternative solutions. This allows the officer to avoid having his or her emotional life overly affected by the disrespect shown by some members of the public. Emotions can lead to poor decision-making abilities (Cohn et al., 2010), anger being very likely to lead to some form of aggression (Davey et al., 2005).

Unless the situation requires taking the person by surprise, the idea is to approach the person quietly and allow him or her to see the patrol coming. Avoid cornering the person or entering his or her personal space, which could generate an impulsive attack or flight reaction (McEwen, 2007).

It is also important to remember that the first impression given to the person being challenged is crucial. Indeed, when we meet someone for the first time, we are quick to pick up on a few salient elements and interpret them (e.g., an authoritarian tone or stare, a contemptuous word, arms crossed). This first impression is persistent and will influence the way we understand and interpret the rest of the behaviours and words of that person (the “primacy effect”, see Asch, 1946; Erkel & Thijssen, 2016).

4 Reducing the “Identity Attack”

In society, there is everything to be gained by giving a courteous image and being polite from the start of an interaction. The aim is to avoid giving the impression that the person is being looked down upon

(Brown & Levinson, 1987). In the example of the vignette, an unconstructive behaviour on the part of the police officer would be to start with an accusatory sentence: “So, have we had too much to drink?”.

The idea is to reduce the person’s perception of being attacked in their identity to avoid putting them in a position where they will try to defend themselves (Tedeschi et al., 1994). This is not an easy task for the police officer, who will have to be subtle in the way he or she stops, controls, and expresses an order. The following principles are taught to increase the chances of obtaining voluntary compliance:

- While being prepared for all eventualities, avoid putting forward use-of-force tools (firearms, spray, and baton).
- Avoid ordering, using an authoritarian tone or “staring” at the person.
- When a body search is necessary, precede it with an explanation of the legal framework (“legitimacy of the search”). In particular, it is possible to highlight the advantages for the person: “As I do not know what you are carrying and to avoid any misinterpretation of your actions, I will check the contents of your pockets, as well as checking what you have on you by pat-down search.”
- If a threat is necessary, place it “sandwiched” between positive, neutral statements or immediately follow it with a question. In the example in the vignette, to divert the person’s attention away from the underlying threat, the officer immediately follows up with an argument for the person’s welfare and safety: “and without making you an easy prey for pickpockets.”
- Avoid statements that imply that the person “is” the problem. A “rejecting” statement should reject the behaviour, not the person. In the example in the vignette, the police officer explains the legitimacy of the intervention by: “the barman is no longer allowed to serve you, as you show signs of drunkenness” and not “You are a drunkard!”
- Be careful not to “lecture” the person or use condescending expressions such as “You know, if we do this, it’s for your own good”.
- Be careful not to make accusations. In the example in the vignette, the police officer is not accusing; he or she is explaining and asking questions throughout the interaction.

Offer the person opportunities to “save face”, for example:

- Allowing them to have the “last word”, if they do what is expected of them (unless this has the effect of exciting them further).
- Allowing him or her to correct or rectify what he or she has said and avoiding engaging with his or her inconsistencies.
- Using negotiation (e.g., “OK, I understand, but that’s not possible because ...! However, here is what we could consider ...”).
- Offering them the opportunity to choose between different options.

Work from Mugny et al. (2017) offers a great review of these good practices when it comes to social interactions.

5 Seek to Establish a Relationship

It is in the officer’s best interest to develop skills in giving messages of respect, understanding, and recognition through their attitude and words (Tedeschi & Felson, 1994). Such messages reduce the risk of a conflictual interaction and can help to defuse the situation if anger and aggression are already present. When the police officer intervenes in a conflict or crisis, the condition for being able to influence the voluntary behaviour of a person is to establish a *rapport*. This is facilitated through the officer’s demonstration of *empathy*, demonstrated through *active listening skills* (Mugny et al., 2017) (Fig. 1).

The police officer is empathic when he or she steps back and tries to understand the person’s needs by putting him or herself in the shoes of the person. As well as increasing the chance of a rapport being established, empathy gives the officer perspective and insight to positively influence the outcome of the interaction. At the same time, the person concerned must be able to perceive that the police officer is trying to understand them. Active listening techniques (e.g., rephrasing what the person has said with an attentive non-verbal attitude) will enable the officer to show in a concrete way that he or she is really listening and to increase the perceived control from their counterpart (Kriz et al., 2021).

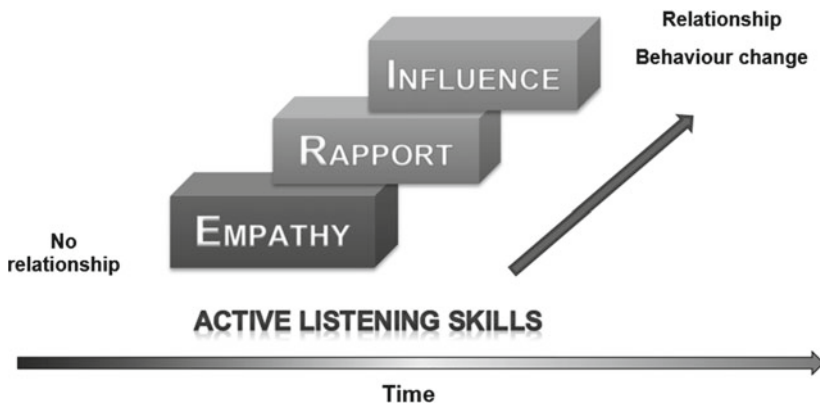


Fig. 1 Behavioural Influence Stairway Model (Source Vecchi et al., 2005)

The fact that the person feels understood increases the likelihood that he or she will be able to calm down and that a minimal relationship of trust can be established. Once the relationship is established, the person in crisis is more likely to accept the officer's requests.

Humour, which can be effective in reducing tension, should be used with discretion. If a person being questioned makes a joke, it is often an attempt to *save face*. Picking up on the person's jokes by reacting positively to them (e.g., by smiling, laughing, or responding with another joke) reduces the distance between the person and the police officer. This helps to *humanise* the officer in the eyes of the person. Except in cases where the joke is clearly an aggression, not responding to it would be a form of identity attack. Humour is indeed a double-edged sword, and can reveal itself to be as useful as it is inadequate (Bitterly et al., 2017).

It is also a matter of being careful to treat the person fairly, regardless of age, presumed ethnic origin, or appearance. Humans are overly sensitive to feelings of injustice, and the perception of it is regularly at the root of situations that have escalated into violence (for ethnic origin, see Dang et al., 2022).

When a recalcitrant person makes an effort or behaves in a cooperative way, this is a good opportunity to capitalise on the situation by giving positive feedback. Every step taken in this direction increases the likelihood that the person will cooperate (Joule & Beauvois, 2002).

The use of this type of supportive behaviour should not be seen as a *soft* approach, but rather as an intelligent strategy. Research has shown that police officers using this type of approach obtained more information and cooperation from angry people. They were better able to resolve conflict situations without them escalating into physical or verbal violence (Braithwaite et al., 1998).

When the officer starts *softly* with a polite request, it is always possible to increase the amount of authority as the interaction progresses. If he starts by *barking an order*, it will be much more difficult to back it up with more conciliatory language.

6 De-escalation in the Face of an Aggressive and/or Angry Person

During an emotional episode, we go through a phase called the “refractory period”, during which it is no longer possible to take new information into account other than in a biased way (Kerusauskaitė et al., 2020). Verbal and non-verbal messages are interpreted only to support the emotion that is being held (e.g., the tone or glance of someone you are angry with will be interpreted as disdain when they are just uncomfortable with the current situation). This phase may last a few seconds or much longer and we are unable to escape the grip of the emotion as long as it continues (Ekman quoted in Goleman, 2003, p. 206).

If the person checked or arrested is angry, the police officer has an interest in helping him or her to get out of the grip of anger by diverting his or her attention to something else. Anger dysregulation increases the risk of aggression (Novaco, 2007). The tools available to the police officer include:

- *Questions*: The judicious use of questions “forces” the person to use the more reflective part of their brain to answer them and take them out of their “rumination” for a moment. In the example in the vignette, the police officer asked five questions throughout the interaction.
- *Humour*: Humour used without irony and with discretion can be a powerful tool to divert attention away from what might be sustaining

anger and thus de-dramatize a situation. The sense of amusement that humour can provide reduces the likelihood of resorting to aggressive behaviour (Baron & Richardson, 1994). However, it is important to remember that using humour with a hostile person can be perilous, as one has no control over the person's interpretation of the smile or joke. As seen earlier with the notion of the refractory period, anger will increase the risk of the person interpreting the attempt at humour as mockery and/or provocation (Bitterly et al., 2017).

- *Rephrasing*: If it is necessary to interrupt the person (e.g., because he or she is getting more and more “excited” or because time is limited), one can use an injunction such as “Just a second!” or “Hold on”, and then paraphrase after saying a sentence such as “Let me check that I understand what you just said”.
- *Non-verbal aspects*: Most communication is non-verbal. Keeping calm is necessary to be able to direct the interaction, but we must be careful that our outward attitude does not irritate the person even more. One technique that has proved successful in different situations is to try to reach the person in terms of the power of their voice, and then gradually lower the tone and pace of language as the interaction progresses. Through a mechanism of mimicry, “synchronisation”, the person will follow the police officer in this de-escalation without necessarily being aware of it.

In the example of the vignette, a less experienced police officer could easily have felt provoked by the respondent's answers. If the officer had responded to the “What do you want?” question with an accusation like “So, have we had too much to drink?”, this would most likely have resulted in a defensive statement of “Not at all”. Then the attack–defence cycle would have continued with a new accusation “Well, it actually looks like you did!”.

To avoid this type of interaction, it is important to take the higher ground regarding the situation. The attitude, “I respect those who respect me”, is insufficient. In the situation, the police officer is the representative of authority and not of his or her own person. This is illustrated by the officer using the pronouns “we, us, our” rather than “I, me, my”. The challenge is therefore to display professionalism and self-effacement

even with disrespectful people. To master this type of interaction, the police officer must keep the objective of the intervention in mind and use the self-regulation techniques that best suit him or her. Instead of accusing and ordering, the experienced officer responds to provocation by asking or rephrasing questions (Marchand & Baroche, 2021; Mugny et al., 2017). In this way, he guides the interaction without being held hostage by the person's answers: he keeps his independence from the attitude of the person in front. A good example is the officer's response to the attack "YOU don't get it ... I'm not bothering anyone, I just want to have a quiet drink, so leave me alone!". Instead of self-justifying and counter-attacking with an answer like "If we're here, it's your fault!", he shows flexibility and defuses with an "OK". This little word does not necessarily mean that the police officer agrees with the person, but it acknowledges the fact that he has heard him. Then he restarts the exchange, always with the objective in mind: "We are just trying to find a solution that satisfies everyone and we are giving you the choice."

If at any point the police officer gets caught in an attack–defence cycle, there are always ways to regain control, by letting his or her partner take over, by changing the subject, by addressing someone else, or by pausing after a sentence such as "Just a moment please ...".

7 Facing a Refusal to Comply

When faced with a refusal to comply, the police officer has a major challenge to meet: he or she must get the person to comply without them escalating aggressively. The must-have basic skill is the control of his or her own emotions (see Sect. 8). Poor regulation of emotions also leads to increased violence and therefore, possibly, to more aggression (Robertson et al., 2012). Secondly, to be able to conduct a difficult interaction, it is important to avoid getting trapped in a repetitive cycle of attack–defence or a sequence of repeated orders with threats leading to a situation with no other outcome than the use of physical force. Finally, care must be taken not to make disproportionate threats that will not

be enforceable and will contribute to discrediting the police and complicating their intervention, both regarding the person and to witnesses of the intervention.

An effective strategy for keeping some control over the interaction is to structure it in different stages. To illustrate the idea, we will present the “ACOCA steps”, an adaptation of the Five Step Hard Style from the “verbal judo techniques” of Thompson and Jenkins (2004):

1. Ask	Ask with respect and without ordering
	↓
2. Context	Explain, give reasons for the request, gather objective elements of the situation founded on the legal bases
	↓
3. Options	Present options in a specific way, presenting gains and losses from the other’s perspective and language Do not threaten; the choice is left to the person
	↓
4. Confirm	Have them confirm their choice with a sentence such as “Is there anything I can say or do that would allow you to cooperate?”
	↓
5. Action	Apply force

Let’s use the example of the vignette to illustrate the technique.

Step 1: Ask. After greeting the person, the police officer politely asks him to accompany them outside: “We need to talk to you. Would you come outside with us? Thanks.” In this way, the officer gives the person the opportunity to avoid a confrontation in front of an audience (see above on the notion of identity attack). On the other hand, it also allows the officer to be in a position of strength and not to have to deal with the presence/pressure of other clients. The idea is that it is always easier to have an empathic position when our own security needs are met. If the person does not respond or, as in the example, wants justifications, it is a matter of moving on to the next step.

Step 2: Give the context. Ever since we were children, we have always needed to know why when we are asked to do something: “Well, it’s none of the other customers’ business. To respect your privacy, we’ll go outside and discuss it quietly.” Then, in the example, the officer asks his opinion and adds, “Would you mind?”. Outside, the officer resumes the discussion, this time contextualising the intervention at the legal level:

“According to the law, the barman is no longer allowed to serve you because you show signs of intoxication. He asked you to leave and when you refused, he called us.” In many cases, providing the context of the intervention greatly increases the likelihood of compliance. Moreover, stating the legal framework can support the action, by making the person understand that this is not a personal attack on him or her, but an intervention aimed at respecting everyone’s rights. If the person still does not comply, move on to the next step.

Step 3: Present the **options**. The aim is to allow the person to see the advantages of going the way of the officer and the disadvantages of continuing his or her behaviour. The officer tries to appeal to their reason. The difficulty in this phase is not to threaten the person directly (see above on psychological reactance). An example of a direct threat would be: “Either you obey or we will take you by force”. It is easy to understand that such a formulation puts the person on a path with no other way out than open resistance or obedience with loss of face. There are several ways to soften or disguise the threat. In the example in the vignette, the competent police officer draws the person’s attention to the fact that he has a choice and is an actor in the situation as well: “We’re just trying to find a solution that satisfies everyone and you’re in a position of choice.” Then the officer appeals to the person’s “commonsense” by explaining what he will gain by complying: “You now go home, and finish your evening in peace” and explains what he will lose by continuing to resist: “or you persist in your intention to be served in a bar and in that case, we have to take you to the station to sober up”. The officer insists again that the person is in a position to choose: “It’s your choice ... So what do you say?”.

Step 4: Confirm the choice. If the person still does not agree to comply, it means that he or she is not responding to the call of reason. This is the time to prepare for a different kind of language. As long as he or she has not physically attacked anyone yet, you can still give the person a last chance with a sentence like: “Is there anything I can say or do to change your mind?” If you have agreed on this with your patrol partner, this sentence is also the signal that you are ready for the last step.

Step 5: Action. No sooner has the person had time to confirm the negative answer (verbally or by saying no) than he or she is physically restrained.

This approach has considerable advantages:

- It is a framework that allows the officer to keep a certain control over the interaction. At any given moment, it is known where he or she stands. Within this framework, the officer can be flexible according to the responses of the other person. The effectiveness of the chosen tactic must be constantly evaluated by being attentive to the person's reaction. In case of resistance, it is necessary to remain flexible, to vary tactics, and to explore different options to enable the partner to take over at an appropriate time.
- It reduces the risk of being caught in the trap of having to repeat an order several times. Repeating it over and over again conveys an impression of lack of control and the police officer loses credibility.
- With the negative answer to the question in step 4, the partner knows the precise moment when they will resort to physical restraint. Through the exchanges made in the previous three steps, the chances increase that the person will let his or her guard down. The police officers can then act without the person being alerted by the perception of an escalation or threat from the side of the police officer.
- The choice to use coercion is legitimate and proportional. Despite the officer's constructive attitude, attempts at de-escalation and dialogue, and making the person aware of the consequences of their behaviour, the person chose to persist in their behaviour or was unable to change it.

8 Self-Regulation

In the field, the best intentions, techniques, and knowledge about communication will be useless if the officer is controlled by anger. His or her ability to act in a professional manner in an emotionally charged situation depends on his or her ability to *self-regulate*. Self-regulation

means regulating one's behaviour by inhibiting hot, impulsive, automatic, emotional responses (e.g., non-proportional use of coercion) that conflict with a more distant, higher-level goal (e.g., avoiding having to explain oneself to a superior or a prosecutor) (Mischel & Desmet, 2000). Self-regulation is essential for law enforcement officers, who are regularly confronted with provocative behavior from the public. This ability will prevent the depleting of the ego and triggering faster and stronger use of force responses (Staller et al., 2018, 2019) and will help their decision-making process.

Our emotions are usually triggered by thought. It is not the action itself that makes us angry (e.g., the middle finger raised by a person when a police patrol passes by), but the thoughts we have related to this action (e.g., "Another guy provoking us and deserving a lesson!"). These thoughts are influenced by the experiences stored in part of our memory that will rekindle previous emotions and cause us to act as we have learned in the past (Allen et al., 2018; Anderson & Bushman, 2002; Davidson et al., 1999). This learning is involuntary and the resulting reactions are often automatic and outside our awareness (Huesmann, 1998; LeDoux, 1996).

The "refractory period" keeps us in the emotional episode we are experiencing. With practice, we can gain control over our emotional habits, especially by learning to be aware of this phase and developing our ability to get out of it more quickly. Improving our self-regulation skills requires us to take time and distance to analyse and understand what has happened. Analysis can only take place once the emotional episode has passed and we have moved beyond the natural tendency to justify our actions.

Arising from the interdependence between thoughts, emotions, and the body, we can identify two groups of techniques to influence our emotions in a situation:

- *Relaxation techniques*, both mental and physical or bodily, aimed at reducing our state of physiological arousal;
- Techniques that act on our thoughts, known as *mental self-regulation techniques*.

Considering the inter-individual diversities, different techniques and combinations of them need to be introduced and practised with officers in basic or further training. Each officer should be able to develop his own toolbox with techniques that work for him.

Concerning relaxation techniques, courses are given in basic training for abdominal breathing. Seized by emotion, people unconsciously block their breath, breathe superficially, or tend to hyperventilate. Through good practice, the police officer can regulate his or her breathing rhythm, which allows him or her to calm the intensity of the emotion. The simple act of momentarily focusing on the breath can in itself bring the officer out of the refractory period. He or she can then combine this with a mental self-regulation technique.

We have already discussed *mental preparation* and *problem orientation* as mental self-regulation techniques. Other techniques taught to police officers include:

Reattribution

According to attribution theories (Heider, 1958; Jones & Davis, 1965; Kelley, 1967), it can be stated that what will be decisive for the person who feels attacked is not the actual action of the aggressor, but his or her interpretation of the perceived intentions. Two realities can be raised, as demonstrated by social psychology:

- The situation, i.e., the external reasons that could explain a behaviour, is often not considered. There is a tendency to think that the other has said or done this because that is the way they are (Ross, 1977).
- A person involved in a conflict feels that it was the other who caused it and usually underestimates his or her own part (Mummendey et al., 1984).

Awareness of this reality is particularly important to enable the officer to take a step back when caught in a conflict. It reminds them of the

importance of accompanying their requests and orders with clear explanations and of not interpreting the behaviour and words of a person too quickly.

The interpretations that we can make of a given situation and of the intentions of the person in front of us have a powerful influence on our emotions and behavioural reactions. Perception is often treated as a root of decision and action (Berthoz, 2003). When feeling attacked by hostile behaviour, instead of sticking to the idea that it was an intentional provocation, the police officer can train himself to imagine several explanations that could have motivated the person in front of him or her to act in this way (e.g., “He is stuck and now feels obliged to play tough so as not to lose face in front of his mates” or “He had no luck in terms of his education and is doing what he can with the little means he has”). This mental process is called “retribution”. Requiring an ability to distance oneself, these types of thoughts are particularly effective when based on humour.

Citizens who contest authority’s legitimacy for any reason usually refuse to obey their offspring like a police officer. A political opponent, disagreeing with the country’s political state, will more often contest any command given by law enforcement (Tyler, 1990). Therefore, a citizen who insults a police officer is not insulting the person of the police officer, but rather what he or she represents, that is, an abstract concept (authority, uniform, police, etc.). The officer with this kind of viewpoint will be able to cope more easily with the insult without being destabilised.

Self-Instructions

When faced with a difficult situation that provokes emotions such as fear or anger, the individual’s perception of his or her ability to cope with it also seems to be a crucial factor (“perceived self-efficacy”, Bandura, 1986; Mischel et al., 1996). This perception can be influenced by self-instructions such as “Okay, I’ve been in this type of situation before, I can handle it” or “No one can make me angry without my full consent!”.

Other self-instructions to avoid feeding the emotion are those related to a concern for precision (e.g., “I must stick to the facts”, “I must avoid exaggeration”, “I must take a step back from this situation”).

Particularly effective self-instructions are those that motivate you to take the perspective of the person in front of you. Forcing yourself to see the situation as the other person sees it, helps you to take a step back and often offers the possibility of making a re-attribution of the person’s intentions.

What all these self-instructions have in common is an immediate benefit: getting out of the refractory period. They divert attention from the source of the emotion and, at the very least, prevent it from feeding and sustaining itself.

Timeout

When possible, taking timeout from a provocative situation is often appropriate and can interrupt a symmetrical escalation (Deffenbacher & McKay, 2000; Mischel & Desmet, 2000). The same is true when dealing with a situation that provokes feelings of fear or anxiety. Thus, choosing to withdraw is an act of self-control.

Real timeout is applicable when officers are in the police station, since they are in a secure environment and surrounded by colleagues who can take over. In the field, the officer obviously cannot abandon his or her partner or take the risk of no longer providing cover. That said, instead of escalating aggressively when he or she feels anger rising, the officer can give himself or herself self-instructions to take a step back and let the partner take over the verbal interaction. They can use different strategies such as apologising briefly and pretending to have to answer their phone while remaining in proximity. The aim of this break is obviously to reload some cognitive capacity; a snack could help too. The point is, as police action is mostly a succession of short decisions to deal with a given situation, to make sure of preserving one’s capacity to process these (Danziger et al., 2011).

9 Discussion

The behaviour that a police officer should adopt to reduce the risk of a police check or arrest escalating into a conflict can partly be taught, and skills can be developed through experience. Experienced officers are indeed less likely to use force (Mangels et al., 2020). However, for the most part, this behaviour will be the result of factors intrinsic to the officer (Cojean et al., 2020). These include social skills, personality traits, emotional intelligence, and beliefs and attitudes towards different groups of interlocutors. These characteristics will change little over time. This is why it is important to have processes in place to be able to detect them when recruiting police candidates (e.g., by using role plays with professional actors) (Jaccard, 2021).

To have a strong impact, psychosocial skills training should be part of an integrated teaching approach. Conflict-management trainers and instructors teaching more tactical-technical subjects must have a consistent message. Embedded in the context of training for street drug checks, body searches, handcuffing, and so on, a methodology for dealing with refusal (e.g., the COCA request) can help in reducing the gap sometimes perceived between misleadingly named “soft skills” and “hard skills” training.

Research has shown that the number of years of experience is not a determining factor in the interactional skills of police officers (Wilson & Braithwaite, 1996). However, the widely held belief is: “It is only when you are in the field that you really learn”. The motivation and expectations of the trainees regarding their first months in the field are hence particularly high. Therefore, special care should be invested in selecting role models with high psychosocial skills who will be functioning as coaches during these first months, which are particularly conducive to learning. Wilson and Braithwaite (1996) note that the selection should not only be based on the evaluation by peers or superiors but should also consider the actual results of their interactions with the public (e.g., the number of filed complaints or the proportion of police checks ending with the use of physical force).

Key Takeaways of the Chapter

Police Officers

- The outcome of a police check or arrest depends on many psychosocial factors (Cojean et al., 2020). Knowledge of the factors involved, combined with good communication and emotional control skills, greatly increase the chances of carrying out a mission without having to resort to coercion (Allen et al., 2018).
- Being confronted with authority leads to a reaction—*psychological reactance*—that motivates the person being checked or arrested to demonstrate their freedom of choice in some way. By avoiding an authoritarian approach and adopting a deferential attitude from the outset, the officer reduces the psychological reactance and increases the chances of compliance.
- The active listening skills used by the officer demonstrate a willingness to try to understand the person's point of view (showing *empathy*). This is a key element in establishing the minimum rapport necessary to influence a person towards voluntary compliance.
- In the grip of anger, the person goes through a phase—the *refractory period*—when they interpret the police officer's communication and behaviour in a way that reinforces their emotion. The key is to divert their attention, for example by rephrasing or by asking open-ended questions.
- To use communication and de-escalation skills effectively in tense situations, the officer must quickly become aware of his or her own triggered emotion (e.g., anger) and use self-regulation techniques. These techniques can be trained to become an automatic response in tense situations.

Conflict Management Trainers

Trainers should pay particular attention to enable trainees to:

- Realise the disadvantages of a dominant attitude towards the checked or arrested person and understand the strategical advantages of a deferential, “face-saving”, and empathic attitude;
- Understand that interactional skills depend largely on the ability to manage one's own emotions and to be able to de-escalate with a person in the grip of anger.

To increase the impact of their teaching, instructors are well advised to integrate the training of psychosocial skills into joint scenarios with the training of more technical subjects.

Police Decision-Makers

Since an important part of the psychosocial skills enabling a person to de-escalate conflict situations are linked with factors that do not evolve rapidly (e.g., emotional intelligence, beliefs), the assessment of these skills should not be neglected in the recruitment process of police candidates.

To improve experiential learning—in the sense of reinforcing the knowledge acquired during the training—and to ensure that trainees do not have a “counter-model” in terms of the attitude to adopt towards the public, psychosocial skills must carefully be considered for both the selection of police academy trainers and the selection of coaches who will accompany new police officers in the field.

References

- Allen, J. P., & Brown, B. B. (2008). Adolescents, peers, and motor vehicles: The perfect storm? *American Journal of Preventive Medicine*, *35*, 289–329.
- Allen, J. J., Anderson, C. A., & Bushman, B. J. (2018). The general aggression model. *Current Opinion in Psychology*, *19*, 75–80.
- Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual Review of Psychology*, *53*, 27–51.
- Asch, S. E. (1946). Forming impressions of personality. *The Journal of Abnormal and Social Psychology*, *41*(3), 258–290.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice Hall.
- Baron, R. A., & Richardson, D. R. (1994). *Human aggression*. Plenum.
- Berthoz, A. (2003). *La décision*. Odile Jacob.
- Bitterly, T. B., Brooks, A. W., & Schweitzer, M. E. (2017). Risky business: When humor increases and decreases status. *Journal of Personality and Social Psychology*, *112*(3), 431–455.
- Bittner, E. (1990). *Aspects of police work*. Northeastern University Press.

- Braithwaite, H., Brewer, N., & Strelan, P. (1998). *Conflict management in police-citizen interactions*. McGraw-Hill.
- Brehm, S. S., & Brehm, J. W. (1981). *Psychological reactance: A theory of freedom and control*. Academic Press.
- Brown, P., & Levinson, S. C. (1987). *Politeness: Some universals in language usage*. Cambridge University Press.
- Cohn, A. M., Jakupcak, M., Seibert, L. A., Hildebrandt, T. B., & Zeichner, A. (2010). The role of emotion dysregulation in the association between men's restrictive emotionality and use of physical aggression. *Psychology of Men & Masculinity, 11*(1), 53–64.
- Cojean, S., Combalbert, N., & Taillandier-Schmitt, A. (2020). Psychological and sociological factors influencing police officers' decisions to use force: A systematic literature review. *International Journal of Law and Psychiatry, 70*, 101569.
- Cormier, W. H., & Sherilyn, L. S. (1991). *Interviewing strategies for helpers*. Brooks/Cole.
- Dang, T. P., Mattan, B. D., Barth, D. M., Handley, G., Cloutier, J., & Kubota, J. T. (2022). Perceiving social injustice during arrests of Black and White civilians by White police officers: An fMRI investigation. *NeuroImage, 255*, 119153.
- Danziger, S., Levav, J., & Avnaim-Pesso, L. (2011). Extraneous factors in judicial decisions. *Proceedings of the National Academy of Sciences, 108*(17), 6889–6892.
- Davey, L., Day, A., & Howells, K. (2005). Anger, over-control and serious violent offending. *Aggression and Violent Behavior, 10*(5), 624–635.
- Davidson, R., & Irwin, W. (1999). The functional Neuroanatomy of Emotion and Affective Style. *Trends in Cognitive Science, 3*, 11–21.
- Deffenbacher, J. L., & McKay, M. (2000). *Overcoming situational and general anger. A protocol for the treatment of anger based on Relaxation, cognitive restructuring, and coping skills training*. New Harbinger.
- DeWall, C. N., Anderson, C. A., & Bushman, B. J. (2012). Aggression. In *Handbook of Psychology* (2nd ed., H. Tennen, J. Suls, I. B. Weiner, Eds., pp. 449–466). Wiley.
- D'Zurilla, T. (1986). *Problem-solving-therapy*. Springer.
- Erkel, P. F. A., & Thijssen, P. (2016). The first one wins: Distilling the primacy effect. *Electoral Studies, 44*, 245–254.
- Friedrich, R. J. (1980). Police use of force: Individuals, situations and organizations. *The Annals of the American Academy of Political and Social Science, 452*, 82–97.

- Goleman, D. (2003). *Surmonter les émotions destructrices*. Editions Robert Laffont SA.
- Heider, F. (1958). *The psychology of interpersonal relations*. Wiley.
- Huesmann, L. R. (1998). The role of social information processing and cognitive schema in the acquisition and maintenance of habitual aggressive behavior. In R. G. Geen & E. I. Donnerstein (Eds.), *Human aggression: Theories, research and implications for policy* (pp. 73–109). Academic.
- Institut Suisse de Police. (2013). Chapitres Gestion des émotions en situation et Face au refus, à l'agressivité et à la violence. *Psychologie Policière* (2^e Ed.). Editions ISP.
- Jaccard, R. (2007). Valorisation par la police de comportements visant à désamorcer une escalade conflictuelle. *Revue Internationale de Criminologie et de Police Scientifique*, 1, 86–102.
- Jaccard, R. (2017). Interpellations et contrôles policiers conflictuels: Principes tirés de la recherche psychosociale pour la formation des policiers. *Revue Internationale de Criminologie et de Police Scientifique*, 3, 318–335.
- Jaccard, R. (2021). *Compétences psychosociales à la police pour faire face à l'agressivité et au refus*. Note d'une conférence présentée le 02.12.2021 dans le cadre du colloque "La formation policière hier, aujourd'hui et demain" à l'occasion des 75 ans de l'Institut Suisse de Police (ISP).
- Johnson, D. J. (2018). *Dispatch information and police use of force: Computationally modeling simulated decisions to shoot*. Dissertation Abstracts International: Section B: The Sciences and Engineering. ProQuest Information & Learning.
- Jones, E. E., & Davis, K. E. (1965). From acts to dispositions: The attribution process in person perception. In L. Berkowitz (Ed.), *Advances in experiential social psychology* (Vol. 2). Academic Press.
- Joule, R. V., & Beauvois, J. L. (2002). *Petit traité de manipulation à l'usage des honnêtes gens*. Presse Universitaire de Grenoble.
- Kelley, H. H. (1967). Attribution theory in social psychology. In D. Levine (Ed.), *Nebraska symposium on motivation*. General Learning Press.
- Kerbrat-Orecchioni, C., et al. (1989). Théorie des faces et analyse conversationnelle. In J. Isaac (Ed.), *Le parler frais d'Erving Goffman* (pp. 155–179). Minuit.
- Kerusauskaite, S. G., Simione, L., Raffone, A., et al. (2020). Global–local processing and dispositional bias interact with emotion processing in the psychological refractory period paradigm. *Experimental Brain Research*, 238, 345–354.

- Kriz, T. D., Jolly, P. M., & Shoss, M. K. (2021). Coping with organizational layoffs: Managers' increased active listening reduces job insecurity via perceived situational control. *Journal of Occupational Health Psychology, 26*(5), 448–458.
- LeDoux, J. (1996). *The emotional brain: The mysterious underpinnings of emotional life*. Touchstone.
- Levy, J., Pashler, H., & Boer, E. (2006). Central interference in driving: Is there any stopping the psychological refractory period? *Psychological Science, 17*(3), 228–235.
- Lipshitz, R., & Strauss, O. (1997). Coping with uncertainty: A naturalistic decision-making analysis. *Organizational Behavior and Human Decision Processes, 69*(2), 149–163.
- Mangels, L., Suss, J., & Lande, B. (2020). Police expertise and use of force: Using a mixed methods approach to model expert and novice use-of-force decision-making. *Journal of Police and Criminal Psychology, 35*(3), 294–303.
- Marchand, P., & Baroche, C. (2021). Dynamiques émotionnelles dans la négociation policière de crise. *Le Travail Humain, 84*, 113–138.
- McEwen, B. S. (2007). Physiology and neurobiology of stress and adaptation: Central role of the brain. *Physiological reviews, 87*(3), 873–904.
- Mischel, W., Cantor, N., & Feldman, S. (1996). Principles of self-regulation: The nature of willpower and self-control. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles*. Guilford Press.
- Mischel, W., & DeSmet, A. L. (2000). Self-regulation in the service of conflict resolution. In M. Deutsch & P. T. Coleman (Eds.), *The handbook of conflict resolution* (pp. 256–275). Jossey-Bass.
- Morabito, M. S., Socia, K., Wik, A., & Fisher, W. H. (2017). The nature and extent of police use of force in encounters with people with behavioral health disorders. *International Journal of Law and Psychiatry, 50*, 31–37.
- Moreau de Bellaing, C. (2015). *Force publique: Une sociologie de l'institution policière*. Économica.
- Mugny, G., Falomir-Pichastor, J., & Quiamzade, A. (2017). *Influences sociales*. Presses universitaires de Grenoble.
- Mummendey, A., Linneweber, V., & Löschper, G. (1984). Aggression: From act to interaction. In A. Mummendey (Ed.), *Social psychology of aggression. From individual behavior to social interaction*. Springer.
- Novaco, R. W. (2007). Anger dysregulation. In T. A. Cavell & K. T. Malcolm (Eds.), *Anger, aggression and interventions for interpersonal violence*. Lawrence Erlbaum Associates.

- Rains, S. A. (2013). The nature of psychological reactance revisited: A meta-analytic review. *Human Communication Research, 39*, 47–73.
- Robertson, T., Daffern, M., & Bucks, R. S. (2012). Emotion regulation and aggression. *Aggression and Violent Behavior, 17*, 72–82.
- Ross, L. (1977). The intuitive psychologist and his shortcomings: Distortions in the attribution process. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 10, pp. 174–221). Academic Press.
- Schweizerische Polizei-Institut (2019). Kapitel Selbstkontrolle & Aggression. *Polizeipsychologie* (4. Auflage). Verlag SPI.
- Short, J. F., & Strodtbeck, F. L. (1965). *Group process and gang delinquency*. University of Chicago Press.
- Staller, M. S., Christiansen, P., Zaiser, B., Körner, S., & Cole, J. C. (2018, December). Do they aggress earlier? Investigating the effects of ego depletion on police officers' use of force behavior. *Journal of Police and Criminal Psychology, 33*(4), 332–344.
- Staller, M. S., Müller, M., Christiansen, P., Zaiser, B., Körner, S., & Cole, J. C. (2019). Ego depletion and the use of force: Investigating the effects of ego depletion on police officers' intention to use force. *Aggressive Behavior, 45*(2), 161–168.
- Steindl, C., Jonas, E., Sittenthaler, S., Traut-Mattausch, E., & Greenberg, J. (2015). Understanding psychological reactance: New developments and findings. *Zeitschrift Für Psychologie, 223*(4), 205–214.
- Tedeschi, J. T., & Felson, R. B. (1994). *Violence, aggression, and coercive actions*. American Psychological Association.
- Thompson, G. J., & Jenkins, J. B. (2004). *Verbal judo: The gentle art of persuasion*. Quill.
- Toch, H. (1969). *Violent men: An inquiry into the psychology of violence*. Aldine-Atherton.
- Tyler, T. R. (1990). *Why people obey the law*. Yale University Press.
- Vecchi, G. M., Van Hasselt, V. B., & Romano, S. J. (2005). Crisis (hostage) negotiation: Current strategies and issues in theory and practice. *Aggression and Violent Behavior: A Review Journal, 10*(5), 533–551.
- Westley, W. A. (1970). *Violence and the police: A sociological study of law, custom, and morality*. MIT Press.
- Wilson, C., & Braithwaite, H. (1995). Police patrolling, resistance, and conflict resolution. In N. Brewer & C. Wilson (Eds.), *Psychology and policing* (pp. 5–30). Lawrence Erlbaum & Assoc.

- Wilson, C., & Braithwaite, H. (1996). The police officer's behaviour during interactions with citizens: What distinguishes the skilled from the average officer. *National Police Research Unit Report (Payneham, Aus.), No. 117.3.*
- Wilson, C., & Brewer, N. (1993). Individuals and groups dealing with conflict: Findings from police on patrol. *Basic and Applied Social Psychology, 14*, 55–67.



How Officers Perform and Grow under Stress: Police Training in Virtual Reality

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Reviewer: Peter Renden

1 Introduction

Entrusted with the state's monopoly on the use of force, police officers routinely seek out and deal with conflict situations involving violent and aggressive people. When responding to such situations, officers put themselves in potential danger. Bad decisions or performance failures

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can have far-reaching—and in the worst case, lethal—consequences for the police officers themselves, suspects, or bystanders. At the same time, society's moral and legal expectations regarding officers' behaviors are high: Even when officers have to react quickly, are scared, overtired, or physically exhausted, they must be able to regulate their emotions, make good decisions, and act appropriately. Especially in critical incidents, which are characterized by a high degree of situational complexity, ambiguity, and performance pressure, stress is likely to occur, altering cognition and action. Sometimes stress even causes officers to perform worse than what may be expected based on their actual level of skill (Nieuwenhuys & Oudejans, 2017). In order to protect officers from making critical errors, it is essential to adequately prepare them for such high-stress situations during police training (Arble & Arnetz, 2021). However, scenario-based training—considered as the gold standard for complex motor learning in police training—is resource-intensive in terms of personnel, time, and materials and, despite high costs, often offer limited flexibility in mimicking highly dynamic, complex, and uncertain conflict situations (DiNota & Huhta, 2019; Giessing, 2021; Murtinger et al., 2021). As a result, police officers have reported that training time is too little, training environments are not realistic, and skills learned in training can rarely be applied in the chaotic situations "on the street" (Renden et al., 2015; Staller, Körner, Heil, Abraham, & Poolton, 2021; Staller, Körner, Heil, Klemmer et al., 2021). Thus, the main challenge in police training is to teach officers the relevant skills for resolving conflict situations in such a way that they can also be called upon in high-stress situations.

The present chapter aims to inform about training concepts and methods that promote performance under stress. Specifically, we conceptualize conflict management behavior as an embodied process, with constant dynamic interactions between perception, decision making, and action in order to fulfill situational task constraints. The concept of hormesis is introduced as a framework to design personalized training interventions that should help officers to develop the kinds of psychological, physiological, and behavioral adaptations underlying successful performance under stress. Virtual reality (VR) is discussed as a promising tool to leverage the hormetic approach by systematically and safely confronting officers with stressful environments.

2 Conflict Management Behavior under Stress

Although police officers are trained to use minimal force, including de-escalation, communication, and negotiation skills in conflict situations, there are occasions where they are required to go “hands-on” and apply force on an individual to protect themselves, the public, or to effect an arrest. As such, similar to other goal-directed performance in high-stake situations (Nieuwenhuys & Oudejans, 2017), successful conflict management requires simultaneous adjustments to dynamic, complex, and ambiguous environments on both the cognitive and motor level. Building on the embodied cognition approach (Wilson, 2002), goal-directed behavior can be conceptualized as an intertwined process between perception, decision making, and action with the aim of satisfying task constraints in a given situation (Gordon et al., 2021; Raab, 2017; Voigt et al., 2023). Conflict management behavior takes place in the context of a continuous flow of task-relevant input and output (Wilson & Golonka, 2013), requiring situational awareness, decision making, and efficient control of movements. Actions are not only the end product of a cognitive process, but they can change the perceptual input (e.g., being able to spot hidden weapons after making a step to the side) and the decision landscape (e.g., moving away from the perpetrator removes the baton as a valid option). Therefore, it is difficult to distinguish the processes of cognition and action, and they need to be considered in parallel (Gordon et al., 2021; Raab, 2017; Voigt et al., 2023). In conflict situations, an officer can start acting before completing the decision, to buy time or to exploit an option that would otherwise disappear, for example chasing after a group of suspects before deciding which one to arrest (i.e., *act while deciding*). Likewise, an officer can change their mind while acting, due to reconsidering a previous decision, unsuccessful execution of an action, or gathering novel evidence or the appearance of novel opportunities, for example, drawing a gun while fighting with a suspect (i.e., *decide while acting*; Gordon et al., 2021).

Critically, conflict situations often involve high levels of threat, and officers are not immune to the body’s automatic responses to threat and stress (Baldwin et al., 2019; Frenkel, Giessing, Egger-Lampl et al., 2021;

Giessing et al., 2020). As such, stress and its associated psychophysiological responses may contribute to the embodied dynamics of conflict management performance, influencing officers' decision making and action. Stress describes a state of physiological or psychological disturbances caused by a physical or psychological event (i.e., stressor). This state of disturbance is characterized by cognitive, affective, and biological responses (i.e., stress responses; Epel et al., 2018). Psychological responses include cognitive processes of appraisal and perseverative cognitions (anticipation and rumination). Affective responses include emotional responses (e.g., anxiety, sadness, anger), motivational states, and efforts to manage the affective and physiological arousal by the means of emotion regulation strategies and coping efforts. On the biological level, the acute stress response involves interdependent responses between neural pathways and the autonomic, neuroendocrine, and immune system (Hermans et al., 2014; McEwen, 2007). Classic cognitive appraisal theories construct stress as a linear, stimulus–organism–response sequence, where an individual is exposed to a stimulus and the response is based on an individual's appraisal (Blascovich, 1992, 2013; Lazarus & Folkman, 1984). In contrast, embodied cognition approaches conceptualize the experience of stress as a result of the intertwined processes of cognitive, affective, and bodily changes (e.g., Francis, 2018). While explicit or implicit cognition about the stress context may trigger emotional and biological changes, there is also evidence that, vice versa, afferent information from interoceptive and proprioceptive cues, such as body position, microbiome imbalances, and musculoskeletal activity, can shape the stress experience (Epel et al., 2018; Francis, 2018).

When considering action under stress, research has mainly focused on the unidirectional effect of stress on action, neglecting the reciprocal effect of action on stress, an experience postulated in the embodied cognition framework (Epel et al., 2018; Francis, 2018). Stress and the associated psychophysiological changes have been shown to impact attention and behavior (Eysenck et al., 2007; Masters & Maxwell, 2008; Nieuwenhuys & Oudejans, 2017). Indeed, in police samples, a considerable body of research has demonstrated performance decrements in relevant police behaviors under stress, including shooting performance (Giessing et al., 2019; Nieuwenhuys & Oudejans, 2010; Nieuwenhuys

et al., 2017; Taverniers & De Boeck, 2014), arrest and defense skills (Renden et al., 2014, 2017), proportionality of force used (Nieuwenhuys, Cañal-Bruland, & Oudejans, 2012; Nieuwenhuys, Savelsbergh, & Oudejans, 2012; Renden et al., 2017), communication skills (Arble et al., 2019; Renden et al., 2017), and memory (Di Nota et al., 2020; Hope, 2016).

Critically, studies on performance under stress typically target the deleterious stress effects by comparing performance under no or low stress to performance under high stress. With the aim of reliably provoking psychophysiological stress responses in all officers, among these studies, scenarios in the literature involve hostage-taking, house searches, traffic controls, robberies, domestic violence, and knife attacks, most of which are accompanied by an exchange of fire (for an overview see Giessing & Frenkel, 2022). While situations requiring the use of force and killing someone in the line of duty were rated among the top five stressors in the police service (cf. Violanti et al., 2016), studies of real-world police operations show that only very few operations involve the presence of weapons or even an exchange of fire (Baldwin et al., 2019). Hence, such study designs do not represent the stressors that officers typically face on duty (cf. Pinder et al., 2011) and neglect the idea of dose-dependent effects of stress in an inverted U-shaped curve (Hardy, 1990; Yerkes & Dodson, 1908), thus potentially overestimating the cases of performance decrements in police officers. Specifically, when an individual experiences no or little stress, increasing the stress level also increases performance until a threshold is exceeded; thereafter, performance declines with increasing stress levels (e.g., Hardy, 1990). Interestingly, this relationship extends beyond the psychological construct of stress to dose-response processes in other fields (e.g., evolutionary biology, medicine, toxicology) and is called *hormesis* (for reviews see Calabrese & Mattson, 2011; Costantini et al., 2010). According to hormesis, an optimal dose of a stressor triggers desirable adaptations to this stressor, whereas too large doses may trigger toxic responses (see Fig. 1). For instance, vaccination effectively protects from future diseases because the human body is exposed to a dose large enough to elicit an immune response but low enough so as not to damage the immune system and general health in the long run. Similarly, acute stress responses are conceptualized as

adaptive in the sense of survival in unsafe situations (Hermans et al., 2014; McEwen, 2007; Roelofs & Dayan, 2022). They enable individuals to rapidly detect threats, respond adequately, restore homeostasis when threats are no longer present, and better prepare the organism for future challenges. For example, bodily changes that support rapid action are accompanied by a strengthening of cognitive functions that support this type of action (Hermans et al., 2014). Thus, in order to elicit a desirable response and observe performance enhancements under stress, the optimal dosage of stress must be determined (see Fig. 1).

Possibly, this conceptual framework of hormesis can provide the foundation for a blueprint to train officers to gain from and adapt to stress, while promoting the maintenance of goal-directed behavior (Kiefer et al., 2018). Training specific skills under moderate stress levels should “immunize” officers’ skills against higher stress levels in real-life conflict situations on duty. Notably, individuals differ in their response to specific stressors and in their hormetic curve. In other words, two

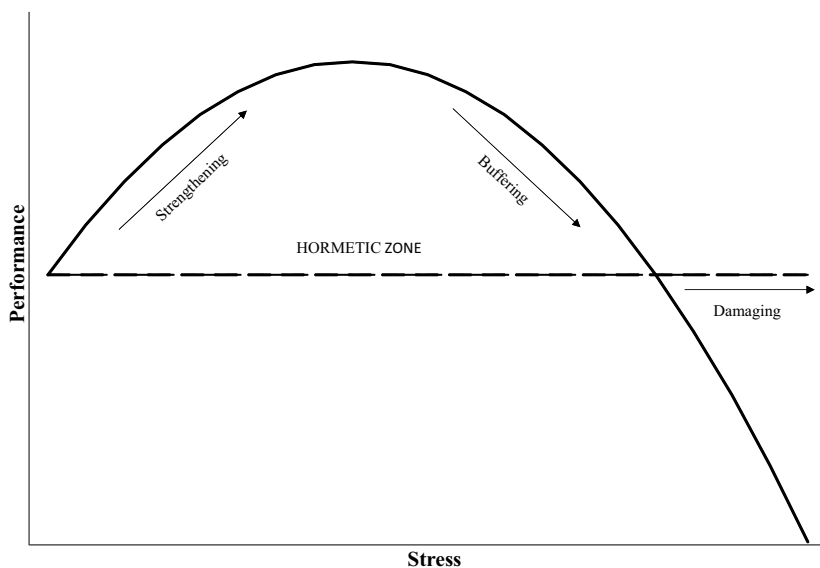


Fig. 1 Hypothetical hormetic response curve for performance training under stress

officers—with the same performance peak—might respond, cope, and ultimately perform differently when facing the same stressor. Individuals differ in their response to the same threat because of personal attributes, appraisals, coping strategies, social support, and past experiences. Thus, it is critical to individualize stress–performance relationships and corresponding training interventions (e.g., Frenkel & Uhlenbrock, 2023; Hill et al., 2020; Kiefer et al., 2018).

3 Police Training under Stress

While the hormetic approach can provide the theoretical foundation for training under stress (Kiefer et al., 2018), the idea to train officers under (moderate levels of) stress is not novel (e.g., Frenkel, Giessing, Jaspert, & Staller, 2021; Giessing, 2021; Low et al., 2021; Nieuwenhuys & Oudejans, 2011). Indeed, training interventions that focus on the manipulation of affective or emotional constraints, known as training under stress or pressure training, have been found effective in improving performance under stress in domains such as sports, the military, and the police (Low et al., 2021). It involves the physical exercise of domain-specific skills (e.g., self-defense and arrest skills, communication skills) during simulated stress, aiming at the maintenance or even improvement of performance during the stressful situation. Hence, training under stress does not necessarily require the implementation of completely new or unfamiliar exercises, but rather adds psychological pressure to already existing training scenarios in order to alter the trainee's emotional state (Low et al., 2021). In this context, psychological pressure is defined as “any factors or combination of factors that increase the importance of performing well on a particular occasion” (Baumeister, 1984, p. 610) and can be manipulated by either increasing the task demands or consequences of performance on a given task. Importantly, task demands and stressors should be representative of what officers experience on duty (Pinder et al., 2011). Ideally, the identification of representative events, tasks, and stressors is a data-driven process in which systematic and representative data from real-life critical incidents are used to identify (1) effective and most commonly used skills, (2) trigger events that require

such skills, and (3) stress-inducing constraints impeding skill execution (Jenkins et al., 2021; for an example see Frenkel, Giessing, Jaespert, & Staller, 2021). This knowledge could result in a stress cue repository from which police trainers can draw valid stress cues to systematically increase the stress potential of training scenarios (Nguyen et al., 2021).

Given the nature of police work, it is impossible to prepare officers for all stressors they might encounter on duty. Therefore, it is critical that they learn to adapt to stressors and their impact on performance beyond those experienced during training (cf. Kiefer et al., 2018). Ideally, officers become independent, creative problem solvers, using their abilities to adapt to dynamic, complex contexts, even when experiencing elevated stress levels (Arble & Arnetz, 2021; Blumberg et al., 2019; Staller & Zaiser, 2015). Considering the embodied understanding of conflict management behavior, a central implication for police training is that cognitive and motor processes should not be tested, applied, or trained in isolation (Raab, 2017). Rather, police training should integrate sensory, motor, interoceptive, and proprioceptive challenges (Voigt et al., 2023). Thus, the ultimate goal of training under stress is to train the ability to simultaneously execute skills and make decisions in stressful environments (Brammer et al., 2021; Papazoglou et al., 2020). As such, it is distinct from stress inoculation training which also exposes the trainee to situational cues to induce stress. Stress inoculation training aims to prepare individuals for stressful situations by diminishing the potential for a maladaptive stress response through the gradual, controlled, and repeated exposure to a stressor (Wiederhold & Wiederhold, 2008). In training under stress, stress responses are not necessarily reduced, but rather the utilization of mental effort despite the presence of stress is improved (Nieuwenhuys & Oudejans, 2011; Oudejans, 2008).

Given the need to individualize stress-performance profiles in the hormetic framework, the optimal level of psychophysiological stress for training interventions needs to be determined for each officer (Kiefer et al., 2018). Police trainers need to be aware of optimal individual stress levels in order to be able to elicit adequate ones during training, that is, to create scenarios that are not too extreme in the training process, as this might negatively condition officers and lead to performance decreases in similar scenarios in the long run. Therefore, the first step

in this training framework would be an assessment phase (Kiefer et al., 2018). Traditional assessment looks at performance variables, such as shooting accuracy, reaction times, or tactical knowledge, in standardized scenarios. While officers who actually differ in their ability to adapt to stress might not be differentiable in one particular, standardized scenario, their performance might start to deviate when the stress potential of the scenario is increased (Kiefer et al., 2018). Thus, a complete assessment must build a performance profile of officers across a variety of scenarios (from low to high stress; for example see Hill et al., 2020). Such comprehensive performance profiles deliver important information on the officers' rate of change relative to evolving stress. In this context, extreme points within the profiles can be demonstrative of potentially important windows for targeted training and/or recovery (Kiefer et al., 2018). For example, consider the tactical training of an intervention team of officers. If an officer was to be trained to search a building as efficiently as possible, then training scenarios could challenge the officer to move toward a suspect, finding their way through the building while avoiding obstacles and looking after civilians. Performance should be measured dynamically (see Bennell et al., 2021; Hoffmann et al., 2018) by using accelerometers, positional data, or simply by measuring the time until reaching the suspect. Keeping the task constant (i.e., finding the way through the building), officers' performance should be tested in several scenarios of varying stress potential. In this case, the stress potential of scenarios could be manipulated by escalating the violence of the suspect (e.g., from verbal aggression to knife attacks) and/or increasing the number of civilians. Importantly, stress responses to the same stressor can vary between officers and between days, sessions, and moments. Therefore, stress responses capturing the "stress level" should be assessed, for example by self-reporting or biological markers. Mapping the performance parameters as a function of elicited stress responses generates individualized stress-performance profiles, which can be used to identify critical training windows, in which officers perform maximally. In the training phase, officers' performance and stress measures should be assessed in real time to allow for fine-grained situational adjustments in the scenarios according to the individual stress-performance profile, leading to an individualization of the training (cf. Kiefer et al., 2018).

4 Virtual Reality as a Tool to Leverage Training under Stress

In practice, police decision makers and police trainers face several challenges in the application of the hormetic approach to training. The assessment phase of the hormetic framework requires dynamic and ideally real-time measurements of stress and performance responses during systematically varied scenarios, while the training phase requires even more fine-grained variations in the scenarios to enable training in the individually determined window (Kiefer et al., 2018). However, the current gold standard for complex motor learning in police academies—scenario-based training—is often limited by its resource intensity (Di Nota & Huhta, 2019). While scenario-based training offers the advantage of allowing for the training of realistic movements, large-scale, realistic simulations require numerous, highly qualified personnel, space-consuming training facilities (e.g., different premises, accessible facades of urban houses or vehicles), and much preparation time, while only offering limited variability in the scenario creation (Murtinger et al., 2021). However, leveraging the hormetic framework calls for more flexibility and innovative technologies that safely and systematically offer a large number of stressful environments to the officers (Kiefer et al., 2018).

VR has the potential to address the principles of the hormetic framework. In VR, an individual can move and act in an artificial three-dimensional environment. The environment includes the creation of realistic images, sounds, and a haptic feedback that are presented through head-mounted displays or specifically designed rooms with various large screens. In this way, an individual in VR obtains the feeling of being physically present in a virtual environment. Sensors integrated in the VR equipment enable the individual to react to and interact with the virtual environment. Therefore, VR offers the possibility of real-time tracking of stress levels and performance parameters in full and representative environments under high experimental control. Behavioral data that can be measured by the current standard hardware include intra- and interpersonal positions, accelerometry, and field of view. On top of that, peripheral measures to monitor stress responses in VR, for example

breath rate, brainwave activity, and heart rate variability, are worked on (e.g., Brammer et al., 2021; Muñoz et al., 2020). As a result, VR has the potential to capture individual stress-performance profiles in the assessment phase of the hormetic framework, which are needed to design personalized training scenarios (Adams et al., 2020; Kiefer et al., 2018).

However, despite the growing interest in VR as a safe, immersive, variable, and cost-effective training tool in law enforcement agencies, there is only limited scientific evidence to justify its application in police training (Giessing, 2021; Giessing & Frenkel, 2022). Borrowing from the considerations of the representative learning design (Pinder et al., 2011), VR training needs to satisfy two critical features (Stone et al., 2019): VR technology and related devices should (1) display representative information and valid cues (i.e., *functionality*) and (2) provide officers with sensorimotor experiences identical to experiences in the performance setting (i.e., on duty) through active engagement with the simulated environment (i.e., *action fidelity*). In other words, training in VR should give officers the opportunity to perceive relevant information and ignore task-irrelevant stimuli, make decisions based on valid cues, and act out their skills as they would in real-life critical incidents. So far, these theoretical requirements have hardly been tested empirically. However, literature-based analyses of the strengths, weaknesses, opportunities, and threats might help to evaluate the functionality and action fidelity of VR in police training (Giessing, 2021).

By virtue of its nature, VR offers the possibility of creating numerous, more complex, and potentially dangerous scenarios as compared to real-life training, where simulation of police scenarios is limited due to financial, time, personnel, or ethical reasons (Düking et al., 2018; Engelbrecht et al., 2019; Murtinger et al., 2021). Due to the high level of control over the presented stimuli (including the order of events and the level of complexity), scenarios and respective permutations of cues and stressors can be created and manipulated systematically, enabling a great variability and potential personalization of training scenarios (for an example of practical implementation see Caserman et al., 2018). Traditional scenario-based training typically fails to provide the full (visual) context of a situation needed to adequately evaluate the situation, with critical context information often only delivered

verbally. Therefore, certain aspects of the situation might already be highlighted as important, potentially giving away the learning experience of perceiving or experiencing this information as a critical cue in the judgment and decision-making process (Haskins et al., 2020). VR can overcome this weakness of traditional scenario-based training by allowing officers to make various sensorimotor experiences through the simulation of detailed visual and audio contexts with both explicit and subtle information and cues present in the situation. Given the importance of an efficient visual search rate, enhanced selective attention allocation, extended visual span, and scan pattern systematicity for expert performance (Brams et al., 2019; Heusler & Sutter, 2020), (visual) cues and sight lines simulated in VR can guide attention processes and make valid cues in the environment more explicit. For instance, salient cues appearing in areas of interest might help the officer to gather relevant information to guide their actions. Thus, VR can help to optimize information processing (Harris et al., 2021) and relying on just a few task-relevant cues, which could result in a domain-specific, tailored, heuristic training (Raab, 2017). Importantly, a representative training under stress does not only accurately portray perceptual information, but also stimulates the optimal psychophysiological stress responses (Kiefer et al., 2018). Research has already demonstrated that audio-visual manipulations in virtual police environments have successfully induced stress and corresponding psychophysiological responses, acknowledging the affective functionality of VR (Awada et al., 2021; Groer et al., 2010; Kleygrewe et al., 2023; Muñoz et al., 2020). Nevertheless, immersion and presence in VR environments are still critically discussed, though the continual development of technology—to improve frame rate, tracking, field of view, refresh rate, latency, and resolution—is needed to fully establish the potential of the high functionality of perceptual and affective information (Cummings & Bailenson, 2016).

Considering the action fidelity in VR, it is important to allow for a variety of realistic behavioral responses and corresponding sensorimotor experiences, ranging from personal communication, physical self-defense skills, and pepper spray to firearms. In order to be able to provide such diverse options for action, a wide range of physical replicas of operational equipment needs to be developed and tested for use in VR (for a recent

development of a tactical belt, see Murtinger et al., 2021). Nevertheless, the potential development of unnatural motion patterns due to the obtrusiveness or artificiality of the VR equipment remains a severe threat to action fidelity (Düking et al., 2018; Stone et al., 2019). Apart from the motoric use of force, police operations generally involve a high degree of communication (e.g., on radio, with colleagues, bystanders, opponents). To date, interpersonal interactions in VR constitute another threat to action fidelity, as delayed responses, a lack of verbal interaction, and facial feedback by computerized avatars impede natural communication within the situation.

In conclusion, VR offers the opportunity to leverage the hormetic approach to police training under stress by allowing real-time tracking of stress-performance profiles in systematically varied scenarios. In VR, the high functionality of information and cues can be achieved through high control over the presented stimuli with appropriate technology. However, limited (inter)action possibilities currently threaten action fidelity in VR. Given these limitations, VR training should rather supplement the existing training practices than replace them (Haskins et al., 2020). Training practices should match the intended training aims. While traditional training practices seem to be much better suited to teach motor movement sequences, we suggest that VR offers great potential for training under stress, specifically.

Accordingly, researchers have started to investigate the efficacy of VR as a training tool in practice in recent years. Besides research demonstrating the affective functionality of VR (Awada et al., 2021; Groer et al., 2010; Kleygrewe et al., 2023; Muñoz et al., 2020), only a few studies have tested an actual performance improvement or transfer of trained skills. For instance, Bertram et al. (2015) showed that a virtual, but not immersive, team training of interaction between police ground forces and helicopter crew transferred to behavior in real, complex scenarios as the standard training. Similarly, Saunders et al. (2019) found comparable performance of participants trained in an immersive VR and those trained in traditional live exercises. Binsch et al. (2022) found that preparation in a 3D interactive VR was even more effective for performance in a surveillance task during a real live-music concert than the standard preparation using a 2D paper-based map. Together, these findings

indicate that VR-based training can be at least as effective as scenario-based training, while encompassing all the benefits that come with VR training. However, a systematic evaluation of the efficacy of VR training still warrants future research.

Noteworthy, despite the limited empirical evidence for its effectiveness, is that police-specific VR solutions already exist on the market (for an overview, see SHOTPROS, 2021), indicating the need to develop evidence-based systems and training principles which support the desired didactical approach in police training, for example, with the hormetic approach. To support law enforcement agencies in successfully implementing VR in their training curricula—a process that has already started to take place—requirements should be defined and practical guidelines for police decision makers and police trainers should be developed (Murtinger et al., 2021). For this, law enforcement agencies, technology companies, and research institutions should work hand in hand in order to identify and meet needs for a further technological and scientific advancement of VR training.

5 Conclusion

In critical incidents, police officers rely on and integrate bodily experiences (acquired during training) to make decisions and act accordingly (Voigt et al., 2023). To prepare officers for performance in high-stress situations, they should experience representative environments in training that elicit stress responses and that are both physically and cognitively challenging, requiring them to integrate their verbal, physical, cognitive, and psychological skills to solve the situation (Arble & Arnetz, 2021; Bennell et al., 2021; Di Nota & Huhta, 2019). Given the limited number of training hours in police service, theoretical considerations and evidence-based approaches should inform and guide training practices that are both effective and efficient (Arble & Arnetz, 2021). Empirical evidence has shown that, in general, training under stress is effective in improving performance (for a meta-analysis see Low et al., 2021). Perspectively, the concept of hormesis can provide a framework for how to determine optimal stress doses in training and how to

personalize training interventions (Kiefer et al., 2018). Nevertheless, in practice, the implementation of this concept still remains challenging and requires further research efforts evolving with new data and results (Arble & Arnetz, 2021). Valid data on representative tasks and stressors to systematically manipulate scenarios is rare. Specifically, future research should focus on the stress-inducing potential of single stressors instead of complete stress scenarios in order to personalize scenarios according to the individual hormetic curve. In this regard, VR appears to be a promising complementary tool to leverage the hormetic approach, while actively engaging officers in complex environments. The high level of control over the presented stimuli allows a systematic and personalized confrontation with a variety of scenarios of different stress potential, thus enabling the assessment and refinement of individual stress-performance profiles (Kiefer et al., 2018). However, technological developments are still needed to address the potential weaknesses and risks of VR (e.g., increasing simulation fidelity, making physical replicas of police equipment), and research must confirm VR efficacy and its transferability to real-life behavior before it can be considered an evidence-based practice.

Key Takeaways

Police Officers

Police officers should understand that stress can be an inherent experience in high-stake situations, which contributes to the sensorimotor experiences during performance and influences perception, decision making, and actions. Thus, training under stress can help to use these sensorimotor experiences as valid cues for appropriate decisions and actions. To gain the full variety of sensorimotor experiences, officers should actively engage in (VR) police training by making use of their cognitive, bodily, and motoric resources to accomplish the training tasks. Further, officers can benefit from a “stress-is-enhancing mindset” (Crum et al., 2017; Goyer et al., 2021), which mirrors the hormetic approach to training under stress. Such a mindset incorporates beliefs that stress has enhancing consequences for various stress-related outcomes, specifically:

- Experiencing stress can facilitate learning and growth;
- Experiencing stress can enhance performance and productivity;

- Experiencing stress can improve health and vitality.

Conflict Management Trainers

Following the concept of hormesis, it is necessary not to under or over-challenge the trainee, but to create an optimal stress level. Therefore, trainers should take into account the officers' individual stress responses and skill level when designing the scenarios. The same stressor may produce different stress levels in different officers or within the same officer on different days. Trainers should allow for individuality and variability in the experience of and adaptation to stress. In the development of the scenarios, police trainers should make sure that officers are both cognitively and physically challenged (Voigt et al., 2023). Officers should not only reproduce desired motor responses, but instead should engage with numerous environmental factors and sensorimotor experiences to develop useful heuristics.

If provided with the tool of VR to leverage the hormetic approach, trainers should be familiar with the VR system and its strengths and weaknesses in order to fully exploit the technical possibilities of a high variety of scenarios while reducing undesirable side effects (especially the development of unnatural movement patterns). Besides the personalization of scenarios, trainers should also consider training objectives as well as ethical and legal guidelines in the configuration of training environments (Murtinger et al., 2021).

Police Decision-Makers

Police decision-makers should promote an organizational understanding of stress as an inherent and potentially performance-enhancing part of high-stake situations. Instead of promoting the avoidance (or reduction) of stress at any cost, the objective in police training should be that officers learn to adapt to changing contexts and conditions even when experiencing high stress levels. Thus, stress management should not be taught in classroom-based seminars or workshops, but should become an integral part of practical (scenario-based) police training (Papazoglou et al., 2020). Training under stress can then be advertised as a training to improve job performance, mental strength, and cognitive skills rather than focusing on mental illness, weakness, or failure. Optimally, police trainers are supported in the implementation of the hormetic approach in

training under stress by the routine presence of psychological personnel specialized in performance psychology.

Regarding the implementation of VR in police training, decision-makers should make sure of establishing ethical and legal guidelines and comprehensively instruct trainers in the use of VR as a training tool. Importantly, technological and scientific developments are still necessary to address the potential weaknesses and risks of VR (Giessing, 2021). Close collaboration between law enforcement agencies, technology companies, and research institutions can profitably advance the development process. To achieve this, decision-makers must identify development and research needs during the use of VR training and openly communicate them to collaborating partners.

References

- Adams, K., Kiefer, A. W., Panchuk, D., Hunter, A., MacPherson, R., & Spratford, W. (2020). From the field of play to the laboratory: Recreating the demands of competition with augmented reality simulated sport. *Journal of Sports Sciences*, *38*, 486–493. <https://doi.org/10.1080/02640414.2019.1706872>
- Arble, E., & Arnetz, B. B. (2021). Four fundamental principles to enhance police performance and community safety. In E. Arble, & B. Arnetz (Eds.), *Interventions, training, and technologies for improved police well-being and performance* (pp. 231–245). IGI Global. <https://doi.org/10.4018/978-1-7998-6820-0.ch015>
- Arble, E., Daugherty, A. M., & Arnetz, B. (2019). Differential effects of physiological arousal following acute stress on police officer performance in a simulated critical incident. *Frontiers in Psychology*, *10*, 759. <https://doi.org/10.3389/fpsyg.2019.00759>
- Awada, M., Zhu, R., Becerik-Gerber, B., Lucas, G., & Southers, E. (2021). An integrated emotional and physiological assessment for VR-based active shooter incident experiments. *Advanced Engineering Informatics*, *47*, 101227. <https://doi.org/10.1016/j.aei.2020.101227>

- Baldwin, S., Bennel, C., Andersen, J. P., Semple, T., & Jenkins, B. (2019). Stress-activity mapping: Physiological responses during general duty police encounters. *Frontiers in Psychology, 10*, 2216. <https://doi.org/10.3389/fpsyg.2019.02216>
- Baumeister, R. F. (1984). Choking under pressure: Self-consciousness and paradoxical effects of incentives on skillful performance. *Journal of Personality and Social Psychology, 46*, 610–620. <https://doi.org/10.1037/0022-3514.46.3.610>
- Bennell, C., Blaskovits, B., Jenkins, B., Semple, T., Khanizadeh, A.-J., Brown, A. S., & Jones, N. J. (2021). Promising practices for de-escalation and use-of-force training in the police setting: A narrative review. *Policing: An International Journal of Police Strategies & Management, 44*(3), 377–404. <https://doi.org/10.1108/PIJPSM-06-2020-0092>
- Bertram, J., Moskaliuk, J., & Cress, U. (2015). Virtual training: Making reality work? *Computers in Human Behavior, 43*, 284–292. <https://doi.org/10.1016/j.chb.2014.10.032>
- Binsch, O., Oudejans, N., van der Kuil, M. N., Landman, A., Smeets, M. M., Leers, M. P., & Smit, A. S. (2022). The effect of virtual reality simulation on police officers' performance and recovery from a real-life surveillance task. *Multimedia Tools and Applications, 1–22*. <https://doi.org/10.1007/s11042-022-14110-5>
- Blascovich, J. (1992). A biopsychosocial approach to arousal regulation. *Journal of Social and Clinical Psychology, 11*, 213–237. <https://doi.org/10.1521/jscp.1992.11.3.213>
- Blascovich, J. (2013). The biopsychosocial model of challenge and threat: Reflections, theoretical ubiquity, and new directions. In B. Derks, D. Scheepers, & N. Ellemers (Eds.), *Neuroscience of prejudice and inter-group relations* (pp. 229–242). Psychology Press. <https://doi.org/10.4324/9780203124635-20>
- Blumberg, D. M., Schlosser, M. D., Papazoglou, K., Creighton, S., & Kaye, C. C. (2019). New directions in police academy training: A call to action. *International Journal of Environmental Research and Public Health, 16*(24). <https://doi.org/10.3390/ijerph16244941>
- Brammer, J. C., van Peer, J. M., Michela, A., van Rooij, M. M. J. W., Oostenveld, R., Klumpers, F., Dorrestijn, W., Granic, I., & Roelofs, K. (2021). Breathing biofeedback for police officers in a stressful virtual environment: Challenges and opportunities. *Frontiers in Psychology, 12*, 586553. <https://doi.org/10.3389/fpsyg.2021.586553>

- Brams, S., Ziv, G., Levin, O., Spitz, J., Wagemans, J., Williams, A. M., & Helsen, W. F. (2019). The relationship between gaze behavior, expertise, and performance: A systematic review. *Psychological Bulletin*, *145*(10), 980–1027. <https://doi.org/10.1037/bul0000207>
- Calabrese, E. J., & Mattson, M. P. (2011). Hormesis provides a generalized quantitative estimate of biological plasticity. *Journal of Cell Communication and Signaling*, *5*, 25–38. <https://doi.org/10.1007/s12079-011-0119-1>
- Caserman, P., Cornel, M., Dieter, M., & Göbel, S. (2018). A concept of a training environment for police using VR game technology. In S. Göbel, A. Garcia-Agundez, T. Tegel, M. Ma, J. Baalsrud Hauge, M. Oliveira, T. Marsh, & P. Chaserman (Eds.), *Lecture notes in computer science: Joint international conference on serious games* (pp. 175–181). Springer. https://doi.org/10.1007/978-3-030-02762-9_18
- Costantini, D., Metcalfe, N. B., & Monaghan, P. (2010). Ecological processes in a hormetic framework. *Ecology Letters*, *13*, 1435–1447. <https://doi.org/10.1111/j.1461-0248.2010.01531.x>
- Crum, A. J., Akinola, M., Martin, A., & Fath, S. (2017). The role of stress mindset in shaping cognitive, emotional, and physiological responses to challenging and threatening stress. *Anxiety, Stress, and Coping*, *30*(4), 379–395. <https://doi.org/10.1080/10615806.2016.1275585>
- Cummings, J. J., & Bailenson, J. N. (2016). How immersive is enough? A meta-analysis of the effect of immersive technology on user presence. *Media Psychology*, *19*(2), 272–309. <https://doi.org/10.1080/15213269.2015.1015740>
- Di Nota, P. M., & Huhta, J.-M. (2019). Complex motor learning and police training: Applied, cognitive, and clinical perspectives. *Frontiers in Psychology*, *10*, 1797. <https://doi.org/10.3389/fpsyg.2019.01797>
- Di Nota, P. M., Stoliker, B. E., Vaughan, A. D., Andersen, J. P., & Anderson, G. S. (2020). Stress and memory: A systematic state-of-the-art review with evidence-gathering recommendations for police. *Policing: An International Journal*. <https://doi.org/10.1108/PIJPSM-06-2020-0093>
- Düking, P., Holmberg, C.-H., & Sperlich, B. (2018). The potential usefulness of virtual reality systems for athletes: A short SWOT analysis. *Frontiers in Physiology*, *9*, 128. <https://doi.org/10.3389/fphys.2018.00128>
- Engelbrecht, H., Lindeman, R. W., & Hoermann, S. (2019). A SWOT analysis of the field of virtual reality for firefighter training. *Frontiers in Robotics and AI*, *6*, 101. <https://doi.org/10.3389/frobt.2019.00101>
- Epel, E. S., Crosswell, A. D., Mayer, S. E., Prather, A. A., Slavich, G. M., Puterman, E., & Mendes, W. B. (2018). More than a feeling: A unified

- view of stress measurement for population science. *Frontiers in Neuroendocrinology*, 49, 146–169. <https://doi.org/10.1016/j.yfrne.2018.03.001>
- Eysenck, M. W., Derakshan, N., Santos, R., & Calvo, M. G. (2007). Anxiety and cognitive performance: Attentional control theory. *Emotion*, 7(2), 336–353. <https://doi.org/10.1037/1528-3542.7.2.336>
- Francis, A. L. (2018). The embodied theory of stress: A constructionist perspective on the experience of stress. *Review of General Psychology*, 22(4), 398–405. <https://doi.org/10.1037/gpr0000164>
- Frenkel, M. O.*, Giessing, L.*, Egger-Lampl, S., Hutter, V., Oudejans, R. R. D., Kleygrewe, L., Jaspert, E., & Plessner, H. (2021). The impact of the COVID-19 pandemic on European police officers: Stress, demands, and coping resource. *Journal of Criminal Justice*, 72, 101756. <https://doi.org/10.1016/j.jcrimjus.2020.101756>. *These authors contributed equally to this work.
- Frenkel, M. O., Giessing, L., Jaspert, E., & Staller, M. (2021). Mapping demands: How to prepare police officers to cope with pandemic-specific stressors. *European Law Enforcement Research Bulletin*, 21, 11–22.
- Frenkel, M. O., Uhlenbrock, F. (2023). Stress im Polizeiberuf und seine Auswirkungen auf Verhalten und Gesundheit. In S. Staller, M., Zaiser, B., Koerner, S. (Eds.), *Handbuch Polizeipsychologie*. Springer Gabler, Wiesbaden. https://doi.org/10.1007/978-3-658-40118-4_15
- Giessing, L. (2021). The potential of virtual reality for police training under Stress: A SWOT analysis. In: E. A. Arble & B. B. Arnetz (Eds.), *Interventions, training, and technologies for improved police well-being and performance* (pp. 102–124). IGI Global. <https://doi.org/10.4018/978-1-7998-6820-0.ch006>
- Giessing, L., Frenkel, M. O., Zinner, C., Rummel, J., Nieuwenhuys, A., Kasperk, C., Brune, M., Engel, F. A., & Plessner, H. (2019). Effects of coping-related traits and psychophysiological stress responses on police recruits' shooting behavior in reality-based scenarios. *Frontiers in Psychology*, 10, 1523. <https://doi.org/10.3389/fpsyg.2019.01523>
- Giessing, L., Oudejans, R. R. D., Hutter, V., Plessner, H., Strahler, J., & Frenkel, M. O. (2020). Acute and chronic stress in daily police service: A three-week N-of-1 study. *Psychoneuroendocrinology*, 122, 104865. <https://doi.org/10.1016/j.psyneuen.2020.104865>
- Giessing, L., & Frenkel, M. O. (2022). Übung oder Ernst? Von Stressinduktion im Polizeitraining zu Stressbewältigung im Einsatz [Practice or seriousness? From stress induction in police training to stress management in the field].

- In M. S. Staller & S. Körner (Eds.), *Handbuch polizeiliches Einsatztraining* (pp. 653–676). Springer. https://doi.org/10.1007/978-3-658-34158-9_35
- Gordon, J., Maselli, A., Lancia, G. L., Thiery, T., Cisek, P., & Pezzulo, G. (2021). The road towards understanding embodied decisions. *Neuroscience & Biobehavioral Review*, *131*, 722–736. <https://doi.org/10.1016/j.neurobiorev.2021.09.034>
- Goyer, J. P., Akinola, M., Grunberg, R., & Crum, A. J. (2021). Thriving under pressure: The effects of stress-related wise interventions on affect, sleep, and exam performance for college students from disadvantaged backgrounds. *Emotion*. Advanced online publication. <https://doi.org/10.1037/emo0001026>
- Groer, M., Murphy, R., Bunnell, W., Salomon, K., van Eepoel, J., Rankin, B., White, K., & Bykowski, C. (2010). Salivary measures of stress and immunity in police officers engaged in simulated critical incident scenarios. *Journal of Occupational and Environmental Medicine*, *52*(6), 595–602. <https://doi.org/10.1097/JOM.0b013e3181e129da>
- Hardy, L. (1990). A catastrophe model of anxiety and performance. In J. G. Jones & L. Hardy (Eds.), *Stress and performance in sport* (pp. 81–106). Wiley. <https://doi.org/10.1111/j.2044-8295.1991.tb02391.x>
- Harris, D. J., Hardcastle, K. J., Wilson, M. R., & Vine, S. J. (2021). Assessing the learning and transfer of gaze behaviours in immersive virtual reality. *Virtual Reality*, *25*, 961–973. <https://doi.org/10.1007/s10055-021-00501-w>
- Haskins, J., Zhu, B., Gainer, S., Huse, W., Eadara, S., Boyd, B., Laird, C., Farantatos, J. J., & Jerald, J. (2020, March 22–26). *Exploring VR training for first responders* [Paper Presentation]. IEEE Virtual Reality Conference on Virtual Reality and 3D User Interfaces.
- Hermans, E. J., Henckens, M. J. A. G., Joëls, M., & Fernández, G. (2014). Dynamic adaptation of large-scale brain networks in response to acute stressors. *Trends in Neurosciences*, *37*(6), 304–314. <https://doi.org/10.1016/j.tins.2014.03.006>
- Heusler, B., & Sutter, C. (2020). Gaze control and training for high-stress situations in law enforcement: A systematic review. *Journal of Police and Criminal Psychology*, *35*(4), 401–413. <https://doi.org/10.1007/s11896-019-09338-1>
- Hill, Y., Kiefer, A. W., Silva, P. L., Van Yperen, N. W., Meijer, R. R., Fischer, N., & Den Hartigh, R. (2020). Antifragility in climbing: Determining optimal stress loads for athletic performance training. *Frontiers in Psychology*, *11*, 272. <https://doi.org/10.3389/fpsyg.2020.00272>

- Hoffmann, S., Borges, U., Bröker, L., Laborde, S., Liepelt, R., Lobinger, B. H., Löffler, J., Musculus, L., & Raab, M. (2018). The psychophysiology of action: A multidisciplinary endeavor for integrating action and cognition. *Frontiers in Psychology, 9*, 1423. <https://doi.org/10.3389/fpsyg.2018.01423>
- Hope, L. (2016). Evaluating the effects of stress and fatigue on police officer response and recall: A challenge for research, training, practice and policy. *Journal of Applied Research in Memory and Cognition, 5*(3), 239–245. <https://doi.org/10.1016/j.jarmac.2016.07.008>
- Jenkins, B., Semple, T., & Bennell, C. (2021). An evidence-based approach to critical incident scenario development. *Policing: An International Journal of Police Strategies & Management, 44*(3), 437–454. <https://doi.org/10.1108/PIJPSM-02-2020-0017>
- Kiefer, A. W., Silva, P. L., Harrison, H. S., & Araújo, D. (2018). Antifragility in sport: Leveraging adversity to enhance performance. *Sport, Exercise and Performance Psychology, 7*, 342–350. <https://doi.org/10.1037/spy0000130>
- Kleygrewe, L., Hutter, V., Koedijk, M., & Oudejans, R. (2023). Virtual reality training for police officers: A comparison of training responses in VR and real-life training. *Police Practice and Research*. <https://doi.org/10.1080/15614263.2023.2176307>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.
- Low, W. R., Sandercock, G. R. H., Freeman, P., Winter, M. E., Butt, J., & Maynard, I. (2021). Pressure training for performance domains: A meta-analysis. *Sport, Exercise, and Performance Psychology, 10*(1), 149–163. <https://doi.org/10.1037/spy0000202>
- Masters, R., & Maxwell, J. (2008). The theory of reinvestment. *International Review of Sport and Exercise Psychology, 1*(2), 160–183. <https://doi.org/10.1080/17509840802287218>
- McEwen, B.S. (2007). Physiology and neurobiology of stress and adaptation: Central role of the brain. *Physiological Reviews, 87*(3), 873–904. <https://doi.org/10.1152/physrev.00041.2006>
- Muñoz, J. E., Quintero, L., Stephens, C. L., & Pope, A. T. (2020). A psychophysiological model of firearms training in police officers: A virtual reality experiment for biocybernetic adaptation. *Frontiers in Psychology, 11*, 683. <https://doi.org/10.3389/fpsyg.2020.00683>
- Murtinger, M., Jaspaert, E., Schrom-Feiertag, H., & Egger-Lampl, S. (2021). CBRNe training in virtual environments: SWOT analysis & practical guidelines. *International Journal of Safety and Security Engineering, 11*(4), 295–303. <https://doi.org/10.18280/ijss.110402>

- Nguyen, Q., Jaspert, E., Murtinger, M., Schrom-Feiertag, H., Egger-Lampl, S., & Tscheligi, M. (2021). Stress out: Translating real-world stressors into audio-visual stress cues in VR for police training. In C. Ardito, R. Lanzilotti, A. Malizia, H. Petrie, A. Piccinno, G. Desolda, & K. Inkpen (Eds.), *Human-computer interaction – INTERACT 2021. Lecture notes in computer science* (Vol. 12933). Springer. https://doi.org/10.1007/978-3-030-85616-8_32
- Nieuwenhuys, A., & Oudejans, R. R. D. (2010). Effects of anxiety on handgun shooting behavior of police officers: A pilot study. *Anxiety, Stress, and Coping*, 23(2), 225–233. <https://doi.org/10.1080/10615800902977494>
- 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(3), 277–288. <https://doi.org/10.1007/s10339-011-0396-x>
- Nieuwenhuys, A., & Oudejans, R. R. D. (2017). Anxiety and performance: Perceptual-motor behavior in high-pressure contexts. *Current Opinion in Psychology*, 16, 28–33. <https://doi.org/10.1016/j.copsyc.2017.03.019>
- Nieuwenhuys, A., Cañal-Bruland, R., & Oudejans, R. R. D. (2012). Effects of threat on police officers' shooting behavior: Anxiety, action specificity, and affective influences on perception. *Applied Cognitive Psychology*, 26(4), 608–615. <https://doi.org/10.1002/acp.2838>
- Nieuwenhuys, A., Savelsbergh, G. J. P., & Oudejans, R. R. D. (2012). Shoot or don't shoot? Why police officers are more inclined to shoot when they are anxious. *Emotion*, 12(4), 827–833. <https://doi.org/10.1037/a0025699>
- Nieuwenhuys, A., Weber, J., van der Hoeve, R., & Oudejans, R. R. D. (2017). Sitting duck or scaredy cat? Effects of shot execution strategy on anxiety and police officers' shooting performance under high threat. *Legal and Criminological Psychology*, 22(2), 274–287. <https://doi.org/10.1111/lcrp.12099>
- Oudejans, R. R. D. (2008). Reality-based practice under pressure improves handgun shooting performance of police officers. *Ergonomics*, 51(3), 261–273. <https://doi.org/10.1080/00140130701577435>
- Papazoglou, K., Blumberg, D. M., & Schlosser, M. (2020). A brief discussion of effective ways to teach potentially life-saving psychology. *Salus Journal*, 8(1), 2–10. <https://doi.org/10.3316/informit.053607076936293>
- Pinder, R. A., Davids, K., Renshaw, I., & Araújo, D. (2011). Representative learning design and functionality of research and practice in sport. *Journal of Sport & Exercise Psychology*, 33(1), 146–155. <https://doi.org/10.1123/jsep.33.1.146>

- Raab, M. (2017). Motor heuristics and embodied choices: How to choose and act. *Current Opinion in Psychology*, 16, 34–37. <https://doi.org/10.1016/j.copsyc.2017.02.029>
- Renden, P. G., Landman, A., Daalder, N. R., de Cock, H. P., Savelsbergh, G. J. P., & Oudejans, R. R. D. (2017). Effects of threat, trait anxiety and state anxiety on police officers' actions during an arrest. *Legal and Criminological Psychology*, 22(1), 116–129. <https://doi.org/10.1111/lcrp.12077>
- Renden, P. G., Landman, A., Geerts, S. F., Jansen, S. E. M., Faber, G. S., Savelsbergh, G. J. P., & Oudejans, R. R. D. (2014). Effects of anxiety on the execution of police arrest and self-defense skills. *Anxiety, Stress, and Coping*, 27(1), 100–112.
- Renden, P. G., Nieuwenhuys, A., Savelsbergh, G. J. P., & Oudejans, R. R. D. (2015). Dutch police officers' preparation and performance of their arrest and self-defence skills: A questionnaire study. *Applied Ergonomics*, 49, 8–17. <https://doi.org/10.1016/j.apergo.2015.01.002>
- Roelofs, K., & Dayan, P. (2022). Freezing revisited: Coordinated autonomic and central optimization of threat coping. *Nature Reviews Neuroscience*. Advanced online publication. <https://doi.org/10.1038/s41583-022-00608-2>
- Saunders, J., Davey, S., Bayerl, P. S., & Lohrmann, P. (2019). Validating virtual reality as an effective training medium in the security domain. 2019 IEEE conference on virtual reality and 3D user interfaces (VR).
- SHOTPROS. (2021). European VR training provider. Companies for Virtual Reality Training solutions in the law enforcement domain. https://shotpros.eu/wp-content/uploads/2021/01/SHOTPROS_Book-let_VR-Provider_V1.pdf
- Staller, M. S., Körner, S., Heil, V., Abraham, A., & Poolton, J. M. (2021). Police recruits' perception of skill transfer from training to the field. ResearchGate. <https://doi.org/10.13140/RG.2.2.16219.90404>
- Staller, M. S., Körner, S., Heil, V., Klemmer, I., Abraham, A., & Poolton, J. M. (2021). The structure and delivery of police use of force training: A German case study. *European Journal for Security Research*. <https://doi.org/10.1007/s41125-021-00073-5>
- Staller, M. S., & Zaiser, B. (2015). Developing problem solvers: New perspectives on pedagogical practices in police use of force training. *The Journal of Law Enforcement*, 4(3), 1–15.
- Stone, J., Strafford, B. W., North, J., Toner, C., & Davids, K. (2019). Effectiveness and efficiency of virtual reality designs to enhance athlete development: An ecological dynamics perspective. *Movement & Sport Sciences - Science and Motricité*, 102, 51–60. <https://doi.org/10.1051/sm/2018031>

- Taverniers, J., & De Boeck, P. (2014). Force-on-force handgun practice: An intra-individual exploration of stress effects, biomarker regulation, and behavioral changes. *Human Factors*, *56*, 403–413. <https://doi.org/10.1016/j.psyneuen.2014.09.016>
- Violanti, J. M., Fekedulegn, D., Hartley, T. A., Charles, L. E., Andrew, M. E., Ma, C. C., & Burchfiel, C. M. (2016). Highly rated and most frequent stressors among police officers: Gender differences. *American Journal of Criminal Justice*, *41*(4), 645–662. <https://doi.org/10.1007/s12103-016-9342-x>
- Voigt, L., Friedrich, J., Grove, P., Heinrich, N., Ittlinger, S., Iskra, M., Koop, L., Michirev, A., Sparascio, S., & Raab, M. (2023). Advancing judgment and decision-making research in sport psychology by using the body as an informant in embodied choices. *Asian Journal of Sport and Exercise Psychology*, *3*(1), 47–56. <https://doi.org/10.1016/j.ajsep.2022.09.006>
- Wiederhold, B. K., & Wiederhold, M. D. (2008). Virtual reality with fMRI: A breakthrough cognitive treatment tool. *Virtual Reality*, *12*(4), 259–267. <https://doi.org/10.1007/s10055-008-0100-3>
- Wilson, M. (2002). Six views of embodied cognition. *Psychonomic Bulletin & Review*, *9*(4), 626–636. <https://doi.org/10.3758/bf03196322>
- Wilson, A. D., & Golonka, S. (2013). Embodied cognition is not what you think it is. *Frontiers in Psychology*, *4*, 58. <https://doi.org/10.3389/fpsyg.2013.00058>
- Yerkes, R. M., & Dodson, J. D. (1908). The relation of strength of stimulus to rapidity of habit-formation. *Journal of Comparative Neurology and Psychology*, *18*(5), 459–482. <https://doi.org/10.1002/cne.920180503>



Trialogic Interventions: An Innovative Anti-Stigma Module for De-escalation Trainings

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1 Introduction

In recent years, police encounters resulting in the use of force have been increasingly discussed and criticized both in the traditional and social media. In particular, there has been a growing awareness of problematic practices such as “racial profiling” or the disproportionate use of

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police powers against left-wing movements. At the same time, the police use of force against individuals with psychiatric diagnoses and severe mental illness (SMI), particularly in situations of acute crisis, has been on the rise, sometimes with fatal consequences. Yet, in the public sphere, such issues remain largely underexplored. In part, this may be due to persisting social stigma and prejudices against individuals with mental health conditions within institutions and society at large. Representations of persons with SMI as dangerous, unpredictable, and prone to violence are still frequent in the media and in social networks.

Individuals with SMI are no more likely to use violence against others than the average person (Stuart, 2003). Instead, their risk at becoming victims themselves is significantly increased. Misleading ideas of mental health diagnoses are potentially damaging to those affected by them—arguably often causing additional harm and suffering to their actual symptoms. This may be particularly true in the context of police encounters. Despite the fact that police officers themselves are part of the society they serve, they are likely to share such widespread ideas and prejudices.

In this chapter, the results of the evaluation of the intervention are discussed briefly. The in depth discussion is to be found in Wittmann et al. (2021a). It is referred to other triologic projects in police settings and the literature on their effectiveness. Subsequently, an anti-stigma module is introduced that is an integral part of the mid-level BA course training at the Police Academy of Hamburg in Germany. Since its implementation in 2014, this one-day seminar has been obligatory for all police officers in training in Hamburg, Germany's second largest city. The seminar is designed and delivered by a team of persons with lived

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experience of mental health conditions and acute crisis, persons with lived experience of being a relative of an individual with SMI, and professionals from the field of psychology and psychotherapy. The following discussion briefly introduces the project and establishes why an anti-stigma training for police officers and officers in training in the context of mental health is relevant and important. The authors will then introduce the “trialogue”, a concept originating in the cooperation between research and activism, which also informs the training in Hamburg. As we will show, the triologue, although created in a different context, is a human-rights-based approach in accordance with the UN Convention on Rights of Persons with Disabilities. We will also briefly introduce Irre menschlich e.V., the Hamburg self-advocacy initiative which co-created the original police seminar and which has delivered it since 2014.

This chapter then discusses the intervention itself and its contact-based approach. The authors explore how it offers police officers in training the opportunity for a change of perspective, and an opportunity to meet persons with SMI and their relatives in a context very different to acute crisis, as workshop facilitators and educators. With the use of own-voice accounts by persons from different status groups (two workshop facilitators with a lived experience of SMI and as a relative, respectively a police academy student and a senior officer), the chapter shows how they profited from the seminar. Our chapter concludes with a short discussion of the ways in which the triologic approach could be further developed and adapted to the needs of different target groups and settings in the context of police work.

2 Justification for a Contact-Based Anti-Stigma Intervention in Police Use-of-Force Training

Use-of-force training is a crucial element in police training, teaching officers skills which are needed to handle violent conflicts. These situations can involve individuals with or without a mental health condition. Police use-of-force training usually focuses on different aspects of self-defense,

including the use of (non)lethal weapons. In an acute crisis police officers are often the first to be called. On average, in many areas, police encounters with persons in crisis occur more than weekly, thus representing a substantial part of the daily routine (Wittmann et al., 2021c). In many cases use-of-force, detention, and involuntary hospitalization can be avoided. Consequently, de-escalation in encounters with individuals with mental health conditions is a key component of police duties. However, training for police officers still largely focuses on the technical side of the profession: the correct use of weapons, fighting techniques, assertiveness, and law enforcement. As an examination of the law enforcement training of 45,000 US police recruits has shown, the average training hours for firearms skills, defensive tactics, use of force, and nonlethal weapons (168 hours) exceed the average training hours for communication skills (15 hours) by far (Reaves, 2016). In addition, police use-of-force training often comprises isolated elements rather than contextualized problem solution strategies involving de-escalation techniques (Staller et al., 2021). In Germany, conventional training programs also tend to put comparatively little emphasis on de-escalation strategies or effective and empathetic communication techniques. At the same time, the realities of daily police routines involve many situations which require empathy, communication, and de-escalation (Todak & James, 2018; see Fig. 1). Unsurprisingly, individuals with SMI experience encounters with the police as more positive if officers show empathy towards them (Wittmann et al., 2021b).

Yet, even without use-of-force and/or involuntary hospitalization, police encounters are often stressful and even traumatic for individuals with mental health conditions. They can also be extremely stressful for others involved, particularly those close to the person in crisis, such as partners or relatives, but also to neighbors or professionals. Additionally, police officers themselves often experience such encounters as uncomfortable and frustrating. Given their frequency, and the demanding, fast-paced work environment of a police station, there may be little room for discussing and processing such events as a team. Thus, both in conventional German police education and internationally, there is a distinct mismatch between the way officers are trained and the everyday realities of police work.

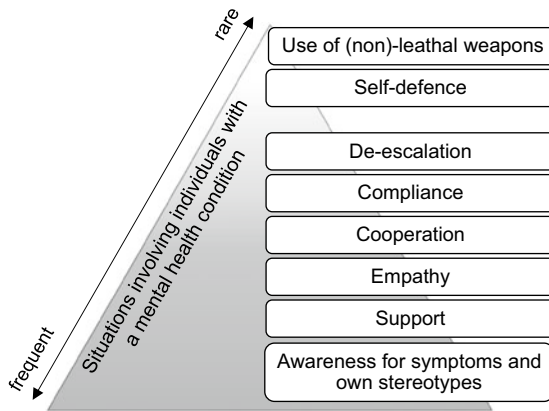


Fig. 1 Police officers' required skills in situations involving individuals with a mental health condition (figure created by authors)

This mismatch increases the risk of inappropriate police use-of-force in situations that involve individuals with SMI (Williams & Jones, 2020). Although the majority of police officers regularly interact with individuals with mental health conditions, only a minority feel adequately trained (Richmond & Gibbs, 2021; Wittmann et al., 2021c). As argued before, individuals with SMI do not necessarily behave in ways conventionally considered “rational” or expected. Police officers’ stigmatization of individuals with SMI as dangerous and unpredictable further increases the risk of a self-fulfilling prophecy, as the attribution of danger can lead to a higher probability of the occurrence of violent behaviors (Godschalx, 1984; Soares & Pinto da Costa, 2019; Watson et al., 2004; Wittmann et al., 2021c). Compared to traditional types of de-escalation trainings (see Chapter 11 in this book) which focus on presence, respect, empathy, and different types of communication, the triologic approach is a promising addition to existing de-escalation trainings, as they focus on an anti-stigma mindset and philosophy in police training (Coleman & Cotton, 2014). Through the involvement of persons with lived experience, they provide the opportunity for a genuine change of perspective. Given their focus on awareness of symptoms,

empathy, appropriate communication, and behavioral skills, contact-based anti-stigma interventions are an innovative, constructive approach to enrich police use-of-force training (see Fig. 1).

3 Empirical Evidence for Contact-Based Anti-Stigma Interventions

As shown, a de-escalating approach involving a respectful, calm, and compromising communication has the potential to de-escalate up to 80% of police encounters involving individuals with mental health conditions (Todak & James, 2018). A triologic anti-stigma intervention is a promising approach to increase a de-escalating mindset and the use of de-escalating techniques. Crucially, such an intervention should involve real face-to-face contacts, as personal encounters with individuals with lived experiences and relatives have been shown to be the most effective strategy in order to reduce stigma (Corrigan et al., 2012). Recent studies show the effectiveness of triologic anti-stigma interventions both in the field of mental health in general, and for prison guards specifically. Wechsler and colleagues (2020) conducted a randomized-controlled trial with 204 medical students. The intervention group obtained a contact-based, triologic, anti-stigma intervention. Following the intervention, participants in the group displayed significantly lower stigmatizing attitudes, compared to the control group. Additionally, a randomized waiting list control study evaluating a triologic training for prison guards found less social distance, less negative emotions, and fewer negative stereotypes about individuals with mental health conditions after the intervention (Bock et al., 2019).

To date, only a small body of research has examined contact-based anti-stigma interventions in the context of police training. To the authors knowledge, no randomized-controlled studies have been conducted in this field. However, a study on a triologic anti-stigma intervention for Swedish police students from Hansson and Markström (2014) has demonstrated the effectiveness of the approach. The authors conducted a controlled pre-post intervention study using a control group and a six-month follow-up including 120 police officers. The training provided

a combination of information about mental illness, videos containing case reports, and in vivo trainings entailing lectures delivered by persons with a lived experience of SMI. The intervention group displayed significantly more positive attitudes and mental health literacy six months after a baseline assessment. Additionally, police officers in the group were more willing to interact with individuals with mental health conditions after the intervention. In a German study with a one-group pre-post design, a triologic contact-based anti-stigma intervention showed significantly reduced social distance and negative stereotypes in a cohort of 198 novice police officers. Social distance was also reduced after three weeks in a smaller sub-sample (Wundsam et al., 2007). The result of these two studies are in line with an own one-group pre-post design study (Wittmann et al., 2021a). Between 2014 and 2019, 1318 Hamburg police officers in training participated in 61 seven-hour triologic workshops, which were a compulsory part of their degree or professional training. The results show that officers' negative stereotypes towards individuals with a diagnosis of schizophrenia were found to be associated with social distance as well as increased anxiety. Participants reported reduced negative stereotypes, anxiety, and social distance after the intervention. Overall, this is the first empirical evidence for the effectiveness of triologic interventions. However, further studies, including randomized controlled trials, are necessary to test the effectiveness of these interventions, with more repeated measure points that test for long-term effects.

4 The Trialogue: Co-creation and New Ideas through Encounter and Conversation

The Origin and Concept of the Triologic Approach

The trialogue, or triologic approach, was first developed in Hamburg, Germany, in the late 1980s and early 1990s. The term, based on “dialogue” and “tri” for “three”, is a neologism which, given the Greek

origin and widespread use of “dialogue”, works both in German and English, and potentially in numerous other European languages. The concept originated in the Clinic for Psychiatry and Psychotherapy at the University Medical Center Hamburg-Eppendorf, Germany (UKE) and the University of Hamburg, Germany. In Germany, the Disability Rights Movement and the Psychiatric Survivors/Service Users Movement were both formed in the late 1970s and early 1980s, inspired by similar earlier initiatives in Europe and the United States. From the start, both movements were inextricably linked. The now famous German Cripple Tribunale of 1981 prominently addressed human rights violations in large institutions such as sheltered workshops and homes for persons with disabilities, but also in psychiatric hospitals. The trialogue originates in the first so-called “Psychosis Seminar”. In 1989, activist Dorothea Buck approached Thomas Bock, a psychologist working at the university hospital, with her wish to meet professionals and students in the field of psychiatry on an equal level, and share her own expertise on psychosis gained from her lived experience. Their cooperation resulted in a pilot seminar, now recognized as the inaugural trialogue, conducted at the University of Hamburg, which met with great public interest. Soon, there was a demand for follow-up events, with other persons with lived experience of both cognitive (“schizophrenic”) and affective (“bipolar”) psychosis joining the format, as well as relatives and close friends (Bock & Priebe, 2005). Subsequently, the seminar was turned into a regular part of the curriculum in the university’s psychology program, and emulated at other institutions throughout Germany.

First developed in the context of the Psychosis Seminar, the trialogic approach describes a process in which mental health service users, their relatives, partners or close friends, and mental health care professionals meet and share ideas in an open setting characterized by mutual respect. Crucially, they communicate on an equal level, as experts by experience, experts by support, and experts by profession. With its search for a common, non-pathologizing language and validation of subjective experiences and sense-making (for all involved), the approach has been shown to reduce stigma and foster an atmosphere of mutual learning and growth. Through the change of perspective, professionals and students can acquire a deeper and less pathologizing understanding of service users

and of psychosis as a special, distinct, and valid experience. Informally, their experience has been described as a “threefold supervision, that is free of charge”. The opportunity to share experiences with service users and relatives respectively, without the pressure of familial ties, often facilitates understanding for both groups (a “family therapy without your own family”). For service users themselves, such encounters have been shown to increase a sense of self-efficacy and empowerment, and reduce the risk of self-stigmatization (“unintentional psychotherapy”).

Application of Triologic Interventions

The triologic principle has been further developed and successfully adapted to different settings. In Hamburg, for many years, the initiative *Irre menschlich e.V.*, formally a nonprofit organization, has been a key player in the field of self-advocacy and anti-stigma work for mental health service users and their relatives. From the start, the triologic approach has been one of its central principles. Crucially, the organization has further developed the concept and turned it into educational formats for a range of different settings and target groups. The Psychosis Seminar is now a cooperation between *Irre menschlich e.V.* and the University Hospital, the UKE. A particular focus is put on anti-stigma and awareness work in schools and other educational settings. Thus, *Irre menschlich* offers one-day seminars, in which students are provided an opportunity to meet persons with mental health conditions, relatives, and possibly persons with a professional background. A particular focus is on formats aimed at the public sector, and on working with stakeholders and policy-makers in fields such as education, law, health, or the justice system. All formats are intended to raise awareness and reduce stigma and misleading ideas about psychiatric diagnoses and crises. *Irre menschlich e.V.* defines itself as a self-advocacy organization for individuals with experience of mental health conditions and their relatives. As such, its aims are inherently political. It advocates for a dynamic, non-pathologizing concept of mental health as a spectrum, and for a cultural and critical approach towards psychiatric diagnoses. Its seminars also aim to promote a work environment in which professionals such as therapists,

police officers, or social workers can be open about their own crises and idiosyncrasies, and thus combine awareness and self-care with a position of solidarity.

At the same time, from the start, *Irre menschlich e.V.* has closely collaborated with UKE. Thus, the Psychosis Seminar is now jointly conducted by UKE and *Irre menschlich e.V.* The University of Hamburg and *Irre menschlich* organize a long-standing series of public lectures, which approach the field of psychiatry from an anthropological and cultural studies perspective. *Irre menschlich e.V.* works closely with a research group, which, dedicated to participatory research in the field of social psychiatry, was founded in 2015 by Professor Dr. Thomas Bock and Dr. Candelaria Mahlke (both co-authors of this chapter). In fact, to our knowledge, in the field of mental health in Germany, this long-standing, continual cooperation between academic research and self-advocacy remains unique. Most dialogic formats offered by *Irre menschlich e.V.* have been evaluated by the mentioned research group and shown to be effective in significantly reducing prejudice and stigma (Bock et al., 2015; Wechsler et al., 2020).

Depending on the format and research aim, our collaborative projects with *Irre menschlich e.V.* entail various forms of participatory research. On a regular basis, *EmPeerie NoW*, a dialogic, interdisciplinary panel, offers advice on research applications and projects to academics from different fields. Researchers are encouraged to use inclusive, non-pathologizing language and concepts, develop projects able to promote recovery and reduce stigma, and include participatory elements themselves. Since its start in 2017, many projects have profited from the panel's feedback.

Other participatory projects are yet more explicitly rooted in self-advocacy and action research. A particularly poignant example is a series of short films with persons with lived experience of coercion, strapping, or other potentially traumatic experiences in mental healthcare. Both production and evaluation were conducted with a co-creative approach by a team of researchers with and without lived experience. The result is a format in which short films are combined with a dialogic discussion, aimed at professionals in hospitals or other psychiatric settings in which strapping or other forms of coercion occur. Witnessing service users

describing their traumatic experience in a short film has been shown to have a profound, often deeply emotional effect on participants. In many cases it changes their attitudes towards individuals in acute crisis and towards the use of coercion. Through the video format, participating service users are enabled to share their stories in depth without the need to repeatedly relive their traumatic experiences, and without fear of interruption or devaluation. At the same time, the videos are exclusively shown within trialogic workshop settings, and always in the presence of workshop facilitators with lived experience. Participants are thus encouraged to ask questions, address their own concerns, and receive feedback in the context of a safe space.

Arguably, the trialogue has also profited from a growing awareness of the value of lived experience, particularly in the case of marginalized groups. Participatory approaches and co-creation have been shown to lead to new, innovative ideas and often pragmatic solutions. In the field of psychology and psychiatry in particular, personal contact with individuals and service users has been shown to significantly decrease prejudices and facilitate understanding, sympathy, tolerance, and respect.

5 Trialogic Interventions for Police Officers: Background and Intervention

While not using pre-recorded material, the anti-stigma training for police officers discussed in this chapter has a similar approach. At its core is the personal encounter between individuals who, in different or opposite positions, have experienced (or are currently trained to deal with) situations which involved police use-of-force or resulted in involuntary hospitalization. Given the delicate topics discussed and the need for an open, confidential space, as well as the nature of some of the exercises, the workshops are always delivered as face-to-face events. The format we focus on in this chapter is a one-day trialogic seminar designed specifically for police officers in training (Bock et al., 2015). Participants are required to have at least six months of duty experience and receive a handout with the information presented in training parts 1–5. Since

2014, the seminar has been an integral part of the curriculum both for BA and mid-level students of the Hamburg Policy Academy.

The intervention was originally conceived after the occurrence of three fatal incidents in the year of 2009, all of which resulted in the death of individuals in acute crisis (Bock et al., 2015). The series of events received considerable media coverage, with the ethics and practice of police work in Hamburg substantially questioned. In the same year, Hamburg police then cooperated with Irre menschlich e.V. to launch a pilot event, which was subsequently further developed into the annual day seminar discussed here. Currently, it is delivered as a seven-hour workshop moderated by a triologic team. Irre menschlich e.V. has a pool of trainers, professionals, relatives, and service users with diverse diagnoses. Participants are trainee officers, who are still in the process of completing their degree/professional training, but have at least one year of police practice. Thus, they are extremely likely to have participated in one or (probably) more police encounters with individuals in acute crisis.

Crucially, the intervention is based on personal contact in a situation very different from an acute psychic crisis. Officers in training are thus provided with an opportunity to meet persons with different mental health conditions and relatives in a professional position, as educators. Persons with mental health conditions and relatives share their personal stories, but their role goes beyond that. They deliver knowledge and information about psychiatry and psychology from an expert position. Also, they introduce their audience to a critical approach towards conventional concepts of mental health, diagnoses, and prognoses that is likely to be unfamiliar to the majority of participants. Frequently, students mention a wish for more in-depth information about psychiatric diagnoses to be able to support individuals in crisis more effectively.

Training Part 1: Frequent Diagnoses of Individuals in Crisis

After a short overview of the day's schedule, the seminar commences with a one-hour section on a selection of diagnoses frequently attributed to

individuals in crisis. Participants are provided with a booklet explaining symptoms of these mental health conditions as well as their relevance in the context of encounters during incidents. Many students have no previous experience of or knowledge about mental health issues, thus the course is also intended as a short introduction to mental health literacy. However, the topic is explored from an anthropological point of view, with a focus on resources and a respectful, non-pathologizing language. Through both the booklet and workshop input, they are presented with hard facts and findings, many of them standing in marked contrast to widespread opinion. They learn that individuals with psychiatric diagnoses are no more likely to become perpetrators than the average person. Rather, they have a significantly increased risk of becoming victims of violence, abuse, or other criminal/deviant actions themselves. Their life expectancy is drastically reduced—in the case of a diagnosis of schizophrenia, this means a life expectancy 20 years below the average. Unsurprisingly, the likelihood of death by suicide is increased by a factor of 10. Many service users also live with somatic comorbidities, such as autoimmune diseases. They are also significantly more likely to be involved in fatal accidents (such as fatal police encounters, although among fatal accidents, these are likely to account for a small percentage of cases in total) —or to become crime victims.

The triologic approach, cooperation with researchers, and the professional standing of the facilitators are key elements for a successful workshop. Significantly, the subjective perspective of persons with lived experience is thus not represented as a type of evidence that stands in contrast, or even as inferior, to academic research. It is a complementary source, of at least equal importance.

Training Part 2: Psychosis and Crisis

The introduction to individual psychiatric diagnoses, in this context, entails a non-pathologizing approach that values subjectivity. While valuing subjectivity and individual lived experience, it is also informed by a specific academic tradition, namely anthropological or critical psychiatry. Thus, in the seminar and booklet, psychosis is introduced as a type

of extreme sensitivity, in which inner conflicts and difficulties manifest themselves in physical sensations (such as hallucinations or voices). Often, in a psychotic experience, an individual may (mis)attribute other persons' conversations, comments, laughter, or other utterings as a form of aggression directed against him- or herself. They may recognize patterns in their surroundings and interpret them as messages directed at them, or feel threatened or persecuted. From an anthropological perspective, such a personal interpretation of random comments or events is characteristic of early childhood. However, in challenging situations, particularly during phases of transition, uncertainty, and increased vulnerability, temporary regression to such a state is common in the general population. As has been shown, psychotic episodes also largely emerge during times of transition (puberty, moving out, starting university, becoming a partner or a parent, divorce, illness, losing a job, etc.), their content reflecting the affected individual's concerns and life situation. Thus, they are not "alien" phenomena, but part of the human condition, on a spectrum with common human experience in challenging times.

Unsurprisingly, when it comes to police encounters, such sensitivity can lead to great vulnerability. The approach of people in uniform, unknown to the individual, can be threatening and possibly perceived as an attack. Associative modes of thinking, characteristic of psychotic episodes, potentially lead to unconventional utterances, while the whole situation, with its intense sensory input (acoustic, optical, etc.), might lead to sensory overload and meltdown. In turn, such behavior is prone to be misunderstood by police officers unfamiliar with persons in crisis, thus increasing the likelihood of use-of-force and involuntary hospitalization.

Training Part 3: Mania, Depression, and Crisis

Two other frequent mental health conditions discussed in the seminar are mania and depression. Despite the fact that they are introduced as apparent contrasts, they are closely related. A person's mood and energy level may be greatly increased or decreased and shifted either to one

direction (unipolar) or fluctuate between periods of passivity and sadness and euphoria (bipolar). These fluctuations may be gradual, but are quite often rapid. Typically (though by no means exclusively), a unipolar phenomenon manifests itself as a depression, while a bipolar condition includes alternating phases of depression and of mania. However, both states are characterized by a sense of emptiness, and a lost sense of time. Thus, the individual's current state is perceived as permanent and unchangeable, resulting in a feeling of deep despair. From an anthropological, non-pathologizing perspective, both unipolar and bipolar depression can be interpreted as reactions to extreme stress. Arguably, they are also often experienced by perfectionist individuals, who set themselves very high, possibly unattainable standards. Thus, unconventional behavior expressed in a state of mania might mask the fact that the person is actually trying very hard to "function" and "fit in".

In the context of acute crisis, however, the challenging behavior of a bipolar person can easily be mistaken as an act of deliberate provocation. The risk of suicide attempts may also be greatly increased in bipolar persons, perhaps hidden behind a state of euphoria. Thus, awareness of the condition and appropriate de-escalation strategies for police encounters with bipolar persons may literally save lives.

Training Part 4: Borderline Personality Disorder and Crisis

Finally, the triologic workshop provides a short introduction to borderline personality disorder (BPD). Particularly common in young adults, it is characterized by rapid and extreme mood swings, often triggered by seemingly trivial causes. Persons with a BPD profile experience intense emotions. Often, they display dichotomous ("black and white") thinking, seeing people and situations as absolutes, as either good or bad, right or wrong. Consequently, their relationships are often unstable, their feelings oscillating between love and hate. Given the intensity of feelings and tendency to see the world in absolutes, BPD has sometimes been described as a permanent state of puberty, but this view has recently been criticized as patronizing and reductive. Often, however, persons

with a BPD profile have a background of early childhood trauma. Many individuals with a BPD diagnosis physically self-harm, possibly to self-regulate their emotions and substitute emotional with physical pain. In other cases, they may have a reduced sense of pain, and use self-harm in order to feel their own body.

In a police encounter with a person with a BPD profile, conventional de-escalation strategies may be potentially counterproductive. Due to the person's sensitivity, alertness, and heightened sense of conflict, approaching them in an authoritative, commanding manner might feel like an attack and escalate the situation. Self-harm (that is in fact caused by a need for self-regulation) may be misread as deliberate provocation. The need for medical treatment of self-inflicted wounds may also be overlooked if the person does not display the expected signs of physical pain.

Training Part 5: The Complexity of the Human Psyche

In many cases the involvement of relatives, friends, or other trusted persons might have a de-escalating effect. Sometimes, the trusted person may act as an interpreter, where officers unfamiliar with the person in crisis are uncertain about how to proceed. To appreciate the complex situation of persons in crisis and develop effective strategies to support them, a trialogic approach, that involves the perspective of relatives, is thus indispensable.

However, while the seminar aims to familiarize officers in training with balanced facts about psychiatric diagnoses and persons in crisis, its main goal is yet more complex. As mentioned above, it gives students an opportunity to meet persons with mental health conditions and relatives in an educational setting, as workshop facilitators. Thus, they are enabled to realize that a person cannot be sufficiently described by a diagnostic label, but should be seen as a complex human being, with unique strengths, interests, and idiosyncrasies. Hearing about mental health conditions from those diagnosed with them, and their relatives, follows the concept of co-production and thus the motto of the Disability Rights Movement: Nothing about us without us (Charlton,

1998). Moreover, it introduces participants to an alternative, holistic, fluid, and non-pathologizing concept of mental health. Both implicitly, through its setting and choice of educators, and explicitly, through its anthropological viewpoint and use of the social model of disability, the seminar questions the dichotomous idea of “health” and “illness” as fixed opposites. Mental health diagnoses are described not as permanent and objective entities, but as constructions, which, while describing real problems and phenomena, are unable to grasp the human psyche in its complexity. Students are introduced to the idea of health as a dynamic, three-dimensional spectrum, with every person being endowed with “healthy” elements, resources, and personality traits.

According to this model, by definition, mental health conditions cannot be considered “incurable”. Indeed, the concept of a “cure” itself is shown to be inapplicable to the field of mental health and the human psyche. In its stead, the workshop introduces participants to the emancipatory concept of “recovery” as an ongoing process or work in progress. Recovery is here defined as a journey towards a meaningful and rewarding life, and to improved self-efficacy and confidence. No matter what label a person has been given, recovery is always a possibility—regardless of whether symptoms or problems persist, whether the person continues to experience serious problems or crises, or is still unable to live without support.

As is shown in the discussion of diverse diagnoses, no matter how challenging, mysterious, or difficult a person’s behavior may appear, it is never “alien” and outside of the boundaries of human experience. There is a human reason for it, which can be understood by fellow human beings. Thus, there is a potential for genuine empathy and connection. In fact, unusual experiences, such as auditive or visual hallucinations, are themselves on a spectrum of sensory experiences. The senses are by no means reliable, and the phenomenon of misattribution can happen to every individual. In fact, the seminar makes strategic use of interactive elements to demonstrate this.

Training Part 6: The Experience of Hearing Voices

Crucially, the seminar comprises exemplary exercises, which could be described as serious games. Most poignantly, it includes a 30-minute intervention on the experience of hearing voices. Participants are divided into groups of three. In each group, participant A is advised to talk to participant B about a topic of their own choice. Throughout their conversation, participant C (either a workshop facilitator or a student instructed in advance) simultaneously whispers and talks to participant A. Going through the exercise gives students an opportunity to experience the potential distractive impact of acoustic hallucinations. It is thus intended to facilitate a change of perspective, and to help students realize how understanding and following police orders while experiencing hallucinations can be a huge challenge.

The workshop does neither attempt to truly simulate the experience of hallucination. Nor does it suggest that participants can really be enabled to completely grasp the state and thought processes of a different individual. Yet, it attempts to give students some idea of the level of stress, uncertainty, and sensory overload individuals with mental health conditions are likely to experience in acute crisis. It also demonstrates the sheer physical difficulties of effectively communicating (both actively and passively) in such situations.

Training Part 7: Personal Accounts and Open Discussion

While such exercises are considered an important part of the seminar, its core, or culmination, lies in the personal dialogic encounter it offers, and in the opportunity for open conversation. Commonly, the exercise session is completed by a discussion and opportunity for asking questions. In turn, this is followed by personal accounts of three or four workshop moderators (always including both service users and relatives) about their own experiences with acute crisis, police encounters, and, where applicable, use of force and involuntary hospitalization.

In many ways, the preceding parts of the workshops serve as a preparation for this section, intended to help participants approaching these very personal narratives with an open and empathetic mindset. The workshop team intends to create an open, safe atmosphere, in which all participants are encouraged to share their thoughts, doubts, hopes, and anxieties. For students, the setting provides an opportunity to talk about their own experiences with persons in crisis, in the context of police encounters or elsewhere. Often, this part is extremely intense for all involved. As mentioned above, the format questions the medical, pathological model of psychiatric diagnoses, and the idea of “health” and “illness” as fixed entities and dichotomous opposites. The experiences undergone by individuals with mental health diagnoses are shown to be deeply human, and rooted in their personal histories and social circumstances. At the same time, students are also invited to recognize and accept their own vulnerabilities, to see themselves as complex human beings. The seminar encourages them to go beyond their professional role and, when on duty, be open to meeting persons in crisis in a real, personal encounter, on an equal level. Overall, the project is intended both to reduce prejudices and misconceptions, offer alternative, non-pathologizing approaches to mental health, and increase empathy in police officers and officers in training.

6 Experiences: Statements by Participants and Workshop Moderators

The authors collected four personal accounts about the seminar for this chapter. These statements are exemplary to indicate the subjective experience with the triologic intervention for different stakeholders. As a limitation they may not be generalizable. All four participating individuals felt that they had greatly profited from the seminar, and that it had rendered them more confident in their own professional role and in dealing with persons in challenging situations with empathy. At the same time, workshop moderators also report having benefited from their participation in the project. Interestingly, moderators also report experiencing a change of perspective, seeing beyond the role of a police

officer and recognizing a full human being, often themselves being in a constrained situation. In this section, four stakeholders, who participated in the workshop in different roles (a trainee officer, a de-escalation trainer, a relative, and a person with lived experience), describe their experiences. All of them wish to remain anonymous. The quotations were given in German and subsequently translated by the authors.

Trainee police officer, Hamburg Police Academy:

After completing my degree, I recently started as a police officer at the Hamburg police department. In my job, I frequently come across individuals whose behavior does not conform to social expectations. Many of them have mental health issues. Yet, when I intervene in my capacity as an officer, their reactions are completely unique and individual. For me as an officer, it is crucial to adapt to the needs of the person concerned, to employ de-escalating strategies. We always aim to solve problems through communication, and avoid use-of-force where possible. In my experience, the dialogic seminar I attended as a student has been very helpful in situations involving individuals with psychiatric conditions. The seminar has taught me how crucial it is to show them that I take their fears and concerns seriously. Thus, it is particularly important to avoid a dismissive attitude towards the delusions and hallucinations experienced by many persons in acute crises, and to instead accept them as a given part of their current reality. Additionally, the dialogic seminar has inspired me to develop my own guideline for navigating such situations, which has already been helpful in several police encounters with persons with SMI. The seminar provided students with the opportunity to meet and talk to persons with SMI on equal terms. I realized that, in an acute crisis, individuals with mental health conditions are in an extreme, exceptional situation, which leaves them dependent on external support. Frequently, they don't really present a danger to me as a police officer, but rather to themselves. My awareness of this has had a crucial impact on my work, leading to better understanding and more effective communication. Thus, my encounters with individuals in a crisis have been largely nonviolent; almost always, the person concerned

agreed to being admitted to a public mental health service. Personally, I am very aware that the trialogic seminar I attended has played a large part in this.

Senior police officer and de-escalation trainer, Hamburg Police Academy:

The trialogic module is taught during the fifth semester of our program for police officers in training. It is embedded in a series of lectures on police encounters with persons with mental health issues. The trialogic event itself is preceded by a lecture opening with a reflection on students' experiences in their placements/internships preceding the semester. This is followed by a discussion on police encounters in Germany which resulted in officers using weapons against individuals with psychiatric conditions. A basic theoretical understanding of psychology and a basic knowledge about psychiatric diagnoses, which were covered in previous semesters, is a precondition for attending this module. Our students hope to benefit from our trialogic seminar, to increase confidence in their own judgment concerning diverse psychiatric conditions and challenging situations. Crucially, the triialogue helps our students to see beyond labels such as psychiatric diagnoses or disorders, and get to know the real people behind them. Most of them highly appreciate having this opportunity, and are both surprised and impressed by the openness of our workshop facilitators with lived experience. The encounter enables a change of perspective for all participants. Often, the contributions by relatives of persons with mental health issues are considered especially helpful. After our trialogic seminar, students often report feeling less insecure and more confident around individuals with mental health issues. Listening to persons with lived experience, they develop an increased understanding for such conditions. Thus, they often realize why pigeonholing complex human beings into fixed categories may prove counterproductive. They learn that in challenging situations while on duty, an empathetic attitude can frequently lead to a more positive and effective outcome. Students reflected their own experiences while on duty, and felt that the seminar had widened their set of

tools and options for challenging situations. Crucially, the module also serves to increase students' sensitivity for navigating challenging situations involving relatives of persons with SMI. The session directly following the trialogic seminar, which is devoted to the planning of police operations, also stresses the importance of a holistic, contextualizing approach. The semester closes with a scenario training unit, giving students the opportunity to turn theory into practice. Students have to handle life-like scenarios requiring immediate action, in situations of imminent danger, posed by a person displaying challenging behavior, or in situations involving a suicidal person. Our regular evaluations clearly indicate that participants greatly enjoy and profit from our courses, the trialogic module in particular, and would appreciate having more modules/courses in this format.

Relative, long-time workshop facilitator:

I have been involved in several anti-stigma workshops, in which young trainee officers in the final year of their training are informed about mental health conditions. A professional from our department of psychiatry and psychotherapy provides a theoretical introduction on psychiatric diagnoses and mental health crises. Additionally, every diagnosis discussed there is covered both by a person diagnosed with the condition and by a relative, who share their personal experiences. What has helped them and what hasn't, how did they experience police encounters. The young novice officers, who do already have practical experience of police work, show great interest, ask good questions, increase their knowledge, and are grateful both for the input and face-to-face contact. Almost all of them have experienced police encounters with persons in an acute crisis. This is definitely a win-win situation that helps to reduce stigma for all parties involved.

Person with lived experience, long-time workshop facilitator:

Based on my own experiences of crisis and the trialogical exchange with police officers I have witnessed the emergence of a third perspective, a synthesis of all those different experiences. Thereby, I have come

to question the responsibilities of all the people involved in my experiences of crisis, including my own. Also, from a subjective perspective, I question academic concepts and their practical impact. Considering all these approaches towards assimilating the difficult experiences, I have become very aware how important it is, after a police encounter with a person in acute crisis, to offer opportunities to talk. Given that this is not universally offered, I have been compelled, as the person concerned, to initiate such meetings myself. My experiences have been very positive, and in some cases have led to further conversations.

7 Conclusion

As has been shown, a focus on de-escalation, empathy, and anti-stigma work in the field of mental health is an important component of effective and ethical police training. Its implementation has the potential to significantly reduce use-of-force, involuntary hospitalization, and traumatic or even fatal events in the context of police encounters with SMI. Trialogic formats involving professionals, relatives, and service users can be particularly innovative in this context. Facilitating a change of perspective for all stakeholders involved, it can also increase work satisfaction for police officers and help them to balance assertiveness with empathy. Further research into the impact of trialogic interventions is still needed. Arguably, the trialogic element in police officer training might be expanded, with persons with lived experience being implemented as co-trainers or co-lecturers. The development of face-to-face formats with other marginalized groups or persons with other psychiatric diagnoses (such as autism), or with an intersectional perspective, might also be useful. Additionally, potential new formats, involving the cooperation between police officers and mental health peer support workers in the assistance of individuals in crisis, also look promising (our research group is currently involved in the development and evaluation of a pilot project in this field in Bremen, Germany). At the same time, the trialogic approach is in accordance with the UN Convention on the Rights of Persons with Disabilities, and the self-advocacy movement of service

users and survivors, and thus contributes to the cultural shift towards a more inclusive society.

Key Takeaways

Police Officers

Police officers could use the knowledge and philosophy presented here to reflect their own perspectives towards and experiences with individuals with SMI in their professional and private lives. This is crucial for their self-image as a helping profession. Moreover, a better understanding for individuals in acute crisis facilitates the use of de-escalation techniques.

Conflict Management Trainers

Police training entailing the preparation for scenarios involving individuals with mental health conditions should include trialogic aspects. To establish a trialogic intervention the authors recommend reaching out to local mental health care centers and/or self-help groups. A detailed description of the intervention can be found in this chapter. Conflict management training should also include a scenario-based training enabling trainees to develop appropriate de-escalative solutions and self-efficacy. This training can even include persons with lived experiences and psychologists as co-trainers who reflect sessions in a trialogic manner.

Police Decision-Makers

Innovations in police training are sometimes accompanied by a “we’ve always done it that way” attitude in organizations. The arguments, philosophy and evidence presented in this chapter could help police decision-makers in shaping a framework in which a trialogic intervention could encourage police decision-makers to develop a new framework in which trialogic interventions could enrich conflict management training.

References

- Bock, T., Niemann, S., Dorner, R., Makowski, A., Fabeck, H., Mahlke, C., Meyer, H. J., Finzen, A. (2015). Wenn Stigma tödlich wird, kann Fortbildung Leben retten—zur konstruktiven Wirkung trialogischer Fortbildung

- bei der Hamburger Polizei. *Psychiatrische Praxis*, 42(5), 278–280. <https://doi.org/10.1055/s-0034-1399906>
- Bock, T., & Priebe, S. (2005). Psychosis seminars: An unconventional approach. *Psychiatric Services*, 11, 1441–1443. <https://doi.org/10.1176/appi.ps.56.11.1441>
- Bock, T., Sander, K., Franke, A., Linsig, R., Rudel, A., Schulz, G., Vahovic, V., & Heumann, K. (2019). Mental health in prison – »trialogic« mental health training of prison officers in Germany. *Recht Und Psychiatrie*, 37(1), 20–25.
- Charlton, J. (1998). *Nothing about us without us: Disability oppression and empowerment*. University of California Press.
- Coleman, T., & Cotton, D. (2014). TEMPO: A contemporary model for police education and training about mental illness. *International Journal of Law and Psychiatry*, 37(4), 325–333. <https://doi.org/10.1016/j.ijlp.2014.02.002>
- Corrigan, P. W., Morris, S. B., Michaels, P. J., Rafacz, J. D., & Rüsch, N. (2012). Challenging the public stigma of mental illness: A meta-analysis of outcome studies. *Psychiatric Services*, 63(10), 963–973. <https://doi.org/10.1176/appi.ps.201100529>
- Godschalx, S. M. (1984). Effect of a mental health educational program upon police officers. *Research in Nursing & Health*, 7(2), 111–117. <https://doi.org/10.1002/nur.4770070207>
- Hansson, L., & Markström, U. (2014). The effectiveness of an anti-stigma intervention in a basic police officer training programme: A controlled study. *BMC Psychiatry*, 14(1), 55. <https://doi.org/10.1186/1471-244X-14-55>
- Reaves, B. A. (2016). *State and local law enforcement training academies, 2013*. Retrieved from <https://www.bjs.gov/content/pub/pdf/slleta13.pdf>
- Richmond, M., & Gibbs, J. C. (2021). Police perceptions of training on interactions with persons with mental illness. *Journal of Police and Criminal Psychology*, 36, 268–275. <https://doi.org/10.1007/s11896-020-09409-8>
- Soares, R., & Pinto da Costa, M. (2019). Experiences and perceptions of police officers concerning their interactions with people with serious mental disorders for compulsory treatment. *Frontiers in Psychiatry*, 10, 187. <https://doi.org/10.3389/fpsy.2019.00187>
- Staller, M., Körner, S., Heil, V., Klemmer, I., Abraham, A., & Poolton, J. (2021). The structure and delivery of police use of force training—A German case study. *European Journal for Security Research*. <https://doi.org/10.1007/s41125-021-00073-5>

- Stuart, H. (2003). Violence and mental illness: An overview. *World Psychiatry*, 2(2), 121–124.
- Todak, N., & James, L. (2018). A systematic social observation study of police de-escalation tactics. *Police Quarterly*, 21(4), 509–543. <https://doi.org/10.1177/1098611118784007>
- Watson, A. C., Corrigan, P. W., & Ottati, V. (2004). Police officers' attitudes toward and decisions about persons with mental illness. *Psychiatric Services*, 55(1), 49–53. <https://doi.org/10.1176/appi.ps.55.1.49>
- Wechsler, D., Schomerus, G., Mahlke, C., & Bock, T. (2020). Effects of contact-based, short-term anti-stigma training for medical students. *Neuropsychiatrie*, 34(2), 66–73. <https://doi.org/10.1007/s40211-020-00337-x>
- Williams, U., & Jones, D. J. (2020). Delineating policing towards a social and health profession. *Journal of Community Safety and Well-Being*, 5(4), 156–163. <https://doi.org/10.35502/jcswb.171>
- Wittmann, L., Dorner, R., Heuer, I., Bock, T., & Mahlke, C. (2021a). Effectiveness of a contact-based anti-stigma intervention for police officers. *International Journal of Law and Psychiatry*, 76, 101697. <https://doi.org/10.1016/j.ijlp.2021.101697>
- Wittmann, L., Groen, G., Ogorka, J., & Jörns-Presentati, A. (2021b). “I didn't know what they wanted from me” –the perspective of individuals with mental disorders on police interventions. *Journal of Police and Criminal Psychology*, 36, 537–542. <https://doi.org/10.1007/s11896-021-09449-8>
- Wittmann, L., Jörns-Presentati, A., & Groen, G. (2021c). How do police officers experience interactions with people with mental illness? *Journal of Police and Criminal Psychology*, 36, 220–226. <https://doi.org/10.1007/s11896-020-09398-8>
- Wundsam, K., Pitschel-Walz, G., Leucht, S., & Kissling, W. (2007). Psychiatric patients and relatives instruct German police officers. *Psychiatrische Praxis*, 34(4), 181–187. <https://doi.org/10.1055/s-2006-940065>



A Practical Guide for Developing De-escalation Training

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Reviewer: Linus Wittmann

In the wake of the killing of George Floyd in 2020, widespread protests and renewed calls for police reform spread throughout the world. While these calls are not new and are often reignited following high-profile deaths at the hands of police, events in 2020 created what some have described as an unprecedented set of circumstances that may be the tipping point in the push for police reform (Engel et al., 2022). One common target of such calls for reform includes the implementation

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of policy and training surrounding de-escalation (e.g., President's Task Force on 21st Century Policing).

Demands for the increased use of de-escalation are closely tied to police response to individuals in crisis, including mental health crises, which officers often feel ill-equipped to respond to (Godfredson et al., 2011). While police reform advocates have called for the reallocation of funds from the police to community resources (Ajadi et al., 2022), the fact that the police are required by law to respond to calls for assistance and have the responsibility to apprehend individuals who are at risk to themselves or others under mental health legislation, means that for the foreseeable future police will continue to play a role in crisis response. Given this, it is essential that officers are provided with the tools to effectively de-escalate encounters with people who are in crisis.

Many police agencies across North America have implemented de-escalation training. A national survey of 155 large police agencies in the USA revealed that nearly all those that responded offered de-escalation training, many indicating that they have had such training in place for a decade or more (CBS News, 2019). However, despite the rapid proliferation of de-escalation training programmes, very little is known about the impact of these programmes in terms of the key outcomes they aim to influence, including reductions in the use of force (UoF) and injuries to officers and members of the public (Lum et al., 2016).

The limited evaluations of de-escalation training that do exist demonstrate that while they are generally effective at improving officer knowledge and attitudes, the results are less favourable when considering behavioural outcomes. For example, when evaluating Polis Solutions' social interaction training programme, McLean et al. (2020) found that the training was associated with improved attitudes toward procedural justice¹ among trainees; however, there were no significant reductions in UoF. A notable exception to previous findings is the recent evaluation of the Police Executive Research Forum's (PERF) de-escalation training conducted by Engel et al. (2022). This evaluation found significant reductions in UoF incidents (−28.1%) and injuries to citizens

¹ Procedural justice has been defined as the use of fairness and perceptions of legitimacy by people in authority during decision-making processes (Bennett et al., 2018).

(−26.3%) and officers (−36.0%) following the implementation of the training within the Louisville Metro Police Department.

Based on the body of existing research, some have argued that despite the proliferation of de-escalation training, desired outcomes are still not being realized, especially for people in mental health crisis who come into contact with the police (Lavoie et al., 2022).² This is likely due to a variety of factors, such as the way training is developed and delivered, but a key concern relates to the amount of time dedicated to de-escalation during training. Indeed, the available research suggests there is a far greater focus in police training on UoF skills than on skills related to de-escalation (e.g., Dube, 2016; Reaves, 2016). For example, Sloan and Paoline (2021) found while 20% of initial training time was spent on UoF, only 3% was spent on mental illness and communication, with the same pattern holding true for in-service training.

Given the limited resources devoted to de-escalation training, it is perhaps not surprising that officers experience challenges when trying to implement such strategies in the field, especially when one considers that police–public encounters are often very stressful. The purpose of this chapter is to provide an overview of how current research may be used to inform the development and delivery of de-escalation training. We start the chapter by providing a broad overview of how one may go about identifying what to target in training, followed by how to design a de-escalation training programme by considering relevant evidence-based methods that, when taken together, provide a comprehensive framework for developing both behavioural and perceptual-cognitive abilities. We end the chapter with a practical example to illustrate how the training development process can be implemented to ensure adequate coverage of relevant knowledge and skills, while also increasing the frequency and duration of de-escalation training.

Despite the pervasiveness of calls for the increased use of de-escalation and training that focuses on the development of proficiency in the area

² It is worth noting that we do not believe it possible for training alone to completely eradicate negative outcomes during police–public interactions given that such interactions are transactional in nature and therefore depend not only on the officer but on the other individuals involved.

of de-escalation, there appears to be a lack of consensus about what de-escalation is and when it should be used (Todak & James, 2018). When de-escalation is defined, definitions usually highlight that it involves bringing an escalated individual or situation back to a calm state (e.g., Todak & White, 2019) and that verbal and non-verbal techniques are used to facilitate this process (e.g., International Association for Chiefs of Police [IACP], 2020). A common definition used within the policing community, which we rely on for this chapter, is the one put forth in the National Consensus Policy on Use of Force (IACP, 2020, p. 2):

Taking an action or communicating verbally or non-verbally during a potential force encounter in an attempt to stabilize the situation and reduce the immediacy of the threat so that more time, options, and resources can be called upon to resolve the situation without the use of force or with a reduction in the force necessary. De-escalation may include the use of such techniques as command presence, advisements, warnings, verbal persuasion and tactical repositioning.

This definition goes beyond identifying the goal of de-escalation (i.e., reducing the tension associated with an escalated situation or individual) to provide some insight into what the process of de-escalation may entail, and it specifies that the process can involve UoF if necessary.

Traditionally, like many aspects of police training, the sorts of de-escalation skills spoken of in the National Consensus Policy are taught in isolation (e.g., separate from UoF). Instead, we advocate here for a more integrated approach that does not create an artificial distinction between UoF and de-escalation training. This concept aligns with “interleaving” (Szpiro et al., 2014), which is quickly gaining popularity among police agencies looking to improve learning beyond what can be obtained through the blocked approach that is most commonly adopted. Blocked training approaches involve focusing on the mastery of one skill prior to introducing the practice of a new but related skill. In contrast, interleaved practice involves interspersing related skills while still working toward developing mastery (Szpiro et al., 2014). There is growing evidence that interleaving is more effective than a blocked approach to training for learning and learning retention (Birnbbaum et al., 2013; Carvalho &

Gladstone, 2014; Szpiro et al., 2014). Furthermore, this approach is likely to facilitate the development of flexible problem-solving skills, including the ability for officers to effectively integrate (and transition between) the use of communication-based tactics and UoF intervention options as required to manage potentially volatile situations (Belur et al., 2020; Blumberg et al., 2019; Staller & Zaiser, 2015).

1 Deciding on Which Knowledge, Skills, and Abilities to Target in Training

The first step in the development of any training programme is determining which knowledge, skills, and abilities (KSAs)³ training should target. There are several approaches for accomplishing this: conducting a review of internal materials (e.g., standard operating procedures), using cognitive task analysis (CTA) methods to leverage the knowledge of experts, consulting diverse groups of relevant and knowledgeable stakeholders, and/or reviewing literature on the topic, to name a few (e.g., Fowlkes et al., 1998; Hoffman et al., 2014; Lavoie et al., 2022).

Reviews of Internal Materials

A lot of valuable information about relevant KSAs for de-escalation training can be gleaned by conducting reviews of internal documents. While the most obvious of these are task lists and standard operating procedures, agencies that make regular use of video technology can also leverage this technology. For example, increasingly agencies are equipping their officers with body-worn cameras, which can be useful for developing training (Todak, 2019). While various approaches could be taken to facilitate this, one approach is having officers flag incident footage where they felt that either they or one of their coworkers de-escalated effectively (Todak, 2019). Such cases can be reviewed and

³ *Knowledge* refers to a theoretical or practical understanding of an issue, *skills* are specific proficiencies that are developed through operational and training experience, and *abilities* are innate qualities that officers hold (Bennell et al., 2022).

discussed by subject-matter experts to identify KSAs, which can then be used to create tailored training scenarios (Todak, 2019).

Cognitive Task Analysis

CTA is a set of methods that can be used to identify and understand the mental processes involved in carrying out operational tasks (Klein & Militello, 2001; O'Hare et al., 1998). In particular, CTA methods can help identify the mental processes engaged in by experts so that such knowledge can be preserved and leveraged for training purposes. CTA procedures have been applied to the law enforcement context successfully several times (e.g., Boulton & Cole, 2016; Klein et al., 2015; Preddy et al., 2019). For example, Klein et al. (2015) conducted interviews with 17 police officers and 24 soldiers from the USA who were identified by their supervisors as demonstrating superior abilities at engaging effectively with civilians and gaining voluntary compliance. The interviews employed a form of CTA (see Crandall et al., 2006 for details) in which participants were asked to recall challenging encounters with civilians, which were probed in great detail. The study found that to work well with civilians and gain voluntary compliance police and military personnel apply a "Good Stranger" frame that prioritizes building trust with individuals they interact with. Trust was achieved through balancing security with appropriate perspective taking, trying to be seen as trustworthy, building rapport, attempting to gain voluntary rather than coercive compliance, and de-escalating tense situations (Klein et al., 2015). The findings from this study were then used to develop training that attempted to teach the police and military to be Good Strangers (Klein & Borders, 2016).

Community Consultation

It has been widely argued that the development of de-escalation training should involve the participation of diverse stakeholders (Coleman & Cotton, 2014; Iacobucci, 2015). It has been suggested that by bringing together diverse stakeholders, human rights and lived experiences

become a central component of training, which guards against the development of training that promotes only officer perspectives (Kidd et al., 2015; Lavoie et al., 2022; National Consumer & Carer Forum of Australia, 2004). An excellent example of this can be seen in the study by Lavoie et al. (2022), whose partnership approach included a team of researchers from the humanities and social sciences, community mental health experts, police trainers, and stakeholders, including individuals with lived experience with mental illness. Through this collaboration the team developed a competencies-based approach to train police to respond to mental health crises by focusing on what they call “relational policing” and being able to safely implement de-escalation. Relatedly, some research has demonstrated value in using a “triological approach” that incorporates the perspectives of individuals with lived experience, their loved ones, and mental health professionals (e.g., Wittmann et al., 2021). For example, Wittmann et al. (2021) found that following a seven-hour anti-stigma training officers demonstrated less anxiety toward individuals with schizophrenia, fewer negative stereotypes, and less social distance compared to pre-training.

Potential KSAs from Previous Research

While ideally each agency should tailor training to their local context, given the resource-intensive nature of the methods described above, it is prudent to leverage the work of others. We have highlighted some previous research that provides insight into what types of KSAs should be targeted in de-escalation training. Additional research that provides insight into the types of KSAs that should be targeted includes the work of Todak and White (2019) and Bennell et al. (2022). Todak and White identified important components of de-escalation by conducting focus groups and interviews with peer-nominated expert de-escalators. Bennell and his colleagues, on the other hand, conducted a literature review that identified KSAs for handling potentially volatile police–public interactions.

2 Designing a Training Progression and Implementing Training

Once the KSAs that are going to be targeted in training have been identified, a training progression must be established that provides opportunities for the given KSAs to be addressed (Fowlkes & Burke, 2004; Ward et al., 2008). When determining what this progression should look like, the training format (e.g., lectures, simulators, scenario-based training [SBT]) used should align with the KSA being developed (Bennell et al., 2021; Jenkins, Semple, & Bennell, 2021). For example, it may make sense to start with classroom lectures that convey foundational knowledge to trainees that underpins the ability to effectively de-escalate (e.g., signs of mental illness, stigma and stereotypes, relevant policy).

However, given that de-escalation is a practical skill, it is also recommended that training emphasizes approaches that provide skills-based and experiential learning opportunities, like role-playing (Fiske et al., 2021; Lavoie et al., 2022). Engaging in CTA and other knowledge elicitation procedures with experts⁴ should result in the development of a library of cases that can then form the basis of scenario- or problem-based learning (Hoffman et al., 2014). In terms of carrying out such training, Ward et al. (2018) identify six principles for training adaptive skills, which they argue is the essential feature of expertise. Someone with adaptive skills can adjust their thinking and behaviour appropriately given changing demands in their environment.

Principle 1: Concept–Case Coupling

The first principle identified by Ward et al. (2018) suggests that training should tie conceptual knowledge to case examples that provide opportunities for that knowledge to be understood. Conceptual knowledge can be thought of as overarching principles that should guide behaviour. To facilitate the development of adaptive skills, conceptual knowledge

⁴ As a practical point, there is no need to marshal extensive numbers of experts, as there is evidence of diminished returns when too many experts are involved in task analyses (Chao & Salvendy, 1994).

should be connected to diverse cases to allow the knowledge to be applied contextually so it becomes clearer as to how the concept applies under different conditions (Ward et al., 2018). An example of how this principle has been applied in de-escalation training can be seen in PERF's (2016) de-escalation programme, Integrating Communications, Assessment, and Tactics (ICAT). This introduces the Critical Decision-Making Model as a framework for making decisions during interactions with the public during Module 2. This conceptual framework is then reinforced throughout the training (e.g., during Module 5 on operational safety tactics) and then officers are given an opportunity to apply the model during scenario-based exercises.

Principle 2: Complexity Preservation

The second principle highlights that training should preserve the complexity of the to-be-learned material (e.g., Ward et al., 2018). While it will be necessary to ensure that foundational knowledge and skills are developed before SBT is introduced, once proficiency in those areas has been achieved, continually breaking down tasks into smaller chunks may be detrimental to trainee understanding of the complex and dynamic phenomena they will ultimately encounter in the real world. Specifically, this principle emphasizes the need for training that makes use of real-world cases (i.e., case-based learning) to facilitate the understanding of complexities involved in escalated police–public interactions (e.g., interacting processes, nonlinear causation), which can be challenging for trainees (Ward et al., 2018). However, it is important to highlight that while it is critical to preserve complexity this should be relative to learner proficiency so as not to overwhelm the learner.

SBT and simulation methods are particularly well-suited to maintaining this complexity. These methods allow for cases to be turned into scenarios, which facilitates the development and refinement of trainee skills in environments that mimic operational settings while minimizing the risk of harm (Wollert & Quail, 2018). Ensuring that the training environment resembles the operational environment to a reasonable degree increases the likelihood that skills developed in training will

transfer to the real world (Hoffman et al., 2014). To enhance the realism of training, four dimensions of fidelity should be considered: the psychological, physiological, physical, and contextual⁵ (Wollert & Quail, 2018). In line with this thinking, Stress Exposure Training suggests that skills be acquired and practised in environments that gradually become more stressful by including elements that will be encountered in naturalistic settings (e.g., task load, time pressure, ambiguity).

Principle 3: Case-Proficiency Scaling

Training that aims to enhance adaptive performance needs to ensure that the situations trainees are faced with are tailored to their current proficiency levels in a way that stretches their performance beyond current abilities (Hoffman et al., 2014; Klein & Borders, 2016; Ward et al., 2018). While research suggests that training should be based on expert mental models (i.e., a representation of the situation), it is essential that trainees first develop their own mental model for a given task and then are able to compare that to an expert model, as is done in the ShadowBox approach (Klein & Borders, 2016). The ShadowBox approach uses CTA methods to elicit knowledge from experts. Trainees are then presented with scenarios, each of which has several decision points. Each decision point presents options to trainees regarding actions to be taken, cues to be monitored, goals to be prioritized, information that is needed, or has them anticipate various outcomes. The trainee must record a rationale for their decision-making, and then they are able to compare their responses and rationales to that of the experts.

When working with trainees of lower proficiency, such as recruits, the explanation of the expert mental model will need to be adjusted so that it can be understood, suggesting the importance of strong mentors (Ward et al., 2018). Mentors will need to be able to create a mental

⁵ Psychological fidelity involves mimicking the mental processes experienced in real situations (e.g., anxiety); physiological fidelity involves mimicking the internal physiological states experienced during real situations (e.g., elevated heart rate induced by physical exertion); physical fidelity involves mimicking the physical features found in real encounters (e.g., weapons); and contextual fidelity involves mimicking the context of real encounters (e.g., the amount and type of information presented to officers).

model that reflects their trainees' KSAs in order to anticipate difficulties they may encounter and create a training environment that supports them as they experience challenges associated with operating in complex environments. Determining the appropriate level of challenge required for learners at different proficiency levels is a major difficulty identified in the instructional design literature (Koedinger et al., 2008). Ideally, time would be spent determining different proficiency levels within the pool of trainees, and case scenario banks would include different training material for different levels of proficiency (Ward et al., 2018). This could be done, for example, by creating versions of scenarios that modify different features to enhance difficulty (Wollert & Quail, 2018).

Principle 4: Tough Case Time Compression

The fourth principle suggests that attempts should be made to design training in a way that minimizes downtime in order to increase the frequency with which trainees are faced with challenging learning opportunities (Crandall et al., 2006; Ward et al., 2018). Making use of decision-making exercises such as ShadowBox, which has been described above, can facilitate this given that everyone can complete them at the same time. Further, while cases included in training should represent the variety of situations that officers face in the field, training should include cases that are particularly challenging and/or rare (i.e., tough cases). The inclusion of tough cases provides trainees with opportunities to gain the experience necessary to develop adaptive skills that would otherwise take a very long time to accrue (Hoffman et al., 2014). It is worth noting, however, that the value of tough case time compression needs to be balanced with the associated mental effort and fatigue (Ward et al., 2018). Furthermore, when selecting tough cases, it is important that the focus remains on tough cases from a cognitive perspective and that this approach is not used to justify disproportionately exposing officers to rare, ambush-style attacks against them.

Principle 5: Active Reflection

The fifth principle suggests that training should encourage the development of a reflective practitioner (Klein, 1996; Ward et al., 2018). Indeed, the adult learning literature suggests that learning can be enhanced by engaging the trainee in active participation and reflection (Cochran & Brown, 2016; McCay, 2011). In particular, training should help trainees gain a realistic understanding of their own proficiency, so they know what they do and do not know (Ward et al., 2018). Further, reflection should help to expand their understanding of how they make sense of different problems they're faced with (Ward et al., 2018). There are specific things trainers can do to ensure trainees are engaged and being reflective. They can provide trainees with an opportunity to experience a variety of situations that involve the use of different strategies and responses and have them compare their current experiences with prior ones, explain what happened, articulate decisions made, and think about if/how success was or was not achieved (Cochran & Brown, 2016; McCay, 2011; Ward et al., 2018).

Principle 6: Flexibility-Focused Feedback

The last principle identified by Ward et al. (2018) is that training for adaptive skills should provide feedback that is aimed at enhancing cognitive flexibility. According to Hoffman et al. (2014), feedback should allow learners to: (1) recognize when the strategies they are using will and will not work effectively; (2) promote the development of new strategies that allow them to respond adaptively to unexpected changes during training exercises or in novel situations; and (3) quickly reassess and reappraise their interpretation of a situation so that knowledge can be reassembled to allow for updated conceptualizations of the situation to be formed. In particular, feedback needs to help learners overcome the tendency to stick to previous methods even when they are no longer appropriate to the updated situation. Research suggests that for proficiency to develop, feedback needs to be timely (i.e., provided close enough to the decision-making to allow it to be useful, but not too

close so as to interfere with the learner's ability to self-assess), to permit the understanding of situations, and to provide insight into both the outcome and the process (i.e., to allow for an exploration of the decision-making process of the learner and how that impacted on the outcome; Hoffman et al., 2014).

A good time for trainees to engage in active reflection and receive flexibility-focused feedback is during scenario debriefings, which are critical parts of the learning process (Schmidt & Lee, 2011; Vickers, 2007). One approach trainers can use is the Student Centered Feedback Model (Wollert & Quail, 2018). Following the completion of a scenario the instructor can use this model to elicit a verbal report from the trainee that identifies cues perceived by the trainee, the decision-making process of the trainee, and the consequences of their decision-making process. Trainees are also asked to identify positive aspects of their performance and any courses of action they may have taken instead that would have led to a more desirable outcome. This model also provides trainees with the opportunity to repeat the scenario to improve their performance.

Another key aspect of training that facilitates the provision of flexibility-focused feedback for the KSAs targeted in training is the development of robust performance rubrics (Fowlkes & Burke, 2004). Performance rubrics should be developed for each scenario, rather than as universal metrics applied to all SBT (Fowlkes & Burke, 2004). Wollert and Quail (2018) suggest using a five-point rating scale for each KSA—ranging from unobservable (0), to unacceptable (1), marginal (2), acceptable (3), and desirable (4)—for an officer's response to a trigger event (i.e., something that provides the trainee with an opportunity to demonstrate a given KSA). Attributing concrete behaviours to each level of performance will increase consistency in the application of the rubric across instructors. For some KSAs, "desirable" responses should not be too prescriptive such that they penalize alternative approaches, as there are often numerous ways to achieve the same outcome (Salas et al., 2009).

Tracking and Updating

A final step of training that contributes to the development of an adaptive police organization is to ensure that the training has mechanisms in place that allow it to be responsive to an ever-changing and increasingly complex world. Tracking performance data over time allows trainers to identify any gaps in training that could be addressed in future iterations (Fowlkes & Burke, 2004). By tracking individual trainee's performance over time this information can also be used to help correctly scale training to their proficiency level (Jenkins, Semple, Quail, et al., 2021). Finally, tracking data over time can speak to the effectiveness of the training being evaluated, which may require that it be modified or eliminated (Iacobucci, 2015).

3 Putting It All Together: Designing a De-escalation Training Programme

This section will provide an example of how the previously mentioned principles can be incorporated into police de-escalation training. Due to space limitations, we do not provide a comprehensive account of each step but instead aim to provide adequate detail within each step so that practitioners can apply the concepts to their own training.

Identifying KSAs to Target

The first task is identifying which KSAs to target in the training programme. While there are numerous approaches to determining KSAs, which have been discussed above, for the purpose of this example we will leverage the work of Lavoie et al. (2020) who identified KSAs related specifically to de-escalation. These officer KSAs include: (1) approach, contain, and control the scene for effective risk management; (2) manage time and distance; (3) express concern for welfare and willingness to help; (4) humanize the encounter and promote dignity; (5) employ calming paralanguage; (6) use non-stigmatizing and respectful language;

(7) exhibit calming body language; (8) demonstrate self-awareness, flexibility, and self-regulation; (9) actively listen and permit expressiveness; (10) identify signs and adapt response to mental health crisis/emergency behaviours; (11) demonstrate validation of a person's emotions and experience; (12) seek information and use additional resources; (13) foster a client-centred response; and (14) engage in clear and transparent decision-making.

Designing a Training Progression and Implementing Training

To train the KSAs that have been identified, appropriate formats should be selected to facilitate their development. For example, many of the KSAs may require some degree of classroom instruction (e.g., signs of mental illness, stigma and stereotypes, elements of effective communication). Given the foundational nature of this material, this would be completed at the beginning of the training. During classroom time, decision-making exercises (such as variations of the ShadowBox approach) could be used to start training on skills related to other KSAs (e.g., how an individual could be contained, how time and distance could be maximized, what additional information might be useful to seek). The incorporation of decision-making exercises adheres to the goals of tough case time compression as officers are exposed to a wide variety of challenging incidents.

Once an initial level of knowledge has been developed, trainees should progress to an SBT component where they are able to practise the KSAs in a more realistic setting. It is important that SBT be an integral component of police training rather than just a final testing environment that officers complete near the end of the programme. Ideally, a library of scenarios would be developed to ensure that officers get exposure to a wide variety of contexts (that vary in difficulty) to further develop their de-escalation skills. Scenarios should be available for different levels of learners (from novice to expert). Within each stage of the learning process scenarios should become gradually more complex and challenging. Instructors should choose scenarios that are just beyond the

officer's capabilities so that they are continually learning. The utility of exposing trainees to different scenarios is that it allows the officer to see how principles they are learning apply to a variety of situations (i.e., concept-case coupling) and more challenging scenarios allow for more realistic representations of potentially volatile interactions (i.e., complexity preservation).

Based on our experience, there is often considerable downtime between scenarios during SBT. This can be minimized using the principle of tough case time compression. For example, officers can be provided with exercises during breaks between scenarios, which allow them to compare their own understanding of situations with those of experts, as in the ShadowBox approach. Alternatively, officers could be provided with videos of training scenarios where optimal performance is demonstrated with a voice over explaining the officer's decision-making process in real time, and why the decisions are proving to be productive.

Scenario Creation

To illustrate how the adaptive principles discussed above might apply when developing SBT we present a scenario here that involves a well-being check on an individual who is walking into traffic. The first stage in developing the scenario is deciding which KSAs from the above list will be targeted. While the list of KSAs targeted in this example scenario are not exhaustive, we will focus on the following KSAs:

- Managing time and distance;
- Identifying signs of mental illness and adapting responses to a mental health crisis;
- Decision-making with an emphasis on developing adaptive skills;
- Humanizing the encounter and promoting dignity.

To enhance realism, a laser-based force-on-force system might be used, such as the StressVest™ system developed by SetCan (n.d.). The StressVest™ system consists of: (1) a vest that goes over the officer's and role player's chest, (2) a StressX™ Pro Belt that goes around the hips,

and (3) a light-emitting insert that goes into the barrel of a pistol. The vest contains sensors that pick up the infrared light emitted by the laser insert when the trigger of the pistol is pulled and directed at the vest. When the vest registers a shot, the belt administers a localized shock to the abdomen. One of the advantages with using such a system is that it requires minimal protective equipment (i.e., eye protection) so verbal and non-verbal communication is not impeded during the scenario.

Briefly, our proposed scenario script is as follows. The officer receives dispatch information for a wellbeing check related to an individual who is walking into traffic and was nearly struck by a vehicle. The officer responds and finds a role player walking towards them, displaying signs of a person in a mental health crisis as learned during initial de-escalation training (e.g., talking to themselves, yelling at bystanders). The role player is initially uncooperative with the officer, displays signs of minor agitation and aggression, but does not penetrate the reactionary gap of the officer. The officer is required to identify potential signs of mental illness and any threat cues, and begins to act (e.g., creating distance, using barriers) and communicate (e.g., empathy, active listening) in a way that is consistent with what they were taught during their initial de-escalation training. This results in the role player successfully being apprehended under the Mental Health Act and voluntarily being transported to the hospital.

In line with the principle of proficiency scaling, the difficulty of the scenario should be tailored to the abilities of the officer. One relatively simple way to manipulate the complexity of the scenario is by including the presence of stressors. For example, if an officer is demonstrating a high level of proficiency in the scenario described above the following stressors could be added: (1) the presence of bystanders who are concerned for the wellbeing of the role player; (2) noise such as honking traffic; and/or (3) the inclusion of another officer with whom the trainee must coordinate. Additionally, the example scenario adheres to the principles of complexity preservation and concept–case coupling. For example, the scenario is complex in that it requires the officer to be cognizant of officer safety (e.g., time and distance) while simultaneously recognizing the signs of an individual in mental health crisis and using communication skills. Further, the officer is provided with another

opportunity to observe how the principles of officer safety and de-escalation taught during classroom training apply to a variety of contexts and environments.

Active Reflection and Provision of Feedback

The principles of self-reflection and flexibility-focused feedback are particularly relevant to the debrief process following SBT. However, it is important to note that this process should be slightly delayed following SBT to allow the officer to recover from the stress experienced during the scenario (Andersen et al., 2016). The Student-Centered Feedback Model emphasizes that the role of the instructor is to facilitate the learning process of the student. Given this, feedback provided by the instructor should allow the officer to reflect on their own performance and probe for their understanding of the KSAs in relation to the scenario (i.e., principle of active reflection). Specifically, the debrief process should focus on the trainee's understanding of the environment and intentionally seek insight into their decision-making process. For example, the instructor may ask questions that explore the officer's understanding of the situation (e.g., What was your initial assessment of the situation?) and their decision-making (e.g., explain how your risk assessment changed as the scenario progressed). Additionally, instructors may pose "what if" questions to change important situational factors to see how the decision-making process would vary depending on the situation that is presented to the officer.

The use of performance rubrics can facilitate the provision of flexibility-focused feedback and help ensure that all trainees who have similar performance deficits are provided with similar guidance from instructors. Table 1 provides an example of how performance on one of the KSAs targeted in the example scenario could be measured. In terms of using the rubric to facilitate flexibility-focused feedback, consider a situation where an instructor notices that the trainee is not communicating effectively with the role player. In this case, the instructor can focus on this during the debrief. Given that there are many possible explanations for this behaviour, the instructor can ask the trainee to describe their

Table 1 Example performance rubric

Level of Performance	KSA Targeted
Desirable	Identifies signs of mental illness and adapts response to mental health crisis
Acceptable	The officer quickly recognizes that the individual is experiencing a mental health crisis. The officer displays an understanding that there may be barriers to communication by quickly changing the dialogue which improves communication
Not acceptable	The officer struggles but recognizes that the individual is experiencing a mental health crisis. The officer is limited in their approach to communication and is slow to transition when communication barriers are observed
Not observable	The officer fails to recognize signs that the individual is experiencing a mental health crisis and/or responds in a manner that fails to communicate effectively with the individual (e.g., relying solely on the officer's authorities and giving commands)

understanding of the situation and why they chose to respond the way they did. This will help both the instructor and the trainee to diagnose the issue (e.g., the signs of mental illness were unclear to the trainee, they recognized the signs of mental illness but have poor communication skills) and, depending on the source of the issue, appropriate guidance and subsequent remedial training can be provided.

Tracking and Updating

Tracking an officer's performance data over time has numerous benefits. One approach that is particularly promising is the use of software that allows instructors to capture performance during SBT, which is then uploaded into a repository. This allows for the determination of an officer's progression throughout the training programme and their career more generally to ensure that continual learning is occurring. Furthermore, the collection of previous performance data facilitates case proficiency scaling as the instructors will have a good baseline of the officer's abilities at the start of in-service training.

Key Takeaways

Police Officers training that is developed and delivered in line with recommendations found in this chapter is likely to leave frontline officers better equipped to deal with the often challenging and dynamic conflict situations they are presented with.

Conflict Management Trainers

De-escalation training should be co-developed with mental health experts and those with lived experience, and focus on the development of cognitive as well as physical skills. The chapter provides guidance on how to go about identifying KSAs and identifying ways to train those particular KSAs, with a focus on expediting the development of proficiency. We believe this chapter provides guidance to trainers on how they can optimize, develop, and deliver effective training.

Police Decision-Makers

This chapter can help police decision-makers ensure that relevant stakeholders are being involved in the development process and that training resources are being used in a way that is consistent with current research and likely to enhance officers' abilities to deliver effective policing to the communities they serve.

References

- Andersen, J. P., Pitel, M., Weerasinghe, A., & Papazoglou, K. (2016). Highly realistic scenario based training simulates the psychophysiology of real world use of force encounters: Implications for improved police officer performance. *Journal of Law Enforcement*, 5(4).
- Ajadi, T., Critchley, H., Jones, E., Rodgers, J., Bruno, F., Crudo, M., Curtis, S., Guscott, N., Hibbard, N., & Keefe, S. (2022). *Defunding the police. Defining the way forward for HRM*. <https://www.halifax.ca/sites/default/files/documents/city-hall/boards-committees-commissions/220117bopc1021.pdf>
- Belur, J., Agnew-Pauley, W., McGinley, B., & Tompson, L. (2020). A systematic review of police recruit training programmes. *Policing. Journal of Policy Practice*, 14(1), 76–90.

- Bennell, C., Blaskovits, B., Jenkins, B., Semple, T., Khanizadeh, A.-J., Brown, A. S., & Jones, N. J. (2021). Promising practices for de-escalation and use-of-force training in the police setting: A narrative review. *Policing: An International Journal*, 44(3), 377–404.
- Bennell, C., Jenkins, B., Blaskovits, B., Semple, T., Khanizadeh, A.-J., Brown, A., & Jones, N. J. (2022). Knowledge, skills, and abilities for managing potentially volatile police-public interactions: A narrative review. *Frontiers in Psychology*, 13.
- Bennett, S., Hine, L., & Mazerolle, L. (2018). *Procedural justice*. Retrieved from <http://www.oxfordbibliographies.com/view/document/obo-9780195396607/obo9780195396607-0241.xml#firstMatch>
- Birnbaum, M. S., Kornell, N., Bjork, E. L., & Bjork, R. A. (2013). Why interleaving enhances inductive learning: The roles of discrimination and retrieval. *Memory & Cognition*, 41(3), 392–402.
- Blumberg, D. M., Schlosser, M. D., Papazoglou, K., Creighton, S., & Kaye, C. C. (2019). New directions in police academy training: A call to action. *International Journal of Environmental Research and Public Health*, 16(24), 4941.
- Boulton, L., & Cole, J. (2016). Adaptive flexibility: Examining the role of expertise in the decision making of authorized firearms officers during armed confrontation. *Journal of Cognitive Engineering and Decision Making*, 10(3), 291–308.
- Carvalho, P.F., & Gladstone, R.L. (2014). Effects of interleaved and blocked study on delayed test of category learning generalization. *Frontiers in Psychology*, 5(936).
- CBS News. (2019). *We asked 155 police departments about their racial bias training. Here's what they told us*. Retrieved from <https://www.cbsnews.com/news/racial-bias-training-de-escalation-training-policing-in-america/>
- Chao, C.-J., & Salvendy, G. (1994). Percentage of procedural knowledge acquired as a function of the number of experts from whom knowledge is acquired for diagnosis, debugging, and interpretation tasks. *International Journal of Human-Computer Interaction*, 6(3), 221–233.
- Cochran, C., & Brown, S. (2016). Andragogy and the adult learner. In K. A. Flores, K. D. Kirstein, C. E. Schieber, & S. G. Olswang (Eds.), *Supporting the success of adult and online students* (pp. 73–84). City University of Seattle.
- Coleman, T., & Cotton, D. (2014). *TEMPO: Police interactions—A report towards improving interactions between police and people living with mental health problems*.

- Crandall, B., Klein, G., & Hoffman, R. R. (2006). *Working minds: A practitioner's guide to cognitive task analysis*. MIT Press.
- Dube, P. (2016). *A matter of life and death*.
- Engel, R. S., Corsaro, N., Isaza, G. T., & McManus, H. D. (2022). *Assessing the impact of de-escalation training on police behavior: Reducing police use of force in the Louisville*. *Criminology & Public Policy*.
- Fiske, Z. R., Songer, D. M., & Schriver, J. L. (2021). A national survey of police mental health training. *Journal of Police and Criminal Psychology*, 36(2), 236–242.
- Fowlkes, J., Dwyer, D. J., Oser, R. L., & Salas, E. (1998). Event-based approach to training (EBAT). *The International Journal of Aviation Psychology*, 8(3), 209–221.
- Fowlkes, J. E., & Burke, C. S. (2004). *Event-based approach to training (EBAT)*. In N. A. Stanton, A. Hedge, K. Brookhuis, E. Salas, & H. Hendrick (Eds.), *Handbook of human factors and ergonomics methods* (1st Ed.). CRC Press.
- Godfredson, J. W., Thomas, S. D., Olgoff, J. R., & Leubbers, S. (2011). Police perceptions of their encounters with individuals experiencing mental illness: A Victorian survey. *Australian and New Zealand Journal of Criminology*, 44(2), 180–195.
- Hoffman, R. R., Ward, P., Feltovich, P. J., DiBello, L., Fiore, S. M., & Andrews, D. H. (2014). *Accelerated expertise: Training for high proficiency in a complex world*. Psychology Press, Taylor & Francis Group.
- Iacobucci, F. (2015). *Police encounters with people in crisis: An independent review*. Toronto Police Service. www.torontopolice.on.ca
- International Association for Chiefs of Police. (2020). *National consensus policy on use of force*. https://www.theiacp.org/sites/default/files/2020-07/National_Consensus_Policy_On_Use_Of_Force%2007102020%20v3.pdf
- Jenkins, B., Semple, T., & Bennell, C. (2021). An evidence-based approach to critical incident scenario development. *Policing: An International Journal*, 44(3), 437–454.
- Jenkins, B., Semple, T., Quail, J., & Bennell, C. (2021). Optimizing scenario-based training for law enforcement. In *Interventions, training, and technologies for improved police well-being and performance* (pp. 18–37). IGI Global.
- Klein, G. A. (1996). Nonlinear aspects of problem solving. *Information & Systems Engineering*, 2(3–4), 192–204.
- Klein, G. A., & Borders, J. (2016). The ShadowBox approach to cognitive skills training: An empirical evaluation. *Journal of Cognitive Engineering and Decision Making*, 10(3), 268–280.

- Klein, G. A., Klein, H. A., Lande, B., Borders, J., & Whitacre, J. C. (2015). Police and military as good strangers. *Journal of Occupational and Organizational Psychology*, 88(2), 231–250.
- Klein, G. A., & Militello, L. (2001). Some guidelines for conducting a cognitive task analysis. In *Advances in human performance and cognitive engineering research* (pp. 163–199). Emerald Group Publishing Limited.
- Kidd, S., Kenny, A., & McKinstry, C. (2015). Exploring the meaning of recovery-oriented care: An action-research study. *International Journal of Mental Health Nursing*, 24(1), 38–48.
- Koedinger, K. R., Pavlik, P., McLaren, B. M., & Alevan, V. (2008). Is it better to give than to receive? The assistance dilemma as a fundamental unsolved problem in the cognitive science of learning and instruction. In V. Sloutsky, B. Love, & K. McRae (Eds.), *Proceedings of the 30th conference of the cognitive science society*.
- Lavoie, J. A. A., Alvarez, N., & Kandil, Y. (2022). Developing community co-designed scenario-based training for police mental health crisis response: A relational policing approach to de-escalation. *Journal of Police and Criminal Psychology*, 37(3), 587–601.
- Lavoie, J., Alvarez, N., Martin, K., Coleman, T., Girard, M., & Kandil, Y. (2020). *De-escalating persons in crisis competencies tool (DePICT) coding manual*. Copyright Lavoie, J. A. A., Alvarez, N., Martin, K., Coleman, T., Girard, M. & Kandil, Y.
- Lum, C., Koper, C. S., Gill, C., Hibdon, J., Telep, C., & Robinson, L. (2016). *An evidence-assessment of the recommendations of the president's task Force on 21st century policing —implementation and research priorities*. Center for Evidence-Based Crime Policy, George Mason University.
- McCay, D. A. (2011). *They are old enough to carry guns, should we teach them like children? The application of adult learning strategies in police training* [Unpublished doctoral dissertation]. Purdue University.
- McLean, K., Wolfe, S. E., Rojek, J., Alpert, G. P., & Smith, M. R. (2020). Randomized controlled trial of social interaction police training. *Criminology & Public Policy*, 19(3), 805–832.
- National Consumer and Carer Forum of Australia. (2004). *Consumer and carer participation policy: A framework for the mental health sector*.
- O'Hare, D., Wiggins, M., Williams, A., & Wong, B. L. (1998). Cognitive task analyses for decision centred design and training. *Ergonomics*, 41, 1698–1718.
- Police Executive Research Forum. (2016). *ICAT: Integrating communications, assessment, and tactics: A training guide for defusing critical incidents*.

- Preddy, J. E., Stefaniak, J. E., & Katsioloudis, P. (2019). Building a cognitive readiness for violent police–citizen encounters: A task analysis. *Performance Improvement Quarterly*, 32(1), 55–76.
- Reaves, B. A. (2016). *State and local law enforcement training academies, 2013*.
- Salas, E., Rosen, M. A., Held, J. D., & Weissmuller, J. J. (2009). Performance measurement in simulation-based training: A review and best practices. *Simulation & Gaming*, 40(3), 328–376.
- SetCan. (n.d.). Retrieved July 16, 2022, from <http://stressvest.com/>
- Schmidt, R., & Lee, T. (2011). *Motor learning and performance: From principles to application* (5th Ed.). Human Kinetics.
- Sloan, J. J., & Paoline, E. A. (2021). “They need more training!” A national level analysis of police academy basic training priorities. *Police Quarterly*, 24(4), 486–518.
- Staller, M. S., & Zaiser, B. (2015). Developing problem solvers: New perspectives on pedagogical practices in police use of force training. *Journal of Law Enforcement*.
- Szpiro, S., Wright, B., & Carrasco, M. (2014). Learning one task by interleaving practice with another task. *Vision Research*, 101, 118–124.
- Today, N. (2019). Using body-worn cameras to create an evidence based de-escalation training program. In *Evidence based policing: An introduction* (pp. 187–196).
- Today, N., & James, L. (2018). A systematic social observation study of police de-escalation tactics. *Police Quarterly*, 21(4), 509–543.
- Today, N., & White, M. D. (2019). Expert officer perceptions of de-escalation in policing. *Policing: An International Journal*, 42(5), 832–846.
- Vickers, J. N. (2007). *Perception, cognition, and decision training: The quiet eye in action*. Human Kinetics.
- Ward, P., Farrow, D., Harris, K. R., Williams, A. M., Eccles, D. W., & Ericsson, K. A. (2008). Training perceptual-cognitive skills: Can sport psychology research inform military decision training? *Military Psychology*, 20(sup1), S71–S102.
- Ward, P., Gore, J., Hutton, R., Conway, G. E., & Hoffman, R. R. (2018). Adaptive skill as the conditio sine qua non of expertise. *Journal of Applied Research in Memory and Cognition*, 7(1), 35–50.
- Wittmann, L., Dorner, R., Heuer, I., Bock, T., & Mahlke, C. (2021). Effectiveness of a contact-based anti-stigma intervention for police officers. *International Journal of Law and Psychiatry*, 76, 101697.
- Wollert, T. N., & Quail, J. (2018). *A scientific approach to reality based training*. Three Pistols Publishing.



De-escalation Fundamentals

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1 Introduction

In a free and democratic society, the police are bound by the principles of legality, necessity, and proportionality. Of all the available courses of action, officers must choose the one that they achieve their goal with (necessity), the one that is legally justified (legality), and the one that is least intrusive regarding citizens' constitutionally guaranteed rights

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(proportionality; Staubli, 2017; Terrill & Paoline, 2013). This is the foundation of the ethical imperative to de-escalate. As a result, the police are required to justify their use of force in a specific situation and context with legal authorities that are articulated in abstract terms. These authorities can be applied in a way that can result in a discrepancy between the legal use of force and the (ethically) legitimate use of force (Jackson et al., 2013; Jones, 2022). This discrepancy is often visible in the recurrent media coverage and corresponding public attention to what often can be referred to as the “lawful but awful use of force” (Jones, 2022). It poses challenges to the police in their efforts to develop and maintain public trust and, ultimately, to justify their legitimacy (for the USA, see Kochel & Skogan, 2021; for Latin America, see Malone & Dammert, 2021; for Europe, see Nägel & Vera, 2021; for South Africa, see Lamb, 2021). The negative impacts of decreased trust by the public and legitimacy are well documented for practical police work, including reduced cooperation (e.g., Ang et al., 2021; Tyler & Fagan, 2008) and officer well-being (e.g., Donner et al., 2015). In addition, perceptions of absent legitimacy and (procedurally) just conduct have been shown to increase non-compliance and risk of violence towards the police (e.g., Gerber et al., 2018; Tyler et al., 2018).

As an essential course of action to ensure legality, necessity, and proportionality in law enforcement, de-escalation is paramount (Staller et al., 2020; Zaiser et al., 2022a). In addition, de-escalation does not only protect citizens but also the physical safety of everyone who is involved in an encounter. Because de-escalation attempts to reduce the use of force, it reduces the risk of physical, psychological, and moral injury. Accordingly, de-escalation has been shown to be a potent predictor of officer safety (Engel et al., 2022; Oliva et al., 2010; Zaiser & Staller, 2015). Ultimately, de-escalation is a key component of procedural justice and, as such, has been proven to facilitate public trust in the police: the more citizens perceive the police to operate fairly and with respect, the more

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they reciprocate, trust, and comply with them, and the more legitimacy they grant them (Giles, 2002; Kyprianides et al, 2021; Reisig & Lloyd, 2009; Tyler, 2002). This has been demonstrated across national borders and cultural boundaries (Barker et al., 2008). As such, de-escalation is at the core of policing.

For the purposes of this chapter, we primarily refer to de-escalation in behavioural terms rather than using it to describe a situational state of de-escalation, such as a result of behaviours that de-escalated a conflict. Correspondingly, we understand de-escalation to be any conduct practised by the police with the goal of preventing use-of-force as well as preventing and reducing continued or further use-of-force.

Media coverage across the globe, most prominently in the United States, frequently discusses the police as perpetrators against civil rights (Campbell et al., 2018; Maguire & Giles, 2022; Sherman, 2020), and this goes hand in hand with a decrease of trust in law enforcement among the public (Kochel & Skogan, 2021; Lamb, 2021; Malone & Dammert, 2021; Nägel & Vera, 2021). While this may have led to an increased interest of both politics and academia to better understand the nature of conflict during police–citizen encounters, the role of interpersonal and intergroup communication (in general) and of de-escalation (in particular) remains by-and-large under-studied (Engel et al., 2020; Giles et al., 2021).

In this chapter, we will provide an interdisciplinary breakdown of concepts relevant to de-escalation, which are rooted in empirical evidence. We have organized them along an easily accessible, teachable, and applicable sequence. In order to effectively de-escalate, police officers first need to understand the underlying mechanisms that shape the conflicts they encounter during their interactions with the public (Sect. 2). Only then can they get a grasp of how these underlying mechanisms play out across several levels of interaction (including verbal communication, paralingual communication, and non-verbal communication) and how their configuration and continued reconfiguration affords ample opportunity for misunderstandings and misinterpretation between officer and citizen (Sect. 3). As a result, the more officers achieve a congruence of these levels of interaction and synch them with the situation, within which they play out (Sect. 4), the better they

will be able to effectively de-escalate. This, in turn, requires them to cultivate a self-concept that commits them to the ethical imperative of de-escalation and subscribe to the beliefs and values that allow them to practise de-escalation in ways that exhaust its full potential (Sect. 5). Only if officers understand these relationships, can they effectively employ the evidence-based de-escalation strategies that are discussed in Chapters 9 (Kiesler Circumplex Model), 11 (Crisis Negotiations), 27 (Evidence-Based De-escalation Approaches Evaluated in Canada), and 29 (Evidence-Based De-escalation Approaches Evaluated in Germany). At the end of the chapter, we conclude avenues of practically relevant research to address the shortfalls of the de-escalation and communication phenomena discussed above and identify key takeaways for police officers, trainers and instructors, and decision-makers.

2 Conflict and Conflict Dynamics

Intra-Psychological, Inter-Personal, and Inter-Group Conflict

Effective de-escalation requires police officers to have a basic grasp of conflict and the ways it typically unfolds. Conflict between individuals and groups often starts within each conflict party's mind. Shantz (1986) distinguished between *intra-psychological* and *inter-personal* conflict. *Intra-psychological* conflicts can be the product of an internal weighing of often incompatible or even contradictory interests, goals, and/or associated courses of action. These kinds of conflicts cause emotional tension and, therefore, influence the goals, motivations, and behaviour of an individual. They often arise in response to how an individual conducts themselves in their social environment. Correspondingly, *intra-psychological* conflict often causes and/or arises in response to an *inter-personal* conflict, where one party faces another party with incompatible or opposing interests, goals, motivations, and behaviours (Garvey & Shantz, 1992; Sprey, 1979). Once officers realize that conflict starts within the mind of each involved party and that it plays out within as well as between individual minds, they understand the importance

of exploring the other's "inner conflict". This allows them to identify the goals and motivations that drive their behaviours in the first place, as well as the underlying ambivalences. These can be ultimately addressed for a more effective conflict resolution by, for instance, pointing out common ground and areas of agreement (Cecchini, 2021; Toribio-Flórez et al., 2020).

As police officers interact with citizens, they can only infer the goals and motivation of the other person based on the behavioural cues they perceive during the encounter (Crick & Dodge, 1996; Dodge, 1986). Accordingly, no one will ever have knowledge of the reality that the other person is experiencing, how they are making sense of it, and how it causes them to behave. In this context, effective conflict management and resolution requires conflict parties to change perspective. The more they can understand the way the other person perceives and makes sense of the conflict or encounter (and of the world in general), the better they can understand their relative goals and motivations. In other words, understanding the other person's inner ambivalences, that is, *intra-psychological* conflict in relation to the *inter-personal* conflict they are experiencing, allows officers to compare their goals and motivations with those of the citizen. Only then can they explore the potential overlap and identify more targeted and sustainable approaches to managing and resolving the conflict.

When the police interact with the public, police officers and citizens do not only encounter as individuals but also as members of distinct social groups. Accordingly, the situational context often determines which social identity and to what degree it will shape the encounter (Giles & Walther, 2022; Giles et al., 2021; Tajfel & Turner, 1986). This adds an additional layer to the individual and concurring group identities of both officer and citizen, which ultimately shape the encounter and potential conflict (Tajfel & Turner, 1986). Social identity and group affiliation do not only determine the goals and motivation of the individuals in the encounter. They also shape the way each side perceives and interacts with one another (Tajfel & Turner, 1986; see also, Giles & Walther, 2022). This is crucial to achieving a better understanding of how potential conflict between both sides can escalate, as expectations of how each side will behave might make escalation a self-fulfilling prophecy. For

instance, when a police officer stops a car to enforce a traffic safety measure, the citizen's reactions will be guided by their social identity. As a member of a visible minority, who gets disproportionately often stopped by the police, they might infer the officer's motivation in light of their social identity as a police officer, who disproportionately often stops members of a visible minority. After all, they have been stopped by the police, again (Giles et al., 2021; Lowrey-Kinberg, 2021).

At this point, we would like to summarize that there are three levels, across which potential conflict during a police–citizen encounter plays out. *Intra-psychological* conflict is rooted within each individual, based on their individual and social identity, past experiences, and on the situational context of the encounter. *Inter-personal* conflict between individuals is often either the cause or an effect (or both) of *intra-psychological* conflict which it carries out at the interactional level. *Inter-group* conflict is not limited to actual encounters between groups of individuals, for instance, during sporting events or violent and non-violent protests. It essentially shapes both the *intra-psychological* and *inter-personal* conflict within and between police officer and citizen, based on their social identity and the group they affiliate with. Without changing perspective, both conflict parties will not be able to access the wealth of information about either side's goals and motivations, which they need to effectively manage and resolve potential conflict.

Self-Image, Face, and Ego

A successful change of perspective also appreciates each other's desire to maintain a positive self-image, colloquially often referred to as “saving face” (Goffman, 1955). If we experience or are confronted with information and/or actions that threaten our positive self-image or question our self-concept, we experience a *loss of face* (Oetzel et al., 2001; Ting-Toomey, 2005). As a result, we often experience negative emotions and find ourselves in a state of arousal, which can ultimately escalate conflict (Rogan & Hammer, 1994). As humans, we seek to maintain a positive self-image independently of any external influences, including

judgement by other persons. However, at the same time, how we experience and think other people see us does play an integral role in how we feel about ourselves. Accordingly, maintaining a positive self-image and *saving face* is more complex than it appears and often is at the root of conflict at all the three levels of conflict discussed above: *intra-psychological*, *inter-personal*, and *inter-group* (Donohue, 1992; Folger et al., 2021). This is not limited to conflict across cultural boundaries but also plays out within the same socio-cultural environments (Oetzel et al., 2001; Ting-Toomey, 2005). One major implication beyond the understanding of self-image and face as a source of conflict is the potential it offers as a management strategy. For instance, actively *saving the face* of a citizen (i.e., doing facework) might help an officer avoid, de-escalate, or resolve a conflict arising from the context of the encounter (Rogan & Hammer, 1994). At this point, we would like to point out that face can be associated both with one's individual as well as one's social identity and/or group affiliation (Spencer-Oatey, 2007).

Furthermore, research has found that threats to favourable views of the self can lead to aggression (Baumeister & Boden, 1998; Baumeister et al., 1998; Bushman & Baumeister, 1998). In this context, scenes in which officers have been provoked by citizens' questioning their authority come to mind. In addition, conflict management can become significantly more challenging, when one or more parties are intractably locked into commitment to enforcing a short-term over a long-term gain (Baumeister et al., 1998; Muraven et al., 1998). This has been shown to be especially the case when they are in a state of depleted will power or self-control, in the literature referred to as *ego depletion*: conflict parties might lack the energy to put in the cognitive effort that an effective change of perspective and corresponding *facework* require (Hülshager & Schewe, 2011). Researchers have already investigated the effects of ego depletion on police officers and found a tendency towards misconduct (Donner & Jennings, 2015) and excessive use of force (Staller et al., 2019). As a result, conflict between the police and the public has been found to be escalated by factors associated with the general and situational self of the officers involved.

Escalation

Persons in conflict typically start by asserting themselves and their interests politely, without aggression, for instance by making suggestions or asking for consideration (Friedman & Currall, 2003). If they don't achieve their goal(s) that way, they increase their level of assertiveness and might become authoritative or aggressive in their demeanour and communication. This includes demands that can be accompanied by threats of avoidable consequences and/or threats of violence. Ultimately, the threats materialize and violence (or force, in the police context) is used to get what they want.

Humans' innate tendency towards reciprocity (Becker & Strauss, 1956) nudges them to do the same in return and complement the actions of the other person, rather than stoically maintaining their position. This metaphorical conflict spiral (Rubin, 1994) is characterized by the reciprocation of each other's (micro-) aggressions and conflict behaviours, each turn of which increases the intensity of the conflict. The dynamic of this exchange of one-upmanship shapes the expectations of both conflict parties and corresponding, confirmation-biased perceptions. Ultimately, it turns the conflict spiral and the escalation it facilitates further and further into a self-fulfilling prophecy.

Eventually, both sides are at risk of ending up in a place where their adversarial frames evolve into a justification of moral superiority. This, in turn, can result in the dehumanization of the other person or group (Opatow, 2005; Rubin et al. 1994). Aggravating factors on this trajectory include the use of superior enforcement strategies, (perceived) unfairness, and/or anonymity, as well as perceived moral superiority or inferiority (Friedman & Currall, 2003). These factors can be easily found in the citizen perspective during adversarial encounters with the police, where they are often perceived to rely on superior and unfair enforcement strategies as well as to treat (especially certain groups of) citizens without due respect, protected by the anonymity of their uniforms.

De-escalation

In this context, de-escalation is the successful slowing down, stopping, and/or reversing of the conflict spiral, as well as avoiding/preventing it in the first place. Factors associated with successful de-escalation are typically associated with the parties involved in the escalating conflict as well as with the situational context of it (Zaiser et al., 2022a).

While factors associated with the target of de-escalation effort remain outside a police officer's direct sphere of influence, approaches addressing the situation and environment of an escalated encounter have been proven to effectively de-escalate conflict situations and the persons causing them (e.g., creating time and distance, and/or containing dangerous conflict parties; Goodman et al., 2020; Police Executive Research Forum [PERF], 2016).

However, the focus of this chapter is on active, communication-based, de-escalation approaches to enable police officers to fully exhaust the potential of de-escalation. As mentioned in the introduction, research on de-escalation, especially in the context of policing, is scarce (Engel et al., 2020, 2022). In addition, little has been studied on the effectiveness of any single de-escalation method (for law enforcement, see Engel et al., 2020; for mental health settings, see Robertson et al., 2012). Correspondingly, conceptual and substantial clarity on what constitutes effective de-escalation appears to vary not only among practitioners and training across police agencies (Sloan & Paoline, 2021) but also in research (Staller et al., 2019).

An occupational setting, within which de-escalation has been studied more thoroughly, is mental health (Price et al., 2015). Price and Baker (2012) reviewed the literature on de-escalation in mental health settings and identified seven themes, along which empirical evidence has been established. The first three associate effective de-escalation with the skills and abilities of those that work in such occupations, including characteristics of effective de-escalators, their abilities to maintain personal control, and, more generally, verbal and non-verbal skills. The other four themes relate to the process of intervening itself and include: how and when to intervene, ensuring safe conditions during the de-escalation, and specific de-escalation strategies. Still, in their conclusion, Price and

Baker (2012) state that de-escalation is a “complex intervention, which has been overlooked by rigorous research, and it is often assumed that staff are able to perform these techniques in clinical practice” (p. 310).

It appears that, just as in mental health, a lack of research and deeper understanding keeps police officers from living up to an expectation of effective de-escalation and management of conflict between the police and the public.

Path Dependency vs. Non-Linearity

The conflict spiral discussed above suggests both escalation and de-escalation to be rather path-dependent and to play out in a linear fashion. If an encounter between a citizen and a police officer escalates or de-escalates depends on the interplay of a myriad of factors across officers, citizens, the situational context of their encounter, and, if present, third parties. This interplay often comes to pass in ways that both conflict parties, officer and citizen, reciprocate and complement in response to each other (Schulz von Thun, 2019; Watzlawick et al., 2011), manifesting the path dependency of the conflict spiral.

However, conflicts often play out linearly only on their surface. They never allow for a reliable prediction along the lines of an if–then–when sequence, as conflict escalation and de-escalation are often conceptualized and taught in use-of-force training (for a detailed discussion, see Di Nota et al., 2021). Officers cannot blindly expect a citizen to comply and follow their instructions, just as the deployment of a conducted energy weapon will not guarantee the incapacitation of a citizen. It is, just as de-escalation is, subject to a plethora of determinants, including the type of clothing the citizen is wearing, the distance of the deploying officer, the location of both parties, and many other factors.

The complex and dynamic nature of conflict ultimately results in sometimes more and sometimes less predictable ways in which an encounter can unfold (especially the degree and the timing of potential escalation; Zaiser et al., 2022b). In addition, the continuing reconfiguration of all the variables involved allows officers to always stop the dynamic and press the reset button, in order to leave the initially laid out path and reverse the conflict spiral. However, officers need to de-escalate the situation confidently and competently.

3 Levels of Interaction

Many of the encounters between the police and the public are characterized by the police's mission to maintain public safety and enforce the law, which makes conflict a constant possibility. For the purposes of this chapter, we approach these conflicts as social situations, in which everyone involved cannot interact without communicating (Luhmann, 1981; Watzlawick et al., 2011). Accordingly, the course of any such encounter is determined by communication. This communication is not limited to verbal communication but includes several levels of interaction, or communication channels, between officer and citizen. These channels come into play in different and constantly changing configurations (Schulz von Thun, 2019; Watzlawick et al., 2011). Consequently, not all messages, sometimes not any at all, are received by a person communicated with. Rarely are they perceived exactly in the way the communicator intends (Schulz von Thun, 2019; Watzlawick et al., 2011).

Broadly, communication can be divided into verbal and non-verbal (Wood, 2015). Further exploration into the nature of communication has led researchers to the question of the relative share that verbal and non-verbal communication occupy in the conveyance of a message (Argyle et al., 1970; Mehrabian & Albert, 1967; Mehrabian & Wiener, 1967; Scherer, 2003). Mehrabian (1971) broke interpersonal communication down into three categories and found, similar to Argyle et al. (1970), that non-verbal and paralinguistic communication convey disproportionately more meaning than verbal communication. We would point out that Mehrabian's research (Mehrabian & Albert, 1967; Mehrabian & Wiener, 1967) is empirically rooted only in the communication of emotional content and is subject to significant limitations in its ecological validity, as it is the result of a series of laboratory experiments. However, the research discussed here offers a major insight: it establishes the relevance of paralinguistic language and non-verbal language, as it marks an important communication channel and, accordingly, a crucial level of interaction between the police and the public. Especially because police–citizen encounters often follows and/

or results in emotional response, we find the basic tenet of the disproportionate share in message conveyance between verbal and non-verbal communication helpful in educating police officers about the basics of de-escalation.

The remainder of this section will introduce a selection of levels of interaction, which research has found to be relevant communication channels for officers during citizen encounters: presence, body language (including facial expressions), verbal communication, and paralinguistic communication.

Presence

As mentioned above, there cannot be an encounter where there is no communication. Accordingly, communication between officer and citizen starts the moment they encounter each other (Zaiser et al., 2022a). Ramifications of the mere presence of the police have been documented in several studies on the ways that officers' appearance shapes their perception by the public. For instance, several studies have investigated citizen impressions of the police based on uniform colour (e.g., Bell, 1982; Johnson, 2013) and the level of militarization (e.g., vest worn on top, tactical holsters; Blaskovits et al., 2022; Simpson, 2020), as well as based on whether officers are on patrol in cruisers, on bikes, or on foot (Simpson, 2017). Research done by Simpson also includes the effects of a variety of non-military accessories (such as hats, sunglasses, or gloves; Simpson, 2020).

In the context of de-escalation, one of the most consequential effects of officer presence can be seen in the repeatedly documented cases of *officer-created* or *officer-induced jeopardy* (Keyes, 2020; Smith, 2022): despite an absent risk to the public or any third parties, officers immediately confront citizens, often armed with edged objects and/or going through psychological crisis. As a result, they escalate the situation to the point where they often have to use lethal force to defend themselves, sometimes without a single word being said before the escalation.

Citizens going through psychological crisis can be, for instance, approached without sirens and with a limited number of officers visible

to them, if the risk to the public can be mitigated through containment with a perimeter. Maintaining distance and creating time by slowing things down allows officers to plan their actions and account for contingencies, before they engage the citizen (Goodman et al., 2020; Keyes, 2020). A citizen armed with an edged weapon intending to “suicide by cop” in a public space can be passively contained by the first arriving units, who make sure no third parties enter the perimeter. The arrival of further officers then allows for a more active containment of the person, without any officer exiting their vehicle. This allows officers to keep creating time and distance, even as they might move the perimeter along with the slowly moving pedestrian. One officer can then engage in crisis intervention and attempt to verbally de-escalate the person from the safety of their cruiser. In contrast, a confrontation outside the cruiser would significantly increase the risk of creating a possible lethal use of force in response to an attack by the armed citizen.

These considerations demonstrate how the conflict can evolve even before the active engagement of the public by the police, and how the ways in which the police are present can determine escalation or de-escalation.

Body Language

Just as with their presence, so the body language of police officers can determine whether a conflict during a citizen encounter will escalate or de-escalate. Research on body language includes a variety of categories, of which proxemics, kinetics, and haptics are among the more extensively studied ones. Proxemics is communication by means of spatial distance between the self and the other (Hall, 1963), as well as the positioning of people and/or objects in the space (McKay et al., 2009). This could be, for instance, the use of a police cruiser to block another vehicle and keep it from leaving the scene (which can escalate a conflict due to its confrontational nature, or de-escalate it as a successful containment). The line between mere presence and proxemics is fine and often blurred. Correspondingly, proxemics plays a crucial role in confrontations that create *officer-induced jeopardy*. Officers need to be cognizant of space not

only in terms of their own distance to a potentially dangerous citizen but also of that of members of the public and other relevant environmental features. These could be objects that do or can play a role in the containment of the threat and the resolution of the conflict.

Kinetics refers to communication by means of body movement, for instance through gestures (e.g., an officer putting their hand on their holstered duty pistol to project authority), mimicry and facial expression (e.g., eye contact and gaze to project situational control), as well as movement of other body parts (e.g., a bladed stance to signal preparedness).

Haptics concerns communication by touch or any type of body contact (Hans & Hans, 2015), which typically determines the use of force, when officers go “hands on”, arrest citizens, or administer first aid. However, haptics also includes handshakes, pats on shoulders, or supportive touches.

Verbal Communication

Verbal communication refers to the transmission of information using spoken or written language (Gibbs et al., 1998; McKay et al., 2009). What distinguishes verbal from non-verbal communication, other than the channel or method of transmission, is that it is typically used consciously and deliberately to transmit explicit message content. Verbally communicated information is ideally received exactly in the way the speaker or writer intends it (Schulz von Thun, 2019). Therefore, we expect verbal communication to be explicit, tangible, and referenceable later in time (Dascal & Berenstein, 1987; Gibbs et al., 1998). Yet, this declarative nature of verbal communication should not hide its fallibility, as will be discussed below.

Paralinguistic Communication

Paralinguistic or paraverbal communication covers those aspects of non-verbal communication that add meaning to and qualify verbal communication through the vocal expression of several different categories.

These include (but are not limited to) (Trager, 1961): voice set, tone, pitch, resonance, tempo, rhythm, volume, and articulation. The modulation and configuration of these aspects allows us to convey meaningful information separate from the use of any other channel or method of communication (Scherer, 2003; Schulz von Thun, 2019).

Correspondingly, paralinguistics play a crucial role in the transmission of latent and implicit information, such as underlying emotions or sarcasm (Argyle et al., 1970; Mehrabian & Albert, 1967; Mehrabian & Wiener, 1967; Scherer, 2003). While paralinguistics are often used to mark sarcastic messages for the receiver to identify them as such, the communication of emotion and empathy, a key to successful de-escalation (Vecchi et al., 2019; Zaiser & Staller, 2015), is substantially transmitted paralinguistically (Kraus, 2017).

4 Authenticity and Congruence

So far, we have established that communication manifests itself across multiple levels of interaction. Typically, we communicate on several, if not all, of these levels at the same time (Mehrabian, 1971; Schulz von Thun, 2019; Watzlawick et al., 2011). Especially for police officers, it is important to understand that communication across all of these levels is always characterized by some degree of ambivalence. This constitutes the risk of misunderstanding and misinterpretation. In addition, developmental, cognitive, and social psychological as well as physiological properties and corresponding health disorders can impede effective communication on any channel just as much as socio-cultural, socio-economic, and geographical background has been found to (Hans & Hans, 2015; Schulz von Thun, 2019; Tannen, 2012).

The ambivalence associated with each of these communication channels, regardless as to whether they are rooted in a social, cultural, physiological, or psychological context, makes communication just as complex and dynamic as the conflict itself that it is used to manage. Officers can draw from the interpersonal communication literature to improve both their assessment and interpretation of other people as well as a more deliberate practice in their de-escalation. We have identified

two approaches that lend themselves to making sense of and organizing communication on all levels of interaction: *congruent communication* (Mehrabian, 1971; Watzlawick et al., 2011) and *consistent communication* (Schulz von Thun, 2019). *Congruent communication* requires, for the successful transmission of information, especially when discussing emotional content, all levels of interaction to be aligned: presence, proxemics, kinesics, haptics, and verbal and paralinguistic communication. This minimizes the risk of misinterpretation and misunderstandings while maximizing the probability that the message will be received the way it is intended by the sender. As a result, aligning the levels of interaction makes communication authentic. Examples in law enforcement include the use of active listening skills: it is easy for an officer to ask open-ended questions, use minimal encouragers like “mhm”, and reflect the last three words spoken by the citizen without actually processing what they might have been told. A lack of eye contact, a closed-off posture, and a significant distance between officer and citizen manifests a misalignment of non-verbal and verbal communication and will signal a lack of attention to the citizen. They can then, in turn, feel they are not being listened to, which bears the potential of further escalation. Another example is the presence of an officer of militarized appearance (e.g., outer vest with magazine pouches, tactical holster, hatch gloves) and authoritative demeanour (e.g., always in a position of tactical advantage, above eye level), who responds to a citizen going through psychological crisis and stating they had only come to have a conversation. In other words, *congruent communication* aligns one’s inner experience with their outer demeanour.

Schulz von Thun’s (2019) *consistent communication* also uses the concept of congruence, but expands it beyond the alignment of the different communication channels: for communication to be effective and free of ambivalence, it needs to be (i) congruent across channels, (ii) in line with one’s values and beliefs, (iii) match the nature of the relationship with the other person, (iv) address and match the inner workings of the other person, and (v) account for the situational context of the encounter.

At the bottom line, effective de-escalation depends on the complex interplay between multiple levels of interaction, geared towards an

equally complex and dynamic situational context/conflict with one or more other interlocutors. As a result, the limited training of simple, single-level, linear communication and de-escalation skills that officers are currently exposed to is not sufficient for them to acquire the knowledge, skills, and abilities to effectively exhaust the full potential that de-escalation can unfold.

5 Self-Concept and Attitude

Congruent and *consistent communication* synchronizes all levels of interaction and aligns what is communicated with values and beliefs, ideally of both interlocutors, in a way that accounts for the situation and characteristics of everyone involved. This constitutes the importance of police officers' self-concept and their corresponding attitude. *Consistent communication* especially requires officers to soul-search and reflect on what it means to them to have that role and how they can live up to its mission. What follows is a list of motivational principles that the literature has associated with effective de-escalation. We offer them to guide officers in aligning their individual values with those of the community they serve and, ultimately, in fostering and maintaining a self-concept that is committed to de-escalation.

Guardian Mindset

Research has shown that officers who adopt a *guardian mindset* value communication over authoritative enforcement tactics and are less likely to be associated with misconduct as well as with excessive use of force. Consequently, they contribute significantly to public trust in the police (McLean et al., 2020; Rahr & Rice, 2015; Zaiser & Staller, 2015). Officers with a guardian mindset put emphasis on building and maintaining relationships with the communities they serve and view offenders as part of these communities. On the other hand, officers with a *warrior mindset* rely on more authoritative enforcement and frame interactions with the public in terms of us (the police) versus them (the public). This

can narrow officers' perceptual filters down to only picking up negative environmental cues in their interactions with the public, such as potential threats or dangers (Rahr & Rice, 2015; for a more detailed discussion on threat perception and underlying danger narratives in the police, see Chapter 2 in Volume I of this book). This, in turn, removes potential avenues of de-escalation from their attentional focus and can have an escalatory effect on any conflict encountered. Officers with a guardian mindset take initiative and keep using the de-escalation methods discussed below, often despite an escalation of potential conflict (as long as they can maintain officer and public safety), until they are able to nudge an escalated citizen to reciprocate the de-escalation they keep demonstrating and, thus, stop and reverse the conflict spiral.

Empathy and Unconditional Commitment to Changing Perspective

The fundamentals of conflict discussed above make it clear that effective conflict management, resolution, and corresponding de-escalation requires a change of perspective for police officers to better understand the goals and motivation of the other conflict party. Officers need to understand the interests and motivations of the citizens they encounter, as well as the underlying emotions. Relating to another person's emotional experience for a better understanding of what drives their behaviour requires officers to effectively *empathize* with them (Vecchi et al., 2019; Zaiser et al., 2022b). Once they achieve a successful, empathy-based change of perspective, officers will be able to recognize how emotion and action, as well as motivation and behaviour, are often not aligned. As a result, they can explore such discrepancies to identify and utilize openings for effective de-escalation. Just as it might be easier for parents to relate to another parent's feeling of wanting to hit their child rather than to another parent actually hitting their child, so an officer might be better able to de-escalate a use-of-force arrest, if they learn that the arrested party has attempted to escape to see their spouse one last time before going to jail.

Unconditional Respect

Our call for officers to show *unconditional respect* and dignity towards any citizen they encounter is based on the concept of *unconditional high regard*, a well-established approach to crisis intervention and psychotherapy as well as counselling psychology (Rogers & Farson, 1957). Effective de-escalation, especially of psychological crisis, requires the full acknowledgement of the other person's personhood and dignity. Their past and present actions or inactions should not interfere with that respect. Especially when officers witness disturbing actions by a citizen or when conflict with a citizen has already escalated significantly, managing it from a place of respect for the opponent helps prevent the above mentioned perceived moral superiority that often leads to the dehumanization of them. Because officers are regularly exposed to generally contemptible actions and behaviours (Violanti & Gehrke, 2004), we feel that holding the corresponding actors in unconditional high regard would be asking far too much. While both concepts are based on the same basic principle, unconditional respect appears to be compatible with the professional self-concept we hope all officers hold themselves accountable to. Unconditional respect supports not only de-escalation but also fosters co-operation (Allison et al., 2021), for instance when officers attempt to acquire witnesses, persuade victims to provide a statement, or increase the interview yield from suspects (Alison et al., 2013).

6 Conclusion

In this chapter, we have referred to the police's ethical imperative to exhaust the full potential of de-escalation, using the least amount of necessary and legally justified force at any given time. We have argued that in order for officers to live up to that expectation, police officers first need to understand the underlying mechanisms that shape the conflicts they encounter during their interactions with the public. Only when they understand how conflict manifests within each conflict party's mind in interaction with other people and influenced by concurrent

concepts of individual and social identity, will they be able to explore the potential overlap of goals and motivations that they can utilize for effective de-escalation and effective conflict management. In addition, only when police officers are aware of how escalation and de-escalation play out across several levels of interaction (including verbal communication, paralingual communication, and non-verbal communication), can they appreciate that the configuration and continued reconfiguration of these communication channels afford ample opportunity for misunderstandings and misinterpretation between officer and citizen. As a result, the more congruently and the more consistently officers communicate and the better they synch these channels with the situation and the citizen(s) they encounter, the better they will be able to de-escalate. This, in turn, requires them to cultivate a self-concept that commits them to the ethical imperative of de-escalation and to subscribe to the beliefs and values that allow them to practise de-escalation in ways that exhaust its full potential. In other words, with the right mindset, congruence and consistency will naturally determine officers' genuine approach to de-escalation and the corresponding conflict management.

Only if officers understand these relationships can they effectively employ the evidence-based de-escalation strategies that are discussed in Chapters 9 (Kiesler Circumplex Model), 11 (Crisis Negotiations), 27 (Evidence-Based De-escalation Approaches Evaluated in Canada), and 29 (Evidence-Based De-escalation Approaches Evaluated in Germany).

We have argued that, in addition to the skills training they already receive, police officers require education on what makes de-escalation work so as to be effective de-escalators. The corresponding implementation efforts have to be based on evidence, which we suggest can be advanced with avenues of further research, including (but not limited to):

- While there is research that documents a disproportionate allocation of training between use of force and de-escalation (for the United States, see PERF, 2015; for Germany, see Staller et al., 2019), we have not found any systematic evaluation of what communication,

de-escalation, and crisis intervention training looks like in any jurisdiction. Establishing baseline knowledge on what is taught and how it is trained will allow for a more effective allocation of resources.

- As initial evidence on the effectiveness of communication, de-escalation, and crisis intervention training is beginning to emerge (Engel et al., 2022; Todak & James, 2018), rigorous research on factors that facilitate the successful transfer of knowledge, skills, and abilities from training into the field is still outstanding.
- Because the impact of attitude and mindset on officer conduct remains under-studied (Clifton et al., 2021), and in light of what we know about it from the psychology of inter-personal communication (Schulz von Thun, 2019; Zhang & Giles, 2018), we hope for further research examining the role that mindset plays for effective de-escalation.

Key Takeaways

Police Officers

We encourage police officers to:

- Use training and education to reflect on their self-concept as a police officer in order to align their personal values and beliefs with the expectations of their organization and communities;
- Be open to and seek de-escalation education and training;
- Commit to a deliberate practice of de-escalation in the field.

Conflict Management Trainers

We encourage practical skills instructors and conflict management trainers to:

- Acknowledge that de-escalation requires not only training but also education and to seek opportunities to design corresponding modules and sessions based on current research and in ways that address conceptual and didactical shortfalls;
- Advocate for de-escalation education and training;
- Commit to implementing evidence-based best practices.

Police Decision-Makers

We encourage police decision-makers to:

- Commit education and training under their area of command or responsibility to evidence-based best practices;
- Increase the amount of time and resources allocated to not just de-escalation training but also de-escalation education so as to reduce the disparity between the amount of time and resources allocated to de-escalation and use-of-force topics.

References

- Alison, L., Alison, E., Noone, G., Elntib, S., & Christiansen, P. (2013). Why tough tactics fail and rapport gets results: Observing Rapport-based interpersonal techniques (ORBIT) to generate useful information from terrorists. *Psychology Public Policy and Law*, *19*, 411–431. <https://doi.org/10.1037/a0034564>
- Ang, D., Bencsik, P., Bruhn, J., & Deroncourt, E. (2021). Police violence reduces civilian cooperation and engagement with law enforcement. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3920493>
- Barker, V., Giles, H., Hajek, C., Ota, H., Noels, K., Lim, T.-S., & Somera, L. (2008). Police-civilian interaction, compliance, accommodation, and trust in an intergroup context: International data. *Journal of International and Intercultural Communication*, *1*(2), 93–112. <https://doi.org/10.1080/17513050801891986>
- Baumeister, R. F., & Boden, J. M. (1998). Aggression and the self: High self-esteem, low self-control, and ego threat. In R. G. Geen, & E. Donnerstein (Eds.), *Human aggression* (pp. 111–137). Academic Press. <https://doi.org/10.1016/B978-012278805-5/50006-7>
- Becker, H. S., & Strauss, A. L. (1956). Careers, personality, and adult socialization. *American Journal of Sociology*, *62*(3), 253–263. <https://doi.org/10.1086/222002>
- Bell, D. J. (1982). Police uniforms, attitudes, and citizens. *Journal of Criminal Justice*, *10*(1), 45–55. [https://doi.org/10.1016/0047-2352\(82\)90059-9](https://doi.org/10.1016/0047-2352(82)90059-9)
- Blaskovits, B., Bennell, C., Baldwin, S., Ewanation, L., Brown, A., & Korva, N. (2022). The thin blue line between cop and soldier: Examining public perceptions of the militarized appearance of police. *Police Practice*

- and *Research*, 23(2), 212–235. <https://doi.org/10.1080/15614263.2021.1889378>
- Bushman, B. J., & Baumeister, R. F. (1998). Threatened egotism, narcissism, self-esteem, and direct and displaced aggression: Does self-love or self-hate lead to violence? *Journal of Personality and Social Psychology*, 75, 219–229. <https://doi.org/10.1037/0022-3514.75.1.219>
- Campbell, B. A., Nix, J., & Maguire, E. R. (2018). Is the number of citizens fatally shot by police increasing in the post-Ferguson era? *Crime & Delinquency*, 64(3), 398–420. <https://doi.org/10.1177/0011128716686343>
- Cecchini, D. (2021). Experiencing the conflict: The rationality of ambivalence. *The Journal of Value Inquiry*. <https://doi.org/10.1007/s10790-021-09859-1>
- Clifton, S., Torres, J., & Hawdon, J. (2021). Examining guardian and warrior orientations across racial and ethnic lines. *Journal of Police and Criminal Psychology*, 36(3), 436–449. <https://doi.org/10.1007/s11896-020-09427-6>
- Crick, N. R., & Dodge, K. A. (1996). Social information-processing mechanisms in reactive and proactive aggression. *Child Development*, 67(3), 993–1002. <https://doi.org/10.1111/j.1467-8624.1996.tb01778.x>
- Dascal, M., & Berenstein, I. (1987). Two modes of understanding: Comprehending and grasping. *Language & Communication*, 7(2), 139–151. [https://doi.org/10.1016/0271-5309\(87\)90004-8](https://doi.org/10.1016/0271-5309(87)90004-8)
- Di Nota, P. M., Stoyko, P., Jenkinson, J., Boychuk, E. C., & Andersen, J. P. (2021). Critical review of visual models for police use of force decision-making. *Vision*, 5(1), Article 1. <https://doi.org/10.3390/vision5010006>
- Dodge, K. A. (1986). Social information-processing variables in the development of aggression and altruism in children. In C. Zahn-Waxler, E. M. Cummings, & R. J. Iannotti (Eds.), *Altruism and aggression: Social and biological origins* (pp. 280–302). Cambridge University Press. <https://doi.org/10.1017/CBO9780511752834.013>
- Donner, C. M., & Jennings, W. G. (2015). Low self-control and police deviance: Applying Gottfredson and Hirschi's general theory to officer misconduct. *Police Quarterly*, 17(3), 203–225. <https://doi.org/10.1177/1098611114535217>
- Donohue, W. A. (1992). *Managing interpersonal conflict*. SAGE Publications.
- Engel, R. S., Corsaro, N., Isaza, G. T., & McManus, H. D. (2022). Assessing the impact of de-escalation training on police behavior: Reducing police use of force in the Louisville, KY Metro Police Department. *Criminology & Public Policy*, 21(2), 199–233. <https://doi.org/10.1111/1745-9133.12574>

- Engel, R. S., McManus, H. D., & Herold, T. D. (2020). Does de-escalation training work? *Criminology & Public Policy*, 19(3), 721–759. <https://doi.org/10.1111/1745-9133.12467>
- Folger, J. P., Poole, M. S., & Stutman, R. K. (2021). *Working through conflict: Strategies for relationships, groups, and organizations* (9th ed.). Routledge. <https://doi.org/10.4324/9781003027232>
- Friedman, R. A., & Currall, S. C. (2003). Conflict escalation: Dispute exacerbating elements of e-mail communication. *Human Relations*, 56(11), 1325–1347. <https://doi.org/10.1177/00187267035611003>
- Garvey, C., & Shantz, C. (1992). Conflict talk: Approaches to adversative discourse. In *Conflict in child and adolescent development* (pp. 93–121). Cambridge University Press.
- Giles, H. (2002). *Law enforcement, communication, and community*. John Benjamins Publishing.
- Giles, H., Maguire, E. R., & Hill, S. L. (2021). Introduction: Policing through the lens of intergroup communication. In H. Giles, E. R. Maguire, & S. Hill (Eds.), *The Rowman & Littlefield handbook of policing, communication, and society*. Rowman & Littlefield.
- Giles, H., & Walther, J. B. (2022). *The Atlas of language analysis in psychology*. Guilford Press.
- Goffman, E. (1955). On face-work. *Psychiatry*, 18(3), 213–231. <https://doi.org/10.1080/00332747.1955.11023008>
- Goodman, H., Papastavrou Brooks, C., Price, O., & Barley, E. A. (2020). Barriers and facilitators to the effective de-escalation of conflict behaviours in forensic high-secure settings: A qualitative study. *International Journal of Mental Health Systems*, 14(1), 59. <https://doi.org/10.1186/s13033-020-00392-5>
- Hall, E. T. (1963). A system for the notation of proxemic behavior. *American Anthropologist*, 65(5), 1003–1026.
- Hans, A., & Hans, E. (2015). Kinesics, haptics and proxemics: Aspects of non-verbal communication. *Journal of Humanities and Social Science*, 20(2), 47–52. <https://doi.org/10.9790/0837-20244752>
- Hülshager, U. R., & Schewe, A. F. (2011). On the costs and benefits of emotional labor: A meta-analysis of three decades of research. *Journal of Occupational Health Psychology*, 16, 361–389. <https://doi.org/10.1037/a0022876>
- Jackson, J., Huq, A. Z., Bradford, B., & Tyler, T. R. (2013). Monopolizing force? Police legitimacy and public attitudes toward the acceptability of

- violence. *Psychology, Public Policy, and Law*, 19(4), 479–497. <https://doi.org/10.1037/a0033852>
- Johnson, R. R. (2013). An examination of police department uniform color and police–citizen aggression. *Criminal Justice and Behavior*, 40(2), 228–244. <https://doi.org/10.1177/0093854812456644>
- Jones, B. (2022). Police-generated killings: The gap between ethics and law. *Political Research Quarterly*, 75(2), 366–378. <https://doi.org/10.1177/10659129211009596>
- Keyes, V. D. (2020). *Split-second syndrome & officer created Jeopardy: Implications for agency policy*. <https://shsu-ir.tdl.org/handle/20.500.11875/3085>
- Kochel, T. R., & Skogan, W. G. (2021). Accountability and transparency as levers to promote public trust and police legitimacy: Findings from a natural experiment. *Policing: An International Journal*, 44(6), 1046–1059. <https://doi.org/10.1108/PIJPSM-04-2021-0062>
- Kyprianides, A., Bradford, B., Jackson, J., Yesberg, J., Stott, C., & Radburn, M. (2021). Identity, legitimacy and cooperation with police: Comparing general-population and street-population samples from London. *Psychology, Public Policy, and Law*, 27, 492–508. <https://doi.org/10.1037/law0000312>
- Lamb, G. (2021). Safeguarding the Republic? The South African Police Service, legitimacy and the tribulations of policing a violent democracy. *Journal of Asian and African Studies*, 56(1), 92–108. <https://doi.org/10.1177/0021909620946853>
- Lowrey-Kinberg, B. (2021). Language in traffic stop interactions. In H. Giles, E. R. Maguire, & S. Hill (Eds.), *The Rowman & Littlefield handbook of policing, communication, and society*. Rowman & Littlefield.
- Luhmann, N. (1981). Die Unwahrscheinlichkeit der Kommunikation. In N. Luhmann (Ed.), *Soziologische Aufklärung 3: Soziales System, Gesellschaft, Organisation* (pp. 25–34). VS Verlag für Sozialwissenschaften. https://doi.org/10.1007/978-3-663-01340-2_2
- Maguire, E. R., & Giles, H. (2022). Public expressions of empathy and sympathy by U.S. criminal justice officials after controversial police killings of African-Americans. *Journal of Language and Social Psychology*, 41(1), 49–75. <https://doi.org/10.1177/0261927X211057238>
- Malone, M. F. T., & Dammert, L. (2021). The police and the public: Policing practices and public trust in Latin America. *Policing and Society*, 31(4), 418–433. <https://doi.org/10.1080/10439463.2020.1744600>
- McKay, M., Davis, M., & Fanning, P. (2009). *Messages: The communication skills book*. New Harbinger Publications.

- McLean, K., Wolfe, S. E., Rojek, J., Alpert, G. P., & Smith, M. R. (2020). Police officers as warriors or guardians: Empirical reality or intriguing rhetoric? *Justice Quarterly*, 37(6), 1096–1118. <https://doi.org/10.1080/07418825.2018.1533031>
- Mehrabian, A. (1971). *Silent messages*. Wadsworth Publishing Company.
- Muraven, M., Tice, D. M., & Baumeister, R. F. (1998). Self-control as a limited resource: Regulatory depletion patterns. *Journal of Personality and Social Psychology*, 74, 774–789. <https://doi.org/10.1037/0022-3514.74.3.774>
- Nägel, C., & Vera, A. (2021). More cops, less trust? Disentangling the relationship between police numbers and trust in the police in the European Union. *Policing: A Journal of Policy and Practice*, 15(2), 939–949. <https://doi.org/10.1093/police/paaa098>
- Oetzel, J., Ting-Toomey, S., Masumoto, T., Yokochi, Y., Pan, X., Takai, J., & Wilcox, R. (2001). Face and facework in conflict: A cross-cultural comparison of China, Germany, Japan, and the United States. *Communication Monographs*, 68(3), 235–258. <https://doi.org/10.1080/03637750128061>
- Oliva, J. R., Morgan, R., & Compton, M. T. (2010). A practical overview of de-escalation skills in law enforcement: Helping individuals in crisis while reducing police liability and injury. *Journal of Police Crisis Negotiations*, 10(1–2), 15–29. <https://doi.org/10.1080/15332581003785421>
- Opatow, S. (2005). Hate, conflict, and moral exclusion. In *The psychology of hate* (pp. 121–153). American Psychological Association. <https://doi.org/10.1037/10930-007>
- Police Executive Research Forum. (2015). *Re-engineering training on police use of force*. Critical Issues in Policing Series. Police Executive Research Forum. <https://www.policeforum.org/assets/reengineeringtraining1.pdf>
- Police Executive Research Forum. (2016). *ICAT integrating communications, assessment, and tactics*. Critical Issues in Policing Series. Police Executive Research Forum. <https://www.policeforum.org/assets/icattrainingguide.pdf>
- Price, O., & Baker, J. (2012). Key components of de-escalation techniques: A thematic synthesis. *International Journal of Mental Health Nursing*, 21(4), 310–319. <https://doi.org/10.1111/j.1447-0349.2011.00793.x>
- Price, O., Baker, J., Bee, P., & Lovell, K. (2015). Learning and performance outcomes of mental health staff training in de-escalation techniques for the management of violence and aggression. *The British Journal of Psychiatry*, 206(6), 447–455. <https://doi.org/10.1192/bjp.bp.114.144576>
- Rahr, S., & Rice, S. K. (2015). *From warriors to guardians: Recommitting American police culture to democratic ideals*. National Institute

- of Justice. <https://www.ojp.gov/ncjrs/virtual-library/abstracts/warriors-guardians-recommitting-american-police-culture-democratic>
- Reisig, M. D., & Lloyd, C. (2009). Procedural justice, police legitimacy, and helping the police fight crime: Results from a survey of Jamaican adolescents. *Police Quarterly*, 12(1), 42–62. <https://doi.org/10.1177/1098611108327311>
- Robertson, T., Daffern, M., Thomas, S., & Martin, T. (2012). De-escalation and limit-setting in forensic mental health units. *Journal of Forensic Nursing*, 8(2), 94–101. <https://doi.org/10.1111/j.1939-3938.2011.01125.x>
- Rogan, R. G., & Hammer, M. R. (1994). Crisis negotiations: A preliminary investigation of facework in naturalistic conflict discourse. *Journal of Applied Communication Research*, 22(3), 216–231. <https://doi.org/10.1080/00909889409365399>
- Rubin, J. Z. (1994). Models of conflict management. *Journal of Social Issues*, 50(1), 33–45. <https://doi.org/10.1111/j.1540-4560.1994.tb02396.x>
- Scherer, K. R. (2003). Vocal communication of emotion: A review of research paradigms. *Speech Communication*, 40(1), 227–256. [https://doi.org/10.1016/S0167-6393\(02\)00084-5](https://doi.org/10.1016/S0167-6393(02)00084-5)
- Schulz von Thun, F. (2019). *Miteinander Reden*. Rowohlt Taschenbuch Verlag.
- Shantz, D. W. (1986). Conflict, aggression, and peer status: An observational study. *Child Development*, 57(6), 1322–1332. <https://doi.org/10.2307/1130412>
- Sherman, L. W. (2020). Evidence-based policing and fatal police shootings: Promise, problems, and prospects. *The ANNALS of the American Academy of Political and Social Science*, 687(1), 8–26. <https://doi.org/10.1177/0002716220902073>
- Simpson, R. (2017). The police officer perception project (POPP): An experimental evaluation of factors that impact perceptions of the police. *Journal of Experimental Criminology*, 13(3), 393–415. <https://doi.org/10.1007/s11292-017-9292-4>
- Simpson, R. (2020). Officer appearance and perceptions of police: Accoutrements as signals of intent. *Policing: A Journal of Policy and Practice*, 14(1), 243–257. <https://doi.org/10.1093/policing/pay015>
- Smith, M. R. (2022). Reimagining the use of force by police in a post-Floyd nation. *Police Quarterly*, 25(2), 228–251. <https://doi.org/10.1177/10986111211049372>
- Spencer-Oatey, H. (2007). Theories of identity and the analysis of face. *Journal of Pragmatics*, 39(4), 639–656. <https://doi.org/10.1016/j.pragma.2006.12.004>

- Sprey, J. (1979). Conflict theory and the study of marriage and the family. In *Contemporary theories about the family: Research-based theories/edited by Wesley R. Burr ... [et al.]*. https://scholar.google.com/scholar_lookup?title=Conflict+theory+and+the+study+of+marriage+and+the+family&author=Sprey%2C+J.&publication_year=1979
- Staller, M., Koerner, S., & Zaiser, B. (2020). *Mehr GeredE: Ein Plädoyer für die Ablösung des Deeskalierenden Einsatzmodells*. <https://doi.org/10.13140/RG.2.2.17498.57285>
- Staller, M. S., Müller, M., Christiansen, P., Zaiser, B., Körner, S., & Cole, J. C. (2019). Ego depletion and the use of force: Investigating the effects of ego depletion on police officers' intention to use force. *Aggressive Behavior*, 45(2), 161–168. <https://doi.org/10.1002/ab.21805>
- Staubli, S. (2017). Polizeiarbeit zwischen Kontrolle und Fürsorge. *Sozialpolitik Ch*, 2017(1), Forum 1.1. <https://doi.org/10.18753/2297-8224-84>
- Terrill, W., & Paoline, E. A. (2013). Examining less lethal force policy and the force continuum: Results from a national use-of-force study. *Police Quarterly*, 16(1), 38–65. <https://doi.org/10.1177/1098611112451262>
- Tannen, D. (2012). Turn-taking and intercultural discourse and communication. In C. B. Paulston, S. F. Kiesling, & E. S. Rangel (Eds.), *The handbook of intercultural discourse and communication*. Wiley Online Books. <https://doi.org/10.1002/9781118247273#page=151>
- Todak, N., & James, L. (2018). A systematic social observation study of police de-escalation tactics. *Police Quarterly*, 21(4), 509–543. <https://doi.org/10.1177/1098611118784007>
- Sloan, J. J., III., & Paoline, E. A., III. (2021). “They need more training!” A national level analysis of police academy basic training priorities. *Police Quarterly*, 24(4), 486–518. <https://doi.org/10.1177/10986111211013311>
- Toribio-Flórez, D., van Harreveld, F., & Schneider, I. K. (2020). Ambivalence and interpersonal liking: The expression of ambivalence as social validation of attitudinal conflict. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.525301>
- Trager, G. L. (1961). The typology of paralanguage. *Anthropological Linguistics*, 3(1), 17–21.
- Tyler, T. R. (2002). A national survey for monitoring police legitimacy. *Justice Research and Policy*, 4(1–2), 71–86. <https://doi.org/10.3818/JRP.4.1.2002.71>
- Tyler, T. R., & Fagan, J. (2008). *Legitimacy and cooperation: Why do people help the police fight crime in their communities?* 6, 47.

- Vecchi, G. M., Wong, G. K. H., Wong, P. W. C., & Markey, M. A. (2019). Negotiating in the skies of Hong Kong: The efficacy of the behavioral influence stairway model (BISM) in suicidal crisis situations. *Aggression and Violent Behavior, 48*, 230–239. <https://doi.org/10.1016/j.avb.2019.08.002>
- Violanti, J. M., & Gehrke, A. (2004). Police trauma encounters: Precursors of compassion fatigue. *International Journal of Emergency Mental Health, 6*, 75–80.
- Watzlawick, P., Bavelas, J. B., & Jackson, D. D. (2011). *Pragmatics of human communication: A study of interactional patterns, pathologies and paradoxes*. W. W. Norton & Company.
- Zaiser, B., & Staller, M. S. (2015). The Word is Sometimes Mightier than the Sword: Rethinking Communication Skills to Enhance Officer Safety. *Journal of Law Enforcement, 4*(5), 18.
- Zaiser, B., Staller, M., & Koerner, S. (2022a). Polizeiliche Kommunikationsfähigkeit und deeskalative Handlungskompetenz—Grundlagen und Potential des Einsatztrainings. In M. Staller & S. Koerner (Eds.), *Handbuch Polizeiliches Einsatztraining*. SpringerGabler.
- Zaiser, B., Staller, M., & Koerner, S. (2022b). Kommunikation in der Anwendung. In M. Staller & S. Koerner (Eds.), *Handbuch Polizeiliches Einsatztraining*. SpringerGabler.
- Zhang, Y. B., & Giles, H. (2018). *Communication accommodation theory* (pp. 95–108). <https://doi.org/10.1002/9781118783665.ieicc0156>



Police Hostage and Crisis Negotiation Training: Foci, Protocols, and Best Practice Principles

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1 Introduction and Chapter Synopsis

Hostage and crisis negotiation (hereafter “negotiation”) is one tactical option available to police incident commanders when dealing with critical incidents (Grubb et al., 2021); and the application of negotiation techniques to such incidents has been consistently demonstrated to produce lifesaving and injury limiting results in a variety of contexts (Grubb et al., 2019a; Hammer, 2007; Noesner, 1999; Regini, 2002; Vecchi et al., 2019). Negotiation has been conceptualised as “law enforcement’s most effective nonlethal weapon” (Soskis & Van Zandt,

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1986, p. 423), with data from negotiation databases maintained internationally attesting to this claim and verifying the technique's effectiveness. Recent data taken from the Hostage and Barricade Database System (HOBAS) operated by the Federal Bureau of Investigation (FBI) (in April 2021), for example, revealed that 97.0% of cases were resolved without injury to officers or bystanders, 80.5% were resolved without injury to victims, and 83.0% were resolved without injury to the subject (National Council of Negotiation Associations [NCNA] & Federal Bureau of Investigations Crisis Negotiation Unit [FBI CNU], 2021). Similarly, data from the United Kingdom (UK) national negotiator deployment database (relating to two English police forces) found that 90.0% of cases were resolved without injury to the subject (Grubb, 2020). In line with these figures, it is accepted within the international law enforcement community that "statistically, negotiations successfully resolve most incidents" (Noesner, 1999, p. 13). However, to consistently obtain success within negotiations, it is vital that hostage and crisis negotiators (hereafter "negotiators") receive appropriate training. This proposition applies both in terms of *initial* and *maintenance* training programmes, a concept echoing Greenstone's claim in 1995 (p. 279) that "the training of hostage negotiators can be the determining factor in the successful resolution of the hostage and barricade situations confronting most municipal police departments today". The current chapter will synthesise and discuss some of the salient themes from the literature regarding negotiator training, including: (1) *what* negotiators are and should be trained on; (2) *how* negotiators are trained; and (3) the key contemporary and future issues faced by the discipline.

2 Negotiator Training: Origins and Current Protocols

The use of police officers trained as negotiators was pioneered by the New York Police Department (NYPD) and catalysed by the work of Detective Harvey Schlossberg and Lieutenant Frank Bolz who developed an approach to hostage incident resolution based on peaceful intervention through communication (Braten et al., 2016, as cited in Thompson

et al., 2022). In 1973, the NYPD started using detectives trained as negotiators in hostage and barricade incidents, with the FBI going on to develop and implement their own hostage negotiation programme (Hammer, 2007). Negotiator training has historically involved a combination of didactic academic inputs, critical review/analysis of previous incidents, and simulation exercises whereby trainees get the opportunity to play the role of the primary/secondary negotiator¹ in a variety of situations and receive feedback from instructors and peers based on reviewing videotapes of performance (Soskis & Van Zandt, 1986). The National Crisis Negotiation Course (NCNC) developed by the FBI in 1973 was originally designed to support federal agents involved in hostage, barricade, kidnapping, and/or suicide situations. The two-week course is comprehensive in content, with coverage of aspects such as “basic principles of negotiation, crisis and suicide intervention, abnormal psychology, third-party intermediaries, and equipment and technical considerations (e.g., use of communication systems, command posts)” (Van Hasselt et al., 2006, p. 62).

Another early exemplar of negotiator training is outlined within Greenstone’s (1995) book chapter, whereby he describes suggested training methods for small police departments in the form of 11 modules (areas of focus) that should be covered as part of an 80-hour negotiator training programme. Greenstone’s chapter synthesises one of the first academic attempts at guiding police departments in terms of training content and formats for effective negotiator training. The learning ethos described is framed around a combination of academic content/inputs, critical review of negotiation deployments, and simulated exercises. The areas of concern were conceptualised as the following modules, with each module having a specific suggested time allocation in learning

¹ The primary negotiator engages with/interacts directly with the subject (individual-in-crisis or hostage taker) and acts as the communicative link between the subject and the police. The secondary negotiator performs an advisory role by monitoring and recording the negotiation progress and making suggestions to the primary negotiator to help guide the negotiations. The secondary negotiator also performs a support role to the primary negotiator by acting as a “sounding board” to cross-reference ideas and may also act as a conduit between the primary negotiator and on-scene commanders to ensure that negotiators are implementing the desired strategy to resolve the incident (see Grubb, 2016; Grubb et al., 2022 for a lengthier description of negotiator cell roles).

hours: basic hostage negotiations, equipment, policy, team duties, penal code, city/community interface, practical exercises and command post practical problems, negotiator stress survival, review of previous non-departmental hostage situations, review of departmental hostage situations, and simulations with tactical team interface. The basic premise and context for contemporary negotiation training remains the same, some 37 years on from Soskis and Van Zandt's (1986) assessment. Current specific negotiation training protocols, however, vary internationally, and there are some disparities in the length of training and how it is delivered based on the host agency. In the United States (USA), for example, the FBI (federal) training programme will differ from the individual municipal or state police department training, and there may then be further differences observed between city and sheriff police departments in the way their negotiators are trained.

In the USA, the NCNA and FBI CNU (2018) negotiation guidelines help to standardise the training to a degree by presenting recommendations regarding the required initial and recurrent training. However, it is worth noting that the guidelines are qualified by a statement indicating that the guidelines are "not intended to supersede individual department policies and procedures" (p. 9), suggesting that variation between departments is inevitable to some extent. The NCNA and FBI CNU guidelines suggest that officers should receive *initial* training that includes "a minimum of 40 hours in a qualified course", with the training including "basic concepts and techniques, abnormal psychology, intelligence gathering, assessment, crisis/suicide intervention, active listening skills, case studies, meaningful role-playing drills, and an incident management overview". The guidelines also recommend annual *recurrent* negotiation training with negotiators receiving a minimum of 40 hours of "updated training and practice in order to maintain proficiency" (NCNA & FBI CNU, 2018, p. 4).

The NCNA (2020), which is widely recognised as representing the industry standard within the USA (Davis, 2022), equally provides a suggested curriculum for a crisis/hostage negotiation course. This curriculum can then be used to guide individual agency training programmes by highlighting the key areas of foci and intended learning

outcomes for trainee negotiators to attain in order to promote negotiation proficiency. The course goals/objectives for the 40-hour training course are outlined and discussed within the negotiation training course curriculum section below.

Negotiation training within the USA is delivered via various agencies (municipal, state, and federal) and is typically divided into *basic* and *advanced* training. These types of training are sometimes referred to differentially as Level 1, 2, and 3 training, with Levels 1 and 2 forming the *basic* training (40 hours) and Level 3 forming the *advanced* training (40 hours) programmes (Davis, 2022). Training offered by the Institute of Police Technology and Management (IPTM) adopts a similar setup; however, programmes are designed as three 40-hour training packages (Level I, basic, 40 hours; Level II, advanced, 40 hours; and Level III, advanced, 40 hours), allowing negotiators to complete up to 120 hours of training should this route be selected (IPTM, n.d.-a). From a federal perspective, the FBI offers its own form of negotiation training that constitutes either a 40-hour (basic) or an 80-hour (advanced) block of instruction (with these training blocks being independent of each other) (Davis, 2022). Where training is completed and who delivers it will depend on individual policies within police departments. Most officers will complete the training locally, with some having the opportunity to complete the FBI training course in lieu of, or in addition to, the local training programme(s).

In the UK, there are currently five dedicated accredited negotiator training courses.² These courses include: (1) the *national* course³; (2) the *RED centre* course⁴; (3) the *counter terrorism* course; (4) the *negotiator*

² All training programmes are one week in length, apart from the *national* course, which is a two-week course.

³ This course is a two-week pass or fail course enabling successful delegates to deploy to incidents involving people-in-crisis and/or domestic barricades, and incidents where a person other than the subject of the negotiation is at risk of harm. Nationally trained negotiators can also be deployed in support of terrorism incidents (“terrorist siege”) (Surrey Police & Sussex Police, 2022).

⁴ Training for support in cases of kidnap and “crimes in action” (Surrey Police & Sussex Police, 2022).

coordinator course⁵; and (5) the *international* course⁶ (Surrey Police & Sussex Police, 2022). UK negotiator training has historically existed on an incremental spectrum, with the national (and previously regional) training programmes forming the basic training, and the other specific scenario/advanced training acting as incremental advanced “bolt on” courses for experienced negotiators to develop more advanced skills (see Grubb, 2016; Grubb et al., 2022). The national course is designed to provide the foundations for negotiators to deploy to a range of hostage or crisis incidents, with an element of incrementality integrated into the training programme. The first week of the programme is designed to focus on crisis negotiations and crisis intervention skills, with the second week building in terms of complexity/scale and focusing more on hostage taking scenarios that often involve working collaboratively with Police Support Units and firearms teams (The Gibraltar Chronicle, 2022). Various police organisations have responsibility for delivering training for negotiators in the UK, with the Hostage and Crisis Negotiation Units based in the Metropolitan Police, Greater Manchester Police, and Police Scotland playing the main role in negotiator training delivery. Standards of training are also overseen by the National Negotiator Group (NNG) and the College of Policing.

3 Hostage and Crisis Negotiation Training Curricula: *What Content Is Covered within Negotiator Training Programmes?*

As alluded to above, the exact content of negotiation training will differ in accordance with the type/level of training being delivered and who is delivering the course. Having said this, there are suggested training

⁵ Training for negotiators to act as negotiator coordinators, team leaders, or supervisors (see Grubb, 2016; Grubb et al., 2022).

⁶ This course is delivered jointly by the Metropolitan Police Hostage and Crisis Negotiation Unit and the Foreign and Commonwealth Office to enable negotiators to support international negotiation incidents (Surrey Police and Sussex Police, 2022).

curricula and common features that consistently appear throughout the literature and within extant training programmes. Baruch and Zarse (2012) discuss what they perceive to be the necessary components within a “state-of-the-art” hostage negotiation training programme, suggesting coverage of the following topics/components:

1. *The history of hostage negotiation*: understanding the origins and evolution of negotiation as an effective alternative to tactical intervention helps trainees to understand why we negotiate at critical incidents.
2. *Understanding critical incidents*: understanding the unique qualities of different hostage/crisis incidents with varying precipitants, motivations, and situational characteristics enables negotiation strategies to be tailored accordingly.
3. *The big picture*: understanding that negotiation is only one component of the overall response to critical incidents and that negotiators need to work effectively with other tactical teams in order to promote successful resolution.
4. *Team composition*: understanding the team makeup and roles that each member takes within the negotiator cell along with enhancing team cohesion and rapport between members is an important component to successful team deployment.
5. *The negotiation process*: coverage of the phases/stages in negotiation from the initial deployment and engagement with the subject through to incident resolution; underpinning techniques for successful negotiation progression such as establishing trust, building rapport, and key communication techniques.
6. *Understanding the hostage taker*: understanding the psychology, culture, terrorist/gang affiliations of the subject, and how this can be relevant to the negotiation and the type of communication styles adopted.
7. *Assessment of violence and suicide risk*: understanding that certain situations have higher levels of violence risk and that this can inform the strategic decision-making for commanders and the choice of communication strategies employed by negotiators.

8. *Stockholm syndrome*: understanding the psychology behind the development of bonds between hostages and captors seen within the Stockholm syndrome phenomenon and how to respond to such presentations.
9. *Hostage survival skills*: understanding the strategies that promote hostage survival, such as remaining calm, refraining from increasing the offender's stress levels, and demonstrating human qualities (Fagan, 2003, as cited in Baruch & Zarse, 2012).
10. *Trauma*: reviewing the psychological effects of high-stress situations and feelings that might be encountered following a negative outcome to prepare negotiators for such an occurrence.
11. *Use of third-party intermediaries (TPIs)*: understanding the pros and cons of TPI implementation.
12. *Being proactive*: training should focus on the types of incidents likely to be encountered by the agency, which reflect the current literature, and involve a minimum of 40-hours basic training with a role-play component; training should include joint training for negotiation and tactical teams to enhance a cohesive incident response.
13. *Differences in law enforcement contexts*: understanding the differences between negotiations performed in police/federal law enforcement settings versus correctional settings.
14. *Afteraction analysis of critical incidents*: reviewing a variety of critical incidents to learn from the success and failures of others; use of tapes, audio recordings, and transcripts to analyse different incident types, perpetrators, and negotiation strategies using a reflective thinking mindset.
15. *Role-playing*: scenario-based training should include role-playing in simulated realistic settings that mimic actual or possible critical incidents.
16. *Certification*: negotiators should receive a certification in crisis negotiation on completion of a certified course; negotiators should be assessed and pass the requisite tests/assessments to gain certification; negotiators should maintain proficiency via regular monthly trainings to promote team cohesion and operational readiness.

The current NCNA (2020) suggested crisis/negotiation curriculum equally provides detailed course goals/objectives for the 40-hour (basic) training course, which is divided into 11 sections, as outlined below. Each section is elucidated by an exemplar(s) of the intended learning objectives associated with each topic.

1. *Introduction to crisis/hostage negotiation*: understand the premise of crisis negotiation.
2. *Effective communication*: recognise barriers to effective communication; apply basic communication skills to crisis negotiation.
3. *Pre-incident planning*: coordinate personnel, resources, and equipment for crisis negotiation.
4. *Command response*: evaluate and manage risk during a crisis incident.
5. *Phases of negotiation*: recognise phases of crisis negotiation.
6. *Intelligence and information management*: apply intelligence to resolving a crisis incident; maintain effective incident information charts and dialogue records.
7. *Negotiating as a team*: understand the team concept for successful crisis negotiation.
8. *Principles of negotiation*: recognise and apply factors that contribute to successful negotiation; recognise a non-negotiable situation.
9. *Law enforcement and the psychological crisis*: apply techniques for communicating with mentally ill or emotionally disturbed subjects.
10. *Suicide intervention for law enforcement perspectives*: apply effective intervention techniques for the actively suicidal subject.
11. *Practical exercise*: serve as a member of a crisis negotiation team; use crisis negotiation equipment as a primary means of crisis negotiation.

Table 1 presents a synthesis of the main topic coverage and learning outcomes identified within existing negotiator training programmes.⁷

⁷ It is worth noting that not all training programme content is publicly available, so this synthesis is based on the information that is within the public domain. Less detailed information is available for some police department training programmes, e.g., the Hong Kong Police Force runs a 160-hour crisis negotiation course “designed to focus on both theories and practice of counter-terrorism, the handling of hostage situations and the defusing of suicide attempts”

It is clear from the information available that there is no internationally recognised standardised curriculum for negotiator training and that courses differ in terms of exact content covered. By far the largest insight into training content and design is provided by the US-based negotiation literature, with several books having been published that focus on crisis negotiation and training considerations/mechanisms (e.g., see Greenstone, 2005a; Hammer, 2007; Lanceley, 2003; McMains et al., 2021; Rogan & Lanceley, 2010; Slatkin, 2009, 2010; Strentz, 2012, 2013).

4 Hostage and Crisis Negotiation Training Methods: What Methods Are Used and *How* Are Negotiators Trained?

Negotiation courses include “negotiation strategies, models of behavioural change, coordination with tactical teams, and experiential learning” (Baruch & Zarse, 2012, p. 39), with this latter component forming a consistent underpinning mechanism. Historically, negotiator training has adopted a “behaviourally based, skills-orientated” approach, whereby trainers/instructors implement a variety of methods to achieve successful training outcomes. Such methods, as observed within the FBI’s NCNC, have tended to include a combination of “direct instruction, performance feedback, modelling, behavioural rehearsal, and positive reinforcement” to hone negotiation skills (Van Hasselt et al., 2006, p. 62). Other techniques identified include the role of “street smarts” and “streetwise-based” training and the incorporation of lectures delivered by experienced negotiators (Misano & McGowan, n.d.). These methods have continued to be relevant to current training protocols, with similar approaches being applied and key components such as active learning, combining academic understanding/theory with practice, role-playing, case-study-based learning, reflective practice, and the

with additional training elements focusing on fitness, stamina, and mental health (OffBeat, 2021). In Australia, officers complete an Advanced Diploma of Police Negotiation (POL60319) qualification; however, the training content is confidential and marked as a restricted police qualification (Australian Government, 2022). Please see Grubb (2016) and Grubb et al. (2022) for insights into the nature and context of historical negotiator training delivered in the UK.

Table 1 Synthesis of the topics covered within various hostage and crisis negotiation training programmes

Course name	Topic coverage and intended learning goals/ Objectives	Course provider (Country of origin)	Course length
Hostage Crisis Negotiations: Level I (IPTM, n.d.-b)	<ul style="list-style-type: none"> • Introduction to negotiation • Negotiation philosophy • Negotiation team responsibilities • Negotiation techniques • Behavioural profiles • Initial response and team set-up (Negotiation Operations Centre) • Personnel and equipment resources • Information gathering and maintenance • Stress management • Use of force issues • Practical training exercises: individual, pair, and team 	IPTM (USA)	40 hours
Hostage Crisis Negotiations: Level II (IPTM, n.d.-c)	<ul style="list-style-type: none"> • Subject suicidality: suicide-by-cop, murder/ suicide, location suicidality • Negotiation strategies for mentally-ill, psychotic, and paranoid personalities • Advanced negotiation techniques • Managing stress during the negotiation process • Managing intelligence (advanced) • Special problems • Preparing for the protracted event 	IPTM (USA)	40 hours

(continued)

Table 1 (continued)

Course name	Topic coverage and intended learning goals/ Objectives	Course provider (Country of origin)	Course length
Hostage Crisis Negotiations: Level III (IPTM, n.d.-d)	<ul style="list-style-type: none"> • Recognising and utilising today's technology and communication tools • Team leader function: <ul style="list-style-type: none"> – Team development – Scene management – Team management and support – Interfacing with responding elements (command, tactical, and other personnel) • Exploring PTSD and the negotiator response • Negotiating with an officer in crisis • Advocating for the team • Ongoing team training, documentation, and scenario development • Positive and negative aspects of the media • Recruiting non-officer resources and their application on the scene, including: <ul style="list-style-type: none"> – Third-party intermediators – Dispatchers – Psychologists – Citizen academy – Actors • The impact, reciprocity, reciprocal agreements, and resources of the protracted incident 	IPTM (USA)	40 hours

Course name	Topic coverage and intended learning goals/ Objectives	Course provider (Country of origin)	Course length
Basic Crisis Negotiations (National Tactical Officers Association [NTOA], 2021)	<ul style="list-style-type: none"> • The legal and historical foundations of hostage/crisis negotiations and current practices in the field • Active listening techniques and their role in communicating empathy and building rapport • Crisis negotiations team roles, and the relationship of negotiators to SWAT and incident commanders • The dynamics of negotiation problems, including suspect demands, obstacles, deadlines, hostage survival, threats, one-way communications, measuring progress, and the phases of a negotiation incident from initial contact to the exit plan • Suicide intervention skills for suicide and suicide-by-cop incidents • Intelligence exploitation including open source and social media • Common crisis situations and suspect profiles • Influence and compliance tactics • Managing indirect negotiations such as the use of third-party intermediaries and interpreters • Healthy practices designed to keep negotiators safe, legally, physically, and emotionally • Practical exercises and scenario-based learning to reinforce new skills 	NTOA (USA)	40 hours (5 days)

(continued)

Table 1 (continued)

Course name	Topic coverage and intended learning goals/ Objectives	Course provider (Country of origin)	Course length
Hostage Negotiation Phase I & II Training (International Association of Hostage Negotiators [IAHN], ⁸ n.d.-a)	<ul style="list-style-type: none"> • Crisis team structure • Dynamics of negotiations • Value of using trained police negotiators as opposed to using clergy, politicians, mental health professionals, or family members • Psychology in hostage negotiations • The team concept: tactical and negotiation and politicians included) • Communicating with people in crisis (bosses and politicians included) • Negotiating with terrorists • Negotiator stress • Practical hands-on role-play 	IAHN (USA)	5 days

⁸ The IAHN provides training and certified qualifications in the art of hostage negotiation. The IAHN, along with training provider, the Public Agency Training Council (PATC) manage the Dominick Misino Hostage Negotiator Certification which enables successful candidates to be certified as negotiators (IAHN, n.d.-c). Certification is valid for two years, at which point negotiators need to recertify, which can be achieved via various formats (IAHN, n.d.-d).

Course name	Topic coverage and intended learning goals/ Objectives	Course provider (Country of origin)	Course length
Hostage Negotiation Phase III Training (IAHN, n.d.-b)	<ul style="list-style-type: none"> • Supervisory and management of a hostage negotiation team and hostage scene • Expert witnessing and prediction of resolution of hostage/barricade situations • Mentally disturbed/suicidal risk analysis • Communication and negotiations skills with the mentally impaired • Managing threatening situations • Stress and anxiety management and psychological threat assessment • Communication and negotiation skills applicable to jail and correction facilities • Dealing with victims of PTSD 	IAHN (USA)	4.5 days
Crisis Negotiators Course (Canadian Police College, 2022)	<ul style="list-style-type: none"> • Ability to assess the behaviour and communication of suspects, hostages, or barricaded subjects, which help in determining appropriate strategies during crisis negotiation • Knowledge of the philosophy and rationale of crisis negotiation as it applies to the role of the negotiator during the crisis situation • Ability to use situational indicators to guide negotiations • Knowledge of the methods used to resolve crisis incidents peacefully while ensuring the safety of all concerned • Ability to use established communication skills, theories, and hostage negotiation techniques during simulated crisis situations 	Canadian Police College (Canada)	10 days

use of simulated scenarios/exercises/enactments being common features within negotiator training internationally (Grubb, 2016; Grubb et al., 2022; Baruch & Zarse, 2012; NCNA, 2020; NCNA & FBI, 2018). When reviewing the literature in this area, it becomes clear that it is not only the curriculum and learning content (i.e., the *what*) that is important, but the *way* the curriculum is taught equally plays a core role in the success of negotiator training programmes. There are several recurring themes within the literature that provide a roadmap for tried and tested negotiator training and which can be highlighted as key concepts/areas of best practice for trainers to adopt. These concepts are discussed and elucidated further below, with specific recommendations for training implementation.

5 Best Practice Principles for Negotiator Training: Key Concepts within the Negotiator Training Arena

Use of Active, Experiential, Scenario-Based Learning/ Role-Playing

Role-playing is commonly used as an instructional tool within law enforcement settings, with it constituting a foundational pillar within the training and assessment of negotiation skills (Van Hasselt & Romano, 2004; Van Hasselt et al., 2008; Vecchi et al., 2005). Role-play formats can vary both in length and characteristics, with some scenarios being taken from past real (hostage, barricaded, suicide, and kidnapping) incidents and other simulations being used to train negotiators on potential anticipated scenarios (see Van Hasselt & Romano, 2004; Van Hasselt et al., 2008; Vecchi et al., 2005 for exemplar scenarios). The NCNC developed by the FBI CNU, for example, contains a Role Play Test with 12 audiotaped narrated scenarios that can be used to test a trainee's negotiation skills. The scenarios are thematically organised, with four based around *family domestic* situations, four based on *workplace* situations, and four based on *suicide* situations (Van Hasselt et al., 2008), thereby

enabling trainees to apply and test their skills using a variety of ecologically valid simulated scenarios that they may themselves encounter within their negotiator role.

Role-play training scenarios often involve “confederates” playing the role of the subject, with pre-arranged scripted prompts used to create the dialogue for trainees to respond to and to facilitate an extended interaction (Van Hasselt et al., 2008; Vecchi et al., 2005). This role-play acting is usually performed by experienced veteran negotiators (sometimes from an outside force/department) and is conceptualised by some negotiators as a way of “giving back” and getting involved with the training of new members of the team (e.g., knowledge exchange in a peer-to-peer format) (Grubb, 2016). The inclusion of negotiator “confederates” equally allows training formats to benefit from the experience and expertise of veteran negotiators, thereby enhancing the realism of the training protocols (Van Hasselt & Romano, 2004). One of the key components and benefits to role-play-based training is the incorporation of frequent instructor feedback, whereby brief role-play scenarios allow for immediate feedback regarding performance (Van Hasselt & Romano, 2004). Such an approach enables trainees to reflect and make real-time adjustments during the training, allowing them to correct and improve negotiation skills based on such feedback. Role-play methods provide a forum for negotiators to practise and develop core skills, such as active listening using behaviour rehearsal principles (Van Hasselt & Romano, 2004), and they have been framed as offering perfect opportunities for the development of communication skills, to practise strategies, and to increase the chances of deployment success (Maher, 2004).

Role-play drills can be delivered in a variety of formats, including *voice-to-voice*, whereby the trainee is required to negotiate with a subject (confederate/role-play actor) on the telephone; or in a *back-to-back* format where trainees are asked to sit with their backs to each other and to engage in dialogue as directed by the instructors based on a specific scenario (with one playing the role of negotiator and the other playing the role of the subject). Similarly, role-plays can include *face-to-face*, ranging in length from brief scenarios in the earlier phases of training, through to lengthier extended scenarios lasting nearly an hour or up to several hours within the more advanced phases of training

(reflecting scenarios that may require protracted negotiations) (Van Hasselt et al., 2008). The use of online methods to train negotiators have also been demonstrated in line with the rise in internet communication, the use of distance learning in education settings, and the potential demand for negotiations to occur virtually, with crisis negotiation skills courses being delivered in a US context and using chat room role-plays requiring text-based negotiation as opposed to telephone or face-to-face communication (Vecchi, 2007 as cited in Van Hasselt et al., 2008).

Clinical Utility, Clinical Fertility, Ecological Validity, and Responsivity

The literature suggests that negotiator training should be informed by the concepts of clinical utility, clinical fertility, and responsivity. It has been recommended, for example, that role-play scenarios utilised within negotiator screening/selection programmes focus on scenarios that are “typical of the kinds of calls to which negotiators respond”, with a focus on the most frequently occurring incident categories based on national data (McMains, 2003). This concept has equally been identified as having relevance for training protocols, with recommendations for training content to be matched to the typical profile of incidents deployed to within a particular police department or geographical region, and for training to focus on incidents requiring most frequent deployment (Grubb, 2020). Training in an ecologically valid way using realistic simulation/role-play based on real deployments is a common recommended feature throughout negotiator trainings. The NYPD hostage negotiation training programme, for example, emphasises the use of role-playing based on “real” situations (McGowan & Thompson, 2014), further highlighting the importance of training “smart” and in a way that mimics the realities of real deployments. This concept is equally reflected within programmes delivered in the UK, with training being designed to be realistic and to reflect the realities of negotiator deployment (Grubb et al., 2022).

The Role of Regular Refresher/Maintenance/ Recurrent Training (“Practice Makes Perfect”)

The communication skills utilised during negotiation and crisis intervention are recognised as being perishable (Davis, 2022), with negotiators being aware of the “if you don’t use them, you lose them” concept (Grubb, 2016). Regular continuous dynamic skills maintenance or ongoing training is therefore vital to ensure that negotiators maintain proficiency and operational preparedness/readiness (Grubb et al., 2022). Similar claims have been identified within the US literature, with Greenstone (1995, p. 292) stating that retraining in the form of a review of basic modules completed within initial training, utilisation of additional simulated exercises within a team training environment, and maintenance training is “essential for the maintenance of proficiency and readiness” (Greenstone, 1995, p. 292). The current NCNA and FBI CNU (2018, p. 2) recommended negotiation guidelines still echo this sentiment, with Sect. 4.D.1 stating that “negotiators should be required to maintain their skill levels through recurrent individual and team training”. From a US perspective, there is no national standard for ongoing maintenance training and the exact amount of recurrent training conducted varies across agencies, that is, agencies reported conducting between 0 and 17+ hours of maintenance training per month within Davis’s (2022) research, thereby highlighting the disparity and lack of consistent maintenance training levels across US law enforcement agencies. Despite a lack of standardised mandated policies regarding maintenance training, there are suggested “best practices” regarding training developed by Kidd (2005, updated 2013, as cited in McMains et al., 2021, p. 50), which state that “the majority of negotiators [should] attend update training outside the department” and that “all negotiators [should] attend in-house training four times a year, with one training constituting a joint exercise with tactical and command”. The NCNA and FBI (2018, p. 4) recommended negotiation guidelines also suggest that negotiators should “periodically receive updated training and practice in order to maintain proficiency” with a recommended minimum of 40 hours of training per annum.

In the UK, negotiators are required to maintain and submit an accreditation booklet for review and renewal by their force coordinator (team leader) on an annual basis, in line with the Hostage and Crisis Negotiator Policing Professional Profile to ensure that negotiators “maintain and enhance competence in the role” (College of Policing, 2022). Individual force policies equally highlight the requirement for forces to “provide regular training for their negotiators”, and for negotiators to maintain a “professional development portfolio” which records any deployments, training, and continuing professional development (CPD) completed, and demonstrates that the standards of CPD set by the NNG are being met (Surrey Police & Sussex Police, 2022, p. 2); however, the minimum number of hours of regular maintenance training required is not outlined within such documentation.

The Importance of Engagement with Regular Continuing Professional Development Opportunities

Regular participation in CPD activities has been highlighted as an important component to ensure that negotiators maintain operational readiness and the ability to respond to the ever-evolving terrain of negotiator deployment (Grubb et al., 2019b). CPD can take a variety of formats ranging from formal training completed as a cadre/team through to self-directed informal mechanisms of learning, with the main focus being on providing opportunities to develop skills, identify best practice, and learn lessons from previous deployments that may not have run as smoothly as they would have liked (Grubb, 2016; Grubb et al., 2022). Regular attendance at regional or national conferences has also been suggested as a beneficial forum for negotiators to review incidents faced by other agencies and to learn how any problems encountered were resolved. Such learning opportunities have also been purported to be beneficial in terms of allowing real field recordings of negotiation dialogue to be shared amongst colleagues, a form of exposure which is considered to have an “inoculation effect” enabling negotiators to become desensitised to the high emotional states that may be displayed by subjects in hostage or barricade incidents, which may

help them to maintain composure and self-control when experiencing similarly emotionally aroused subjects in their own future deployments (Regini, 2002, p. 5). In line with this, the recommended negotiation guidelines (NCNA & FBI CNU, 2018, p. 5) state that “attending regional or national conferences, learning from case study presentations, and conducting joint training with tactical teams and other nearby negotiation teams is highly desirable”.

Stress Management and Resilience Building for Negotiators

Stress management has been highlighted as an important skill for negotiators to master, particularly when considering the complex, challenging, risky, and high-pressure environments that they work in. Negotiators are not immune to the emotional burdens or psychological sequelae of stress, and instead need to be able to develop effective coping mechanisms to adaptively deal with the stress that they encounter within their role and prevent negative impacts on psychological functioning and wellbeing. If negotiators are suffering from the negative effects of stress, they are unlikely to be able to perform effectively, thereby placing successful negotiated resolution outcomes at risk. Aligned to this, negotiators who have not learned to effectively manage stress encountered as part of their negotiator role may also end up placing their own psychological wellbeing at risk, which can have far reaching impacts on the officer themselves, and their family unit/members (Slatkin, 2010). Negotiators must remember that in the same way that therapists must be psychologically stable to help others, negotiators must equally look after their own mental health and manage stress levels to ensure that they can support and help others in the most effective way (i.e., to help others, we must first help ourselves). As wisely outlined by Greenstone (2005b, p. 45), “stress and emotional trauma, left unattended, will incapacitate a negotiator just as surely as if the negotiator had been shot or otherwise injured”.

Various methods to build psychological armour (Greenstone, 2005b) to reduce and manage stress within the profession have been suggested, with the concept of negotiator survival skills being discussed by Greenstone (2005a) and including the recommended use of self-relaxation

skills, recognising the effects of stress and job burnout, and developing personal survival skills. Sources of negotiator stress are varied, and stress will affect negotiators in different ways. Bohl (1992) highlighted some of the stressors encountered by negotiators both during and after negotiations. This included the external pressures from others to resolve the incident quickly or resort to tactical intervention. This organisational stressor has equally been highlighted as a source of stress by Norton and Petz (2012) and within Grubb's (2016) research in the form of competing tactical orientations and operational conflict whereby the negotiator's wishes to "play it long" often come into conflict/are incongruent with the tactical commander's wishes to "quickly resolve the situation". Internal pressure to perform well or that the negotiations may not be successful are equally highlighted as sources of stress (Bohl, 1992). Other stressors identified include the crisis situation itself (often chaotic and emotionally charged), interactions with tactical team members, contact with hostage takers, and the physiological impact of protracted negotiations (in the form of physical and emotional fatigue) (Norton & Petz, 2012).

Encountering stressful situations is an inevitable part of negotiator deployment; however, negotiators can be trained to manage stress and to reduce the potential negative impacts of such stress. Bohl (1992) highlights the following stress management techniques that negotiators can be trained to utilise:

1. The use of breathing exercises;
2. Muscle relaxation techniques;
3. Techniques to reduce physiological responses to stress (e.g., sweating, tremors, and stomach cramps); and
4. Cognitive techniques and cognition management.

Similarly, Norton and Petz (2012) discuss a range of pre-, during, and post-incident stress management practices that can be adopted by negotiators. Pre-incident methods include the use of high stress, high reality training (i.e., reality-based scenario training) to mimic the pressures and realities of negotiation deployments and to provide a form of "stress inoculation" (Grossman & Christensen, 2004), whereby "prior success under

stressful conditions acclimatise you to similar situations and promotes future success” (p. 35). Effective training also helps to build negotiator confidence, familiarisation with procedures and equipment, and team cohesion—aspects which all help to buffer against stress encountered during deployment (Norton & Petz, 2012). During-incident methods include reliance on the team setup for support with a difficult and often challenging task, with particular emphasis placed on the primary and secondary (support) negotiator setup as an effective stress management tool (Grubb et al., 2022; Norton & Petz, 2012). Being able to step away from the “negotiating table” even just temporarily and attending to basic human needs such as getting nourishment, walking around, stretching, and getting fresh air are also effective stress management tools (McMains et al., 2021). Post-incident methods include the use of debriefing in various guises (operational debriefing, critical decision debriefing, emotional debriefing) (see McMains et al., 2021 for a lengthy discussion of these techniques), with these debriefings serving dual purposes (in the form of a therapeutic and wellbeing mechanism and a form of reflective practice to guide future deployments) (Grubb et al., 2021). Individual, self-directed, adaptive coping mechanisms for stress are also important for negotiators to develop and adopt (in line with what works for them personally), with the use of peer/family social support, the use of exercise/sport being two exemplars (Greenstone, 2005b; Grubb et al., 2022; Norton & Petz, 2012).

Finally, there is a growing body of literature relating to the role of resilience practices within law enforcement settings, with an emphasis on the potential benefits of awe and other resilience practices for officers generally and, more specifically, for negotiators (see Thompson et al., 2022). Adopting a proactive as opposed to a reactive approach by training negotiators to be aware of and to manage their own psychological wellbeing and mental health and to enhance their resilience is akin to buying an insurance policy—you hope that you don’t have to use it, but it is there if you do! Such stress management and resilience skills are equally as important as the communication skills we train negotiators to use *in theatre* and should receive proportionate attention within training programmes.

6 Salient Constructs/Foci within Contemporary Negotiation Training and Practice

Advances in Technology and the Use of Communications Media within Negotiations

In line with the changing communication styles and technology available within society, particularly the increase in SMS (text messaging) and virtual (online) communication, it appears prudent to suggest that current negotiator training should incorporate a range of diverse communication styles, methods, and media, with this being reflected within role-play exercises. Negotiators in the UK, for example, have highlighted the importance of selecting the most appropriate method of communication to match the subject and situation (ranging from landline telephones, throw phones, bullhorns, SMS, email, and chat functions within social networking sites) (Grubb et al., 2021); however, it is not clear to what extent negotiators are trained to specifically employ these various methods of communication. St-Yves et al. (2022) have equally highlighted the importance of moving with the times for negotiators to be equipped with the necessary skills to engage with younger subjects (or other subjects) who may prefer to converse using text message or social media forums. They appositely discuss the requirement for negotiators to be able to use the “text me” concept in addition to the historical “talk to me” mantra adopted by the NYPD Hostage Negotiation Team (St-Yves et al., 2022, p. 197), suggesting that text-based negotiation skills should be an area of foci within current and future training programmes. Negotiators need to be trained in a way that enables them to be able to respond appropriately and effectively, regardless of the manner in which the subject chooses to communicate. Practising these skills in a safe and controlled training environment will enhance operational readiness should they encounter a non-verbal negotiating scenario in the future.

The Role and Significance of Mental Health in Negotiation

Although mental health crisis has historically and consistently played a longstanding predominant role in many of the deployments to which negotiators respond (Grubb, 2010, 2020), there is a suggestion that mental health crises are on the increase and that this trend has been exacerbated due to the coronavirus global pandemic and associated restrictions (Mind, 2021).⁹ Research conducted by the Mind mental health charity based in the UK found that more than 60% of adults and more than two-thirds of young people (68%) reported that their mental health had deteriorated during lockdown, that those with existing mental health problems were more likely to experience a worsening of symptoms, and that even individuals who had not suffered with mental health problems previously were more likely to experience a decline in their mental health and wellbeing now (Mind, 2020). When considering that a large proportion (by far the majority) of incidents to which negotiators deploy has historically constituted individuals who are experiencing psychological, emotional, or personal crisis and are threatening to harm themselves as opposed to others (see Grubb, 2020), it is logical to assume that the demand for suicide intervention by negotiators is likely to increase in line with the increased trend of mental health issues being observed within society. Such statistics highlight the ever-important role of crisis and suicide intervention techniques within training programmes, utilising a research-informed and evidence-based foundation for the skills being instructed—a concept that resonates appositely with Regini's (2002, p. 3) suggestion that “training programmes should address the most common types of incident that the Crisis Negotiation Team (CNT) is likely to encounter and reflect the most current proven professional knowledge in the field”.

⁹ The coronavirus global pandemic has even given rise to new negotiator roles that were not previously observed. In Hong Kong, for example, negotiators were deployed to persuade individuals who were refusing to go into quarantine to follow government restrictions (Hong Kong Police Review, 2020). Such a deployment would have been unprecedented prior to the pandemic, further demonstrating the ever-evolving discipline and applications of negotiation.

Key Takeaways

The key messages threaded throughout the current chapter have been synthesised into the following set of training top tips that can be applied by negotiators and instructors within their practices:

1. Train *hard* (get the basics right and build a strong foundation).
2. Train *regularly* (“practice makes perfect”; “if you don’t use it, you lose it”).
3. Train *smart* (focus proportionately on the incidents that are likely to be frequently encountered).
4. Train *realistically* (use real incidents to inform training content).
5. Train *actively* (use scenario-based exercises and role-play drills).
6. Train *together* (both within and across negotiator and tactical teams).
7. Train *forever* (use CPD and recurrent training to ensure best practice and currency).
8. Train *informed* (use evidence-based and research-informed training protocols).
9. Train *diversely* (use a variety of incident categories and methods of communication to enhance flexibility and operational readiness).
10. Train *self* (to manage psychological stress and increase resilience).

Police Officers

Negotiation is a perishable skill that needs to be practised regularly to maintain competency. Negotiators should complete regular training/CPD and ensure that their knowledge is research-informed, evidence-based, and current to maintain operational readiness. Negotiators should be proactive in developing adaptive stress management techniques and engage in resilience practices to protect psychological wellbeing and to provide a buffer against the effects of stress encountered during deployments.

Conflict Management Trainers

Negotiation training should be designed in line with recommended guidelines and existing research/evidence bases. Trainers/instructors should adopt realistic scenario-based training (using real historical cases) that mimics the stress and realities of true deployments. The content of training should be designed using existing tried and tested curricula and training methods.

Police Decision-Makers

Negotiation is a vital and effective police tool that prevents numerous injuries/fatalities and should therefore be consistently invested in when it comes to initial and maintenance training programmes to ensure that agencies have enough adequately trained (and operationally ready) negotiators who can deploy to critical incidents.

References

- Australian Government. (2022). *Qualification details: POL60319—Advanced diploma of police negotiation (release 1)*. Training.gov.uk. <https://training.gov.au/Training/Details/POL60319>
- Baruch, M., & Zarse, N. (2012). Components in a hostage negotiation training curriculum. *Journal of Police Crisis Negotiations*, 12(1), 39–50. <https://doi.org/10.1080/15332586.2012.641438>
- Bohl, N. K. (1992). Hostage negotiator stress. *FBI Law Enforcement Bulletin*, 61(8), 23–26. <https://ojp.gov/njrs/virtual-library/abstracts/hostage-negotiator-stress>
- Canadian Police College. (2022). *Crisis negotiators*. Canadian Police College. <https://www.cpc-ccp.gc.ca/programs-programmes/investigative-enquetes/negotr-negotn-eng.htm>
- College of Policing. (2022). *Policing professional profile: Hostage and crisis negotiator*. College of Policing. <https://profdev.college.police.uk/professional-profile/hostage-and-crisis-negotiator/>
- Davis, R. (2022, February 14). *Research: Current trends in hostage/crisis negotiation nomenclature and training*. Police1. <https://www.police1.com/swat/articles/research-current-trends-in-hostagecrisis-negotiation-nomenclature-and-training-PLd2jEwCf1IqZATY/>
- Gibraltar Chronicle. (2022, January 15). This was the toughest but most rewarding course. *Gibraltar Chronicle*. <https://www.chronicle.gi/this-was-the-toughest-but-most-rewarding-course/>
- Greenstone, J. L. (1995). Hostage negotiations team training for small police departments. In M. I. Kurke & E. M. Scrivner (Eds.), *Police psychology into the 21st century* (pp. 279–296). Lawrence Erlbaum Associates.

- Greenstone, J. L. (2005a). *The elements of police hostage and crisis negotiations: Critical incidents and how to respond to them*. Routledge.
- Greenstone, J. L. (2005b). Peer support for police hostage and crisis negotiators: Doing what comes naturally. *Journal of Police Crisis Negotiations*, 5(1), 45–55. https://doi.org/10.1300/J173v05n01_05
- Grossman, D. A., & Christensen, L. W. (2004). *On combat: The psychology and physiology of deadly conflict in war and peace*. PPCT Research Publications.
- Grubb, A. (2010). Modern day hostage (crisis) negotiation: The evolution of an art form within the policing arena. *Aggression and Violent Behavior*, 15(5), 341–348. <https://doi.org/10.1016/j.avb.2010.06.002>
- Grubb, A. R. (2016). *A mixed-methodological analysis of police hostage and crisis negotiation in the United Kingdom* [Unpublished doctoral dissertation]. Coventry University. <https://doi.org/10.13140/RG.2.2.22287.79522>
- Grubb, A. R. (2020). Understanding the prevalence and situational characteristics of hostage and crisis negotiation in England: An analysis of pilot data from the national negotiator deployment database. *Journal of Police and Criminal Psychology*, 35(1), 98–111. <https://doi.org/10.1007/s11896-020-09369-z>
- Grubb, A. R., Brown, S. J., Hall, P., & Bowen, E. (2019a). From “sad people on bridges” to “kidnap and extortion”: Understanding the nature and situational characteristics of hostage and crisis negotiator deployments. *Journal of Negotiation and Conflict Management Research*, 12(1), 41–65. <https://doi.org/10.1111/ncmr.12126>
- Grubb, A. R., Brown, S. J., Hall, P., & Bowen, E. (2019b). “There’s nothing that compares to it”: A grounded theoretical analysis of the experiences of police hostage and crisis negotiators. *International Journal of Conflict Management*, 30(3), 369–394. <https://doi.org/10.1108/IJCMA-01-2019-0003>
- Grubb, A. R., Brown, S. J., Hall, P., & Bowen, E. (2021). From deployment to debriefing: Introducing the D.I.A.M.O.N.D. model of hostage and crisis negotiation. *Police Practice and Research: An International Journal*, 22(1), 953–976. <https://doi.org/10.1080/15614263.2019.1677229>
- Grubb, A. R., Brown, S. J., Hall, P., & Bowen, E. (2022). “The more you do, the more comfortable you feel”: Qualitatively mapping the police hostage and crisis negotiator journey. *Journal of Police and Criminal Psychology*, 37(1), 195–211. <https://doi.org/10.1007/s11896-021-09486-3>
- Hammer, M. R. (2007). *Saving lives: The S.A.F.E. model for resolving hostage & crisis incidents*. Praeger Security International.

- Hong Kong Police Review. (2020). *Police negotiation cadre*. https://www.police.gov.hk/info/review/2020/en/hkpf_eng04.html
- International Association of Hostage Negotiators. (n.d.-a). *Hostage negotiation phase I & II*. https://hostage.patc.com/training/hostage_negotiation_training.shtml
- International Association of Hostage Negotiators. (n.d.-b). *Hostage negotiation phase III (certification)*. https://hostage.patc.com/training/hostage_negotiation_certification.shtml
- International Association of Hostage Negotiators. (n.d.-c). *About I.A.H.N.* <https://hostage.patc.com/about/index.shtml>
- International Association of Hostage Negotiators. (n.d.-d). *Hostage negotiator certification*. <https://hostage.patc.com/certification/index.shtml>
- Institute of Police Technology and Management. (n.d.-a). *Course catalogue: Hostage and crisis*. https://iptm.unf.edu/catalog.aspx?_ga=2.230001758.390084051.1660575774-1162057185.1660575774#ImNhdGFsb2ciDoglK NhdGFsb2ciLCAiY2F0ZWdvcnkilDoglkhvc3RhZ2UgYW5kiENyaXNpcyI=
- Institute of Police Technology and Management. (n.d.-b). *Hostage and crisis negotiations—Level I*. <https://www.campusce.net/iptm/course/course.aspx?C=336&pc=47>
- Institute of Police Technology and Management. (n.d.-c). *Hostage and crisis negotiations—Level II*. <https://www.campusce.net/iptm/course/course.aspx?C=337>
- Institute of Police Technology and Management. (n.d.-d). *Hostage and crisis negotiations—Level III*. <https://www.campusce.net/iptm/course/course.aspx?C=340&pc=47>
- Lanceley, F. J. (2003). *On-scene guide for crisis negotiators* (2nd ed.). CRC Press.
- Maher, J. R. (2004). Role-play training for negotiators in diverse environments. *FBI Law Enforcement Bulletin*, 73(6), 10–12. <https://leb.fbi.gov/file-repository/archives/june04leb.pdf/view>
- McGowan, H. M., & Thompson, J. (2014, August 18). “Talk to me”: What it takes to be an NYPD hostage negotiator. Mediate.com. <https://mediate.com/talk-to-me-what-it-takes-to-be-an-nypd-hostage-negotiator/>
- McMains, M. J. (2003). Negotiator screening: Scenario assessment. *Journal of Police Crisis Negotiations*, 3(2), 81–86. https://doi.org/10.1300/J173v03n02_11
- McMains, M. J., Mullins, W. C., & Young, A. T. (2021). *Crisis negotiations: Managing critical incidents and hostage situations in law enforcement and corrections* (6th ed.). Routledge.

- Mind. (2020). *The mental health emergency: How has the coronavirus pandemic impacted our mental health*. Mind. https://www.mind.org.uk/media-a/5929/the-mental-health-emergency_a4_final.pdf
- Mind. (2021). *Coronavirus: The consequences for mental health*. Mind. <https://www.mind.org.uk/media/8962/the-consequences-of-coronavirus-for-mental-health-final-report.pdf>
- National Council of Negotiation Associations. (2020). *Crisis/hostage negotiation course suggested curriculum*. <https://ncna.us/default.aspx?MenuItemID=45&MenuGroup=Public+Home>
- National Council of Negotiation Associations & Federal Bureau of Investigations Crisis Negotiation Unit. (2018). *Recommended negotiation guidelines and policies*. <https://ncna.us/default.aspx?MenuItemID=43&MenuGroup=Public+Home>
- National Council of Negotiation Associations & Federal Bureau of Investigations Crisis Negotiation Unit. (2021). *Recommended negotiation guidelines and policies*. <https://ncna.us/default.aspx?MenuItemID=43&MenuGroup=Public+Home>
- National Tactical Officers Association. (2021). *Basic crisis negotiations: Course overview and instructional goals*. <http://public.ntoa.org/AppResources/CourseDetails/67.pdf>
- Noesner, G. W. (1999). Negotiation concepts for commanders. *FBI Law Enforcement Bulletin*, 68(1), 6–14. <https://leb.fbi.gov/file-repository/archives/jan99leb.pdf/view>
- Norton, S. C., & Petz, M. (2012). Hostage negotiators: Managing psychological stress. *Journal of Police Crisis Negotiations*, 12(1), 28–28. <https://doi.org/10.1080/15332586.2011.623021>
- OffBeat. (2021). *Police negotiation cadre saves lives and passes the torch*. OffBeat, Issue 1183 (May 5, 2021–May 19, 2021). The Hong Kong Police Force. <https://www.police.gov.hk/offbeat/1183/eng/9023.html>
- Regini, C. (2002). Crisis negotiation teams: Selection and training. *FBI Law Enforcement Bulletin*, 71(11), 1–5. <https://leb.fbi.gov/file-repository/archives/nov02leb.pdf/view>
- Rogan, R. G., & Lanceley, F. J. (Eds.). (2010). *Contemporary theory, research and practice of hostage and crisis negotiation*. Hampton Press Inc.
- Slatkin, A. A. (2009). *Training strategies for crisis and hostage negotiations: Scenario writing and creative variations for role play*. Charles C Thomas.

- Slatkin, A. A. (2010). *Communication in crisis and hostage negotiations: Practical communication techniques, stratagems, and strategies for law enforcement, corrections and emergency service personnel in managing critical incidents* (2nd ed.). Charles C Thomas.
- Soskis, D. A., & Van Zandt, C. R. (1986). Hostage negotiation: Law enforcement's most effective nonlethal weapon. *Behavioral Sciences and the Law*, 4(4), 423–435. <https://doi.org/10.1002/bsl.2370040406>
- St-Yves, M., Thompson, J., & Bibeau, L. (2022). Communication as a weapon for resolving hostage and barricaded situations. In P. B. Marques & M. Paulino (Eds.), *Police psychology: New trends in forensic psychological science* (pp. 189–204). Academic Press. <https://doi.org/10.1016/B978-0-12-816544-7.00010-3>.
- Strentz, T. (2012). *Psychological aspects of crisis negotiation* (2nd ed.). CRC Press.
- Strentz, T. (2013). *Hostage/crisis negotiations: Lessons learned from the bad, the mad, and the sad*. Charles C Thomas.
- Surrey Police & Sussex Police. (2022). *Hostage and crisis negotiators policy*. Surrey Police & Sussex Police. <https://www.sussex.police.uk/SysSiteAssets/foi-media/sussex/policies/hostage-and-crisis-negotiators-policy-surrey-and-sussex-1178.pdf>
- Thompson, J., Grubb, A. R., Ebner, N., Chirico, A., & Pizzolante, M. (2022). Increasing crisis hostage negotiator effectiveness: Embracing awe and other resilience practices. *Cardozo Journal of Conflict Resolution*, 23(3), 615–685. https://static1.squarespace.com/static/60a5863870f56068b0f097cd/t/62c5bb989716c4185529716a/1657125784611/CAC309_crop.pdf
- Van Hasselt, V. B., & Romano, S. J. (2004). Role-playing: A vital tool in crisis negotiation skills training. *FBI Law Enforcement Bulletin*, 73(2), 12–17. <https://leb.fbi.gov/file-repository/archives/feb04leb.pdf/view>
- Van Hasselt, V. B., Romano, S. J., & Vecchi, G. M. (2008). Applications in hostage and crisis negotiation skills training. *Behaviour Modification*, 32(2), 248–263. <https://doi.org/10.1177/0145445507308281>
- Van Hasselt, V. B., Baker, M. T., Romano, S. J., Schlessinger, K. M., Zucker, M., Dragone, R., & Perera, A. L. (2006). Crisis (hostage) negotiation training: A preliminary evaluation of program efficacy. *Criminal Justice and Behavior*, 33(1), 56–69. <https://doi.org/10.1177/0093854805282328>
- Vecchi, G. M., Van Hasselt, V. B., & Romano, S. J. (2005). Crisis (hostage) negotiation: Current strategies and issues in high-risk conflict resolution. *Aggression and Violent Behavior*, 10(5), 533–551. <https://doi.org/10.1016/j.avb.2004.10.001>

Vecchi, G. M., Wong, G. K. H., Wong, P. W. C., & Markey, M. A. (2019). Negotiating in the skies of Hong Kong: The efficacy of the Behavioral Influence Stairway Model (BISM) in suicidal crisis situations. *Aggression and Violent Behaviour, 48*, 230–239. <https://doi.org/10.1016/j.avb.2019.08.002>



Tactical Gaze Control and Visual Attention in Law Enforcement

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Reviewer: Friederike Uhlenbrock

In their daily work, law enforcement officers depend on the ability to quickly recognize and assess potential dangers visually. Conscious tactical gaze control and a distinct understanding of where weapons and dangerous objects can be expected may reduce the risk of life-threatening attacks. This chapter aims to provide readers with scientifically sound information on the relevance of tactical gaze control and attention under stress and provide trainers with practical tips for optimized training.

Eye-tracking¹ technology has been used in sports science for decades to study expert athletes' visual perceptions and gaze patterns (Edworthy

¹ An eye tracker is a mobile or stationary device that detects gaze paths based on eye movements.

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et al., 2000; Ripoll et al., 1985, 1995; Vickers, 1992, 1996a, 1996b, 2011; Vine et al., 2014). However, this research may not fully transfer to practical police training. Even sports with comparable elements (e.g., shooting in the biathlon) differ significantly from law enforcement situations. Biathletes are never confronted with arguably the most critical question for police officers in these situations: “Am I even allowed to shoot?” Furthermore, biathletes do not face lethal consequences based on their decisions. Gallicchio and colleagues (2016) also found that high-level biathletes deliberately focus all available mental resources on shooting and actively block out other cognitive processes. Police officers, however, must not limit their mental flexibility in critical situations. A suspect’s threat level, tactical circumstances, and behavior can change unexpectedly.

Outside sports psychology, research on gaze control and visual attention has been conducted mainly in general cognitive psychology. In a practical law enforcement context, however, comparable studies are much more recent and, therefore, still comparatively rare. Relevant studies from a military perspective are also scarce, presumably because military findings are usually classified information.

Although police officers may be confronted with potentially lethal situations almost any time on daily duty, fortunately such worst-case scenarios do not occur daily. This makes it all the more important for police officers to have a robust skill set to rely on in these rare and highly dynamic situations. This skill set includes tactical gaze control, attentional focus, threat detection, situation awareness, and decision-making under stress (Helsen & Starkes, 1999; Heusler & Sutter, 2022b; Vickers & Lewinski, 2012).

1 Visual Perception and Attention

Approximately one-third of the human brain is devoted to visual perception (Findlay & Gilchrist, 2003). This impressively underlines the importance of vision in human perception of external stimuli. Moreover, visual perception plays a crucial role in tool use, as it often conveys essential feedback regarding movement, distance, and interaction. Perception

and action are thus closely linked (Gibson, 2015; Sack & Sutter, 2017; Sutter et al., 2013).

Although the human brain tends to trick its owner into thinking they perceive their environment realistically and loss-free, the reception and processing of visual stimuli are severely limited (Findlay & Gilchrist, 2003). Besides purely physical factors, internal processes also play a vital role in which stimuli are consciously perceived.

For example, maximally sharp vision is only possible within approximately a 2° angle (foveal vision). This corresponds to the area of one's thumbnail when looking at it with an extended arm. Moreover, the eye's lens must adjust to the corresponding distance to the object when changing focus between near and far. This adjustment may take more than a second. Vision outside the foveal area, especially at 5° or more, is called peripheral vision. While foveal vision allows for identifying objects and reliably detecting changes, motion can usually be perceived well peripherally. The foveal orientation of the gaze onto a stimulus is called a fixation (typically considered as at least 100 ms), while the gaze movements in between are saccades. During saccades, no visual stimulus processing is possible (Carrasco, 2011; Castelano et al., 2009; Findlay & Gilchrist, 2003; Hoffman, 1998; Irwin, 1992; Rayner, 2009; Salvucci & Goldberg, 2000; Yarbus, 1967).

Capacity reasons can lead to unprocessed or poorly processed visual information. Since the human brain cannot process visual stimuli loss-free, information is automatically prioritized, sorted out, and interpreted. Often, these interpretations provide a solid representation of the stimuli and thus allow for unproblematic orientation. Probably the most striking examples of inadequate and incorrect interpretation of visual stimuli are the effects of change blindness, cognitive blind spots, and optical illusions (Findlay & Gilchrist, 2003; Gibson, 2015; Rensink, 2002, 2005; Rensink et al., 1997).

In summary:

- Not every visual stimulus reaches the brain;
- Not every visual stimulus that reaches the brain can be processed; and
- Not every visual stimulus that is processed is interpreted correctly.

Groner and Groner (1989) state that vision influences the human sensory system bottom-up (e.g., when receiving visual information from the environment) and top-down (e.g., when consciously focusing one's gaze and attention on objects). Consistent with this finding, Findlay and Gilchrist (2003) conclude that a purely passive explanatory approach does not do the complexity of human visual perception justice. The authors describe the ability to control fixations, extract desired information, and consciously process it as "active vision".

Active visual searching for stimuli involves systematic "scanning", which can be controlled cognitively or may happen subconsciously. Although salient stimuli² may provoke a shift in gaze and attention, active visual searching appears to be affected more by conscious strategies and cognitive processes. Visual scanning can be improved by training when and where to look. It can also be trained to know what information to extract during fixations. Furthermore, visual priming,³ defined tasks, and attention can influence scanning strategies (Castelhana & Henderson, 2007; Castelhana et al., 2009; Dewhurst & Crundall, 2008; Gilchrist & Harvey, 2006; Henderson et al., 2007; Körber, 2016; Loftus & Mackworth, 1978; Yantis & Egeth, 1999).

Another central aspect of visual perception, besides gaze, is visual attention. Whereas gaze (i.e., eye movements) can be recorded and evaluated using an eye tracker, attention is an internal process. Posner and colleagues (1980) and Eriksen and St. James (1986) indicate that visual perception is most effective when visual attention is not divided but focused on one stimulus at a time. It is also unclear whether the parallel distribution of attention is possible. McMains and Somers (2004) found that test persons seemed to direct their attention to two areas in parallel by only rapidly shifting focus back and forth between the regions.

This means that gaze patterns do not necessarily correspond to perceived visual stimuli. For example, although a person may fixate their gaze on a stimulus, attention can be consciously shifted away and focused on another stimulus. Furthermore, some visual information may simply

² Salient stimuli are stimuli that "catch the viewer's eye". The reasons for this can be color, size, shape, or situational context.

³ Priming describes the pre-activation or preparation for a target stimulus with a priming stimulus.

be unprocessed despite gaze fixation and attention (Carrasco, 2011; Dewhurst & Crundall, 2008; Duchowski, 2003; Findlay & Gilchrist, 2003; Holmes et al., 1977).

Example: Shift of Attention

To de-escalate a potentially dangerous situation, a police officer calmly talks to a suspect while keeping polite eye contact. Simultaneously, the officer consciously shifts his attention to the suspect's hands/hip region.

Example: Lack of Processing

In practical training, a police officer learned to actively turn his head and look for further threats after handcuffing a suspect. The officer intuitively turns his head—as in training—but lacks attention and misses perceiving a second armed perpetrator nearby.

A well-established strategy for improving gaze control is the *quiet eye*, first described by Vickers (1996a, 1996b). A quiet eye is characterized by gaze fixations on the desired target (e.g., a soccer goal or bull's eye) rather than the object (e.g., a ball or gun) just before and during execution. This gaze control technique's benefits have been demonstrated in shooting sports, darts, ice hockey, and various ball sports.⁴ Subjects displaying a quiet eye also performed better under stress than subjects whose gaze was unsteady (Behan & Wilson, 2008; Causer et al., 2010; Edworthy et al., 2000; Lebeau et al., 2016; Piras & Vickers, 2011; Vickers, 2011; Vickers & Lewinski, 2012; Vickers & Williams, 2007; Vine & Wilson, 2010, 2011; Vine et al., 2014; Wood & Wilson, 2012).

Comparable effects have also been found in a law enforcement context. For example, police subjects with a quiet eye showed higher accuracy and decision confidence in realistic training scenarios. Furthermore, even under induced stress, police officers fixating their gaze on the

⁴ This includes soccer, volleyball, basketball, and golf.

target shortly before firing improved their hit performance significantly (Nieuwenhuys & Oudejans, 2011; Vickers & Lewinski, 2012). Studies from related research fields align with these findings and confirm that quiet eye training improves accuracy and resilience to stress (Moore et al., 2012; Vine & Wilson, 2010, 2011; Vine et al., 2014). These findings suggest that learnable gaze control strategies may significantly improve police competence in high-stress situations.

2 Tactical Aspects

Although the research field is relatively young, several studies focus on gaze control in a law enforcement context (for an overview, see Heusler & Sutter, 2020). Based on these studies, it can be assumed that police officers' visual expertise consists of innate abilities and learned skills that can be developed through practical experience and targeted training.

Threat Detection

Police officers must perceive weapons and dangerous objects quickly and reliably. They must rely on their skillsets not only in obvious extreme cases but also during everyday routine (Körber, 2016; Körber & Neuberger, 2009; Neuberger, 2013; Vickers & Lewinski, 2012). The importance of visual perception in law enforcement is consistent with military findings from a study by Alt and Darken (2008). Soldiers stated exclusively visually perceiving threats in combat situations during daylight hours. In night-time conditions, almost half (44%) of threats were still perceived visually.

Körber (2016) showed through several experiments that police test subjects used more efficient gaze control patterns when searching for dangerous objects than civilian subjects and thus detected threats more quickly. Moreover, police experts could detach their gaze from dangerous objects more quickly. Thus, they could search for other critical stimuli more quickly than their non-police counterparts.

However, police officers in the field must detect threats in highly dynamic situations—quite the opposite of laboratory conditions. Therefore, stress resilience and a solid tactical understanding of where dangerous objects are most likely found on a potential attacker are paramount (Helsen & Starkes, 1999; Heusler, 2022; Heusler & Sutter, 2022a; Nieuwenhuys & Oudejans, 2011; Nieuwenhuys, Savelsbergh, et al., 2012a, 2012b; Vickers & Lewinski, 2012).

Lethal attacks targeted at police officers, especially involving firearms, can happen in split seconds, giving officers little time to respond. For example, in an experiment by Blair and colleagues (2011), armed attackers (with their weapons initially pointed at the ground) took an average of only 360 ms to aim and fire at a police officer. Conversely, police subjects took an average of 380 ms to react to the attack and fire back at an attacker—although their service weapons were already pointed at the suspect. These reaction times illustrate the importance of proper tactical gaze control and visual attention. Police officers whose attention and gaze are already focused on an attacker's hands can save valuable split seconds in escalating situations. This holds especially true when an attacker draws a concealed weapon that the officer must first identify.

Tactical Gaze Control and Visual Attention

A critical aspect of proper tactical gaze control and visual attention is understanding “tactically more important” and “tactically less important” areas of a suspect's body. For example, an armed attacker's life-threatening attack almost always involves their hands.⁵ Firearms, knives, dangerous objects, and even most explosive detonators must be operated manually to pose an immediate threat to an officer's life. Thus, shifting gaze and attention to a suspect's hands is essential.

Human faces are highly salient stimuli, meaning they attract gaze and attention more than less salient stimuli (Calvo & Nummenmaa, 2008; Cerf et al., 2007). Moreover, in most Western cultures, eye contact is considered polite and a sign of sincerity. Although a suspect's emotions

⁵ The use of vehicles as weapons is an exception.

may be interpreted through facial expressions, their intentions cannot be accurately identified. It is, therefore, all the more important that officers know of this circumstance and develop sound tactical awareness. If an officer orients their gaze onto a suspect's face—out of politeness or other reasons—their attention should focus on the suspect's hands. If a situation is critical, officers should direct their gaze and attention to the suspect's hands. In a two-person officer team,⁶ the securing officer must have continuous visual control of the suspect's hands.

A suspect almost always uses their hands to perform a lethal attack—but never their face. Attention should, therefore, focus on a suspect's hands, not their facial expressions.

Polite eye contact does not necessarily de-escalate a situation. Dangerous suspects tend to weigh their chances based on the body language of the officer at the scene. An officer focusing on a suspect's hands radiates confidence and professionalism, indicating they can react immediately to an armed attack.

Targeted training can help officers consciously (top-down) to detach gaze and attention from salient but tactically subordinate stimuli under stress. Under elevated anxiety levels, police officers could risk having critically limited perception and losing mental flexibility. Highly dynamic situations can cause stress, which negatively affects decision-making performance and the officer's shooting accuracy (Nieuwenhuys & Oudejans, 2010, 2011; Nieuwenhuys et al., 2009; Nieuwenhuys, Canal-Bruland, et al., 2012a, 2012b; Nieuwenhuys, Savelsbergh, et al., 2012a, 2012b; Renden et al., 2014, 2015). Nibbeling and colleagues (2014) describe comparable adverse effects of stress in infantry soldiers. Considering these findings, artificial stressors must be integrated into law enforcement training. Especially advanced training benefits should be as realistic as possible to train officers in handling potentially life-threatening and highly dynamic situations.

Heusler and Sutter (2022a) demonstrated that officers of a highly trained tactical unit focused their gaze on a suspect's critical hands/hip region significantly longer than uniformed patrol officers with a high level of practical routine, and vice versa; the latter focused their

⁶ Officer 1 does the verbal communication while officer 2 secures.

gaze on the suspect's face significantly longer than the tactical officers. These effects were most observable during a video scenario in which the suspect kept both hands hidden in his jacket's pockets. It can therefore be assumed that the tactical unit's highly trained officers consciously (top-down) detached their gaze from the suspect's face (the salient stimulus) and directed it to the region with the hidden hands (the tactically relevant area). Targeted training thus seems to result in better tactical gaze control and visual attention than pure practice routine.

Example Scenarios⁷

The suspect appears friendly and cooperative but slowly draws a concealed firearm.

- ✗ The officer directs his gaze and attention on the suspect's face. He does not notice the firearm or notices it too late.
- ✓ The officer directs his gaze on the suspect's face. However, he focuses his attention consciously on the suspect's hands so that the firearm can be noticed and identified in time.
- ✓ The officer consciously directs his gaze and attention to the suspect's hands. Thus, the firearm is noticed and identified in time.

The suspect acts in a verbally aggressive way and abruptly reaches into his jacket pocket to pull out a knife.

- ✗ The officer directs his gaze and attention to the emotional suspect's face and is surprised by his abrupt movement. The necessary reorientation of gaze and attention to the suspect's hands takes too long—so the officer cannot react in time.
- ✗✓ The officer focuses his gaze on the suspect's face. Simultaneously, the former focuses his attention consciously on the suspect's hands. Therefore, the officer peripherally sees an object being pulled. However, to identify the object, the officer must first redirect his gaze to it and may not have enough time to react.
- ✓ The officer consciously directs his gaze and attention to the suspect's hands. Thus, the knife is noticed and identified in time.

⁷ These scenarios are just examples. Every situation is different and may develop in unexpected ways.

3 Law Enforcement Training

There are several ways to improve law enforcement officers' visual expertise. On the one hand, officers can be selected so that only persons with desirable perceptual skills pass the training. On the other hand, practical routine and training lead to measurable improvements (Neuberger, 2013). This section discusses the potential of targeted training to increase police-related visual expertise.

Training content should be realistic and research-based to ensure that law enforcement training is up to date and adequately prepares officers for critical situations (Heusler & Sutter, 2022b). This means tactical, self-defense, and firearms training should be dynamic and transferable to real-world scenarios. Experiments have shown that simulation and practical training positively affect police officers' learning success. For example, one or a few training sessions could significantly improve perceptual performance and tactical visual searching (Helsen & Starkes, 1999; Nieuwenhuys & Oudejans, 2011). This aligns with findings from other research fields, which also underline targeted simulation training's high effectiveness (Beaubien, 2004; Gaba, 2004; Gorman et al., 1999; Starkes & Lindley, 1994).

While possibly suitable for introducing beginners to subject areas and allowing experts to gain practice experience, traditional static exercises must not be the main component of police training. In advanced training events, officers should be allowed to practice under stress while being confronted with unpredictable situations. Even officers seemingly confident in sterile static training situations may fold under the confusing dynamics of real-life situations.

One crucial aspect in this context is police marksmanship training. Too often, officers' shooting performances are only graded based on how fast, accurately, and precisely they shoot. Especially in static and unrealistic exercises, this often conveys a false image, leaving participants in the dark about their actual training level and the complexity of real situations. The main challenge is not to fire a given number of shots precisely at a colored square but to decide under unclear conditions and pressure whether it is allowed to shoot at all.

Eye trackers can be a valuable addition to police training. Körber and Neuberger (2009), however, indicate that using eye trackers requires trained personnel to evaluate the data obtained. Nonetheless, eye trackers and compatible software, which enable real-time supervision and evaluation of gaze patterns, have proven to be a valuable addition to practical training. Besides improving gaze patterns, eye trackers can trigger considerable “aha experiences” in trainees. Experience from practical training and research shows that trainees accept an eye tracker’s objective feedback very well, especially when seeing their own gaze patterns on the monitor after. Although using technical devices always carries the risk of additional training artificialities, mobile eye trackers of the newer generations do not differ noticeably in their feel from conventional protective goggles, such as those worn in firearms training.

A crucial part of tactical gaze control training is making participants aware of their visual perception’s limitations. Only police officers knowing this can try to minimize interpretation errors and perception deficits, especially under stress. Furthermore, officers should know that looking into the face of a potentially dangerous person can convey a deceptive sense of security and, in the event of a life-threatening escalation, may cost valuable time.

4 Conclusion and Recommendations

The primary sense of the human perception system is vision. Accordingly, law enforcement officers who must be able to detect threats quickly and reliably in their daily work must rely on their visual perception. However, since not all visual stimuli can be perceived and processed, officers should aim to optimize their perception skills. Limited visual perception can quickly lead to life-threatening delays or wrong decisions under elevated stress levels.

Since only objects within the foveal field of vision can be seen sharply, proper tactical gaze control is essential in potentially life-threatening situations. Police officers must focus their gaze directly on weapons or dangerous objects to identify them reliably.

Another aspect is attention, a prerequisite for conscious visual information processing, regardless of whether the gaze is focused on the stimulus. Officers should, therefore, never completely divert their attention from a suspect's tactically crucial hand/hip region, even if their gaze is directed elsewhere.

Since a suspect's face is very salient and attracts gaze and attention, targeted training on focusing attention on the tactically crucial hands of a suspect is essential for officers' efficient self-protection and the protection of others. If gaze and attention are focused on the suspect's face, weapons or other dangerous objects may not be identified in time.

Targeted perception training, ideally using eye trackers, can significantly increase performance during surprise attacks. Particularly in highly dynamic situations, trained gaze control and attention strategies can prevent a critical loss of perception capacities and keep officers capable of acting. On the one hand, police officers react more quickly and decisively to life-threatening attacks (shoot scenarios). On the other hand, the risk of misinterpreting unarmed attacks (no-shoot scenarios) is reduced. Therefore, regular targeted visual perception training and decision-making training benefit both police officers and suspects.

Key Takeaways For Police Officers

Police work in the field is—in some cases—very different from police training. On the one hand, the anxiety experienced in a potentially fatal situation cannot be simulated in training. On the other hand, the danger of critical situations in law enforcement is that they often occur unexpectedly. An often-experienced and seemingly harmless routine situation can suddenly become life-threatening for the officer and the suspect in milliseconds. For this reason, quick and reliable threat detection (and identifying harmless items) is of paramount importance.

The face of a person attracts attention and gaze. Many police officers instinctively try to read emotions in a suspect's face. Additionally, eye contact is considered polite in most Western cultures. Although looking a suspect in the face (e.g., out of politeness) may be beneficial in some situations, their hands must never be neglected. Weapons,

dangerous objects, detonators, and so on are almost always operated manually. Therefore, consciously direct your gaze and attention. Faces do not operate weapons—hands do! Therefore, focus on suspects' hands and potential hiding places for concealed weapons.

Be aware that the human eye can only focus on a tiny portion of its field of vision. To reliably identify weapons and harmless items, you must direct both your gaze and attention to them. Improper gaze control and visual attention can lead to moments of shock, dangerous delays, and fatal wrong decisions under high stress.

So always train in the knowledge that you will have to be able to implement what you have learned in the field if necessary. Discuss your training with colleagues and ask your instructors questions at any time if the content is unclear to you or you have doubts about its practical applicability. Practical law enforcement training will always be somewhat artificial, making it difficult to be 100% prepared for the real thing. However, you can maximize your training success by reflecting on the subject matter. For this purpose, you should visualize and reflect on critical situations. Play through various scenarios in your mind and make yourself aware of whether and when you would shoot. You should not be asking yourself these crucial questions for the first time when confronted with a life-threatening situation under high stress.

Remember: You are an essential part of your training! Your experiences in real situations are of vital importance for the evaluation of law enforcement training. Therefore, do not be a mere consumer—give feedback and reflect critically!

For Police Trainers

The ongoing trend away from static exercises and toward dynamic simulation scenarios is correct and necessary. Police training is not an end in itself but must continuously strive to improve officers' confidence and proficiency for the real world. The level of training can make all the difference, especially in highly dynamic situations that could even end fatally for both sides.

Make your trainees aware that stress significantly reduces their perceptions and decision-making performances. In visual perception training for law enforcement, practical training in tactical gaze control (i.e., where to look) and visual attention (i.e., what to pay attention to) are equally important. Make sure to train with relevant stimuli (e.g., weapons,

persons) instead of abstract stimuli (e.g., geometrical shapes, numbers). Officers who have never received targeted training on tactical visual perception may find it difficult at first to detach their gaze and attention from an emotional suspect's face and redirect them to his hands.

After your trainees have acquired a solid basic competence—be it in service weapon handling or unarmed self-defense techniques—you should gradually increase the realism of your exercises. It is vital that you confront trainees with dynamic situations and include artificial stressors to provoke “aha experiences”. Although you cannot simulate every possible scenario, you can help police officers become mentally flexible, competent, and decisive enough to remain capable of acting even in highly emotional and hectic situations.

Clearly communicate that every training is artificial and that 100% realism cannot be achieved. Optimal learning effects can only be achieved if the trainees do not see themselves in a mere consumer position but actively reflect on the content and transfer it to their reality in the field. As a trainer, you should aim to make officers not only fit for performance tests in the shooting range but also confident and stress-resistant for real scenarios. Therefore, regularly reflect on your training design and exchange ideas with fellow trainers.

Encourage your trainees to learn about their limits and gain experience through practice. For example, fast and accurate hits in firearms training do not necessarily indicate competency to handle a weapon safely and professionally outside a sterile training environment. Threat detection in real situations and shoot/don't-shoot decisions are much more important than hitting the bull's eye. An officer who shoots quickly and accurately when not allowed to do so is not well trained.

For Police Decision-Makers

Up-to-date and targeted training is essential for modern and future-oriented police forces. Only if methods are constantly adapted to ever-changing requirements, scientific findings, and newly available technologies can the police fulfill their socially important and highly complex mission.

Therefore, be open to innovations and empirically based approaches. Ideally, the continuous search for optimization should automatically lead to a critical thematic examination of present methods—which may already be outdated. Therefore, actively promote and support research

projects that enrich law enforcement training. Provide resources for modern training and offer regular training-of-trainers sessions. Only if trainers are aware of new possibilities and scientific findings can they integrate them into their training.

In the context of this chapter, the use of eye trackers in combination with virtual reality (VR) technology seems particularly promising. This could provide highly mobile and flexible options away from static traditional training centers. Just imagine the potential of these training options: patrol officers putting on VR goggles at the station and training their tactical gaze control in simulated scenarios; cadets practicing in special training areas in a resource-saving way and receiving automatic feedback. Therefore, report the need for innovative training methods that utilize eye-tracking and VR technology. Only if the police show more interest in this sort of training equipment in the future will suitable products come onto the market.

In most countries, police officers are required to renew their firearm qualification at least once a year. Typically, the tests contain the basics of firearm handling (reloading, malfunction clearance, shooting, taking cover, etc.) but fail to test the officers' decision-making performance. Thus, the tests tend to be based more on choreography than realistic proficiency. *The biggest challenge is to decide whether to shoot or not to shoot!* A choreographed test once a year in a stress-free atmosphere is insufficient proof of competence to carry a firearm. Therefore, add elements of visual perception, unpredictable sequences, and decision-making to the annual firearms proficiency certificate.

References

- Alt, J. K., & Darken, C. J. (2008). *A reference model of soldier attention and behavior*. Naval Postgraduate School.
- Beaubien, J. M. (2004). The use of simulation for training teamwork skills in health care: How low can you go? *Quality and Safety in Health Care*, 13, i51–i56. <https://doi.org/10.1136/qshc.2004.009845>

- Behan, M., & Wilson, M. (2008). State anxiety and visual attention: The role of the quiet eye period in aiming to a far target. *Journal of Sports Sciences*, 26(2), 207–215. <https://doi.org/10.1080/02640410701446919>
- Blair, J. P., Pollock, J., Montague, D., Nichols, T., Curnutt, J., & Burns, D. (2011). Reasonableness and reaction time. *Police Quarterly*, 14(4), 323–343. <https://doi.org/10.1177/1098611111423737>
- Calvo, M. G., & Nummenmaa, L. (2008). Detection of emotional faces: Salient physical features guide effective visual search. *Journal of Experimental Psychology: General*, 137(3), 471–494. <https://doi.org/10.1037/a0012771>
- Carrasco, M. (2011). Visual attention: The past 25 years. *Vision Research*, 51(13), 1484–1525. <https://doi.org/10.1016/j.visres.2011.04.012>
- Castelhano, M. S., & Henderson, J. M. (2007). Initial scene representations facilitate eye movement guidance in visual search. *Journal of Experimental Psychology: Human Perception and Performance*, 33(4), 753–763. <https://doi.org/10.1037/0096-1523.33.4.753>
- Castelhano, M. S., Mack, M. L., & Henderson, J. M. (2009). Viewing task influences eye movement control during active scene perception. *Journal of Vision*, 9(3), 1–15. <https://doi.org/10.1167/9.3.6>
- Causser, J., Bennett, S. J., Holmes, P. S., Janelle, C. M., & Williams, A. M. (2010). Quiet eye duration and gun motion in elite shotgun shooting. *Medicine & Science in Sports & Exercise*, 42(8), 1599–1608. <https://doi.org/10.1249/MSS.0b013e3181d1b059>
- Cerf, M., Harel, J., Einhäuser, W., & Koch, C. (2007). *Predicting human gaze using low-level saliency combined with face detection*. Neural Information Processing Systems (NIPS).
- Dewhurst, R., & Crundall, D. (2008). Training eye movements: Can training people where to look hinder the processing of fixated objects? *Perception*, 37(11), 1729–1744. <https://doi.org/10.1068/p5944>
- Duchowski, A. T. (2003). *Eye tracking methodology: Theory and practice*. Springer.
- Edworthy, G., Rodrigues, S. T., & Vickers, J. N. (2000). Quiet eye and accuracy in the dart throw. *International Journal of Sports Vision*, 6, 30–36.
- Eriksen, C. W., & St. James, J. D. (1986). Visual attention within and around the field of focal attention: A zoom lens model. *Perception & Psychophysics*, 40(4), 225–240. <https://doi.org/10.3758/BF03211502>
- Findlay, J. M., & Gilchrist, I. D. (2003). *Active vision: The psychology of looking and seeing*. Oxford University Press.
- Gaba, D. M. (2004). The future vision of simulation in health care. *Quality and Safety in Health Care*, 13, i2–i10. https://doi.org/10.1136/qhc.13.suppl_1.i2

- Gallicchio, G., Finkenzeller, T., Sattlecker, G., Lindinger, S., & Hoedlmoser, K. (2016). Shooting under cardiovascular load: Electroencephalographic activity in preparation for biathlon shooting. *International Journal of Psychophysiology*, *109*, 92–99. <https://doi.org/10.1016/j.ijpsycho.2016.09.004>
- Gibson, J. J. (2015). *The ecological approach to visual perception*. Psychology Press.
- Gilchrist, I. D., & Harvey, M. (2006). Evidence for a systematic component within scan paths in visual search. *Visual Cognition*, *14*(4–8), 704–715. <https://doi.org/10.1080/13506280500193719>
- Gorman, P. J., Meier, A. H., & Krummel, T. M. (1999). Simulation and virtual reality in surgical education: Real or unreal? *Archives of Surgery*, *134*(11), 1203–1208. <https://doi.org/10.1001/archsurg.134.11.1203>
- Groner, R., & Groner, M. T. (1989). Attention and eye movement control: An overview. *European Archives of Psychiatry and Neurological Sciences*, *239*(1), 9–16. <https://doi.org/10.1007/bf01739737>
- Helsen, W. F., & Starkes, J. L. (1999). A new training approach to complex decision making for police officers in potentially dangerous interventions. *Journal of Criminal Justice*, *27*(5), 395–410. [https://doi.org/10.1016/S0047-2352\(99\)00012-4](https://doi.org/10.1016/S0047-2352(99)00012-4)
- Henderson, J. M., Brockmole, J. R., Castelano, M. S., & Mack, M. (2007). Visual saliency does not account for eye movements during visual search in real-world scenes. In R. P. G. van Gompel, M. H. Fischer, W. S. Murray, & R. L. Hill (Eds.), *Eye movements* (pp. 537–562). Elsevier. <https://doi.org/10.1016/b978-008044980-7/50027-6>
- Heusler, B. (2022). Taktische Blickführung und Aufmerksamkeitsausrichtung in polizeilichen Hochstresssituationen. In M. Staller & S. Koerner (Eds.), *Handbuch polizeiliches Einsatztraining: Professionelles Konfliktmanagement—Theorie, Trainingskonzepte und Praxiserfahrungen* (pp. 359–377). Springer Fachmedien. https://doi.org/10.1007/978-3-658-34158-9_19
- Heusler, B., & Sutter, C. (2020). Gaze control and training for high-stress situations in law enforcement: A systematic review. *Journal of Police and Criminal Psychology*, *35*(4), 401–413. <https://doi.org/10.1007/s11896-019-09338-1>
- Heusler, B., & Sutter, C. (2022a). Gaze control in law enforcement: Comparing a tactical police unit to patrol officers. *Journal of Police and Criminal Psychology*, *37*(4), 777–793. <https://doi.org/10.1007/s11896-020-09412-z>

- Heusler, B., & Sutter, C. (2022b). Shoot or don't shoot? Tactical gaze control and visual attention training improves police cadets' decision-making performance in live-fire scenarios. *Frontiers in Psychology*, *13*. <https://doi.org/10.3389/fpsyg.2022.798766>
- Hoffman, J. E. (1998). Visual attention and eye movements. In H. Pashler (Ed.), *Attention* (pp. 119–153). Psychology Press.
- Holmes, D. L., Cohen, K. M., Haith, M. M., & Morrison, F. J. (1977). Peripheral visual processing. *Perception & Psychophysics*, *22*(6), 571–577. <https://doi.org/10.3758/bf03198765>
- Irwin, D. E. (1992). Visual memory within and across fixations. In K. Rayner (Ed.), *Eye movements and visual cognition: Scene perception and reading* (pp. 146–165). Springer. https://doi.org/10.1007/978-1-4612-2852-3_9
- Körber, B. (2016). *Expertise und aktives Sehen bei polizeilichem Einsatzverhalten* [Expertise and active vision in practical police work]. Verlag für Polizeiwissenschaft.
- Körber, B., & Neuberger, M. (2009). Visuelle Aufmerksamkeit und Informationsverarbeitung bei der Gefahrenerkennung im polizeilichen Einsatz—Erkenntnisgewinn und Sicherheit durch angewandte Wissenschaft [Visual attention and information processing for detecting threats in practical police work: Gain of knowledge and safety through science]. In C. Lorei (Ed.), *Eigensicherung & Schusswaffeneinsatz bei der Polizei: Beiträge aus Wissenschaft und Praxis 2009* (pp. 231–242). Verlag für Polizeiwissenschaft.
- Lebeau, J. C., Liu, S., Saenz-Moncaleano, C., Sanduvete-Chaves, S., Chacon-Moscoso, S., Becker, B. J., & Tenenbaum, G. (2016). Quiet eye and performance in sport: A meta-analysis. *Journal of Sport and Exercise Psychology*, *38*(5), 441–457. <https://doi.org/10.1123/jsep.2015-0123>
- Loftus, G. R., & Mackworth, N. H. (1978). Cognitive determinants of fixation location during picture viewing. *Journal of Experimental Psychology: Human Perception and Performance*, *4*(4), 565–572.
- McMains, S. A., & Somers, D. C. (2004). Multiple spotlights of attentional selection in human visual cortex. *Neuron*, *42*(4), 677–686. [https://doi.org/10.1016/s0896-6273\(04\)00263-6](https://doi.org/10.1016/s0896-6273(04)00263-6)
- Moore, L. J., Vine, S. J., Cooke, A., Ring, C., & Wilson, M. (2012). Quiet eye training expedites motor learning and aids performance under heightened anxiety: The roles of response programming and external attention. *Psychophysiology*, *49*(7), 1005–1015. <https://doi.org/10.1111/j.1469-8986.2012.01379.x>
- Neuberger, M. (2013). *Training visueller Aufmerksamkeit in der polizeilichen Aus- und Fortbildung: Evaluationen mit Hilfe von Eye Tracking* [Improving

- visual attentiveness in police training: Evaluation through eye tracking]. Verlag für Polizeiwissenschaft.
- Nibbeling, N., Oudejans, R. R., Ubink, E. M., & Daanen, H. A. (2014). The effects of anxiety and exercise-induced fatigue on shooting accuracy and cognitive performance in infantry soldiers. *Ergonomics*, *57*(9), 1366–1379. <https://doi.org/10.1080/00140139.2014.924572>
- Nieuwenhuys, A., Caljouw, S. R., Leijssen, M. R., Schmeits, B. A., & Oudejans, R. (2009). Quantifying police officers' arrest and self-defence skills: Does performance decrease under pressure? *Ergonomics*, *52*(12), 1460–1468. <https://doi.org/10.1080/00140130903287981>
- Nieuwenhuys, A., Canal-Bruland, R., & Oudejans, R. (2012a). Effects of threat on police officers' shooting behavior: Anxiety, action specificity, and affective influences on perception. *Applied Cognitive Psychology*, *26*(4), 608–615. <https://doi.org/10.1002/acp.2838>
- Nieuwenhuys, A., & Oudejans, R. (2010). Effects of anxiety on handgun shooting behavior of police officers: A pilot study. *Anxiety Stress and Coping*, *23*(2), 225–233. <https://doi.org/10.1080/10615800902977494>
- Nieuwenhuys, A., & Oudejans, R. (2011). Training with anxiety: Short- and long-term effects on police officers' shooting behavior under pressure. *Cognitive Processing*, *12*(3), 277–288. <https://doi.org/10.1007/s10339-011-0396-x>
- Nieuwenhuys, A., Savelsbergh, G. J., & Oudejans, R. (2012b). Shoot or don't shoot? Why police officers are more inclined to shoot when they are anxious. *Emotion*, *12*(4), 827–833. <https://doi.org/10.1037/a0025699>
- Piras, A., & Vickers, J. N. (2011). The effect of fixation transitions on quiet eye duration and performance in the soccer penalty kick: Instep versus inside kicks. *Cognitive Processing*, *12*(3), 245–255. <https://doi.org/10.1007/s10339-011-0406-z>
- Posner, M. I., Snyder, C. R., & Davidson, B. J. (1980). Attention and the detection of signals. *Journal of Experimental Psychology: General*, *109*(2), 160–174. <https://doi.org/10.1037/0096-3445.109.2.160>
- Rayner, K. (2009). Eye movements and attention in reading, scene perception, and visual search. *Quarterly Journal of Experimental Psychology*, *62*(8), 1457–1506. <https://doi.org/10.1080/17470210902816461>
- Renden, P. G., Landman, A., Geerts, S. F., Jansen, S. E., Faber, G. S., Savelsbergh, G. J., & Oudejans, R. (2014). Effects of anxiety on the execution of police arrest and self-defense skills. *Anxiety Stress and Coping*, *27*(1), 100–112. <https://doi.org/10.1080/10615806.2013.810213>

- Renden, P. G., Landman, A., Savelsbergh, G. J., & Oudejans, R. (2015). Police arrest and self-defence skills: Performance under anxiety of officers with and without additional experience in martial arts. *Ergonomics*, *58*(9), 1496–1506. <https://doi.org/10.1080/00140139.2015.1013578>
- Rensink, R. A. (2002). Change detection. *Annual Review of Psychology*, *53*, 245–277. <https://doi.org/10.1146/annurev.psych.53.100901.135125>
- Rensink, R. A. (2005). Change blindness. In L. Itti, G. Rees, & J. K. Tsotsos (Eds.), *Neurobiology of attention* (pp. 76–81). Elsevier. <https://doi.org/10.1016/B978-012375731-9/50017-3>
- Rensink, R. A., O'Regan, J. K., & Clark, J. J. (1997). To see or not to see: The need for attention to perceive changes in scenes. *Psychological Science*, *8*(5), 368–373. <https://doi.org/10.1111/j.1467-9280.1997.tb00427.x>
- Ripoll, H., Kerlirzin, Y., Stein, J.-F., & Reine, B. (1995). Analysis of information processing, decision making, and visual strategies in complex problem solving sport situations. *Human Movement Science*, *14*(3), 325–349. [https://doi.org/10.1016/0167-9457\(95\)00019-o](https://doi.org/10.1016/0167-9457(95)00019-o)
- Ripoll, H., Papin, J. P., Guezennec, J. Y., Verdy, J. P., & Philip, M. (1985). Analysis of visual scanning patterns of pistol shooters. *Journal of Sports Sciences*, *3*(2), 93–101. <https://doi.org/10.1080/02640418508729739>
- Sack, O. S., & Sutter, C. (2017). About the role of bottom-up and top-down processes on perception–action interaction in sensorimotor transformations. *Journal of Cognitive Psychology*, *29*(4), 483–496. <https://doi.org/10.1080/20445911.2017.1279165>
- Salvucci, D. D., & Goldberg, J. H. (2000). Identifying fixations and saccades in eye-tracking protocols. In *Proceedings of the 2000 Symposium on Eye Tracking Research & Applications*.
- Starkes, J. L., & Lindley, S. (1994). Can we hasten expertise by video simulations? *Quest*, *46*(2), 211–222. <https://doi.org/10.1080/00336297.1994.10484122>
- Sutter, C., Sülzenbrück, S., Rieger, M., & Müsseler, J. (2013). Limitations of distal effect anticipation when using tools. *New Ideas in Psychology*, *31*(3), 247–257. <https://doi.org/10.1016/j.newideapsych.2012.12.001>
- Vickers, J. N. (1992). Gaze control in putting. *Perception*, *21*(1), 117–132. <https://doi.org/10.1068/p210117>
- Vickers, J. N. (1996a). Control of visual attention during the basketball free throw. *American Journal of Sports Medicine*, *24*(6), 93–97. <https://doi.org/10.1177/036354659602406s25>

- Vickers, J. N. (1996b). Visual control when aiming at a far target. *Journal of Experimental Psychology: Human Perception and Performance*, 22(2), 342–354. <https://doi.org/10.1037/0096-1523.22.2.342>
- Vickers, J. N. (2011). Mind over muscle: The role of gaze control, spatial cognition, and the quiet eye in motor expertise. *Cognitive Processing*, 12(3), 219–222. <https://doi.org/10.1007/s10339-011-0411-2>
- Vickers, J. N., & Lewinski, W. (2012). Performing under pressure: Gaze control, decision making and shooting performance of elite and rookie police officers. *Human Movement Science*, 31(1), 101–117. <https://doi.org/10.1016/j.humov.2011.04.004>
- Vickers, J. N., & Williams, A. M. (2007). Performing under pressure: The effects of physiological arousal, cognitive anxiety, and gaze control in biathlon. *Journal of Motor Behavior*, 39(5), 381–394. <https://doi.org/10.3200/JMBR.39.5.381-394>
- Vine, S. J., Moore, L. J., & Wilson, M. (2014). Quiet eye training: The acquisition, refinement and resilient performance of targeting skills. *European Journal of Sport Science*, 14(1), 235–242. <https://doi.org/10.1080/17461391.2012.683815>
- Vine, S. J., & Wilson, M. (2010). Quiet eye training: Effects on learning and performance under pressure. *Journal of Applied Sport Psychology*, 22(4), 361–376. <https://doi.org/10.1080/10413200.2010.495106>
- Vine, S. J., & Wilson, M. (2011). The influence of quiet eye training and pressure on attention and visuo-motor control. *Acta Psychologica*, 136(3), 340–346. <https://doi.org/10.1016/j.actpsy.2010.12.008>
- Wood, G., & Wilson, M. (2012). Quiet-eye training, perceived control and performing under pressure. *Psychology of Sport and Exercise*, 13(6), 721–728. <https://doi.org/10.1016/j.psychsport.2012.05.003>
- Yantis, S., & Egeth, H. E. (1999). On the distinction between visual salience and stimulus-driven attentional capture. *Journal of Experimental Psychology: Human Perception and Performance*, 25(3), 661–676. <https://doi.org/10.1037/0096-1523.25.3.661>
- Yarbus, A. L. (1967). *Eye movements and vision*. Plenum Press.



Professional Shooting Tests in South Africa: A Qualitative-Descriptive Study and Critique

Johannes Marthinus Ras 

Reviewer: Kristina Blaneskovic

1 Introduction

This chapter is about professional shooting tests that are conducted in South Africa to assess whether someone is competent in a particular category of firearm. While the professional firearm body operates at five different hierarchical levels, practical shooting (the tests) itself only takes place at three levels, called Levels 2, 3, and 4. The first shooting level, Level 2, is for private citizens who want to possess, handle, and use a firearm; the second level (Level 3) is for people who want to use it for business purposes (such as private security guards), and the

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third level (Level 4) consists of tests for people operating at a tactical level, such as bodyguards, armed response, and cash-in-transit personnel (Affleck, 2022; Botha, 2022; King, 2022; McGuire, 2022; Ras, 2010a, 2010b; Van Zyl, 2022). A qualitative-descriptive approach is used to describe these tests in detail and then a critique is given. These practical shooting tests make up the heart of the professional firearm industry of South Africa, as the quality assured by the South African Firearms Trainers Council (SAPFTC, known as the PFTC). Because no one else has discussed this before, this brief study will fill this academic lacuna, and at the same time it will challenge readers to consider these different practical shooting tests so as to equip themselves better for self-defense purposes, keeping in mind the critique as well (Ras, 2022).

2 The Scientific Nature of This Study

The Latin term *scientia* (originally from *scire* to know”), from which the Middle-English word “science” comes from, simply means “knowledge” (*Oxford South African Concise Dictionary*, 2016: 1057). Science normally refers to a “systematic and verified search of the truth or facts” (Potgieter, 2014; Van Heerden, 1995). This study is not about numbers and statistics (that would be a quantitative approach, see Bless & Kathuria, 1993) but about a detailed and precise description of the specific shooting tests that are used by the PFTC in South Africa. The information in this chapter is based on a qualitative approach (Ras, 2006: 80–106 2012; Terre Blanche et al., 2010) where an interpretative and pragmatic paradigm was used (Terre Balance & Durrheim, 2010: 6).

In linguistics (diachronic-etymological and synchronic studies), the Latin term *scientia*, “knowledge”, normally refers to the Greek word *gnosis* (“knowledge”) or *epignosis* (“full” or “in-depth knowledge”) (Abbott-Smith, 1977: 92). Applicable to this study, a scientific enquiry following a qualitative approach will refer to a “full” and “in-depth” description of the social phenomenon under the magnifying glass, in this case, the shooting tests. A detailed and precise description of all the different tests, within the PFTC firearm shooting test structure, has been given. These descriptions are all based on practical shooting tests that are

well documented by the PFTC (www.pftc.co.za) as well as memorized by all PFTC shooters so that they know the precise details of each individual test before they step on the shooting line (Botha, 2022; Van Zyl, 2022).

Rich and in-depth and precise information was gathered for this specific chapter through the following research methods: personal conversations with three top male PFTC shooting experts (Affleck, 2022; Botha, 2022; King, 2022) at the tactical (the highest) level (through convenience, purposive and snowball sampling; see Durrheim, 2010: 50), three telephone conversations that took place with three training counselors of the PFTC (Affleck, 2022; McGuire, 2022; Van Zyl, 2022), all of whom operate at the national (the highest) level, and one female PFTC member (Pretorius, 2022) who is also a training provider. The one female is the lead training service provider in South Africa, sending training materials to more than 260 service providers. She represents the company International Firearm Training Academy (ITA), which belonged to the late Andre Pretorius, its founder and the driving force behind the professionalization of the firearm industry in this country. All firearm training service providers must follow the exact same shooting tests proposed by Andre and the ITA as implemented and as prescribed by the PFTC.

Conversations took place over the past 17 years at different times and at different places, ranging from conversations at shooting ranges or shooting training centers in KwaZulu-Natal or in Gauteng province. In most cases the most recent ones were quoted but at times those that were deeply engraved in my mind were also quoted. All mentioned experts, including me, originally had served in the military, police, or correctional services, and are PFTC firearm assessors, instructors, and moderators. Some are also PFTC verifiers and training counselors (Affleck, 2022; McGuire, 2022; Van Zyl, 2022).

I am the only academic in South Africa who is also a PFTC member (Van Zyl, 2022). No one in South Africa can join the PFTC if he or she has not first completed the prescribed firearm instructor's course and has passed the practical shootings tests with a minimum of 80% in all categories of firearms. Because of my active involvement (action research) in the firearm industry since 2005 I have completed the PFTC shoot at

least 15 different times in order to improve myself so as to meet the minimum professional requirement.

I have been an academic at the University of Zululand for the past 32 years, 22 as Associate Professor in Police Studies; I am also an active private security practitioner and firearm trainer. Because I am the only academic belonging to the PFTC, I will use my tertiary background to briefly critique the different shooting tests with the aim of improving them.

3 Background of Establishing Firearm Shooting Tests

A new Firearms Control Act, Act No. 60 of 2000, was implemented in 2001 in South Africa (Minnaar, 2015; Ras, 2008; 2010b). This law makes it compulsory for every person who wants to possess, handle, and use any category of firearm to first complete compulsory firearm training. The author (Ras, 2002) through Project S398/99 I had *inter alia* made recommendations to three ministers that firearm training needed to be made compulsory. This project was about the identification and tracing of illegal firearms in South Africa. It was *inter alia* recommended that firearm training must be compulsory. Today firearm training is skills and competency based and a learner is thoroughly tested on firearm laws and on the firearm category that he or she wants to use (Ras, 2000, 2008). The training was driven and quality assured, first by POSLEC-SETA (the Police, Corrections, Courts, Private Security Sector Education Training Authority that was established in 2000), and from 2005 by the Safety and Security Sector Education Training Authority (SASSETA) (Ras, 2022). In September 2012 the Minister of Higher Education, Blade Nzimande, approved the SAPFTC (known as the PFTC) as the professional body; and, with this approval, the quality assurance function of the National Certificate in Firearm Training (SAQA Qualification Id. 5048) was handed over to the PFTC (Pretorius, 2013).

The PFTC, through its founder and chairperson, Andre Pretorius, believes that “bullets must fly through barrels”, which means, people with legal firearms need to shoot as much as they can to improve themselves,

because practical shooting is the life blood of the whole firearm industry. In other words, the more legal gun owners go to the range to train the more the firearm industry will grow (Pretorius, 2014). Pretorius (1969–2017) can *me judice* be regarded as the father of professional firearm training in South Africa. He went to Arizona during the 1990s and was trained by the National Rifle Association (NRA) and became an NRA certified instructor (Ferreira, 2005; Le Roux, 2004). In a letter, dated September 17, 1997, signed by Warren A. Pelton, the NRA's National Training Program Coordinator, Andre was appointed an NRA Training Counselor (Pretorius, 2022).

Pretorius introduced NRA training into South Africa and brought Warren Pelton here to train the first firearm instructors according to NRA standards. This first training certificates were issued in the name of ITA and had an NRA affiliation number on them (Roets, 2022). The National Certificate in Firearm Training as captured by the South Africa Qualifications Authority (SAQA), which *inter alia* came into existence because of Andre's input in the Standard Generating Body (SGB) on firearms, under the heading "International Comparability", which specifically mentioned that South Africa's firearm training programs compare very well to that of the NRA (Ras, 2022).

The basic unit standards (training courses) compare well with the NRA's "1st steps program"; and South Africa's business purpose courses, written for private security and public law enforcement officers, compares well with that of the NRA. The tactical unit standards in South Africa also compare well with that of the USA. This is specifically mentioned in the SAQA document that this comparison was done by Warren Pelton, who was the National Program Coordinator of the NRA, and who currently (at the time of writing) heads up an anti-terrorist unit in Washington (<https://allqs.saqa.org.za/showQualification.php?id:50480>). Comparisons were also made with other countries like the United Kingdom (UK), Tanzania, Mozambique, Swaziland, and Iraq. Clive Shepard (a former UK Royal Marine) who worked for the NRA assisted Andre in comparing the tactical training. Most PFTC shooting experts had also served in military or law enforcement contexts outside South Africa, such as Namibia, Iraq, or Afghanistan, and their accumulated firearm and shooting knowledge and experiences picked up, while

serving with other international role-players, were at times incorporated in the setting of the standards of these shooting tests.

Since POSLEC-SETA came into existence 22 years ago, the same shooting tests are basically used for all the different test levels. SASSETA, which took over from POSLEC-SETA, continued with the same tests, but after the PFTC came into existence in 2012, the tests, through the upgrading of the training manuals and standards, became even more precise (Affleck, 2022; Van Zyl, 2022). This study will focus on the existing PFTC tests in use (www.pftc.co.za).

4 South Africa's Firearm Categories and the Firearm Users That Must Do Shooting Tests

Out of a total population of about 60 million South Africans, there are 2.4 million people today who collectively and legally own about 10 million guns (Bopape & Snyman, 2015: 115; Ras, 2008: 6). Everyone who is in possession of a firearm or ammunition need to have a valid license issued to them by the Central Firearm Registrar of the police. This license is only issued to an applicant that was found competent in that specific category of firearm. The competency declaration in terms of training is directly performance based. The learner first had to pass practical shooting tests.

Firearm users in the Republic of South Africa (RSA) include the public, private security companies, the police, the South African National Defense Force and Military Veterans (SANDF—consisting of the army, navy, air force, and medical services), the Department of Correctional Services (DCS, the prison services), traffic officials, wildlife and endangered species officials, and other state departments.

Most firearms are in the hands of private individuals, followed by private security companies, the SAPS, SANDF, and DCS. All the country's firearms fall into four different categories, namely hand-guns (pistols or revolvers), shotguns (any type—single barrel, double barrel, hinge break, pump action, semi-automatic), self-loading rifles or

carbines, and manually operated rifles (hunting or sniper rifles) (Ras, 2010b: 49–50; 2022).

In practice every one of the 2.4 million firearm users in South Africa needs to first do nationally recognized theoretical and practical training in the use of each category of firearm before he or she can be declared competent to possess and to use that specific class of firearm (Ras, 2008: 8). This is not the case in other countries, and as a result this compulsory competency-based firearm training practice makes South Africa at present the world leader in compulsory firearm training (Ras, 2012, 2022).

5 Professional PFTC Shooting Tests

The PFTC is very strict and high ethical standards and professional conduct are always expected, but more importantly, if one cannot pass their practical grading shoots then one cannot act as assessor, moderator, or instructor (McGuire, 2022; Pretorius, 2013; Van Zyl, 2022). It was after the inception of the PFTC that shooting really got off the ground. Since that time, it is safe to say that legally obtained rounds fly through barrels at PFTC shoots, and illegal ones on the streets (Kriegler & Shaw, 2016; Ras, 2022; Shaw, 2017, 2021).

6 Firearm Training Recognition Levels

There are five levels of firearm training and recognition in South Africa (PFTC 2022). Each level is plotted at a certain skills level on the National Qualifications Framework (NQF), running from NQF levels 1 to 10. The existing NQF levels for the national skills program in firearm training runs from NQF levels 3 to 5. Level 1 focuses on the firearm law (Act 60 of 2000), is plotted at NQF level 3 (Standard 9 or Grade 11 at high school), and carries 3 credits or 30 notional hours of learning (Ras, 2022).

Level 2 focuses on the training of the four different categories of firearms for ordinary citizens (the public) and is also plotted at NQF level 3, though each category carries only 2 credits, an equivalent of 20 notional hours of training. Each category consists of an open book test (called a formative test where a learner can be assisted to master the work), and then a shorter summative (final test) that is a closed book test (where no one may assist the learner).

The learner, in the case of handgun training, for example, must shoot a minimum of 40 shots and in his or her final shoot hit the target 10 out of 10 times in order to be found competent (King, 2022). There is also an observation checklist that the assessor must complete where the learner must show his or her competence in the handling and use of the firearm (Affleck, 2022).

Level 3 focuses on the business purposes of the four different categories of firearms for those operating businesses and who want to use firearms in the line of duty (for work), especially those operating in law enforcement, such as the police, prison officials, traffic officers, municipal officers, wildlife officials, and private security members (Botha, 2022; Ras, 2022). Level 3 is plotted at NQF level 4 (Standard 10 or Grade 12—the highest grade in high school). These are the minimum training requirements for all police personnel in South Africa. A time limit is built into this level of training where a person shoots against the clock (Botha, 2022; King, 2022).

Level 4 focuses on all tactical training in three categories of firearms (handgun, shotgun, self-loading rifle) and is plotted at NQF level 5. There is at this stage no training for manually operated rifles or carbines at the tactical level in South Africa (Botha, 2022; Pretorius, 2016), but it is something that needs to be done (Ras, 2022). Tactical firearm training is the highest level of firearm training in South Africa and these three tactical courses (called unit standards) were originally designed for private security members like bodyguards, armed response officers, and cash-in-transit officers. This training is also intended to include all police personnel who work in a reactive or tactical police environment (Affleck, 2022; Botha, 2022; King, 2022; McGuire, 2022; Ras, 2011, 2022; Van Zyl, 2022).

Level 5 in the PFTC consists of professional firearm counselors—persons who, because of their professional shooting skills and knowledge, have obtained the status of trained counselor. The main requirement is that they must have completed the National Certificate in Firearm Training and must have trained a lot of firearm instructors to qualify for this designation (Affleck, 2022; Van Zyl, 2022).

7 Practical Firearm Competency Training Tests

Firearm Level 1 deals with the firearm law and no shooting is required. Level 2 is the most important training level in the practical use of firearms and about 94% of all firearm training in practice takes place at this level (plotted at NQF level 3). About 5% of all training takes place at Level 3 (plotted at NQF level 4—the minimum competency level at which all law enforcement personnel need to operate); the other 1% takes place at Level 4 (plotted at NQF level 5—the level at which all firearm instructors and tactical personnel need to operate in South Africa) (Botha, 2022; King, 2022; Ras, 2022).

Because Level 4 is very demanding and expensive, due to the number of rounds to be fired, very few people complete it successfully. The firearm instructors (who also act as assessors and moderators) are the number one group in the country who must complete all these unit standards successfully. The original tactical unit standards that came out for the first time in 2003 (Ras, 2022) have also been changed through the years and broken up into shorter courses (Affleck, 2022) that are now regarded as more demanding to pass (Botha, 2022; King, 2022). In practice, the following real shooting demands are required to be found competent in the handling and use of each category of firearm. The basic requirements for Level 2 (NQF level 3) are as follows.

Handgun

The learner shoots at least 40 rounds of ammunition with any caliber handgun, but most of the time with 9 mm pistols. The final summative shooting test consists of ten shots on an A3 size paper, executed in the learner or shooter's own time. The learner must hit this paper at 7 meters, ten out of ten times, to be found competent. It has become the norm to shoot the final summative ten shots with a 9 mm pistol (9 × 19 mm rounds). Glock 17 s are most of the time used to train learners (Botha, 2022; King, 2022) but Berettas (especially the Z88), and older ones like the Chinese Norinco 213 s, are also used (Ras, 2002, 2006).

Shotgun

With the shotgun the learner will shoot at five steel plates or five wood pieces 10 meters away in his or her own time. About 25 rounds will be fired in total and the last five shots will be a summative test. All five plates need to be shot down successfully to be found competent. "Accurately" means a minimum of five hits out of five from the set minimum distance of 10 meters. For this shoot, most instructors let their learner shoot with number 7 shotgun ammunition, while others use triple AAA or even SSG rounds. The recoil is far less when number 7 pellets are used (King, 2022).

Self-Loading Rifle or Carbine

Here the learner must fire a minimum of 40 rounds with the last 10 shots reserved for the summative shoot. Accuracy in the final summative test in his or her own time means ten out of ten shots on an A5 size paper. The distance to the target is a minimum of 10 meters. Accountability of impact is ten out of ten shots on any place on the A5 paper. Any type of self-loading rifle can be used (Botha, 2022; King, 2022; Ras, 2022).

Rifle (Manually Operated or Carbine)

Most of the time bolt action rifles and, in the minority of cases, repeaters are used—with open sights (no telescopic sights are allowed). The shooter must fire an average of 40 shots, but the last summative test consists of 10 shots fired in his or her own time to an A5 paper target at 10 meters. Accuracy means ten out of ten, and accountability of bullet impact also means ten out of ten shots. Any rifle size can be used here, from a 0.22 to a 223, but most instructors will try to use a bigger caliber, like 223 (Botha, 2022; King, 2022) or even a 308 (Affleck, 2022).

Critique

At this level the aim is to ensure accuracy, or hitting the target. Bullet placement at the right spot is the central idea. However, in South Africa, with a human rights constitution, the firing of too many shots will be problematic. Shooters must be able to hit the target but at the same time be able to fire only one or two shots (“tap-tap”) and then immediately cease fire so as not to overreact to any situation. This needs to be incorporated into the existing training.

8 Competency Training for Those Working in Law Enforcement

In South Africa law enforcement consists mainly of private security officers (called security guards) and the police. Private security outnumbers the police five to one, when only registered members are considered (Ras, 2022). The police, private security, traffic, and prison personnel must all successfully complete Level 3 firearms training in each category (called Business Purposes—at NQF level 4) that they need to use (Botha, 2022; King, 2022). The three categories are handgun, shotgun, and self-loading rifle or carbine (Ras, 2022).

If any of these mentioned members do not complete Level 3 training successfully and be found competent, they are not allowed to use that

category of firearm. The South African Parliament was told that there are about 6000 policemen in South Africa who are not allowed to carry a firearm (in this case, the SAPS Z88 or the Pietro Beretta handgun) at all because they were not found competent in the handling and use of a handgun at business purposes level (Ras, 2022).

In simple practical terms, law enforcement members need to be faster, more accurate, and more accountable than ordinary citizens who only need Level 1 (demonstrate understanding and application of the firearm act) and Level 2 (handling and use of a particular category of firearm) (plotted at NQF level 3; Ras, 2022). The following requirements must be met and are quality assured by the assessors and firearm instructors accredited with the PFTC at Business Purpose level (NQF 4 level).

Handgun Business Purposes

An average of 100 rounds must be fired (Pretorius, 2013; Ras, 2022; Botha, 2022). The last summative test consists of the following scenarios:

- **Scenario 1:** Draw from the holster and fire five rounds, perform a magazine change, and fire another five rounds in a time of 20 seconds at 7 meters, in the standing position.
- **Scenario 2:** With five live rounds and one dummy round (the dummy may not be the first or last round in the magazine), draw and shoot and perform the immediate action drill in a time of 10 seconds. The distance to the target is 7 meters and the target size is A4 paper.
- **Scenario 3:** Draw the handgun and then fire five rounds, standing, to an A4 paper target, perform the necessary magazine change, and fire the last five rounds from a kneeling position in a time of 20 seconds. A total of 80% or eight out of ten hits must be obtained. Accuracy means eight hits out of ten and accountability of impact also means eight out of ten. This is all about controlling the bullet impact. Pistols are always used for this type of shooting and the size must be 9 mm caliber or bigger (Affleck, 2022; Botha, 2022; Ras, 2022).

Shotgun Business Purposes

A total of 25 rounds are fired and in the final summative practical test, five rounds must be fired in a standing position in 10 seconds to five steel plates or five wooden pieces the size of an A5 target (King, 2022). A minimum of 80% or four out of five hits are needed to be found competent. Any pump action shotgun is used, for example, Musler, Mossberg, Republic Arms, or Escort (from Hatsan).

Self-Loading Rifle or Carbine Business Purposes

A minimum of 40 rounds are to be fired during this training and the final summative test consists of 10 rounds that must be fired to an A5 paper target at 10 meters in a time of 15 seconds. The learner must obtain eight out of ten hits or 80% minimum. Accuracy means eight out of ten hits and accountability of bullet impact is also eight out of ten. Most of the time firearm instructors use the South African made LM4, LM5, or LM6 rifle, or the American AR15 or M16 rifles that fire a 223 round. The minimum caliber size that may be used for this shoot is 223 or 5.56 × 45 mm (NATO round) (Affleck, 2022; Botha, 2022; King, 2022; Ras, 2022).

Manually Operated Rifle or Carbine Business Purposes

A minimum total of 40 rounds are to be fired and the final summative test consists of 10 shots that must be fired to A4 paper at 50 meters. The target must be hit eight out of ten times. There is no time limit in this test (Botha, 2022). The normal minimum caliber size that is used is 223 but most of the instructors use a 308 caliber, which is more demanding because of the recoil. The more excessive the recoil the less rounds can be fired. If a 308 is used the learner must shoot five times in the summative test (Botha, 2022). He or she must hit the paper at 50 meters four out of five times or 80% in terms of bullet impact, accuracy, and bullet accountability (Ras, 2022).

Critique

Because of South Africa's human rights culture where every person has a right to life, simply taking a life is a serious criminal offence that can carry a life sentence in prison. It is critical that tactical observation (quickly looking and scanning your environment) must be incorporated into the shooting drills of all firearm categories to ensure that shooters do not let go and just shoot in the "Mexican spray and pray method". Depending on the situation, they must be taught to use selective fire where a target is specifically chosen with "observational breaks" in between every shot to avoid a definite over-reaction (Ras, 2006: 266–280).

9 South Africa's Professional Firearm Instructors

All PFTC firearm instructors must be registered with the police, SASSETA, and the PFTC as well as quality assured by the PFTC. These instructors are highly competent in the use of firearms. Their skill levels at NQF level 4 and 5 are excellent examples of what police agencies worldwide can use and implement to be proficient in the handling and use of firearms anywhere where they may find themselves (Ras, 2007, 2010b, 2022).

10 PFTC Grading Shoots for Instructors

The PFTC has determined the following grading shoots for instructors and range officers. The following shooting exercises are used for each category of firearm.

Handgun (Qualification Shoot)

There are six exercises to be done. A total number of 50 rounds are fired and the total exercise (consisting of six short exercises), since 2021, is repeated twice to ensure consistency. Every instructor needs a minimum pass of 80% in each firearm category.

The following handgun exercises are done, using two paper targets consisting of two A4 size targets, separated at a distance of at least 15 centimeters from one another.

- **Exercise 1:** At 5 meters, in the standing position, at the blow of a whistle or at the sound of an electronic bleeper, the shooter will draw his handgun from his holster and then five rounds are fired in a time of 8 seconds to one A4 paper target (to the left-hand target).
- **Exercise 2:** At the sound of the buzzer the shooter will draw and go to a kneeling position, and at 5 meters will fire five rounds to the target in a time of 8 seconds (to left hand target).
- **Exercise 3:** Here the shooter will draw and fire at 10 meters 10 rounds in 10 seconds in a standing position (right-hand target).
- **Exercise 4:** The shooter, at 10 meters, standing, will draw and fire 10 shots in 10 seconds to each target, altering between the two targets.
- **Exercise 5:** At a distance of 10 meters, standing, the shooter, with two magazines, each loaded with five live rounds and one dummy round in each magazine (the dummy may not be the first or last round in the magazine), at the sound of the buzzer, will draw and fire ten rounds to the left target in a time of 20 seconds. The shooter will draw and fire the magazine consisting of five rounds, perform the necessary tap (hitting the magazine), rack (pull back the slide), and assess (observe and decide on further actions) on the dummy round when the firearm fails to fire, continue shooting, drop the magazine when it is empty, reload the other magazine with five live rounds and repeat the tap, rack, and assess when he or she hits the dummy round, and then continue shooting until the gun is empty. This whole exercise must be done in 20 seconds.
- **Exercise 6:** At 15 meters, the shooter, at the sound of the buzzer, will draw and fire 10 rounds in a time of 15 seconds to an A4 target (right-hand side).

Exercises 1 and 2 test the shooter's ability to fire fast in standing and kneeling positions. Exercises 3 and 4 test speed and accuracy. Exercise 5 tests the shooter's ability to respond fast to any malfunction of the firearm and to quickly change magazines. Exercise 6 tests the shooter's ability to provide accurate fire over a longer distance. Every firearm instructor, including me, needs to pass this shoot to qualify as a training instructor. The whole professional PFTC handgun shoot lasts only 71 seconds and a total of 50 rounds are fired (Affleck, 2022; Ras, 2022).

South Africa has basic, intermediate, and advanced professional handgun instructors. A score of between 70 and 80%, at instructor's level, qualifies a person to be known as a professional basic handgun instructor. A score of between 81 and 90% qualifies one to be known as a professional intermediate-level handgun instructor, and a score of between 91 and 100% makes one a professional advanced-level instructor (Van Zyl, 2022; Ras, 2022).

Shotgun (Qualification Shoot)

There are four exercises that must be done. A total number of 25 shots are fired in a total time of 57 seconds:

- **Exercise 1:** The shooter will start with the shotgun over the weak (opposite) shoulder, muzzle down, and at 10 meters standing, at the sound of the electronic buzzer, present the shotgun and fire 5 shots in a time of 10 seconds. The targets are five A5 size wood pieces or five steel plates of the same A5 size.
- **Exercise 2:** Here the distance again is 10 meters, and the shooter will in the standing position, fire 5 (4 + 1) rounds in 12 seconds to five A5 size targets. The shooter will start with the shotgun slung over the weak shoulder, muzzle down, while the shotgun is loaded with four rounds in the magazine tube, while the chamber is empty. When the buzzer goes, he or she will present the shotgun, fire four rounds, reload the last round, and fire the last round in a time of 12 seconds.
- **Exercise 3:** Here the shooter, at 10 meters, standing, with an unloaded shotgun in the gun hand, in the high port position, at the time of the

buzzer, will load three rounds into the shotgun and fire three. He or she then will reload two more rounds and fire the last two in a time of 15 seconds. The total number of rounds to be fired is 3 + 2 in 15 seconds (King, 2022; Ras, 2022).

- **Exercise 4:** Here at 10 meters, standing, 2 + 3 rounds are fired in a time of 20 seconds to five steel plates or five pieces of wood the size of A5 paper. The shooter will start with an unloaded shotgun in his or her gun hand in the high port position. When the exercise begins two rounds are to be loaded and then one is fired. The three remaining rounds are then loaded, while holding the shotgun in the shoulder, aiming at target two. The last four remaining shots are then fired. These four exercises only last 57 seconds and the minimum pass rate is 80% (Ras, 2022).

Self-Loading Rifle (Qualification Shoot)

A total of 50 shots are fired through six exercises in a time of 79 seconds. The target is A4 paper size.

- **Exercise 1:** Five rounds are fired at 10 meters in 8 seconds to one A4 target.
- **Exercise 2:** Five rounds are fired in a time of 8 seconds from the kneeling position. This distance is 10 meters.
- **Exercise 3:** The firearm is fired from the weak or support shoulder. At 10 meters, five rounds are fired in 8 seconds.
- **Exercise 4:** At 20 meters, ten rounds are fired in a time of 10 seconds in the standing position.
- **Exercise 5:** At 20 meters, 5 + 5 rounds are fired in the standing position in a time of 20 seconds. With five live rounds and one dummy round in two magazines, the rifle is presented at the sound of the buzzer, and then five rounds are fired. When the dummy round lands in the chamber (it must not be the first or last round in the magazine), a tap (hits the magazine), roll (turns the firearm to the side that the dummy can fall out more easily), and rack (pulls the cocking lever to open the port side) are performed. Then the shooter will continue to

fire. When the magazine is empty, a change is performed, and the process is repeated. The shooter has 20 seconds to fire the 5 + 5 rounds.

- **Exercise 6:** At 25 meters, 5 + 10 rounds are fired in a time of 25 seconds. The firearm is presented at the sound of the buzzer and five rounds are fired in a standing position. The shooter will then go into the prone position and fire the remaining ten rounds. All 15 shots must be fired in a time of 25 seconds.

Manually Operated Rifle or Carbine (Qualification Shoot)

Exercise 1: At 10 meters three rounds are fired in a time of 10 seconds to one A4 size target. The rifle is presented from the low ready position and then three rounds are fired after the beep of the buzzer.

Exercise 2: At 15 meters, three rounds are fired in the standing position in a time of 10 seconds to the same size target (A4).

Exercise 3: At 15 meters four shots are fired in a time of 10 seconds to the same size (A4) target. The rifle is presented from the low ready position and four rounds are then fired. The whole exercise of ten shots is performed in a total time of only 30 seconds.

Critique

The shooting exercises in all the different weapon categories are excellent to improve one's speed and accuracy, though all live firing depends absolutely on the specific context and the specific incident that necessitates a swift reaction. At all times the right to life must be engrained into the mind of the shooter, even when attacked. When shot upon, then certainly one has a right to use lethal or deadly force, but where one's bullet will hit and stop needs to be considered before the trigger is squeezed and follow-up shots are fired. It is critical that instructors are taught to immediately perform tactical observation (scan everywhere

with the eyes), make that split-second decision, and cease fire immediately or follow up with another shot or shots. In a constitutional democracy and in a human rights culture like South Africa it is on the shooting ranges and in the classrooms where the issue of “How many shots must I fire?” needs to be ironed out.

11 Tactical Duty-Related Shooting

The instructors’ practical shooting exercises overlap with the tactical shooting courses that are offered. The main difference between the two is the time limitation. One needs to shoot faster at the tactical level (Botha, 2022; King, 2022).

Demonstrate Tactical Proficiency in the Use of a Handgun

There are six different exercises:

- **Exercise 1:** Five shots need to be fired in a time of 6 seconds into an A4 target from 5 meters.
- **Exercise 2:** Five shots need to be fired in a time of 6 seconds from a kneeling position from 5 meters.
- **Exercise 3:** At the sound of the buzzer the gun is drawn from the holster with the strong hand and then transferred to the weak hand before five shots are fired in a time of 8 seconds at 8 meters.
- **Exercise 4:** Ten rounds are fired in 10 seconds at an A4 paper target at 10 meters.
- **Exercise 5:** At 10 meters, standing, with two magazines, each loaded with five live and one dummy round (the dummy may not be the first or last round), ten rounds must be fired in a time of 20 seconds.
- **Exercise 6:** At the sound of the buzzer five rounds will be fired from the standing position, then, going into the prone position, ten more rounds will be fired, all in a time of 20 seconds.

All six exercises, during which 50 shots are fired, take place in a total time of 65 seconds.

Demonstrate Tactical Proficiency in the Use of a Shotgun

Four exercises are performed:

Exercise 1: At 10 meters, standing, five shots must be fired in 8 seconds to five steel plates or ten wood pieces that are at least 50 cm apart.

Exercise 2: In this shoot 4 + 1 rounds are fired in a time of 10 seconds at five A5 steel plates. The shooter will start with the shotgun over the weak shoulder, with the rounds in the chamber. At the ring of the buzzer, he or she will chamber load, shoot four rounds and then reload the last round and fire again, all in a time of 10 seconds.

Exercise 3: At 10 meters standing, the shooter will start with an unloaded shotgun, load three rounds, shoot three, then load another two rounds and then shoot the last two rounds, all in a time of 15 seconds. A total of five rounds are fired at five steel plates.

Exercise 4: In the standing position, at 10 meters, the shooter will load three rounds and shoot three, and then in the kneeling position, load two rounds and shoot the last two. All five rounds must be fired in 15 seconds. The whole exercise consists of 20 rounds that must be fired in a total time of 45 seconds (Botha, 2022; Ras, 2022).

Demonstrate Tactical Proficiency in the Use of a Self-Loading Rifle or Carbine

Here six exercises are performed:

- **Exercise 1:** At 10 meters, in a standing position, five shots are fired in 6 seconds to an A4 paper target.
- **Exercise 2:** Again at 10 meters, in the kneeling position, five shots are fired in 6 seconds to an A4 paper target.

- **Exercise 3:** In the standing position, at 10 meters, five shots are fired in 8 seconds. The rifle is transferred from the strong to the weak shoulder and shooting takes place from the weak shoulder.
- **Exercise 4:** At 20 meters, ten shots are fired to an A4 paper target in 10 seconds.
- **Exercise 5:** With two magazines, each loaded with five live rounds and one dummy round (the dummy cannot be the first or last round), the shooter will fire to an A4 paper target and do the necessary tap, roll, and rack drills and magazine changes. The time limit is 20 seconds.
- **Exercise 6:** At 25 meters, the shooter must fire five rounds in the standing position, and then go into the prone position and fire ten more rounds in a total time of 20 seconds to an A4 paper target.

A total of 50 rounds are fired during these six exercises and the time limit for everything is 64 seconds.

Critique

The above-mentioned tactical shoots for handgun, shotgun, and self-loading rifle or carbine were designed to ensure that members respond very fast to any threat and can deal with any threat where a firearm is involved or needed. While the tactical shooting exercises test the abilities of members to shoot against the clock, again I must caution the over-zealous or “trigger-happy” law enforcement officer who just shoots as fast as he can in the direction of the incoming fire. All tactical shooting is directly dependent on the specific situation in which one finds oneself. Life is always valued by law and must be protected at all costs. It must only be as a last resort that lethal force is considered and used. Identifying the danger (e.g., suspect with a gun), and taking immediate action through verbal commands (e.g., raising your voice, shouting and taking command of the situation), are more important than just firing and killing a suspect. Tactical shooters need to learn to quickly prepare to shoot but at the same time to immediately cease fire or to shoot next to the suspect if an arrest needs to be made, taking into consideration where the bullet will hit and stop.

12 Training Recommendations

- **Ordinary citizens:** It is recommended that they use the mentioned tests for private citizens (level 1—basic level) to improve their own shooting and accuracy skills, keeping in mind the need to consider immediately ceasing fire after the first shot.
- **Law enforcement personnel:** Those operating in the police or in prisons need to be faster to draw and to shoot, but again they must consider how many shots they need to fire. Use the level 2—business purposes level tests that have been discussed, but use them critically, considering the threat and your surroundings through observation all the time.
- **Instructors/trainers:** Exercise speed and develop accuracy but, more importantly, teach yourself and others to react immediately before any shooting needs to be done. A fast draw and a point of barrel with a verbal command at the same time is better than just neutralizing a suspect or attacker with a firearm and then afterwards having to go and explain in a court of law what you did.
- **Tactical officers:** Train and develop lightning-fast draw and shooting skills but at the same time train and develop lightning-fast tactical observation skills, and based on your split-second reaction or response. Scanning the environment for multiple attackers through your observation skills and firing into the ground is always better than shooting anyone.

13 Concluding Remark

We all know the well-known Latin phrase *Si vis pacem, para bellum*: “If you want peace, prepare for war”. Now is the time to prepare for the unforeseen and the unexpected. In law enforcement one always needs to be ready. In the military we were taught: “The more sweat in training, the less blood in battle”.

References

- Abbott-Smith, G. (1977). *A Manual Greek Lexicon of the New Testament*. Latest Impression. Edinburgh, Scotland: T & T Clark.
- Affleck, S. (2022). *Personal conversations with Affleck*. He is chairperson of the PFTC in KwaZulu-Natal, a PFTC firearm counselor, a military and police veteran, and owner of Ihawu Firearm Centre & Shooting Range in Durban, KwaZulu-Natal, Republic of South Africa.
- Bless, C., & Kathuria, R. (1993). *Fundamentals of Social Statistics*. An African Perspective. Cape Town: Juta and Company.
- Bopape, L. S., & Snyman, H. F. (2015). An analysis of the measures used to control firearms in South Africa: Looking back and looking forward. *Acta Criminologica. Southern African Journal of Criminology. Criminology in Democratic South Africa: Coming of Age*. Special Edition No. 5, 114–130.
- Botha, Z. (2022). *Personal conversations with Botha*. He is PFTC tactical firearm instructor and former military veteran, and co-owner of Guns Inc. at Empangeni, KwaZulu-Natal, Republic of South Africa.
- Durrheim, K. (2010). *Research Design*, In M. Terre Blanche., K. Durrheim & D. Painter (Eds.), *Research in Practice. Applied Methods for the Social Sciences*. pp. 33–59, Cape Town: UCT Press.
- Ferreira, V. (2005). *Personal conversations with Ferreira*. He was the founder of Training Dynamics Africa (TDA), a lead service training provider in security and firearms in South Africa. He had served in the military and was working at the University of South Africa at UNISA's UBUNTU training center. Retrieved November 15, 2022, from <https://www.pftc.co.za>
- <https://allqs.saqa.org.za/showQualification.php?id:50480> Retrieved on 14 September 2022.
- King, S. (2022). *Personal conversations with King*. He is a PFTC tactical firearm instructor, a sport shooter, and a former police veteran. Founding member and owner of Guns Inc. at Empangeni, KwaZulu-Natal, Republic of South Africa.
- Kriegler, A., & Shaw, M. (2016). *A citizen's guide to crime trends in South Africa*. Jonathan Ball Publishers.
- Le Roux, J. (2004). *Personal conversations with Le Roux*. He was a firearm training instructor and training counselor of ITA.
- McGuire, M. (2022). *Personal conversation with McGuire*. He is the chairperson of the PFTC in South Africa and a former military veteran.

- Minnaar, A. (2015). Gun rights versus people's rights: A review of the struggle for stricter firearms controls in the USA—Any implications for South Africa? *Acta Criminologica. Southern African Journal of Criminology. Criminology in Democratic South Africa: Coming of Age*. Special Edition No. 5, 131–145.
- Oxford South African Concise Dictionary, (2016). Grahamstown: Rhodes University (Dictionary Unit for South African English).
- Potgieter, P. J. (2014). *Exploratory-descriptive analysis of the public image of the police* (Masters dissertation). University of Zululand, KwaDlangezwa.
- Pretorius, A. (2013). *Personal conversation with Pretorius*. He was a founding member of the PFTC and owner of the biggest firearm training service provider, International Firearm Training Academy (ITA) in South Africa.
- Pretorius, A. (2014). *When guns are fired*. GunSite South Africa. Retrieved November 18, 2022, from <https://www.gunsite.co.za>
- Pretorius, N. (2022). *Telephonic conversation with Pretorius*. She is today the owner of ITA, the leading firearm training material service provider in South Africa, based in Johannesburg. She is a PFTC firearm assessor, instructor, and moderator.
- Ras, J. M. (2000). *Project S398/99: The identification and tracing of illegal firearms in South-Africa. A Christian-theological reflection*. University of Zululand.
- Ras, J. M. (2002). The Z88 9mm parabellum pistol (official hand weapon) of the South African Police Service (SAPS). *Police Studies, 1*, 26–28.
- Ras, J. M. (2006). *Body guarding in a private security context* (Doctoral thesis). University of Zululand, KwaDlangezwa.
- Ras, J. M. (2007). Police officer safety: “Please God! Help us to dodge the bullets and the blood and give us more dogs in Zululand!” *Law Enforcement Executive Forum, 7*(3), 93–110.
- Ras, J. M. (2008, November 2). The firearms control act—Practical implications. *JCAL: Journal of Commerce, Administration, and Law, 1*, 4–14.
- Ras, J. M. (2010a). Body guarding in South Africa. In G. Cordner, A. Cordner, & D. K. Das (Eds.), *Urbanization, policing, and security: Global perspectives* (pp. 415–434). CRC Press/Taylor & Francis Group.
- Ras, J. M. (2010b). Alibama, Osama, and Obama—When can i shoot? South African firearm and legal issues: A qualitative and narrative approach. *Law Enforcement Executive Forum, 10*(4), 43–55.
- Ras, J. M. (2011). Sniper insights for executive managers: How to survive the downturn. *JCAL: Journal of Commerce, Administration, and Law, 4*(1), 25–38.

- Ras, J. M. (2012). *Bodyguards and body guarding: The professionals*. Lambert Academic Publishing.
- Ras, J. M. (2022). *Firearm training in South Africa: Learning theories and deep learning*. Paper delivered on 17 November 2022 at the 6th Teaching and Learning Conference of the University of Zululand, Republic of South Africa. Paper was delivered at the Premier Hotel, Richards Bay.
- Roets, R. (2022). Telephonic conversation with Roets representing a leading security and firearm training provider, UBUNTU. They are based in Gauteng.
- Shaw, M. (2017). *Hitmen for hire: Exposing South Africa's underworld*. Jonathan Ball Publishers.
- Shaw, M. (2021). *Give us more guns: How South Africa's gangs were armed*. Jonathan Ball Publishers.
- Terre Blanche, M., Durrheim, K., & Painter, D. (2010). *Research in Practice*. Applied Methods for the Social Sciences. In M. Terre Blanche., K. Durrheim & D. Painter (Eds.), Cape Town: UCT Press.
- Van Heerden, T. J. (1995). *Introduction to Police Science*. Pretoria: UNISA.
- Van Zyl, L. (2022). *Personal conversation with Van Zyl in June*. He is the head of Quality Assurance of the PFTC in South Africa, a PFTC counselor, and a former head of firearm training in the prison services (DCS) of South Africa.



Police Training and Police Violence in Scandinavia

Michelle N. Eliasson 

Reviewer: Mario S. Staller

1 Introduction

During the last few decades policing across the globe has drawn the attention of local and international activists, politicians, and scholars. Specifically, attention has been focused on critically assessing police conduct, the efficiency and effectiveness of policing strategies and tactics, and relationships between the public and the police (Blumberg et al., 2019; Crank, 2014; Loftus, 2009; Walker & Katz, 2012). While further discussing and studying various topics related to police and policing, many highlight the importance of understanding the context in which

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police and policing are operated. Notions such as training, tactics and strategies, informal and formal practices, and occupational norms are all notions impacted by the local cultural and social context in which policing is implemented (Cockcroft, 2012; Crank, 2014; Martin, 1999). Thus, to understand more about policing in Scandinavia and police violence it is important to discuss how Scandinavian police are trained, the organizational structures, and local cultural and social contexts.

Scandinavia consists of five countries: Denmark, Finland, Iceland, Norway, and Sweden, which all adhere to the Scandinavian welfare model. This states that all society members have access to welfare systems that enable notions such as free education, free healthcare, and support for unemployed individuals. Although poverty and inequality rates are fairly low in these countries, crimes and violence still occur. While some of the Scandinavian countries' attributes are similar, such as adherence to the welfare model, similar political structure, and other cultural aspects, there are still some variations. For example, when discussing policing in Scandinavia, agencies' organizational structure, reforms, and trust in the police (Staubli, 2017) and crime rates can differ.

Several studies have further explored how notions such as policing strategies and tactics, officers individual characteristics, and the cultural context can influence police violence or the police's overuse of force (Friedrich, 1980); however, scholars also argue that environmental factors can impact the occurrence of police violence (Terrill & Reisig, 2003). Compared to other countries such as the United States, Scandinavian countries report low numbers of police violence, which for example could be exemplified as the overuse of force or interactions resulting in a deadly outcome (Hendy, 2014). By understanding more about the Scandinavian police more knowledge can be learned about the various nature of police violence and perceptions of police legitimacy and trust as studies have shown that positive perceptions about police legitimacy are associated with negative views about the use of violence (Jackson et al., 2013). Furthermore, reduced levels of legitimacy can have negative consequences for the efforts the police take to reduce crime as it can have a negative impact on citizens' intention to cooperate with the police and their trust in them. Scandinavians report having more trust in the police compared to many other countries (Kääriäinen & Siren, 2011), which

could be linked to many different factors, one potentially being the low rates of the overuse of force (Geller & Toch, 1959).

Most of the current scholarship which addresses policing in Scandinavia focuses on understanding policing in their separate countries (Eliasson, 2020, 2021; Giertsen, 2012; Karp & Stenmark, 2011; Olsen, 2017). Although these scholars contribute with essential findings informing the discourse on policing, there is a need to expand the overview of Scandinavian policing specifically through a comparative perspective. The studies that do address two or more countries in Scandinavia (Hendy, 2014; Høigård, 2011; Holmberg, 2014; Inzunza & Wikström, 2020) could benefit from expansion to provide more background information on the differences and similarities between police and policing practices in the various countries. It is essential to further expand the existing scholarship that addresses policing in Scandinavia to generate a robust foundation of knowledge about police in different parts of the world and the various contexts in which policing is implemented, particularly in countries where police have varying characteristics, such as different lengths in training. Additionally, by generating more knowledge about training and organizational structures and the cultural and social context of the Scandinavian police, more international scholars can incorporate the context of Scandinavian policing into transnational comparisons.

This chapter aims to explore the Scandinavian police and discuss various similarities and differences among the countries. The chapter will do this in three specific ways: first, by discussing the organizational structure and training of the police in each country; second, by outlining the current trends in policing scholarship for each country; and third, by discussing crime trends and police violence in each country, which can be linked to how policing is practiced in each country and across Scandinavia. The goal is to provide readers with contextual information about Scandinavian police by providing an overview of differences, similarities, and current scholarship trends. Thus, the chapter will start with a description of the structure of the police organizations and training and a brief overview of current policing scholarship in each country. The chapter will then describe and discuss crime rates and violence across Scandinavia and the challenges the police face.

2 Scandinavian Police

Extensive research has explored various aspects of Scandinavian police and policing. For example, scholars have explored aspects related to police conduct (Høigård, 2011; Solhjell et al., 2019), policing strategies and tactics (Christophersen et al., 1999; Olsen, 2017), and occupational knowledge, reform, and training (Adang, 2013; Björk, 2021; Eliasson, 2020, 2021; Fekjær et al., 2014; Granér, 2017; Holmberg, 2014, 2019; Karp & Stenmark, 2011). This rigorous scholarship exploring individual countries and the comparative aspects of policing in Scandinavia highlights that, although being at a close geographical distance from each other, there are differences and similarities in the implementation of policing, reforms and organizational structures, and training. In this section, these aspects will be discussed separately for each country.

Denmark

The police academy in Denmark is a two-year long training consisting of practical and theoretical courses, covering topics such as law, IT, and international relations. The basic trainings for officers are held at specific police colleges around the country. The initial courses last approximately nine months after which the police trainees complete 18 months of practical training in one of the Danish police districts. After the practical training is completed, the trainees spend another nine months taking courses at the police college and then takes a final exam. After this exam, the trainees spend time with the tactical support unit with the Copenhagen police. The requirements for individuals applying to the academy are: that they have to be older than 21 years old, have Danish citizenship, have good language skills in Danish, be in good health, and have a valid driver's license. Beyond these requirements, there are certain attributes of the potential applicants which are considered "desirable" by the academy. For example the applicant should ideally not be older than 29 years, not have a criminal record, and live under orderly financial conditions, and have a reasonably strong physique (OSCE, 2022a).

The Danish police is an entity run by the Danish government and is combined with the Danish national prosecution office. Before 2007, the Danish police were divided into 57 districts. However, after a nationwide reorganization, it became 12 districts and two independent police districts in Greenland and the Faroe Islands (Holmberg, 2014). Each of the districts is headed by a police commissioner accompanied by a deputy police commissioner and two chiefs who are in charge of the police service and the prosecution services. The police commissioners will have been employed for several years and have responsibilities such as how policing duties are performed, budget allocation, and personnel allocation in the local districts (OSCE, 2022a).

Beyond the reforms, the Danish police had been impacted by other reforms focusing on changes in strategies, tactics, and approaches to policing. For example, the Danish police were inspired by international reforms enforcing community policing and problem-oriented policing (Balvig et al., 2011; Holmberg, 2014). A reorganization in 2002 was specifically implemented to further improve the relationships between the community and the police and increase citizens' feelings of safety as a result of international reforms. One of the key developments in police practices during this time was the Danish police learned that according to Danish citizens, the Danish Police did not need to increase their visibility to increase the citizens sense of safety but rather the police needed to increase their efficiency. To address this, the police aimed at reducing the response time to incoming calls, simplify the command structure, and remove distinctions between the investigative and patrol sections of the police districts (Granér, 2017; Holmberg, 2014).

Scholars have debated the success of the various reforms of the Danish police (Granér, 2017). For example, Degnegaard (2010) highlights that the organizational changes disregarded the informal organization and collective culture within the pre-existing structure. While one of the aims was to simplify the command structure by reducing the number of districts, the police became a top-down structure with the unforeseen consequence of communication directed towards individuals instead of collectives. Officers disliked the reform, referencing that their ability to conduct their job had been compromised, and the clearance rates had decreased (Holmberg, 2014). Furthermore, the reorganization and

reform impacted the perception of the police among Danish citizens. A year after the reform, studies showed a decreased confidence in the police and their efficiency. However, a few years later, satisfaction on a national level had increased among the population, matching the satisfaction rates before the reforms were implemented. However, the satisfaction rates on a local level was lower than before the reform, with local community actors noting the loss of personal ties and local affiliation with the police as influencing their perception (Balvig et al., 2011; Granér, 2017).

Iceland

Before 2016, Iceland had a national police college; however, the responsibility of training police officers was turned over to a local Icelandic university. Before this transition, the Icelandic police academy was a non-university educational institution (Mennta og starfsþróunarsetur Lögreglunnar, 2022). The current officer training consists of a two-year police science program, which generates a university certificate. By the university, the program is described as a “practical academic discipline” and consists of four semesters. The police trainees take academic courses such as law, ethics, criminal investigation and procedure, and other crime-related courses. In addition to the academic courses, the trainees also take practical training courses hosted by the Centre for Police Training and Professional Development. The requirements for admission to the program are that the applicant must be proficient in Icelandic and have the equivalent of a high school degree (University of Akureyri, 2022).

Iceland has a national police organization that, in line with its fellow Scandinavian countries, has experienced various attempts at reorganization during the last 20 years. Before 2007 there were 26 different districts; however, due to calls to increase the efficiency of the police, these districts were merged into 15. In 2015 these 15 districts were again reorganized into 9, with the largest one being the Reykjavík Metropolitan Police which is in charge of an area inhabited by two-thirds of the population (Oddsson & Bragason, 2020). In each of the nine districts, there is a district commissioner. The duties of the commissioners include

being in charge of administration related to general policing tasks but also more specialized efforts such as land-based rescue and missing person searches. The chief of police in each district is responsible for how the policing duties are implemented in each district and are, for example, in charge of how investigations of criminal offenses are conducted. They also have power over prosecutorial practices. Icelandic police officers have the power to conduct policing beyond the district and can thus perform duties in all regions of the country (Guðjónsson, 2003).

Inline with the evolving changes in organizational structure of the police, the approach to policing and police training has also evolved during the last few decades. For example, during the early 2000s, there was a shift towards science-based policing among Icelandic police. Furthermore, the police have also increased their collaboration with research entities for example examining general crime trends through national crime surveys (Oddsson & Bragason, 2020) and explored research that can inform the efficiency of police practices and organizational and individual-level factors that influence policing (Oddsson et al., 2020; Sigurðsson et al., 2006).

Finland

In Finland, there is currently one university that is tasked with training individuals who want to work for the Finnish police. Before 2008, there were two different types of training for officers, one being the National Police School and the other the Police College. However, these two were merged into the current Police University College. This university is in charge of the requirement, selection, and training of new officers but also leadership and training qualification programs and research activities. The training consists of both academic courses and practical training with local police departments and other police units across Finland (OSCE, 2022b).

The Finnish police are made up of two national police units and eleven local police departments. The local departments encompass several municipalities, and the general task of each department is to maintain law and order, prevent and combat crime, investigate crime, monitor

and carry out traffic control, among other things. Local police also assist other agencies, such as immigration services, and surveil major public events that can impact local traffic and public safety (Police of Finland, 2022).

Between 2009 and 2010, there was a substantial administrative reform implemented within the Finnish police, which centralized the power structure within the organization (Haraholma & Houtsonen, 2013). The local and national police units were reduced from 90 to 24 districts. There were five major motivators for restructuring, which reflected “security of a minimum service standard in the whole country, increasing productivity and profitability, management by results, maintaining cooperative relations with various partners and securing the personnel’s motivation” (Granér, 2017, p. 141). Although some positions within the organization were relocated to centralize power and decision-making, the implementation of police services on a local level was not impacted, and thus officers performed their duties the same way as they did before the reform. Yet, according to scholars, officers were not satisfied with the reform because there were increased levels of bureaucracy (Haraholma, 2011), which also led to increased stressors and labor turnover (Vuorensyrjä, 2014). Although causing dissatisfaction among officers, the reforms did not cause a decrease in levels of satisfaction with the police among Finnish citizens as compared to before the reforms (Granér, 2017).

Norway

In Norway, it is the Norwegian Police University College that is tasked with training future police officers. The current police training is a three-year bachelor’s degree where the first and third years are spent at the academy taking academic courses, and the second year is spent conducting practical training in various policing districts across Norway (Politi Hogskolen, 2022). The key areas which are taught to trainees are crime investigation and training, leadership, prosecution and administrative responsibilities, and other policing tasks. In 2005, 2265 individuals applied to the police academy, 50% of these were asked to conduct admissions tests reflecting physical, academic, and psychological tests.

Only 31.7% of the individuals who performed the tests ended up being accepted for police training, and of the individuals accepted, 37% were female (OSCE, 2022c). In addition to finishing this three-year training and graduating, the police trainees also need to attend 40 hours of training every year, which includes firearm training, for them to continue to qualify for operational services. Norwegian officers do not carry firearms on their body; however, they have access to pistols and submachine guns that are located in their police cars, though they need to seek approval from higher authority to use them.

The Norwegian police are currently made up of one agency which includes a central national police directorate accompanied by several specialty agencies such as those focusing on economic and environmental crime, police border commissioners, and police specifically addressing immigration. In addition, the police also include 12 districts, each of which contains several police stations in cities and towns, and rural locations. In every district, there is a chief of police who is in charge of several stations. The police are also in charge of the first level of prosecution. Thus, the police also have civil workers and officers with a background in law. The prosecution that the police are in charge of often reflects minor criminal charges (OSCE, 2022c).

As with many police organizations, the Norwegian police have been subjected to several reforms. One of the two most influential reforms in modern times occurred in 2002, which brought on a shift in Norwegian police ideology. Before 2002, the approach to policing in Norway reflected the need for an organization that had a broad range of duties that heavily embedded ties in local communities. The police were often viewed as a part of the local service sector, which highlighted the call for a broad range of duties and skillsets needed from them. However, with the 2002 reform, the ideology of police shifted, and three main goals were presented. The first stated that the police organization would be more efficient in crime prevention and combating crime. Second, it must improve the ability to meet the needs of the public and deliver services to meet those needs. Third, it must be more cost-effective. Furthermore, during this reform, the police districts were also reorganized and reduced from the existing 54 to 27 (Holmberg, 2014).

The 2002 reform was not the only reform that highly impacted policing in Norway. In 2016 another big reform was implemented, which was tasked with improving the community ties between the police and local communities as well as implementing more community policing. This reform reflects many of the shifts that were seen in other Scandinavian countries during this time, which all highlighted the importance of implementing community policing. During the 2016 reform, the 27 districts were reduced to the current 12, and the number of police stations was reduced. Furthermore, the main goal of the reform was to create a community policing approach “which is operative, visible and available and with the capacity and competence to prevent, investigate and prosecute criminal acts, and ensure the safety of citizens” (Granér, 2017, p. 144). Thus, the 2016 reform could be viewed as an effort to sever the community ties that were emphasized prior to the 2002 reform while also adhering to trends in policing approaches in neighboring Scandinavian countries. Thus, the reforms and changes within the Norwegian police reflected shifts in policing approaches, one emphasizing emergency policing and problem-oriented policing, and the other reflecting community policing.

There has been a wide range of responses to both the 2002 and the 2016 reforms. After the 2002 reform, several evaluations were conducted both among police personnel and citizens. Among police personnel, many of the more senior staff reported being satisfied with the reform, stating that their resources and budgets improved and that officers became better at combatting and solving more complex crimes. However, almost 60% of local police officers rather reported that their resources were relocated to more densely populated areas and that, as a result of this, local policing suffered negative consequences such as reducing the possibility of preventing crime. Among citizens, the 2002 reform improved Norwegians’ perception of the accessibility and presence of the police (Holmberg, 2014). After the 2016 reform, many officers expressed apprehension about the changes and questioned the success of reorganizing the police (Granér, 2017).

Sweden

The police academy in Sweden is divided into five schools, with one of them offering an online training program, but all reflecting the same training and program structure. The police trainees attend a total of five semesters which equals two and a half years of training. The first three semesters reflect theoretical courses that are taught at the police academy with various courses in law, psychology, and criminal investigation. After these semesters, the trainees spend six months in the field in various police districts across Sweden. During these six months, the trainees are paid and work as police assistants and shadow and partake in a wide range of police activities when shadowing both officers and detectives. After the six-month practical training is over, the trainees attend another two months of courses at the police academy, where they share their experiences in the field (OSCE, 2022d; Polisen, 2022).

In Sweden, there is one national police agency which consists of the National Police Board and the National Laboratory of Forensic Science, accompanied by seven police regions. Each of the seven districts consists of one department addressing major crime, one addressing violence in intimate relationships, a dispatch call center, and two departments for after-hours with emergency investigators on call. Furthermore, these regions have local policing districts which are tasked with patrolling and investigating certain types of crimes, such as theft (Liljegren et al., 2021). The Swedish police consist of both police officers who have attended the police academy and civil officers who often have a bachelor's degree, a law background, or other professional experience.

In line with the other Scandinavian countries, Sweden has also had several reforms impacting both the organizational structuring of the approach to policing and the implementation of policing. One of the larger reforms occurred in 2015 and was made to increase the flexibility of officers, increase the quality of policing, improve clearance rates, and improve cost-efficiency. The criticism of Swedish police at the time was that the decentralization of power meant that organizational and occupational tasks, titles, and structures were determined regionally, and this varied across the regions (Liljegren et al., 2021). Thus, the overarching goal of the 2016 reform to address this criticism was to centralize power

and administration to one organization with one police chief that has the overall responsibility for the organization. The existing 21 partially independent districts were reorganized into the existing seven police regions comprising approximately 100 districts (Björk, 2021; Granér, 2017; Stassen & Ceccato, 2021). There has been a wide range of reactions to the 2016 reform both during implementation and after. While the reform was being conducted, a survey was sent out to all personnel at the police. Of the 36.8% that responded, less than 20% noted that the reform would lead to increased efficiency in crime control, increased focus on crime prevention among youth, and more accessible police (Granér, 2017; Renå, 2016).

3 Crime and Violence in Scandinavia

Scandinavian countries are often described in relation to their egalitarian nature and approach to gender equality. Most of the countries in Scandinavia are known to have a well-developed welfare system and provide free or low-cost education and healthcare. However, although there are many positive aspects of these countries, they all experience crime. As can be seen in Table 1, which specifically addresses three types of crimes, there are some variations in crime rates between the countries. Sweden has the highest rates of crime in both assaults and sexual violence and the second highest rates of homicide; Finland has the lowest number of assaults and sexual violence but has the highest rates of homicide. Thus there is a wide range of variation in the frequency of crimes amongst the countries but also a variation in the frequency of different types of crime within each country.

In addition to homicide, assaults, and sexual violence, other violent crime occurs in the context of gang crimes, organized crime, and public protests (Moffat, 2018). For example, there has been extensive occurrence of violent crime among motorcycle gangs (Jahnsen, 2018; Klement, 2019) as well as among other types of gangs (Carlsson & Decker, 2005; Ralphs & Smithson, 2015). Although crimes that are reported to the police have risen in all Scandinavian countries since the 1960s (Von Hofer, 2005), there is still a large number of crimes that

Table 1 Violent crimes in Scandinavia (per 1000 individuals)

	Homicide 2018	Assault 2018	Sexual violence 2017
Denmark	1.01	32.28	83.6
Iceland	0.89	36.23	142.3
Finland	1.63	29.13	55.4
Norway	0.47	36.87	106.4
Sweden	1.08	47.22	190.6

Source Statistics are from the United Nations Office on Drugs and Crime

are not reported. Thus the full extent to which crime occurs is not fully known. However, studies have found that there has been a steady increase in violent crime rates between the mid-1990s and 2011, with a slight decrease between 2011 and 2012 in almost all of Scandinavia (Nelson, 2015).

When looking at the punishment for crimes, scholars have found that the general sanctions for drug-related crimes, robbery, and violent crimes (excluding murder and manslaughter) are between two months to five years in prison (Balvig et al., 2015). The same study found that between 59 and 77% of individuals in Sweden, Denmark, and Iceland think that the punishments are too lenient; 55–69% in each country are in favor of longer sentences, and 73–78% think that violent crimes should receive harsher sentences. The overall approach to sanctions in Scandinavian countries could be argued to reflect a more rehabilitative approach where the goal is to successfully integrate the individuals who offended into society and into a life without recidivism.

4 Trust in Police and Police Violence

Scandinavian countries are known to have high levels of trust in the police (Kääriäinen, 2007; Kammersgaard et al., 2021) compared to many other areas in the world. Several studies have explored the public's trust and attitudes toward the police (Haller et al., 2020; Kammersgaard et al., 2021; Stevnsborg, 2019), which show that there are different rates of trust in the police and the criminal justice system at large. For example,

when looking at the general survey on crime and victimization produced by the Swedish National Council for Crime Prevention (2018), 47% of Swedish individuals in 2018 described that they had high or fairly high trust in the overall criminal justice system, whereas 27% noted that they had neither high nor low trust, and 22% answered that they had little to fairly little trust. On the other hand 49% answered that they had high or fairly high trust in the police, 26% noted that they had neither high nor low trust, and 21% noted that they had little to fairly little trust. Among the different entities in the Swedish criminal justice system, the police had the highest percentage of trust (49%) compared to prosecutors with 36%, courts with 36%, and prisons and jails with 32%. In another survey conducted with 1,000 Norwegian individuals in 2012, 86% noted somewhat high or very high trust in the Norwegian police (Thomassen et al., 2014). When comparing Scandinavian countries to other European countries, the Scandinavian ones include the top four countries reporting the highest level of trust in the police (Kääriäinen & Siren, 2011). In addition to trust in the police, scholars have further explored levels of safety in Scandinavian countries, noting that, in general, individual states have high levels of safety (Holmberg, 2004). Compared to other European countries, individuals in Scandinavia tend to feel a lower level of fear of crime and unsafety (Visser et al., 2013). There are many reasons why Scandinavian police agencies have a high level of trust and individuals tend to feel less worried about crime and feeling unsafe. For example, scholars highlight that the high overall perception of the government or political systems could influence trust in the police (Kääriäinen, 2007). Thus, the high levels of trust in the government can increase levels of trust in the police.

Although several studies examine police officers' interactions with citizens, specifically focusing on those with youth and ethnic and racial minorities (Haller et al., 2020; Kammersgaard et al., 2021; Schclarek Mulinari & Keskinen, 2020; Solhjell et al., 2019), there are very few studies that address police violence or violence against the police in Scandinavia (Høigård, 2011). However, there are some statistics that address police violence against the public. For example, Swedish statistics show that between 1990 and 2012, the number of individuals who died due to being shot by the police was 17, with the mean being 0.7 yearly. During

the same time period, 147 injuries were reported, with a mean of 7.4 each year. Between 2013 and 2017, these numbers increased with 13 deaths and 61 injuries in total. Thus, the yearly mean of deaths increased from 0.7 to 2.6, and the mean of injuries reported yearly increased from 7.4 to 12.2 (Holgersson, 2018). A study that specifically focused on examining violence against minority youth found that police violence is less common in Finland and Norway compared to Denmark and Sweden (Saarikkomäki et al., 2020).

Altogether the current studies that address violence in the context of Scandinavian policing and levels of trust and safety indicate that there are variations among the counties, despite their often being perceived as homogeneous regions. It is essential to highlight that several factors impact the interactions between police and citizens and the attitudes towards police and safety. However, after reviewing the literature, one can assert that, although Scandinavian countries tend to score high in notions such as trust and safety, police violence is still a notion that occurs but is rarely talked about in the current scholarship.

5 Challenges in Scandinavian Policing

Policing in Scandinavia is heavily impacted by the welfare model (Høigård, 2011), which focuses on enforcing a large public sector resulting in egalitarian outcomes (Andersen, 2004). More specifically this means that “the public authorities have responsibility to ensure that all citizens have access to basic economic, social, and cultural goods and services” (Høigård, 2011, p. 273). Scandinavian officers are meant to assist citizens with a wide range of problems, since they are representative of the state, and to avoid criminalizing individuals who are in trouble. Scandinavian policing strategies emphasize the importance of collaboration with the public in order to solve crime and to prevent crime, which is aided by the overall focus on maintaining the public’s high level of trust in the police.

Scandinavian police are often praised for their tactics of aiming to avoid violent confrontation. For example, Danish police have for a long period been trained and instructed to use sympathetic insight into

managing interactions and using their verbal and body language to navigate divergent situations (Bro, 1984). Additionally, Swedish officers are instructed to try and avoid confrontation, both direct and physical, with individuals, in order to have time to assess the situation and increase the possibility for open communication between the officers and individuals (Hansson et al., 2021).

Furthermore, Scandinavians tend to report higher levels of trust in the police and feelings of safety compared to other European countries. These factors, together with the positive implications of Scandinavia and its implementation of widespread welfare systems, free or low-cost education, and healthcare, make the countries in Scandinavia often discussed in certain aspects as positive role models for other countries. However, although there are many positive aspects about Scandinavia and Scandinavian police, there are still many challenges. For example, although primarily practicing de-escalation tactics to avoid violent confrontation, and having a minimum of 2.5 to 3.0 years of academic and practical training before becoming police officers, Scandinavian countries have major problems with crime and violence (Holgerson, 2018; UNODC, 2018), but also notions such as differential or biased treatment by the police (Haller et al., 2020; Kammersgaard et al., 2021; Saarikkomäki et al., 2020; Schclarek Mulinari & Keskinen, 2020; Solhjell et al., 2019) and misconduct (Birk Haller et al., 2020; Ekenvall, 2003; Fekjær et al., 2014; Gottschalk, 2011; Høigård, 2011; Thomassen, 2002).

Additionally, as previously noted, the literature on police violence and violence against the police is scarce in a Scandinavian context. However, this does not mean that violence perpetrated by the police and violence perpetrated against the police do not occur (Høigård, 2011). On the contrary, a few scholars have stated that violence is practiced by the police (Holgerson, 2018). For example, in their study examining the police's use of force against minorities, Birk Haller et al. (2020) found that young minority men expressed that they were exposed to a disproportionate and excessive use of force by police in relation to the severity of the offenses. The men also reported that they experienced humiliating forms of violence by the police resulting in them feeling emotions such as embarrassment. The authors state that use-of-force among the police needs to be further explored by other scholars.

There are several potential reasons why there is little literature on police violence and violence against the police in Scandinavia. For example, compared to other countries, the levels of trust in the police are high (Kääriäinen, 2007; Kammersgaard et al., 2021). Although this may not directly indicate a causal relationship or correlation between low rates of violence perpetrated by the police or to which the police are subject, it rather states that there is a general perception of the police as being legitimate and an agency or institution that can be trusted. This could be one of the factors which impact the likelihood of violence against officers, but also how officers are met on the streets. Furthermore, officer de-escalation tactics and usage of firearms could also potentially impact officers' use of violence (Hendy, 2014). Finally, the notion of education and training is something that has been heavily debated in the policing scholarship, specifically whether the level of training and education impact police officers' use of violence and/or conduct. The results of current scholarship are mixed. However, there is a significant amount of scholarship arguing that training and education can impact the level of violence or force used by officers (Andersen & Gustafsberg, 2016; Engel et al., 2020; Hyeyoung & Lee, 2015; McElvain & Kposowa, 2008; Paoline & Terrill, 2007; Rydberg & Terrill, 2010). Thus, some scholars argue that the high educational and training level of officers can have positive implications for their use of force and violence, which can influence the likelihood of the occurrence and the attention put towards the overall phenomena.

Scholars argue that the Scandinavian police are faced with many challenges, which can have many negative implications for their implementation of policing approaches and practices (Høigård, 2011). For example, as with the police in many other countries across the globe, the police in Scandinavian countries have been subjected to numerous reforms during the last two decades, which have brought changes in organizational structure, power distribution, and approaches to policing. A clear example that can be seen in many of the reforms is that there is a push for centralization of power and centralized organization, with fewer and less independent policing districts. These efforts have been made to decrease the variety of practices and areas of responsibility and also to streamline the decision-making process, which was supposed to make the

police organizations more efficient both from a financial perspective but also when preventing and combating crime (Adang, 2013; Björk, 2021; Christensen et al., 2018; Degnegaard, 2010; Granér, 2017; Haraholma, 2011; Haraholma & Houtsonen, 2013; Høigård, 2011; Holmberg, 2014, 2019; Oddsson et al., 2020; Vuorensyrjä, 2014). Not only have the many reforms created an ever-changing agency or organization which every few years is faced with a new reform, the reforms seldom improve citizens' perceptions of the police in the various countries. Instead, the reforms rather seem to generate negative responses from the police, especially local police, who often state that their way of practicing policing has suffered negative consequences due to the reform (Granér, 2017; Haraholma, 2011; Holmberg, 2014; Renå, 2016; Vuorensyrjä, 2014).

Additionally, the many reforms can sometimes provide contradictory guidelines and approaches to policing over time. For example, almost all the reforms have been influenced by the ongoing debate on decentralized versus centralized decision-making and power structures within police organizations (Høigård, 2011). Although the reforms in Scandinavia during the last two decades have been focused on centralizing power to create unity and a more homogeneous police force, several studies have highlighted that this has not improved officers' efficiency but rather created barriers and uncertainty (Granér, 2017). Aside from the debate on centralized versus decentralized power, approaches to policing have been heavily impacted by the many reforms (Høigård, 2011). Scandinavian police have, in line with the police in many other countries, been impacted by trends in policing approaches, which has been for a specific push for community policing. However, in some countries, for example Norway, the police have traditionally been community-oriented, with policing having strong ties to the local communities (Granér, 2017; Holmberg, 2014). But, with the 2002 reform, there was a push to decrease the services provided by the police to communities and to aim rather to enforce problem-oriented policing, which was changed again in 2016 when community policing was again emphasized (Granér, 2017). The shifts in approaches brought on by the reforms in Scandinavia are not unique to this context (Høigård, 2011), but rather exemplify developments in modern policing and also the sometimes conflicting approaches that are implemented during a short period of time. This

creates further challenges together with extensive organizational changes when aiming to build stable and balanced police organizations while also staying sensitive to initiatives and efforts to improve practices.

6 Conclusion

Extensive scholarship has been devoted to studying different aspects of Scandinavian policing and the context in which it is implemented and practiced (Adang, 2013; Björk, 2021; Christophersen et al., 1999; Eliasson, 2020, 2021; Fekjær et al., 2014; Granér, 2017; Holmberg, 2014, 2019; Høigård, 2011; Karp & Stenmark, 2011; Olsen, 2017; Solhjell et al., 2019). Scholars from various disciplines have highlighted a wide range of notions that impact policing in Scandinavia, and only a fraction of these could be discussed in this chapter. For example, in addition to the impact of police reforms, education, and overall trust in police and safety, a wide range of societal changes, norms, and other factors impact the police (Cockcroft, 2012; Crank, 2014; Hyeyoung & Lee, 2015; Martin, 1999; Oddsson et al., 2020). However, most scholars agree that the context of where the policing is implemented needs very much to be considered when evaluating, discussing, or assessing policing. Thus to conduct comparative work on policing in different countries, it is essential to understand under what circumstances it is being practiced.

This chapter has not aimed at glorifying or overly criticizing the Scandinavian police but has instead aimed to provide an overview of the general training practices, police structure, and recent reforms in policing, as well as to discuss the challenges that the police are faced with. Although Scandinavian police are often regarded very highly due to their de-escalation tactics and receiving high levels of trust from their citizens compared to other countries in Europe and across the globe, police officers face many challenges that can have both negative and positive implications for their policing practices. Indeed there are positive aspects that need to be highlighted. However, it is also essential to separate the countries and understand how policing is practiced. Although Scandinavia is considered a very homogeneous area, there are variations in crime, how the police are structured, and how policing is practiced.

Thus, when using Scandinavian policing as an example or as a comparison, it is essential to consider the variations between the police in the various countries. It is also important to consider the societal structure and cultural factors, such as the general high trust in the police, the broad welfare system, and general attitudes towards notions such as safety and punishment.

Key Takeaways of the Chapter

The Scandinavian police have been subjected to a wide range of reforms during the last few decades; however, empirical support for their success is mixed. For example, the perception of the police and trust in them among society members have not increased as a result of the reforms and officers note that allocation of funds and reorganization often does not improve their efficiency.

As reported in this chapter, Scandinavian countries, compared to other countries, have lower levels of police violence and higher levels of trust in the police. However, it is essential to highlight that Scandinavian countries and police agencies do not function without challenges, police violence, and police misconduct, and that crimes do occur. Thus, it is important to not idealize Scandinavian police agencies or police models in a way that ignores the challenges that exist. Policing needs to be discussed and contextualized in relation to the culture and setting it is practiced in; hence when comparing police agencies in various countries a multitude of factors need to be considered when discussing notions such as training, policing strategies or tactics, or police legitimacy.

Police Officers

- Based on the existing scholarship exploring reform in Scandinavian police agencies (Holmberg, 2014), front-line officers need to be involved and actively voice their opinions about the effectiveness of reforms when an opportunity is given and more actively make an effort to be part of the organizational and practical development of their agencies. This could for example occur by systematically sharing their experience and knowledge from working in various communities and settings.
- While it is important for officers to use their knowledge and experience, it is also important that officers are open-minded when it comes

to improving the efficiency of policing. This could for example occur through participating in additional training or educational opportunities or participating in exchanges with other police agencies enriching the perspective and practices of each officer.

Conflict Management Trainers

- Conflict management trainers play an important role in the implementation and practices of various policing strategies and tactics. Trainers should, in line with decision-makers, stay sensitive to the previous experiences that officers have had and the history of agencies. More specifically, they need to be aware and informed about previous and current practices of conflict management within the agencies and aim to incorporate the experience officers have with evidence-based knowledge to create resolutions and strategies which can benefit officers, agencies, and citizens.

Police Decision-Makers

- Decision-makers who influence the implementation of police reforms need to be sensitive to the effect of previous reforms on the current practices of individual officers and agencies. It is very important that decision-makers integrate the voices of the officers together with evidence-based knowledge when creating or suggesting reforms. Hence, by allowing officers to be a part of the creation of new reforms before they are implemented, decision-makers can ensure that officers have an active role in the development of new reforms by sharing experiences from previous reforms.
- Decision-makers should actively encourage dialogue between local police agencies and facilitate knowledge exchanges between various agencies to ensure that policing strategies and reforms implemented have been thoroughly reviewed and discussed by multiple agencies at various levels.

References

- Adang, O. M. J. (2013). Reforming the policing of public order in Sweden: Combining research and practice. *Policing*, 7(3), 326–335. <https://doi.org/10.1093/police/pas050>
- Andersen, T. M. (2004). Challenges to the Scandinavian welfare model. *European Journal of Political Economy*, 20(3), 743–754. <https://doi.org/10.1016/j.ejpoleco.2004.02.007>
- Andersen, J. P., & Gustafsberg, H. (2016). A training method to improve police use of force decision making: A randomized controlled trial. *Sage Open*, 6(2). <https://doi.org/10.1177/2158244016638708>
- Balvig, F., Gunnlaugsson, H., Jerre, K., Tham, H., & Kinnunen, A. (2015). The public sense of justice in Scandinavia: A study of attitudes towards punishments. *European Journal of Criminology*, 12(3), 342–361. <https://doi.org/10.1177/1477370815571948>
- Balvig, F., Holmberg, L., & Højlund Nielsen, M. P. (2011). *Verdens bedste polititi: politireformen i Danmark 2007–2011* [The best police in the world: The police reform in Denmark 2007–2011]. Jurist- og Økonomforbundet.
- Birk Haller, M., Kolind, T., Hunt, G., & Søgaard, T. F. (2020). Experiencing police violence and insults: Narratives from ethnic minority men in Denmark. *Nordic Journal of Criminology*, 21(2), 170–185. <https://doi.org/10.1080/2578983X.2020.1839712>
- Björk, M. (2021). Muddling through the Swedish police reform: Observations from a neo-classical standpoint on bureaucracy. *Policing: A Journal of Policy and Practice*, 15(1), 327–339. <https://doi.org/10.1093/police/pay069>
- Blumberg, D. M., Schlosser, M. D., Papazoglou, K., Creighton, S., & Kaye, C. C. (2019). New directions in police academy training: A call to action. *International Journal of Environmental Research and Public Health*, 16(24), 4941. <https://doi.org/10.3390/ijerph16244941>
- Bro, J. (1984). The training of the Danish police. *Police Studies: The International Review of Police Development*, 7(3), 125–130.
- Carlsson, Y., & Decker, S. H. (2005). *Gang and youth violence prevention and intervention: Contrasting the experience of European street gangs and troublesome youth groups* (p. 259). Altamira Press.
- Christensen, T., Læg Reid, P., & Rykkja, L. H. (2018). Reforming the Norwegian police between structure and culture: Community police or emergency police. *Public Policy and Administration*, 33(3), 241–259. <https://doi.org/10.1177/0952076717709523>

- Christophersen, A. S., Ceder, G., Kristinsson, J., Lillsunde, P., & Steentoft, A. (1999). Drugged driving in the Nordic countries: A comparative study between five countries. *Forensic Science International*, 106(3), 173–190. [https://doi.org/10.1016/S0379-0738\(99\)00194-2](https://doi.org/10.1016/S0379-0738(99)00194-2)
- Cockcroft, T. (2012). *Police culture: Themes and concepts*. Routledge.
- Crank, J. P. (2014). *Understanding police culture*. Routledge.
- Degnegaard, R. (2010). *Strategic change management: Change management challenges in the Danish police reform* (doctoral thesis). Fredriksberg: Copenhagen Business School.
- Ekenvall, B. (2003). Police attitudes towards fellow officers' misconduct: The Swedish case and a comparison with the USA and Croatia. *Journal of Scandinavian Studies in Criminology and Crime Prevention*, 3(2), 210–232. <https://doi.org/10.1080/14043850310004881>
- Eliasson, M. N. (2020). “Black, white and gray”—A qualitative study of how Swedish police officers describe occupational knowledge. *Policing: An International Journal of Police Strategies and Management*, 44(3), 498–509. <https://doi.org/10.1108/PIJPSM-08-2020-0139>
- Eliasson, M. (2021). Experience, seniority and gut feeling—A qualitative examination of how Swedish police officers perceive they value, evaluate and manage knowledge when making decisions. In *Frontiers in Education*. <https://doi.org/10.3389/educ.2021.731320>
- Engel, R. S., McManus, H. D., & Herold, T. D. (2020). Does de-escalation training work? A systematic review and call for evidence in police use-of-force reform. *Criminology & Public Policy*, 19(3), 721–759. <https://doi.org/10.1111/1745-9133.12467>
- Fekjær, S. B., Petersson, O., & Thomassen, G. (2014). From legalist to Dirty Harry: Police recruits' attitudes towards non-legalistic police practice. *European Journal of Criminology*, 11(6), 745–759. <https://doi.org/10.1177/147370814525935>
- Friedrich, R. J. (1980). Police use of force: Individuals, situations, and organizations. *The Annals of the American Academy of Political and Social Science*, 452(1), 82–97. <https://doi.org/10.1177/00027162804520010>
- Geller, W. A., & Toch, H. (Eds.). (1959). *Police violence: Understanding and controlling police abuse of force*. Yale University Press.
- Giertsen, H. (2012). Policy on drugs in Norwegian prisons: Increased control, answers to poverties and looking for a life after release. *Nordic Studies on Alcohol and Drugs*, 29(6), 589–604. <https://doi.org/10.2478/v10199-012-0049-0>

- Gottschalk, P. (2011). Police misconduct behaviour: An empirical study of court cases. *Policing: A Journal of Policy and Practice*, 5(2), 172–179. <https://doi.org/10.1093/police/par019>
- Granér, R. (2017). Literature on police reforms in the Nordic countries. *Nordisk politiforskning*, 4(2), 138–148. <https://doi.org/10.18261/issn.1894-8693-2017-02-03>
- Guðjónsson, G. (2003). *The police: A historic sketch*. The National Commissioner of the Police. <https://web.archive.org/web/20140108185323/http://www.logregla.is/upload/files/RLS280504.pdf>
- Hansson, J., Borglund, E., & Ander, M. (2021). Polisiär konflikthantering: Polisens kunskap, lärande och förmåga kopplat till det taktiska kunskapsområdet. Polisutbildningens skriftserie nr. 13. Umeå Universitet. 1–23. <https://www.divaportal.org/smash/get/diva2:1613633/FULLTEXT01.pdf>
- Haller, M. B., Solhjell, R., Saarikkomäki, E., Kolind, T., Hunt, G., & Wästerfors, D. (2020). Minor harassments: Ethnic minority youth in the Nordic countries and their perceptions of the police. *Criminology & Criminal Justice*, 20(1), 3–20. <https://doi.org/10.1177/1748895818800744>
- Haraholma, K. (2011). *Poliisin hallintorakenne uudistus: arviointitutkimus muutoksista ja sen vaikutuksista* [Police management restructuring: An evaluation study of changes and its effects]. Poliisiammattikorkeakoulun raportteja 97. Tampere: Juvenes Print.
- Haraholma, K., & Houtsonen, J. (2013). Restructuring the Finnish police administration. In N. R. Fyfe, J. Terpstra, & P. Tops (Eds.). *Centralizing forces? Comparative perspectives on contemporary police reform in Northern and Western Europe*. Eleven International Publishing
- Hendy, R. (2014). Routinely armed and unarmed police: What can the Scandinavian experience teach us? *Policing: A Journal of Policy and Practice*, 8(2), 183–192. <https://doi.org/10.1093/police/pau012>
- Holgerson, S. (2018). *Justitieministern: "Sätta hårt mot hårt": en studie av polisens användning av våld och förmåga att hantera konflikter*. <https://www.diva-portal.org/smash/get/diva2:1269617/FULLTEXT01.pdf>
- Holmberg, L. (2004). Policing and the feeling of safety: The rise (and fall?) of community policing in the Nordic countries. *Journal of Scandinavian Studies in Criminology & Crime Prevention*, 5(2), 205–219. <https://doi.org/10.1080/14043850410010702>
- Holmberg, L. (2014). Scandinavian police reforms: Can you have your cake and eat it, too? *Police Practice and Research*, 15(6), 447–460. <https://doi.org/10.1080/15614263.2013.795745>

- Holmberg, L. (2019). Continuity and change in Scandinavian police reforms. *International Journal of Police Science & Management*, 21(4), 206–217. <https://doi.org/10.1177/1461355719889461>
- Hyeyoung, L., & Lee, H. (2015). The effects of supervisor education and training on police use of force. *Criminal Justice Studies*, 28(4), 444–463. <https://doi.org/10.1080/1478601X.2015.1077831>
- Høigård, C. (2011). Policing the north. *Crime and Justice*, 40(1), 265–348.
- Inzunza, M., & Wikström, C. (2020). European police recruits' views on ideal personal characteristics of a police officer. *Policing and Society*, 30(10), 1243–1262. <https://doi.org/10.1080/10439463.2019.1685514>
- Jackson, J., Huq, A. Z., Bradford, B., & Tyler, T. R. (2013). Monopolizing force? Police legitimacy and public attitudes toward the acceptability of violence. *Psychology, Public Policy, and Law*, 19(4), 479–497. <https://doi.org/10.1037/a0033852>
- Jahnsen, S. O. (2018). Scandinavian approaches to outlaw motorcycle gangs. *Trends and Issues in Crime and Criminal Justice*, 543, 1–15. <https://search.informit.org/doi/10.3316/ielapa.576850915218076>
- Kammersgaard, T., Søgaaard, T. F., Haller, M. B., Kolind, T., & Hunt, G. (2021). Community policing in Danish “ghetto” areas: Trust and distrust between the police and ethnic minority youth. *Criminology & Criminal Justice*. <https://doi.org/10.1177/17488958211017390>
- Karp, S., & Stenmark, H. (2011). Learning to be a police officer: Tradition and change in the training and professional lives of police officers. *Police Practice and Research*, 12(1), 4–15. <https://doi.org/10.1080/15614263.2010.497653>
- Klement, C. (2019). Outlaw biker violence and retaliation. *PLoS ONE*, 14(5), 1–27. <https://doi.org/10.1371/journal.pone.0216109>
- Kääriäinen, J. T. (2007). Trust in the police in 16 European countries: A multi-level analysis. *European Journal of Criminology*, 4(4), 409–435. <https://doi.org/10.1177/1477370807080720>
- Kääriäinen, J., & Siren, R. (2011). Trust in the police, generalized trust and reporting crime. *European Journal of Criminology*, 8(1), 65–81. <https://doi.org/10.1177/1477370810376562>
- Liljegren, A., Berlin, J., Szücs, S., & Höjer, S. (2021). The police and ‘the balance’—Managing the workload within Swedish investigation units. *Journal of Professions and Organization*, 8(1), 70–85. <https://doi.org/10.1093/jpo/joab002>
- Loftus, B. (2009). *Police culture in a changing world*. Clarendon Studies in Criminology.

- Martin, S. E. (1999). Police force or police service? Gender and emotional labor. *The Annals of the American Academy of Political and Social Science*, 561(1), 111–126. <https://doi.org/10.1177/000271629956100108>
- McElvain, J. P., & Kposowa, A. J. (2008). Police officer characteristics and the likelihood of using deadly force. *Criminal Justice and Behavior*, 35(4), 505–521. <https://doi.org/10.1177/0093854807313995>
- “Mennta- og starfsþróunarsetur Lögreglunnar”. (2022). <https://menntaseturlogreglu.is/english/>
- Moffat, K. (2018). Race, ethnicity and gang violence: Exploring multicultural tensions in contemporary Danish cinema. *Scandinavian Canadian Studies*, 25, 136–153. https://scancan.net/master_vol_25.htm
- Nelson, P. (2015). *Violent and property crime trends: Local and international comparisons* (Bureau Brief, Issue Paper, 109).
- Oddsson, G., & Bragason, O. (2020). *Police research in Iceland*. In *Nyhetsbrevet för det Nordiska polisforskningsnätverket*. Nordiska polisforskningsnätverket.
- Oddsson, G., Hill, A. P., Bjarnason, Þ., Bragason, Ó. Ö., & Ólafsson, K. (2020). Iceland as a microcosm of the effects of educational reforms on the social background of police students. In T. Bjørge & M.-L. Damen (Eds.), *The making of a police officer: Comparative perspectives on police education and recruitment* (pp. 81–95). Routledge.
- Olsen, H. (2017). Open drug scenes and police strategies in Oslo, Norway. *Journal of Scandinavian Studies in Criminology and Crime Prevention*, 18(2), 141–156. <https://doi.org/10.1080/14043858.2017.1388028>
- OSCE, Organization for Security and Co-operation in Europe. (2022a). *Country profile: Denmark*. <https://polis.osce.org/country-profiles/denmark>
- OSCE, Organization for Security and Co-operation in Europe. (2022b). *Country profile: Finland*. <https://polis.osce.org/country-profiles/finland>
- OSCE, Organization for Security and Co-operation in Europe. (2022c). *Country profile: Norway*. <https://polis.osce.org/country-profiles/norway>
- OSCE, Organization for Security and Co-operation in Europe. (2022d). *Country profile: Sweden*. <https://polis.osce.org/country-profiles/sweden>
- Paoline, E. A., III., & Terrill, W. (2007). Police education, experience, and the use of force. *Criminal Justice and Behavior*, 34(2), 179–196. <https://doi.org/10.1177/0093854806290239>
- Police of Finland, Poliisi. (2022, February 21). *About the police*. <https://poliisi.fi/en/about-the-police>
- Polisen. (2022). Retrieved February 21, 2022, from <https://polisen.se/jobb-och-utbildning/bli-polis/>

- Politi Hogskolen. (2022, February 21). <https://www.politihogskolen.no/om-oss/>
- Ralphs, R., & Smithson, H. (2015). *European responses to gangs*, 520–537. <https://doi.org/10.1002/9781118726822.ch28>
- Renå, H. (2016). *Nærpolitireformen. Politiansatte og lederes vurdering av dagens situasjon og forventninger til reformen* [The community police reform police employees and managers' assessment of the current situation and expectations of the reform]. Universitetet i Bergen.
- Rydberg, J., & Terrill, W. (2010). The effect of higher education on police behavior. *Police Quarterly*, 13(1), 92–120. <https://doi.org/10.1177/1098611109357325>
- Saarikkomäki, E., Haller, M., Solhjell, R., Alvesalo-Kuusi, A., Kolind, T., Hunt, G., & Burcar, V. (2020). Suspected or protected? Perceptions of procedural justice in ethnic minority youth's descriptions of police relations. *Policing and Society*, 31(4), 383–401. <https://doi.org/10.1080/10439463.2020.1747462>
- Schclarek Mulinari, L., & Keskinen, S. (2020). Racial profiling in the racial welfare state: Examining the order of policing in the Nordic region. *Theoretical Criminology*. <https://doi.org/10.1177/1362480620914914>
- Sigurðsson, J. F., Guðjónsson, G. H., Einarsson, E., & Guðjónsson, G. (2006). Differences in personality and mental state between suspects and witnesses immediately after being interviewed by the police. *Psychology, Crime and Law*, 12, 619–628. <https://doi.org/10.1080/10683160500337808>
- Solhjell, R., Saarikkomäki, E., Haller, M. B., Wästerfors, D., & Kolind, T. (2019). “We are seen as a threat”: Police stops of young ethnic minorities in the Nordic countries. *Critical Criminology*, 27(2), 347–361. <https://doi.org/10.1007/s10612-018-9408-9>
- Stassen, R., & Ceccato, V. (2021). Police accessibility in Sweden: An analysis of the spatial arrangement of police services. *Policing: A Journal of Policy and Practice*, 15(2), 896–911. <https://doi.org/10.1093/police/paz068>
- Staubli, S. (2017). European perspective: East, West, and Switzerland compared. In *Trusting the police: Comparisons across Eastern and Western Europe* (pp. 89–140). Transcript Verlag.
- Stevnsborg, H. (2019). Nordic police cooperation. *The development of transnational policing* (pp. 100–117). Routledge.
- Swedish National Council for Crime Prevention. (2018). *Nationella trygghetsundersökningen 2016: Om utsatthet, trygghet och förtroende* (Report 2018:1). National crime survey 2018. Victimization, fear of crime, and trust.

- Terrill, W., & Reisig, M. D. (2003). Neighborhood context and police use of force. *Journal of Research in Crime and Delinquency*, 40(3), 291–321. <https://doi.org/10.1177/0022427803253800>
- Thomassen, G. (2002). Investigating complaints against the police in Norway: An empirical evaluation. *Policing and Society*, 12(3), 201–210. <https://doi.org/10.1080/10439460290018445>
- Thomassen, G., Strype, J., & Egge, M. (2014). Trust no matter what? Citizens' perception of the police 1 year after the terror attacks in Norway. *Policing: A Journal of Policy and Practice*, 8(1), 79–87. <https://doi.org/10.1093/police/pat032>
- University of Akureyri. (2022). *Police science for prospective police officers*. https://ugla.unak.is/kennsluskra/index.php?tab=nam&chapter=namsleid&id=640133_20216&kennsluar=2021
- United Nations Office on Drugs and Crime. (2018). <https://www.unodc.org/unodc/en/data-and-analysis/crime-and-criminal-justice.html>
- Visser, M., Scholte, M., & Scheepers, P. (2013). Fear of crime and feelings of unsafety in European countries: Macro and micro explanations in cross-national perspective. *Sociological Quarterly*, 54(2), 278–301. <https://doi.org/10.1111/tsq.12020>
- Von Hofer, H. (2005). Crime and reactions to crime in Scandinavia. *Journal of Scandinavian Studies in Criminology and Crime Prevention*, 5(2), 148–166. <https://doi.org/10.1080/14043850410000848>
- Vuorensytjä, M. (2014). Organizational reform in a hierarchical frontline organization: Tracking changes in stress and turnover intention during the Finnish police reform years. *Policing: An International Journal of Police Strategies & Management*, 37(4), 858–874. <https://doi.org/10.1108/PIJPSM-05-2014-0058>
- Walker, S., & Katz, C. M. (2012). *The police in America*. McGraw-Hill.



Leadership as a Mental Shield: How Leaders of Specialised Police Units Can Promote Inner Resilience and Mental Stability

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Strategic analyses of individual, social, and living environment challenges frequently identify volatile, uncertain, complex, and ambiguous (VUCA) domains and dimensions that complexify attempts at situational modelling and prediction (Mack et al., 2015). Dealing with VUCA environments and scenarios requires leadership approaches that recognise the current and emerging threats of international terrorism, dynamic changes in crime situations, and security risks that create

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increased demands on specialised police units (SPUs) and special forces (SFs). In this light, the 2016 shootings at Munich's Olympia shopping centre can be considered a turning point.¹ This event made it clear that modern police work is often confronted with new operational scenarios that go beyond previously recognised hazards and threat levels. Operational activity is associated with significantly increased risks, expanded circumstantial dynamics, and, frequently, difficult aspects of agent attribution. These variables incur higher demands on the decision-making and (cognitive and behavioural) resilience skills of operators and leaders, which increasingly require both tactical as well as cognitive-behavioural adaptability and adaptation.

In this chapter, we focus on specialised police units that are frequently confronted with these operational challenges. These units' special resources and leadership processes can—and we posit should—be iteratively developed to remain apace with, and sustain a response to, these operational environmental challenges. The chapter is based on prior work that investigated how leaders of high-performance teams promote the mental resilience and performance of their employees. Team leaders of SPUs/SFs were consulted in expert interviews. They included the command leader of the Bavarian USK,² the command leader of the Southern Bavarian MEK,³ and the command leader (B1) and deputy command leader (B2, mental trainer) of the Southern Bavarian SEK/SWAT.⁴ A perspective from teams in other sectors is provided by interviews with a civilian special task pilot/flight instructor, an emergency physician working on a rescue helicopter, and a mental health and performance trainer for emergency medical teams. The results of this study

¹ On 22 November 2016, 10 people were killed and 36 injured. The situation was challenging because of demanding information management and dynamic / non-transparent developments.

² The Special Arrest and Evidence Public Order Unit of the German Police. It works mainly in situations with increased risk potential such as demonstrations, football matches, and combating organised crime. It also supports SWAT units.

³ The Mobile Surveillance and Arrest Unit of the German Police SFs. Its main tasks are undercover observation and arrests in, especially, mobile situations with high danger. It supports SWAT units.

⁴ The Special Weapons and Tactics Unit of the German Police SFs. It is responsible for cases of particular danger such as counter-terrorism, hostage rescue, and raids, especially if the opponent is heavily armed or barricades himself in.

were initially published in modified form in the journal *TAKTIK + MEDIZIN* (Jäger & Kohls, 2021), and subsequently in the *Springer Handbook of Police Psychology* (Jäger & Kohls, in press for 2023a).

1 Initial Problem: Holistic Hazards

Studies have shown that high mental stress is a common constituent of police work (Reif et al., 2018). An international systematic review has reported that such stress can lead to the significant impairment of the physical and mental health of police personnel (Kapade-Nikam & Shaikh, 2014). The manifest effect(s) of stress can impair mental and operational skills. For example, Baldwin and colleagues (2022) demonstrated that 27% of participants made at least one stress-induced potentially “fatal” error during simulated police interventions. Law enforcement officers (LEOs) are considered to be an at-risk population for experiencing traumatic events because of their job, and the estimated lifetime prevalence of post-traumatic stress disorder (PTSD) has been reported to be approximately 60–90% (Darius et al., 2014). In LEO populations, the global prevalence of depressive disorders is 14.6%; for PTSD 14.2%; generalised anxiety disorders 9.6%; suicidal ideation 8.5%; and risky alcohol consumption 25.7% (Syed et al., 2020). Potentially traumatic experiences include threats to someone’s life (and health), and threats to self-identity (e.g., basic trust, self-image/worldview) (Krampl, 2007), the latter being inclusive of conflicts of values (i.e., moral injury) (Litz et al., 2009).

The German Federal Police addresses hazards incurred in life-threatening situations through “internal training”, which is integrated in the education of police officers. Three psychoeducational teaching units (modules) are aimed at fortifying preventive mental, social, and ethical-moral skills. Each module addresses specific hazards. Participants are then taught coping strategies, which enable them to recognise and control symptoms of performance failure, so as to maintain security of action via stability in perceiving, thinking, emoting, and behaviour (Zihn, 2022). Such training is specifically aimed at (1) reducing the experience of powerlessness and lack of control that are considered to

be highly trauma-engendering (Krampl, 2007); and (2) enhancing a perceived sense of control and self-efficacy that have a strongly cognitive and emotional protective effect (Lasogga & Gasch, 2011). As Zihn mentions, the *internal training* first explains potentially distressing and pathogenetic increasing factors (Zihn, 2022):

- **Module (1) “Sharpened conscience”: ethical-moral constitution.** Both the necessity and affordance of massive violence can harm one’s inner moral authority and impair one’s ability to act conscientiously and mindfully—even if the action ensures security, (self-)protection, and survival. Before the application of violence, it is possible to experience scruples; afterwards feelings of remorse and even self-hate may be encountered.
- **Module (2) “Unbending spirit”: ability to perform and act.** The well-known Yerkes-Dodson law illustrates the interplay between stress and performance in a reversed U-curve. On statistical average, a medium stress level leads to the highest performance, while both under- and overstrain cause a drop in performance. The module explains the signs of optimal performance, potentially leading to flow states, as well as acute stress and stress-related symptoms of failure, which can lead to an inability to act and mental overload.
- **Module (3) “Cooperative attitude”: social cohesion.** In dangerous situations, individuals tend to cooperate, act collectively, and bond in “hazard communities”. This is well known as the “tend and befriend” behavioural pattern in evolutionary social biology. However, if relations are becoming too cohesive, then group-thinking and lack of attention in individual decision-making as well as fraternising might occur. Nevertheless, as a breakdown of group cohesion would also potentially jeopardise the achievement of goals and effectiveness, a balanced group dynamic is warranted.

2 Implications—and Possible Indications—for SPUs/SFs

We posit that such a program could be of significant benefit and value to SPUs/SFs, given these teams' stress exposure, both on an individual and group/collective level. SPU/SF operations are stress-intensive due to the violent nature of their engagement(s), high risk, complexity, unpredictable changes in situation(s), time pressure, short preparation time, requirements of complex information management (often in low informational settings), and high pressure of responsibility due to the necessity for rapid, momentous decisions and action(s) (Jäger & Kohls, 2021; Massenbach-Bardt, 2008; Pawlowsky, 2008). The greatest mental strain can be triggered by severe incidents and accidents incurring the injury or death of colleagues. Such stress may be amplified by demanding environmental conditions, conflicts in professional and/or private life, and low tolerance for error. To this last point, continuous striving for mission success, which is typical for the law enforcement profession, can cause perseverant reflecting and demand for (self-)improvement, which can foster feelings of personal dissatisfaction. Further, when performance expectations and pressure(s) are met with inadequate reinforcement and reward, gratification crises can be incurred. This perceived imbalance between commitment and anticipated results can cause motivational and moral incongruence, thereby increasing the risk of burn-out (Kaluza, 2018).

A study by Knesebeck et al. (2005) found that gratification crises were a major cause of stress for SPU/SF officers in Germany. In addition, there are significant correlations between organisational and psychological stressors among LEOs (Purba & Demou, 2019). This has also been shown for German and Italian SPU/SF teams, wherein some organisational and administrative characteristics (e.g., lack of control over the organisation of work), influence mental health more strongly than stress factors associated with the operational activities and tasks (Garbarino et al., 2013; Knesebeck et al., 2005). Although SPU/SF officers seem to be more resilient than their colleagues in the “default patrol duty” police service, their work is characterised by chronic stress and more frequent exposure to potentially traumatic events (Andersen et al., 2015). In this

light, preventive measures for fortifying cognitive and mental health skills should be warranted as preventive strategies (Garbarino et al., 2013). A particular challenge for SF and air rescue teams arises from their *last resort* roles in operational situations. Awareness of the relative finality and critical dependence of their role certainly contributes to unit *esprit de corps*, and individual motivation and confidence, but it can also increase the pressure to perform, causing stress and influencing the psychophysiological capacity for performance. To be sure, enduring more stress than others is a profession-inherent demand of SF teams. Thus, sustaining robust unit morale and a capable self-image of individual operators must be viewed as key variables in both the cognitive/behavioural/mental health of individual personnel, and the overall performance of the unit(s) and team(s). A role-ideal oriented toward stereotypes of the helping, rescuing, and fighting “hero”, characterised by classic attributional values such as loyalty, power, independence, and strength, can, in part, represent a stress-reducing reaction to risks and demands (Pieper & Maercker, 1999). According to Pieper and Maercker, such a mentality can become psychologically problematic if it becomes the sole self-image and causes (1) reduced awareness of individual vulnerabilities and volatilities; (2) decreased recognition of decremented health and capability; (3) aversion to clinical intervention; and (4) increased risk of self-injurious behaviours (e.g., substance abuse, behavioural excesses, and/or suicidality).

3 Protecting Strategies Enabled by Leadership Behaviour

Leaders can have significant influence on the cognitive/emotional state(s) of those in their charge. This may be particularly true in risky work environments, in which leaders should provide psychological security and promote cognitive and physical factors to foster both the relative reality and perceived sense of protection of, and for, those they lead. Police personnel management often places considerable emphasis on developing and articulating a caring and cooperative leadership style. Promoting trusting mutual interaction with each other, seeking collegial

support, and facilitating knowledge transfer are leadership elements that are considered to be highly effective in reducing stress (Purba & Demou, 2019).

Major Health-Promoting Protection Concepts

Research in salutogenesis (i.e., from the Latin for *the creation/fostering of health*) does not focus upon the pathogenetic perspective. Rather than seeking to cure diseases and reduce related risk factors, the emphasis is upon health-relevant variables, and the promotion of those protective practices and resources that engender individual and group health, despite situational/circumstantial adversity (Antonovsky, 1997). Three core concepts, *resilience*, *coherence*, and *hardiness*, are regarded as key resistance factors. *Resilience* (“mental fitness”) describes the ability to return to a robust initial state after stressful events (Maercker, 2013). This is of particular relevance to emergency personnel, who must often develop greater capacities for resilience, as reflective of the situational stressors of their work ecology (Lasogga & Gasch, 2011). Exemplary of this, resilience training among Finnish SF officers (Andersen et al., 2015) and American soldiers (Lewis et al., 2015) elicited robust stress-reduction, which was shown to be effective, at least in part, in affording protection from (various forms of) trauma. High scores in the sense of *coherence* were found to be empowering in dealing with adverse life events, thereby helping individuals to more effectively cope with—and find positive recuperative meaning in—adversity (Eriksson & Mittelmark, 2017; Maercker, 2013). Also the personality construct, *hardiness* (the “Four Cs” of commitment, control ability, challenge, and connectedness; Reif et al., 2018), has been shown to be associated with higher job satisfaction, better performance, and more effective stress management. Of interest in this regard is that soldiers evidencing high hardiness scores tend to show on average fewer PTSD symptoms (Bartone, 2006). A high level of hardiness is associated with increased *situational awareness*, which is influential in information processing, decision-making, and perception of critical elements essential to understanding current, and correctly anticipating future, events (Endsley, 2000).

Flow experience also has been shown to foster stress-reducing effects, as individuals can optimize concentration, even in high-stress situations, thereby engaging maximum ability to guide with intuitive certainty an action (Csikszentmihalyi, 2000). The ability to experience flow states has been significantly correlated to subjective feelings of well-being, sense of control, and sense of coherence (Juen et al., 2009). Various training methods have been demonstrated to reduce mental workload; among these are police-specific situation awareness training (Saus et al., 2006) and biofeedback-mediated learning of stress reduction techniques and processes (Arnetz et al., 2009; Chan, 2010). There is also evidence supporting the positive (cognitive, emotional, and performance) effects of mindfulness and relaxation training. Studies have noted that these skills can (1) afford notable measure(s) of protection against depression and PTSD; (2) promote improved self-regulation in stressful situations; and (3) learn and sustain personality-based features of resilience (Büssing et al., 2013).

Leadership Style and Interaction

The leadership style in SPU/SF units is often caring, cooperative, transparent, participative, team-oriented, and grants considerable latitude for action based on communicated guidelines. A strong trust-promoting factor is the open, direct, constructive, error solution-oriented culture (Mistele, 2007; Pawlowsky, 2008). Leaders are inculcated to consciously integrate themselves in the team enterprise, stand by their own mistakes in debriefings, and show the ability to forgive: “We solved this together and that’s it” (SEK/SWAT, B2). Through active decision-making and clear instructions, leaders convey predictability, security, and certainty of action to team members. In addition, they explain authoritative decisions transparently in order to avoid breaches of trust (Fuchs & Sackmann, 2019; Jäger & Kohls, 2021; Massenbach-Bardt, 2008).

A current approach is based on the concept of *mindful(ness) leadership* (Rupperecht et al., 2019; Sauer & Kohls, 2011). Mindfulness is defined as a present, preferably value-free, unfiltered perception (i.e., of people, situations, or events) with reflected evaluation and absent

of an immediate, unconscious behavioural reaction. This approach has been shown to improve stress management skills and enable constructive reactions, clear thinking, and innovative perspectives (Sauer et al., 2011). Mindful(ness)-based leaders place great emphasis on considering personnel matters individually, without prejudice. In addition, they frequently apply the *Harvard concept*,⁵ which involves a stress-reducing, trust-promoting separation between personal and objective levels of insight, which can be colloquially summarized as: “hard on the subject, soft on the people” (MEK). In this model, mutual team interactions are transparent, direct, authentic, amiable, and caring, but are nonetheless critical toward being positively constructive via communication. This communication pattern is developed through an authentic, honest culture of informational exchange, which fosters sustained trust. Supervisors maintain close team contact, are available for trust-based, emotion-regulating informal discussions, and are responsible for initiating such engagement(s).

Such ongoing and reliable close interaction (e.g., in the form of team checks, regular meetings, and conversations with intermediate team leaders) helps recognition and counterbalancing team member overload (often in a pre-emptive way). Toward such pre-emption, the most important warning signs are behavioural, emotional, physical, or rhetorical deviation from habitual individual action patterns; yet recognition of such variances require that team members know each other well. Thus, it is particularly advantageous if leaders have specific knowledge about their team members’ usual perception and behavioural habits. For this, their own experience in the job environment is helpful: “I put myself [...] in the people’s shoes, [...] that’s our big advantage [...] that we were also operational officers ourselves. We’ve known the crew [...] long enough, we know what the guys need” (SEK/SWAT, B1). This fortifies trust, acceptance, and enables improved understanding of stress (its causes and effects), which is a vital first step toward fostering openness and the

⁵ Considered as a principle of negotiation. The founder is Fisher et al. (2018).

viability of preventive or mitigative care (Fuchs & Sackmann, 2019; Jäger & Kohls, 2021). The behaviour is reminiscent of the Johari window (Luft & Ingham, 1955), which can afford insight into appreciating other perspectives and illuminate unknown, interpersonal facets.

Trust and Social Capital

Fundamental to the basis of a health-promoting leadership style is sustained mutual trust. This is created through participative, transparent, and personality-focused team-building. This should commence at the beginning of an individual career trajectory (Massenbach-Bardt, 2008) and be perpetuated through team selection and integration processes, to conjoin physiological and psychological domains of teamwork. Through intensive temporal (e.g., daily routines and operations) and spatial (e.g., vehicular, environmental) recognition, accommodation, and cooperation, the sharing of experiences and respective (high-risk) activities become instrumental in establishing and sustaining a solid and resilient *hazard community*. Collegiality of, and in, a strongly trustworthy community becomes increasingly important for coping with stress as work ecologies become ever more risky/dangerous. The so-called *cop culture* conveys security and becomes set apart from the formal organisational *police culture* (Behr, 2008).⁶ There is evidence of strong links between high social capital with good peer support and reduced mental and/or traumatic stress (Gächter et al., 2010; Syed et al., 2020), whereas lack of support and a poor team climate are risk factors for decremented mental health (Garbarino et al., 2013). SPU/SF teams, in particular, evidence a loyalty-based, homogeneous, performance-oriented, individualistic, and freedom-favouring informal subculture, which is oriented toward group-inherent norms and rules (Massenbach-Bardt, 2008). The resulting sense of cohesion has been shown to be highly effective in managing risks, and is therefore regarded as a significant, beneficial

⁶ In symbiotic addition to the formal police culture, which is oriented on rules and guiding principles, the informal cop culture takes account of the demands of the working officers on the street. For the practical accomplishment of tasks, it is characterised by creative, efficient, unbureaucratic patterns of action (Behr 2008).

element in trauma processing (Juen et al., 2009). In this way, the loyal bonds of the “SF family” (SEK/SWAT, B1) significantly strengthen coherence and team resilience. In this light, tendencies and noted characteristics of being a team player are considered as important aspects (and explicit requirements) for SPU/SF teams, in which the construct and dynamics of a team are valued as a fundamental, valued resource (Fuchs & Sackmann, 2019; Massenbach-Bardt, 2008).

Essential to these team dynamics and functionality is social support (Behr, 2008), which serves to strengthen confidence in action, trust, and enjoyment of challenge. Collegial briefings and debriefings should address emotional content, and in this way have trauma-protective effects. Team-internal self-regulation functions well, and leaders often offer their support, but only intervene when direct help is requested, and initially granting the teams guideline-based freedom in self-monitoring and self-regulation. To wit: “[A] healthy group structure absorbs a lot” (USK). Basic prerequisites for stress-protective, effective group coherence are high communication skills (and engagement), trust, self-reflective perception of mental states, and an honest confrontation with one’s own vulnerability. To prevent the positive-protective *esprit de corps* from degrading into negative-dysfunctional fraternisation-prone corps spirit, it is necessary to reflect on team solidarity as a “method and tool” for coping with stress. This can be achieved by providing leisure time during which the cognitive and emotionally stabilising influence of family and friends can complement intra-organisational bonds. For example, in the third module of *internal training*, participants get a feeling for how to achieve optimal group dynamic cohesion, manage camaraderie, and avoid extreme group states (Zihn, 2022).

This is especially important because leaders of cohesive teams in high-stress ecologies face two major challenges when considering and engaging social capital. First is the need to support cohesion and team resilience, and second is the concomitant responsibility to prevent drift toward bonding behaviours that are associated with inflexible attitudes and negative group-thinking. Leading high-performance teams demands ongoing consideration of the robust performance expectations and self-demands of both constituent individuals and the group at large. Toward these aims, leaders may need to consciously inhibit job-typical striving

for perfection, recognise the need for rest and reflection phases, and exemplify a culture of imperfection tolerance (to include acceptance of fallibility, and constructive assessment and acceptance of idiosyncratic and collective performance limits).

A balancing effect can be achieved by conveying acceptance of the more uncontrollable aspects of life, and respectful humility toward the self-image of being a professional service provider working in extreme and hostile settings. These acceptance dynamics have been shown to buffer what has become colloquially referred to as the “alpha-male mentality” by cultivating detachment from the “alpha” stereotype, and by deepening positive emotional components (e.g., humility, service, relative effacement of self-interest) of the role image (Pieper & Maercker, 1999). These elements do not denigrate professional ideals, but rather enrich the professional self-image with health-promoting facets. While this may be (mis-)construed as anathema to the ideals of strength and capability, awareness and admission of task determination in the face of vulnerability should be regarded as prototypical of virtuous bravery (i.e., versus simple “fearlessness”). To be sure, these attitudes increase willingness to accept and deal with physical as well as psychological vulnerability, and in this recognition enables a less rigid self-image that is more flexible and open to seeking and utilising preventive as well as reparative measures and practices.

Standards, Anticipation, Flexibility, and Psychophysiological Disposition

Cognitive, emotional, and physical anticipation of tactical as well as more strategic burdens, risks, and threats affords powerful preventive measures against mental and physiological effects of the stressors of the SPU/SF operational work environment (Jäger & Kohls, 2021; Misteel, 2007). Emotional anticipation is especially helpful for preparing for and processing complex events before they occur, thereby providing readiness for both anticipated and surprise events (inclusive of one’s own emotional responsivity and resulting behaviour) so as to enable, convey, and maintain security. Similarly, it is vital—as implemented in the first module

of *internal training*—to learn how to protect (oneself and colleagues) against possible psychological crisis reactions that can occur after the use of force, so that professional moral authority can be leveraged to comprehend and legitimise the justified, appropriate use of force (Zihn, 2022).

Among SPU/SF teams, self-congruent behaviours based on core values are a noted characteristic of mindful(ness) leadership (Sauer et al., 2011), which protect against conflicts of conscience and the inability to act. When making difficult decisions, mindful leaders are guided by an inner moral compass that is reflective of stable ethical principles. Structures, standards, and routines are also important to maintain security of action, reduce stress, and enable cognitive resources (Karutz, 2013; Mistele, 2007) that have been shown to protect against psychological stress. However, standards and heuristics can also incur cognitive fixation errors; and therefore expedient, but nonetheless effective and efficient, mindful reflection in decision-making is important to situationally flexible operational reactions (Fuchs & Sackmann, 2019; Jäger & Kohls, 2021; Massenbach-Bardt, 2008). Methods of mindfulness, self-reflection, and changing perspectives are helpful in this regard (Kaluza, 2018; Sauer et al., 2011).

The relatively demanding balance of structure, anticipation, and flexibility is often demonstrated in the appropriation of risk-dealing behaviours, as when considered to be optimal for the performance of the activity in differing settings, contexts, contingencies, and exigencies. For example, public order police officers (USK) tend to deal with low risks in something of a “sporty” manner, whereas engagements of high(er) risks—in other police-SF and air rescue units—tend to be more strongly anticipatory. They are characterised by cognitive compartmentalising as focal to the setting, situations, changing conditions, and gravity of the actions and outcomes involved. In such a focused, cognitive “flow state”, increased perceptual abilities enable greater flexibility to react to situational changes (Mistele, 2007) in ways that evoke positive stress activation (“Sensation–Seeker–Kick”); this is particularly the case in circumstances in which the consequences of decisions and actions are profound (Csikszentmihalyi, 2000). Our ongoing work has shown the importance of personality factors and job requirements as relevant to

job satisfaction, stress stability, motivation, and—in combination with professional experience—the ability to act effectively and efficiently in professional operations. The research has demonstrated that mindful leaders view their job as supported by meaningfulness and appreciation and are driven by a value-based sense of justice and the will to help or protect others. Their reported intrinsic motivation was strongly oriented to achieve “something special” in both activity and results, which served to intensify the enjoyment of the job experience (Fuchs & Sackmann, 2019; Jäger & Kohls, 2021).

Character attributes and skills are significant in these domains, as key qualities enable maximum stress exposure (as constituent to the demands of the profession) with minimal adverse health effects. This alignment of personality traits, interests, values, and motivations to match professional requirements is called the “Job–Person–Fit”. Chang and colleagues (2018) have reported that, in the long-term, such personality dispositions are more effective—and occupationally stress-protective—than learned coping skills.

The voluntary willingness to take on physical dangers, profound experiences, and oppressive emotions with particular motivation is necessary for professional practice in SF and air rescue. Therefore, reflective affinity to the sensation-seeking (SeSe) attitude is characterologically (i.e., cognitively and emotionally) stress-protective. The SeSe attitude engenders seeking stimulating situations through complex, intense, new (“novelty seeking”) experiences, and a disposition for taking certain requirements, which may also be inclusive of a willingness to take on burdening emotions (“emotion motive”) (Zuckerman, 2008).⁷ Police and military personnel with high SeSe scores often choose operationally “risky” billets, and are more likely to apply for special assignments (Zuckerman, 2008).

Zihn (2022) notes that, to date, the *internal training* has attached little importance to the voluntary aspect (e.g., willpower, drive, self-optimisation, and courage), and posits that further developing these traits and skills would be advantageous for promoting and maintaining

⁷ Operationalised by *thrill and adventure seeking* (risky, exciting activities; e.g., driving a car fast), *experience seeking* (impressions; e.g., travelling, culture, spirituality), *disinhibition* (stimulation; e.g., through social activities such as parties, drinking, gambling, sexual contacts), and *boredom susceptibility* (rejection of routine and boredom).

resilience. In particular, an open, accepting—if not motivating—attitude toward risks, stress, uncertainty, and challenge has been shown to have stress-reducing effects, and increases job satisfaction in high-risk occupations (Scherrer, 2020). But here we urge some measure of caution and constraint; we advocate a controlled, graduated risk awareness, and a vigilant sensitivity to risk and threats, as vital to ensuring appropriate recognition, appreciation, and action(s) to mitigate occupational danger(s). Toward such ends, we endorse a combination of personal disposition, high willingness to perform, and job satisfaction, as illustrated by the interviewed emergency physician who verbalises the appealing, mentally stabilising effect of the SeSe-attitude: “It is quite clear ... that an emergency doctor from the helicopter ... has to do more demanding medicine. First, that scared me a little bit ... but at the same time I felt it as a challenge ... which also leads to these flow feelings Because only when I approach these challenges and am willing to take the risk and put myself in a borderline situation, then I feel this special joy in my work” (unpublished transcript without pagination).

Capacity to Act and Personality Growth through Experience

In high-performance occupations, the operational crucible makes it possible to learn about one’s own susceptibility to stress, and in response to strengthen conviction of control (Demont-Biaggi, 2020). In the research, SF professionals describe borderline experiences, in which they learn special skills and/or coping strategies and orient themselves towards experienced leaders, so that individual perceptions and reactions to stress gradually decrease to a point of regarding such stress as “normal” to the professional environment, and non-burdensome aspect of professional life. In this way, the proximity to stressful events can be useful to facilitate (post-)traumatic growth, as confronting and overcoming traumatic situations can have positive consequences, for example, serenity, personality development, appreciation of life, spiritual-religious awareness, efficient coping strategies, and confidence in one’s own strength

(Juen et al., 2009). Accordingly, it has been demonstrated that (most likely as a consequence of habituation) stress perception of police officers decreases in direct proportion to their seniority (Aquadro Maran et al., 2015). For such resilience-promoting development, it is essential to be mindful of one's own stress levels and to fortify stress resilience via realistic, operational exercises in order to develop a more valid appreciation of individual capabilities, vulnerabilities, and those domains of professional character that require fortification.

Crucial to training is learning how to recognise warning signals of (stress) overload, and which stress regulation techniques afford greatest protection to enable working as stably as possible in a state of optimal performance—this is taught in the second module of the internal training (Zihn, 2022). To achieve an active and reflected balance of stress states is the basic principle of resilience (Mistele, 2007). Ideally, team members should learn adaptive self-regulation strategies (e.g., self-talk, professional emotional distance, cognitive control) as well as recuperative techniques (e.g., leisure/sport and rest) as relevant to, and protective against, their individual experience(s) of overload (Jäger & Kohls, in press for 2023b). A special feature of high-performance teams is that members characteristically tend to exceed their own psychophysiological tolerances in a controlled manner. As a result, the point of perceived overload is shifted, and the resultant range of optimal performance is gradually increased. Thus, while mid-levels of stress are generally regarded as ideal best possible performance in accordance with the Yerkes-Dodson Law, in high performance teams *maximum* capability tends to be evoked by greater levels of stress (see Fig. 1).

This seems to significantly reduce the risk of developing stress-induced burnout. Due to shifted perceptions of stress, there is a general decrease in feeling over-burdened by operational factors, and occupational stressors are experienced in positive ways (e.g., excitement, confidence in action, concentration, potential enhanced experience of flow). This promotes a greater sense of internal self-efficacy and a correspondingly positive strong self-image. Through this process, and the habituation-effect(s) incurred, a high level of *personal mastery* can be achieved which is particularly helpful in the development of (mindful) leaders. Such

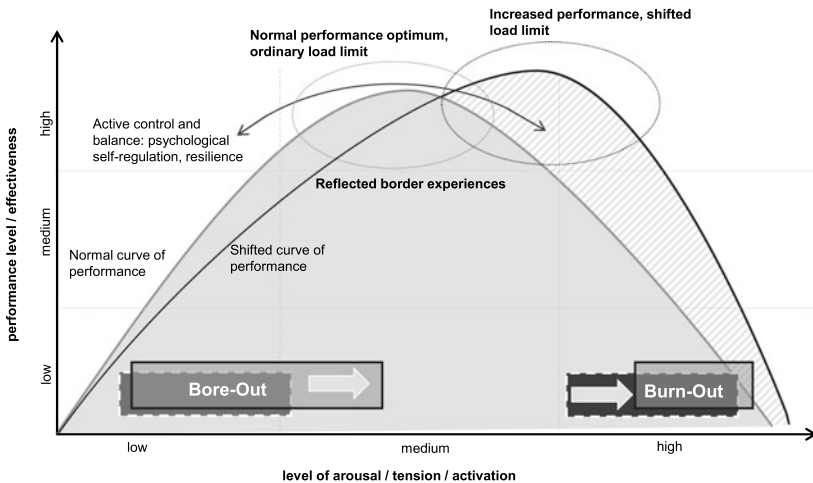


Fig. 1 Yerkes-Dodson law dimensions relevant to the shifting of mental stress limits (Figure created by authors, first published in Jäger and Kohls [2021]. Publication in this chapter with kind permission of TAKTIK + MEDIZIN)

leaders serve as role models by affording team members a sense of security, normality, orientation, and control through the provision of clear instructions based upon sound and efficient decisions. This leadership style is characterized by calmness, composure, and confidence.

When borderline experiences are consciously and reflectively engaged, and if one's own mental state is sensitively perceived and controlled, then the *shifting of the mental stress limit* becomes a lived form of self-regulation. This is the basis of self-leadership and an important component of health-promoting mentorship and supervision of high-performance teams. Given the tendency toward the SeSe attitude, it is not surprising that our research revealed that ordinary alerts usually do not trigger particularly motivating emotions in experienced SPU/SF teams and air rescue units' personnel. In contrast, complex, new, unusual, or difficult missions are perceived as stimulating, self-efficacy-enhancing experiences, with a high potential for professional "success". Important to this dynamic is a good job-person fit, so that the *shifting of the mental stress limit* is protective of mental health during active service, and the risk of burnout is lessened. But these activity-based protective factors

can in fact become risks in the absence of high-stress, high-motivational operations, and in this way can induce *bore-out* (i.e., occupational boredom, lethargy, and loss of professional vigour; see Fig. 1). This factor should also be considered after SF personnel leave active duty, as there is risk of feeling bored, meaningless, and lonely (absent the camaraderie of the unit/team). Therefore, advanced planning for post-career transition should be addressed in more encompassing biopsychosocial, rather than simply professional, contexts and terms by professional leadership, organizational support, and through individual reflection and planning.

In sum, a more comprehensive approach is needed to account for and address the demands of specialised police units. We propose that any such approach must additionally focus upon the coping and protective characteristic of *antifragility*. This is exemplified by a growth mindset in which cognitive and emotional robustness is fostered by stress and borderline experiences, such that (instead of inflexible control) a positive, open attitude toward risks and dealing with challenges supports sustainable stress-coping practices (Scherrer, 2020), both throughout and at the end of the professional career.

4 Conclusion

In SPU/SF teams, we posit that stress can be a stimulating component of job satisfaction, if personnel are (1) professionally and dispositionally fitted to their job; (2) accept challenges with positive motivation and reward; (3) are able to engage techniques and skills to work through stress; (4) shift mental stress limits as a dynamic of lifelong experiential learning; and (5) acquire and engage adaptive coping strategies that maintain a sense of security of action. Leaders have the influential task of providing mentorship, supervision, and support through their role modelling, conveying psychological security through leadership behaviour, and conjoining the personnel in their charge through reflective processing of experiences. Such mindful(ness) leadership should

reflectively promote and vigilantly balance resources for cognitive and emotional stability (e.g., trust, support, and connectedness) within the team they lead. These health-promoting resources are not mutually exclusive, but instead are reciprocally influential and can synergistically fortify protective and resilience-promoting capabilities.

Key Takeaways of the Chapter

The question of how much occupational cognitive, emotional, and physical burdens employers and society can demand from LEOs should prompt ongoing consideration of stress-triggering conditions in the profession, and the extent to which such conditions (and/or their resultant biopsychosocial effects) could be mitigated or prevented. To be sure, it is not possible to completely avoid stress exposure in SPU/SF teams. Hence, team leaders, decision-makers, and conflict managers must work cooperatively to prepare SPU/SF personnel through methods and programmes of primary, secondary, and tertiary prevention. Toward these ends, we propose the following recommendations.

Police Officers, Especially Team Leaders

- Targeted, scientific, evidence-based psychoeducation (e.g., about stress-related illnesses, psychophysiology of the stress experience, protective concepts) is a facile, effective, and efficient form of health promotion and protection. Specially trained psychoeducational experts and psychologists should be consulted to develop and execute realistic exercises that foster an antifragile perspective, so that professionally reflected experiences can contribute to the development and sustainment of healthy resilience in professional operational settings.
- Leaders should be aware of the direct influence they exhibit on the mental health of their personnel, and the health promotional responsibility they bear—both for their charges and for themselves as professionals and role models. Health-promoting leadership strategies should be developed, implemented, and be employed and adapted to foster and reflectively balance extant—as well as novel—protective factors, resources, and skills.
- Collegial exchange of best practice strategies should be undertaken with other teams acting in *last resort capacities*, e.g., air rescue, so as to (1) align coping strategies, (2) reflect on leadership actions so

as to fortify effective methods of training and operations, and (3) develop others anew, as needed. Instrumental to these goals is an increasing engagement of the ATLAS-Network's (the association of police SF units of Europe and associated states) resources and services for organisational development and psychoeducational training.

- Personnel should be educated, trained, and supported in individual reflection methods in order to enrich self-image and to address key factors of image-shift and vulnerability, both during and when approaching the end of the professional career. Toward these ends, it is important to balance career and life settings with extra-professional interests to find meaning and stability in extra-professional domains and dimensions.

Conflict Management Trainers (Coaches and Instructors)

- Conflict management trainers should recognise and address the challenges and requirements incumbent to SPU/SF operations and personnel. This requires sensitivity and attentiveness to the unique occupational demands of the profession, and the development of vigilant, morally stable personalities. Team leaders should be well-educated, trained, and thus prepared to engage in the demanding tasks of both the profession and the supervision and mentorship of its personnel.
- Important to addressing SPU/SF occupational stress is the need to recognise and respect cognitive and emotional development and practices, inclusive of mindful and attentional *shifting of the mental stress limit*, in ways that evidence has demonstrated to be beneficial to health, as relevant to preventing potential burn-out during the career. At the same time, more attention should be given to possible *bore-out* upon end-of-career transition.
- Issues such as social capital and cohesion should be considered for their protective effects as resilience factors, as well as the possible burdens and risks such factors may pose.
- There is a need for sensitivity for occupational fields with affinity for challenges and high levels of stress. Such sensitivity should respect the specific talents and/or vulnerabilities as pertinent to developing and sustaining resources required for fostering and maintaining health-promotional occupational practices.

Police Decision-Makers

- Innovative improvement processes should be implemented and enabled whenever necessary. We advocate coordinating knowledge in competence and analysis centres for operational situations for SF units. Such centres should focus upon operational circumstances and stressful influences, analyse these variables and extant gaps in organisational structure(s) and function(s), and bridge these gaps with aims toward promoting individual and collective anti-fragility and resilience, in anticipation of stress incumbent upon the profession and its evolving operations.
- Attention should be given to individual and collective personality traits to optimise a job-person fit in both personnel selection processes and training. Specifically, leaders should be selected according to their personal suitability and disposition.
- Programmes in health promotions and management should be developed for specialised staff. Such programmes should consider, address, and reflectively strengthen the inherent requirements, abilities, needs, and resources of high-performance teams.
- Adapted simulation/situational awareness/mindfulness/stress training for leaders and their personnel should be developed and provided in order to optimise health-promoting team leadership and operations.
- Leaders should be directly engaged in knowledge transfer to adjust foci and approaches to meet changing professional and operational contingencies and demands. The possible content of such education and training to confer knowledge and skills transfer should focus upon salutogenic (e.g., health promoting) factors and processes, including stress warning signals, resources, psychological protection concepts, soft skills, mindfulness, stress management, and (self)leadership.

References

- Andersen, J. P., Papazoglou, K., Koskelainen, M., Nyman, M., Gustafsberg, H., & Arnetz, B. B. (2015). Applying resilience promotion training among special forces police officers. *SAGE Open*.
- Antonovsky, A. (Ed.). (1997). *Forum für Verhaltenstherapie und psychosoziale Praxis: Vol. 36. Salutogenese: Zur Entmystifizierung der Gesundheit*. Dgvt-Verl.
- Aquadro Maran, D., Varetto, A., Zedda, M., & Leraci, V. (2015). Occupational stress, anxiety and coping strategies in police officers. *Occupational Medicine*, 65(6), 466–473.
- Arnetz, B. B., Navedal, D. C., Lumley, M. A., Backman, L., & Lublin, A. (2009). Trauma resilience training for police: Psychophysiological and performance effects. *Journal of Police and Criminal Psychology*, 24(1), 1–9.
- Baldwin, S., Bennell, C., Blaskovits, B., Brown, A., Jenkins, B., Lawrence, C., McGale, H., Semple, T., & Andersen, J. P. (2022). A reasonable officer: Examining the relationships among stress, training, and performance in a highly realistic lethal force scenario. *Frontiers in Psychology*, 12, Article 759132. <https://doi.org/10.3389/fpsyg.2021.759132>
- Bartone, P. T. (2006). Resilience under military operational stress: Can leaders influence hardiness? *Military Psychology*, 18, 131–148.
- Behr, R. (2008). *Cop culture - der Alltag des Gewaltmonopols: Männlichkeit, Handlungsmuster und Kultur in der Polizei* (2. Aufl.). VS Verl. für Sozialwissenschaften.
- Büssing, A., Walach, H., Kohls, N., Zimmermann, F., & Trousselard, M. (2013). Conscious presence and self control as a measure of situational awareness in soldiers—A validation study. *International Journal of Mental Health Systems*.
- Chan, J. (2010). *Heart rate variability biofeedback as an intervention method for reducing PTSD symptoms in police officers exposed to trauma* [Masterarbeit], University of Toronto.
- Chang, M.-C., Lee, T.-H., & Lung, F.-W. (2018). Personality characteristics of fighter pilots and ground personnel. *Military Psychology*, 30(1), 70–78.
- Csikszentmihalyi, M. (2000). *Beyond boredom and anxiety: The experience of play in work and games*. Jossey-Bass Publishers.
- Darius, S., Heine, J., & Böckelmann, I. (2014). Prävalenz von Symptomen einer Posttraumatischen Belastungsstörung bei Polizeibeamten in Bezug auf

- dienstspezifische Anforderungen. *Psychotherapie, Psychosomatik, medizinische Psychologie*, 64(9–10), 393–396.
- Demont-Biaggi, F. (2020). Authentische Führung in Extremsituationen. In E.-M. Kern, G. Richter, J. C. Müller, & F.-H. Voß (Eds.), *Einsatzorganisationen: Erfolgreiches Handeln in Hochrisikoorganisationen* (pp. 102–119). Springer Gabler.
- Endsley, M. R. (2000). Theoretical underpinnings of situation awareness: A critical review. In M. R. Endsley & J. Garland Daniel (Eds.), *Situation awareness analysis and measurement*.
- Eriksson, M., & Mittelmark, M. B. (2017). The sense of coherence and its measurement. In M. B. Mittelmark, S. Sagy, M. Eriksson, G. F. Bauer, J. M. Pelikan, B. Lindström, & G. A. Espnes (Eds.), *The handbook of salutogenesis* (pp. 97–106). Springer International Publishing.
- Fisher, R., Ury, W., & Patton, B. (2018). *Das Harvard-Konzept: Die unschlagbare Methode für beste Verhandlungsergebnisse* (1. Auflage, erweitert und neu übersetzt). DVA.
- Fuchs, J., & Sackmann, S. (2019). Führen von Spezialeinheiten in Krisensituationen. In S. Sackmann (Ed.), *Führung und ihre Herausforderungen: Neue Führungskontexte erfolgreich meistern und zukunftsfähig agieren* (pp. 115–125). Springer Fachmedien.
- Gächter, M., Savage, D. A., & Torgler, B. (2010). *The relationship between stress, strain and social capital*. University of Innsbruck.
- Garbarino, S., Cuomo, G., Chiorri, C., & Magnavita, N. (2013). Association of work-related stress with mental health problems in a special police force unit. *BMJ Open*, 3(7).
- Jäger, T., & Kohls, N. (2021). Belastbarkeit, Resilienz, Leistungsfähigkeit: Gesundheitsorientierte Personalführung in spezialisierten Polizeieinheiten. *TAKTIK + MEDIZIN*, 4(3), 44–49.
- Jäger, T., & Kohls, N. (in press for 2023a). Führung als Schutzschild: Wie Führungskräfte spezialisierter Polizeieinheiten innere Belastbarkeit und mentale Stabilität fördern. In M. Staller, B. Zaiser, & S. Koerner (Eds.), *Handbuch Polizeipsychologie*. Springer Gabler.
- Jäger, T., & Kohls, N. (in press for 2023b). High performance under pressure. In M. Staller, B. Zaiser, & S. Koerner (Eds.), *Handbuch Polizeipsychologie*. Springer Gabler.
- Juen, B., Öhler, U., & Thormar, S. (2009). Posttraumatisches Wachstum bei Einsatzkräften. *Zeitschrift Für Psychotraumatologie, Psychotherapiewissenschaft, Psychologische Medizin*, 7(1).

- Kaluza, G. (2018). *Gelassen und sicher im Stress: Das Stresskompetenz-Buch: Stress erkennen, verstehen, bewältigen* (7. korrigierte Auflage). Springer.
- Kapade-Nikam, P., & Shaikh, M. (2014). Occupational stress, burnout and coping in police personnel: Findings from a systematic review. *American International Journal of Research in Humanities, Arts and Social Sciences*, 2, 144–148.
- Karutz, H. (2013). Handlungsfähig bleiben - aber wie? *Der Notarzt*, 29(2), 58–63.
- Knesebeck, O. v. d., David, K., & Siegrist, J. (2005). Psychosoziale Arbeitsbelastungen und muskulo-skeletale Beschwerden bei Spezialeinheiten der Polizei. *Gesundheitswesen; Bundesverband der Ärzte des öffentlichen Gesundheitsdienstes*, 67(8–9), 674–679.
- Krampl, M. (2007). *Einsatzkräfte im Stress: Auswirkungen von traumatischen Belastungen im Dienst*. Asanger Verlag.
- Lasogga, F., & Gasch, B. (2011). *Notfallpsychologie: Lehrbuch für die Praxis* (2., überarb. Aufl.). Springer.
- Lewis, G. F., Hourani, L., Tueller, S., Kizakevich, P., Bryant, S., Weimer, B., & Strange, L. (2015). Relaxation training assisted by heart rate variability biofeedback: Implication for a military predeployment stress inoculation protocol. *Psychophysiology*, 52(9), 1167–1174.
- Litz, B. T., Stein, N., Delaney, E., Lebowitz, L., Nash, W. P., Silva, C., & Maguen, S. (2009). Moral injury and moral repair in war veterans: A preliminary model and intervention strategy. *Clinical Psychology Review*, 29(8), 695–706. <https://doi.org/10.1016/j.cpr.2009.07.003>
- Luft, J., & Ingham, H. (1955). The Johari window, a graphic model of interpersonal awareness. In *Proceedings of the western training laboratory in group development*.
- Mack, O., Khare, A., & Kramer, A. (2015). *Managing in a VUCA World* (1. Aufl.). Springer-Verlag.
- Maercker, A. (2013). *Posttraumatische Belastungsstörungen* (4., vollständig überarb. Aufl.). Springer.
- Massenbach-Bardt, J. von. (2008). Erfolgsfaktoren des Spezialeinsatzkommandos Baden-Württemberg. In P. Pawlowsky (Ed.), *Hochleistungsmanagement: Leistungspotenziale in Organisationen gezielt fördern* (1st ed., pp. 361–378). Gabler.
- Mistele, P. (2007). *Faktoren des verlässlichen Handelns: Leistungspotenziale von Organisationen in Hochrisikoumwelten* (1. Aufl.). Gabler Edition Wissenschaft. Deutscher Universitätsverlag.

- Pawlowsky, P. (Ed.). (2008). *Hochleistungsmanagement: Leistungspotenziale in Organisationen gezielt fördern* (1. Aufl.). Gabler.
- Pieper, G., & Maercker, A. (1999). Männlichkeit und Verleugnung von Hilfsbedürftigkeit nach berufsbedingten Traumata (Polizei, Feuerwehr, Rettungspersonal). *Verhaltenstherapie*, 9(4), 222–229.
- Purba, A., & Demou, E. (2019). The relationship between organisational stressors and mental wellbeing within police officers: A systematic review. *BMC Public Health*, 19(1), 1286.
- Reif, J., Spieß, E., & Stadler, P. (2018). *Effektiver Umgang mit Stress: Gesundheitsmanagement im Beruf. Die Wirtschaftspsychologie*. Springer.
- Rupprecht, S., Falke, P., Kohls, N., Tamdjidi, C., Wittmann, M., & Kersemaekers, W. (2019). Mindful leader development: How leaders experience the effects of mindfulness training on leader capabilities. *Frontiers in Psychology*, 10, 1081. <https://doi.org/10.3389/fpsyg.2019.01081>
- Sauer, S., Andert, K., Kohls, N., & Müller, G. (2011). Mindful leadership: Sind achtsame Führungskräfte leistungsfähigere Führungskräfte? *Gruppendynamik Und Organisationsberatung*, 42.
- Sauer, S., & Kohls, N. (2011). Mindfulness in leadership: Does being mindful enhance leaders' business success? In S. Han & E. Pöppel (Eds.), *On thinking, culture and neural frames of cognition and communication* (pp. 287–307). Springer Berlin Heidelberg.
- Saus, E.-R., Johnsen, B. H., Eid, J., Riisem, P. K., Andersen, R., & Thayer, J. F. (2006). The effect of brief situational awareness training in a police shooting simulator: An experimental study. *Military Psychology*, 18(1), 3–21.
- Scherrer, Y. M. (2020). Organisationale Resilienz und Antifragilität in Einsatzorganisationen. In E.-M. Kern, G. Richter, J. C. Müller, & F.-H. Voß (Eds.), *Einsatzorganisationen: Erfolgreiches Handeln in Hochrisikoorganisationen* (pp. 79–101). Springer Gabler.
- Syed, S., Ashwick, R., Schlosser, M., Jones, R., Rowe, S., & Billings, J. (2020). Global prevalence and risk factors for mental health problems in police personnel: A systematic review and meta-analysis. *Occupational and Environmental Medicine*, 77(11), 737–747.
- Zihn, E. (2022). „Im Vollbesitz der geistigen Kräfte“: Ein Trainingsprogramm für innere Stabilität von Einsatzkräften. In M. Staller & S. Körner (Eds.), *Handbuch polizeiliches Einsatztraining - Professionelles Konfliktmanagement* (1st ed., pp. 913–927). Springer Fachmedien Wiesbaden.
- Zuckerman, M. (2008). *Sensation seeking and risky behavior* (2nd ed.). American Psychological Association.

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