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

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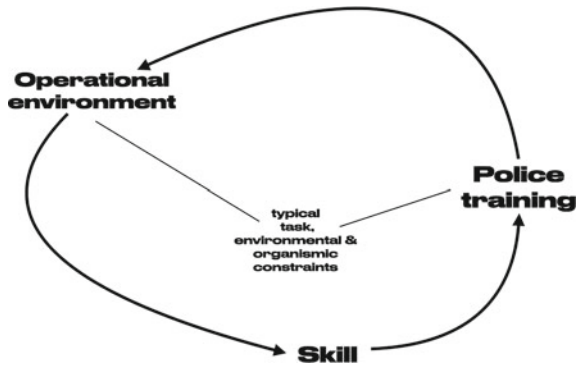
Fig. 1 Organismic, task, and environmental constraints: from operational environment to police training

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	• Let eyes close • Distract • Fatigue due to load • …	• Situational awareness	• Perception of many stimuli
Task	• Protect others • Protect oneself • …		
Environment	• 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 fedback (see Table 1). For example, a lack of situational awareness should be fedback 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 (Honess, 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 emprirical 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 foucs 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 external-izing 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 neutral-izes 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 func-tional, but illegal; or it may be functional and legally compliant, but risky and questionable from a health perspective. This is where feed-back 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 partici-pants' 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 emprical 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, environmenal, 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 as 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.

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