

# EXAMINING PROBLEM-SOLVING AND DECISION-MAKING (PSDM) IN THE CONTEXT OF LAW ENFORCEMENT

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## Introduction

Leadership, communication, problem-solving, and decision-making are four core areas of concern for law enforcement. All four have been extensively researched and a vast amount of documentation is available on these topics. While the first two categories have focused on their direct relevance to law enforcement, the final two skills, arguably the most important and the focus of this article, have generally not received equal consideration in this regard. Quite interestingly,

problem-solving and decision-making are also vital and integral components of the previous two categories, leadership and communication.

Problem-solving and decision-making are a highly complex area of research generally subsumed under fields such as sociology, cultural anthropology, cognitive psychology, behavioral psychology, and behavioral economics. Therefore, the scope of this article will merely break the surface of this fascinating and important topic.

Problem solving and decision-making are, of course, distinct disciplines in their own right, but there is a considerable amount of overlap between them, and they are inherently very closely related. For this reason, they have been grouped together as though they are a single phenomenon. The acronym PSDM will be employed to refer to problem-solving and decision-making as a single concept throughout this text. It should be obvious that a decision must be made when encountering a problem. A decision, on the other hand, can of course be taken in relation to problem-solving, but may also be made standing on its own merits without requiring the existence of a specific problem.

Prior to undertaking research of any subject, it is best to clearly define key terms. **Problem-solving**, according to the Merriam-Webster online dictionary, is defined as "*the process or act of finding a solution to a problem.*" This definition, however, is superficial and requires further explanation. A more functional definition would be "*problem-solving is a process whereby an individual or group of individuals develop responses to a question or hypothesis which requires a response or solution.*"

**Decision-making**, according to Trewatha & Newport (1982) "*...involves the selection of a course of action from among two or more possible alternatives in order to arrive at a solution for a given problem.*" Of course, this definition is also flawed when considering the fact that a decision is not automatically the outcome of a problem. A better definition might be "*decision-making involves the selection of a decision from among one or several available options.*" It is critical that one bears these definitions in mind in order to clearly grasp the differences between the two concepts as one may frequently find that they have been conflated.

Some of the more pertinent issues with regard to PSDM in the field of law enforcement will now be examined. These include cognitive bias in judgments, heuristics or mental shortcuts, and various other significant obstacles and challenges to developing and implementing effective PSDM. Human beings are higher level creatures endowed with exceptional thinking processes, but the downside is that the rich diversity of these same processes occasionally leads some people astray.



Figure 1 Courtesy <https://www.news.com>. Reproduced under 17 U.S. Code § 107 Fair use clause.

## PSDM in the Context of Law Enforcement

Many individuals overestimate their abilities at problem-solving and decision-making. This holds equally true for some police officers as well. Those involved in law enforcement, order maintenance, and public safety face a bewildering array of different situations and scenarios on a regular basis. Each of these situations calls for the use of reasoned judgment and discretion. These decisions can result in the difference between life and death in some cases. Oftentimes in such situations, the time for decision-making is limited and a response is urgent. A wrong choice could result in catastrophic, life-altering consequences.

One of the most common areas where these shortcomings in effective decision-making have been evidenced is in the use of force by police and, in particular, in officer-involved shootings (OIS). This is certainly not the only situation or area where PSDM is applicable to the law enforcement setting. Effective problem-solving and decision-making applies to any and all areas of law enforcement as well as across all agencies, departments, jurisdictions, and ranks.

Problems come in all shapes and sizes; they may be personal or professional, or both. They may be easy to resolve,

complex, serious, or inconsequential. In addition to this complex web, problems may be cumulative; that is, one problem or set of interrelated problems may engender others, or even hide the origins and true nature of the problem lying beneath the surface. When considering PSDM within the law enforcement context, problems may be administrative, strategic, operational, or tactical. One can face problems with human resources, logistics, finance, or operations.

Many of the problems faced by patrol officers are well beyond the scope and competence of the average citizen. Thus, officers need to be equipped with particularly sharpened problem-solving and decision-making skills. It is unfortunate that, in many cases, once an officer graduates from a training academy and commences public service in the field, extensive training often stops there, and this important skill is often relegated to the past. Training should remain a continuous process and be extended across all departments and functions of the police on a regular basis. While being physically fit is certainly an important criteria and often a prerequisite of police work, being cognitively fit has not received the same level of attention, as police in-service training is routinely not prioritized.

The duties of a patrol officer include the use of discretion to discern rapidly between the use of force and the need to defuse potentially violent confrontations while simultaneously maintaining ethical conduct. As such, effective problem-solving and decision-making spans all departments, functions, and ranks within the police. The decisions that must be made range from the most simple, mundane, and routine, such as deciding on the time for a meeting, establishing training schedules, and handing out speeding tickets, to the most dangerous and complex, such as how to resolve a hostage and kidnapping situation, saving lives during an active shooter event, dealing with a violent domestic dispute, or handling an unfolding terrorist incident.

Finally, law enforcement personnel are, of course, also human beings, and as such, they must also find solutions and resolve their own personal problems. As individuals, they must make important decisions about their own lives. Interpersonal relations have been at the root of some very serious and troubling incidents regarding the misconduct of police officers. There exist a number of cases where poor professional judgment has been exercised. This is often indicative of inadequate personal problem-solving and decision-making skills, which may also eventually be manifested professionally.

## **The Mechanics of Rational Thought**

Human beings are preprogrammed with an evolutionary survival mechanism that often kicks into action before we have the opportunity to adequately analyze, evaluate, and implement our decisions. When faced with imminent danger, our ancient ancestors did not benefit from the luxury of reflective cognition, and, as such, responses were often adrenaline assisted. With the passage of time and the relative reduction of threats and a related increasing requirement for higher level thinking, the prefrontal cortex, the seat of the executive function within the human brain where reasoning takes place, has developed and expanded accordingly, taking on ever greater responsibility in our PSDM.

When there is a lack of stress, the system functions properly, and things generally go according to plan, and problem-

solving and decision-making become context-specific and well balanced. It is the way in which an individual identifies, analyzes, decides, and evaluates a problem that will impact the decision-making process. According to Daniel Kahneman, the 2002 Nobel Prize laureate in economics, "(t)he corresponding stages in the production of decisions are the framing of the problem that is to be solved, the collection of relevant information leading to a decision, and reflection and review." Unfortunately, all too often these two systems are imbalanced and, according to Kahneman, people tend to rely more on instincts than on reason. This is due to the fact that higher-level thinking requires more effort than relying on our mental shortcuts, which are often biased and experiential in nature, rather than cognitively balanced. When a person is faced with a novel situation, an individual most frequently relies upon past experience to formulate critical decisions. In many situations, the human mind may also play tricks, since individual span of attention is extremely limited both in time and scope.

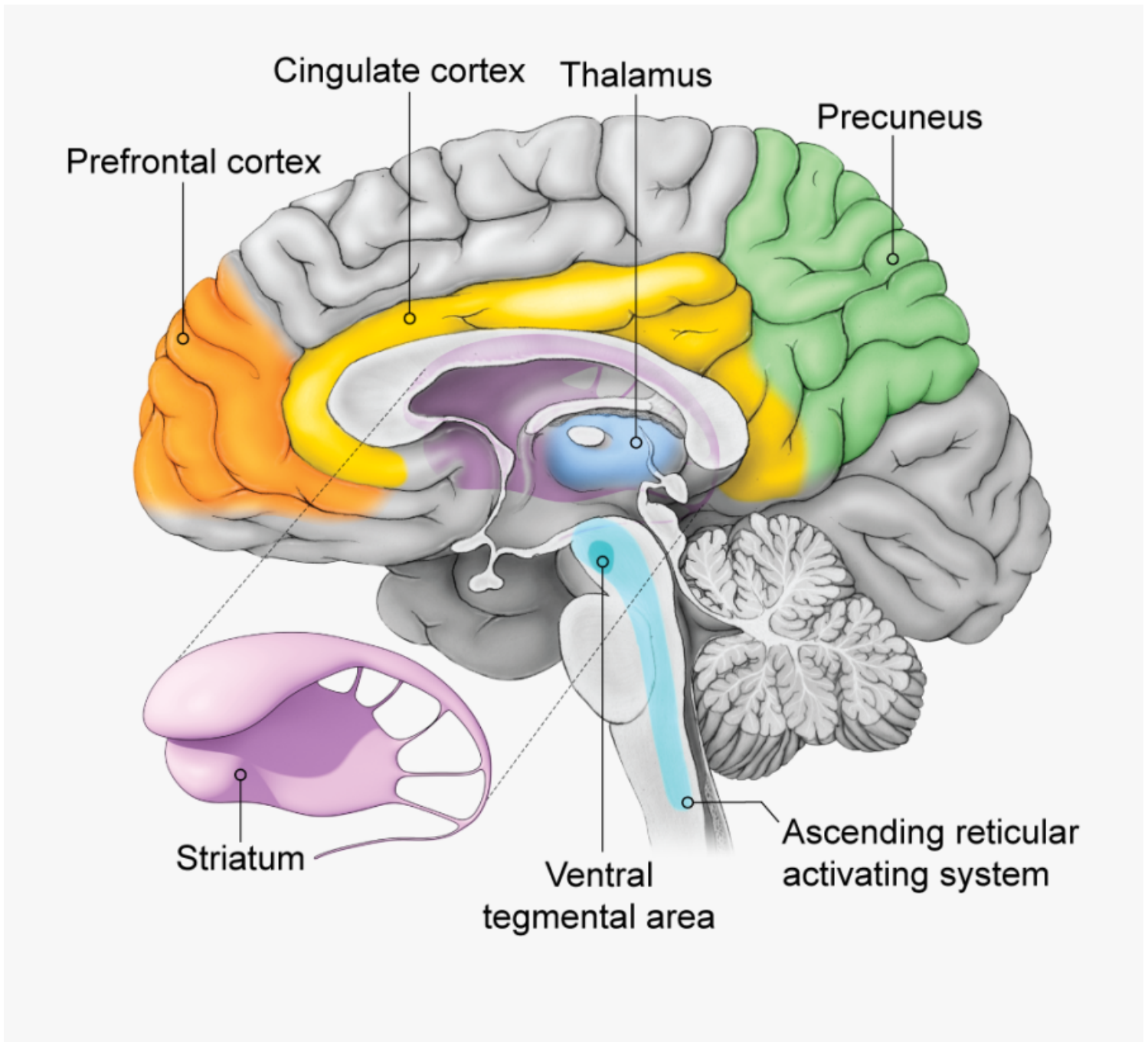


Figure 2. Courtesy Scientific American. Reproduced under 17 U.S. Code § 107 Fair use clause.

Effective decision-making is most often a balance between analyzing alternative options. That being said, there is a fine line between what is a reasonable number of feasible options and what constitutes "too many." An individual, when faced with an abundant number of possible solutions or decisions, may face what is referred to as "analysis paralysis," or the inability to analyze and come to a decision. Given the limited time frame often involved in law enforcement encounters, decision-making is based upon several core factors. These include personal characteristics which determine behavior, cultural and historical influences, mental predisposition, and peer influence, among others. If the

current situation is similar to a previous experience, a person will generally and somewhat automatically default to the familiar and the comfortable, and thus adopt a similar response to one that had previously been made.

## Cognitive Heuristics or Mental Shortcuts.

If individuals had to apply deep reflection concerning every decision they made during the day, they would quickly become overwhelmed even with the simplest scenarios and situations. German psychologist and neuroscientist, Ernst Pöppel, estimated that people make approximately 20,000 decisions on a daily basis and they do so with relative rapidity. Other researchers have alternatively placed the estimate at 35,000, and while such estimates appear exaggerated to the uninitiated, a person will make 226.7 decisions each day on just food alone, according to research that was conducted at Cornell University (Wansink and Sobal, 2007).

While cognitive heuristics or mental shortcuts assist people in day-to-day decision-making, they also create pitfalls for the inattentive. Because they are generally based upon past experiences, these perceptions and their related interpretations may also lead to bias and stereotyping. When one considers the negative impact that this might have regarding the interviewing of a witness, suspect or crime victim, it may be highly advisable for an officer to check impressions to determine if they are based upon fact or preconceived opinion. Failure to do so, could have catastrophic consequences, such as arresting the wrong individual, setting the investigation on a wrong course, or even costing the life of an individual.

This article has explored the importance of problem-solving and decision-making in the context of law enforcement. Future articles will expand upon this topic and explore more fully the mechanisms, "traps" and challenges related to effective problem-solving and decision-making.

### REFERENCES

#### Books and Articles

1. Ariely, D., (2010). *The Upside of Irrationality*. 1st ed. New York: Harper Collins.
2. Boba, R. and Crank, J. (2008). *Institutionalizing problem-oriented policing: rethinking problem solving, analysis, and accountability*. *Police Practice & Research*, , v. 9, n. 5, p. 379–393, 2008. DOI 10.1080/15614260801980745.  
Disponivel em:  
<https://search-ebSCOhostcom.ezproxy2.apus.edu/login.aspx?direct=true&AuthType=ip&db=tsh&AN=35582048&site=e-host-live&scope=site>. Acesso em: 2 ago. 2021De
3. Borrion, H. et al. (2020) 'The Problem with Crime Problem-Solving: Towards a Second Generation Pop?', *British Journal of Criminology*, 60(1), pp. 219–240. doi: 10.1093/bjc/azz029
4. De Bono, E. (1985). *Six Thinking Hats: An Essential Approach to Business Management*. Little, Brown, and Company.

5. De Bono, E. (1994). *De Bono's Thinking Course*. Revised ed. New York: Facts on File.
6. Clarke, R.V., & Eck, J.E. (2005). *Crime analysis for problem solvers: In 60 small steps*. Washington, DC: US Department of Justice, Office of Community Oriented Policing Services.
7. Covey, S. R. (2020). *The 7 Habits of Highly Effective People*. 30th Anniversary ed. New York: Simon & Schuster.
8. Dumper, K., Jenkins, W., Lacombe, A., Lovett, M. and Perimutter, M. (2021). *Introduction to Psychology – Introductory Psychology*. Opentext.wsu.edu. Available at: <<https://opentext.wsu.edu/psych105/part/unit-1/>> .
9. Gottfredson, L. S (1997). Mainstream Science on Intelligence: An Editorial with 52 Signatories, History, and Bibliography. *Intelligence*, 24(1), pp. 13-23.
10. Govindarajan, V. & Trimble, C. (2005). *10 Rules for strategic Innovators*. Boston: Harvard Business School Publishing.
11. Hollingworth, A., Schrock, G. & Henderson, J. M. (2001). Change detection in the flicker paradigm: The role of fixation position within the scene.. *Memory & Cognition*, 29(2), pp. 296-304.
12. Jones, M. D. (1998). *The Thinker's toolkit: 14 powerful techniques for problem solving*. Revised and updated ed. New York: Three rivers Press.
13. Kahneman, D. (2011). *Thinking fast and Slow*. 1st ed. New York: Farrar, Strauss & Giroux.
14. Qasrawi, R., & BeniAndelrahman, A. (2020). The higher and lower-order thinking skills (HOTS and LOTS) in Unlock English textbooks (1st and 2nd editions) based on Bloom's Taxonomy: An analysis study. *International Online Journal of Education and Teaching (IOJET)*, 7(3). 744-
15. Roets, A., Schwartz, Barry., and Guan, Y. (2012). "The Tyranny of Choice: A Cross-Cultural Investigation of Maximizing-Satisficing Effects On Well-Being". *Judgment And Decision Making*. Volume 7, Issue 6. 689-704. <https://works.swarthmore.edu/fac-psychology/3>
16. Thurman, Q, & Jamieson, JD (2005). *Police Problem Solving*, Taylor & Francis Group, Cincinnati. Available from: ProQuest Ebook Central .
17. Trewartha, R.L and Newport, M.G. (1982). *Management*, 3rd Edition, Dallas and Business Publication, pp.145 - 148.

#### Online References and Additional Reading

1. Class 3031, Student. (2021). *Introduction to Sensation and Perception*. Pressbooks.umn.edu. Available at: <https://pressbooks.umn.edu/sensationandperception/> .
2. <https://opentext.wsu.edu/psych105/chapter/7-4-problem-solving/>
3. <https://www.moneycrashers.com/problem-solving-steps-process-strategies/>
4. Law Enforcement. (2021). *The S.A.R.A. Model*. Criminal Justice Know How. Available at: <<https://criminaljusticeknowhow.com/the-sara-model/>> .
5. Mulder, P. & Janse, B. (2021). *Six Thinking Hats*. Retrieved from ToolsHero: <https://www.toolshero.com/decision-making/six-thinking-hats-de-bono/>

#### *Endnotes:*

<https://www.merriam-webster.com/dictionary/problem-solving>

Trewartha, R.L and Newport, M.G., *Management*, 3rd Edition, 1982, Dallas and Business Publication, pp.148.

Kahneman, D., 2011. *Thinking fast and Slow*. 1st ed. New York: Farrar, Strauss & Giroux.p. 418.



**About the author:** *Dr. James P. Welch holds a Ph.D. in international criminal law from Leiden University. Dr. James has worked in police, military, and intelligence services for over 50 years. He is a sworn translator/interpreter for the Belgian Federal Police and an Essential Functions Officer (EFO) for the U.S. Department of Defense. Dr., Welch is currently an adjunct professor with Rabdan Academy in the UAE.*