

Knowledge-Based Decision-Making: Evidence-Based Medicine as a Model for Police-Commanders in High-Risk Situations?

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Idea & Need

“Success has many fathers and failure is an orphan”

(saying)

Content

- Methods
- Theory of Decision-Making
- Planning and Decision-Making by German Police
- Evidence-Based Medicine
- Discussion & Conclusion

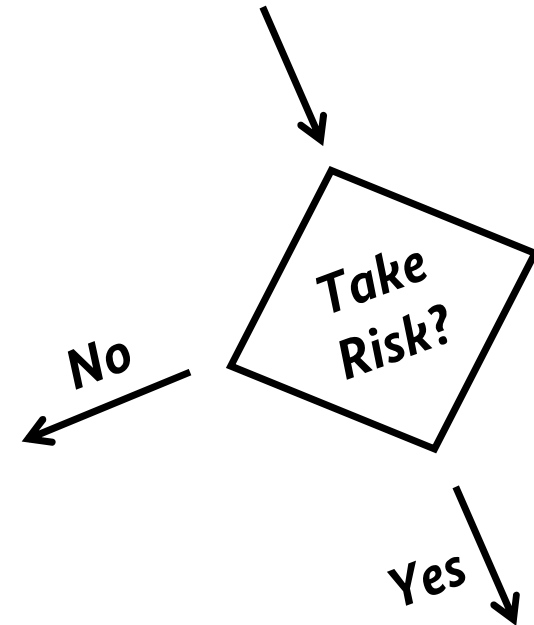
Methods

- Explorative approach
- Literature analysis
- Semi-structured interviews: 4 police-commanders, 3 physicians



Theory of Decision-Making

- Rational choice is required / aspired in professional tasks
- Shifting from knowledge to not-knowing (Beck, 2008)
- How important are gut feelings?



The Linda Problem

- Linda is 31 years old, single, outspoken, and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice, and also participated in anti-nuclear demonstrations.
- Which of the following two alternatives is more probable?
 1. Linda is a bank teller.
 2. Linda is a bank teller and active in the feminist movement.

(Kahneman/Tversky, 1983)



Command and Control

„Recognition-Primed Decisions“ – RPD (Klein, 1993)

- Use experience to generate a workable option
- No time to evaluate a large set of options
- Situation assessment – choosing the first option that works
- Decision is primed depending on the situation recognized

“Luck is what happens, when preparation meets opportunity.”

(Seneca)



Influence & Effects

“Bounded Rationality”
(Simon, 1957)

„Decision frame“
(Tversky et al. 1981)

„Availability-heuristic“
(Slaby et al., 2002)

„Affect infusion while
thinking constructively
about a task” (Forgas, 2000)

“Affect as information”
(Clore et al., 2001)

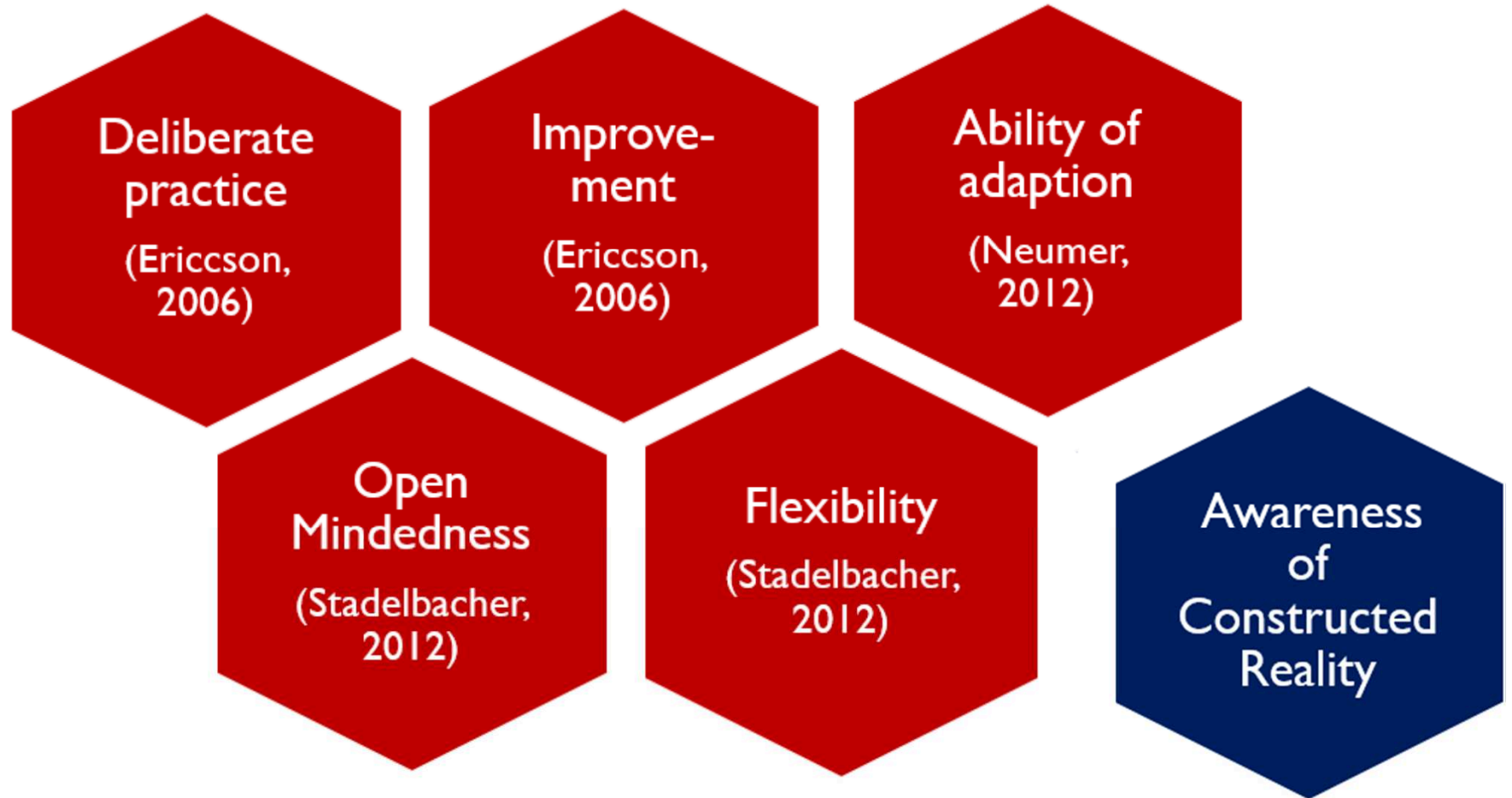
„Declarative memory“
(Roth, 2007)



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Expert Performance



German Police

- Standardised decision-making process (*Rational Choice*)
- Guidelines & Evaluation
- Advisory-Teams
- Expert platform (i.e. EUNAT)
- Casuistics and Database
- No systematic Analysis or Studies
- Command and control training



Evidence-Based Medicine

- “Evidence-based medicine is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients.” (Sackett, 1996)
- “Evidence-based policing is the use of the best available research on the outcomes of police work to implement guidelines and evaluate agencies, units, and officers.” (Sherman, 1998)



EbM - Concept

Five steps:

- 1) Asking answerable questions
- 2) Finding the best evidence
- 3) Critically appraising the evidence
- 4) Acting on the evidence, using patient values
- 5) Evaluating performance of decision



EbM - Concept

Five steps:

- 1) Asking answerable questions
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“Dubium sapientiae initium.”

“Doubt is the origin of wisdom.”

(René Descartes)



Discussion

- Appraisal of Guidelines Research and Evaluation (AGREE)
- Gold standard: Randomized Controlled Trial (RCT)
- „Cookbook“ (Vogd, 2002; Kienle, 2008)
- „Stageing of knowledge“ (Vogd, 2002)
- „Reflection in action“ (Donner-Banzhoff, 2007; Kienle, 2008)
- “Rediscovered primary virtues on a systematic base” (Jonitz, 2013)



Conclusion

What really matters in high-risk situations?

- Procedural instead of absolute rationality (cf. Schimanck, 2005)
- Contextual variation of evidence (Pawson, 1997)
- Confidence and familiarity (Starke, 2009)
- Failure management with „fair blame“ (Reynolds, 2009)
- Experience, situational awareness and communication (interviews)



Conclusion

“Science cannot solve the ultimate mystery of nature. And that is because, in the last analysis, we ourselves are a part of the mystery that we are trying to solve.”

(Max Planck)

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