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## Leave No One Behind

### *Downed-Officer Rescue and Risk Perception*

*By Matthew D. Sztajnkrycer, M.D., Ph.D., Bill Lewinski, Ph.D., and Scott Buhmaster*



Human decision making is classically described as a conscious, analytical process. In this context, the rescue of a downed officer reflects the fundamental conflict between the need to do what is perceived as right for the injured officer versus the risk such action creates. The reality is that such calculated reasoning frequently does not occur.

In a previous scenario-based observational study, despite specific education in downed-officer risk assessment, all participating officers proceeded into the kill zone to rescue a downed officer.<sup>1</sup> This occurred even when the injured officer had wounds incompatible with life. When subsequently questioned about their decisions, most of the officers could not provide an explanation for their actions. Based upon these observations, it appeared that under circumstances of simulated risk and perceived stress, these officers formed their decision-making strategies via a different process than an idealized conscious analysis.

To understand law enforcement officers' perceptions of risk and uncertainty in the context of downed-officer rescue, the authors surveyed 1,703 members of the law enforcement profession over a one-month period (January 17 - February 16, 2009). They present their findings to help improve officer education and training in the hope of minimizing the risk associated with these incidents, thereby saving the lives of those who willingly place themselves in harm's way.

#### **STUDY OVERVIEW**

Half of the respondents reported having participated in formal training on downed-officer rescue in the previous five years. Ninety-nine advised being personally involved in a downed-officer rescue during the same time frame. The majority of those involved in a downed-officer rescue (44.4 percent) described their primary assignment as patrol. Only nine identified their assignment as a full-time SWAT team member.

Limited by all of the factors present in survey-based research, including recall and selection bias, the study likely reflected partiality inherent in the selection process of law enforcement officers. After all, these individuals perform their duties despite an awareness of risk and danger, a quality sought in the

hiring of sworn personnel. Selection for the character trait of a selfless willingness to place their lives on the line to help and protect others may explain the findings of the study. Not everyone is willing to accept these risks, and not everyone can be a police officer. However, the results of this study were geared toward implications for law enforcement, not the general public.

In addition, the study tended toward the views of more senior officers, who may be removed from daily operations and street-level risk assessment. As noted by several survey respondents, many of the questions were deliberately vague and open to interpretation. While this was necessary to minimize potential bias of question phrasing on responses, it potentially detracted from the results.

## KEY FINDINGS

### Risk Acceptance

The study participants consistently viewed law enforcement as a high-risk profession. On a scale of 1 (least threatening) to 10 (most treacherous), the average respondent rated the risk of law enforcement as 7.9. This perception remained unchanged by an officer's number of years on the force or type of assignment. Respondents recognized and accepted that they could be injured or killed while performing their duties. The fact that officers—fully aware of the hazards—continue to perform their duties speaks volumes about the character of the members of the profession.

Any tactical decisions that involve an assessment of risk, such as a downed-officer rescue, must be made in the context of this baseline acceptance of danger. More than 96 percent of the respondents felt that it was acceptable or very acceptable to jeopardize their lives to help save another officer. Of course, by choosing the law enforcement profession, they already had committed themselves to operating under a baseline level of significantly elevated perceived peril. This willingness to place themselves in harm's way for their colleagues reflects a fundamental warrior ethos: leave no one behind.

### Risk Preference

Traditionally, the major theory of decision making under risk has been the expected utility model.<sup>2</sup> Herein, gains and losses are viewed as absolutes, and rational decision making favors the choice that offers the highest profit. More recently, a modified version, prospect theory, has acquired enhanced acceptance.<sup>3</sup> In this model, outcomes are expressed in terms of relative increases and decreases from a neutral starting point. Deliberate, rational decision making still will favor the comparative greatest return or smallest expense. However, some specific differences exist in the rational approaches to risk and uncertainty. The response to losses is more extreme than to similar gains; in other words, people dislike failure more than they like success. Decision making is context, or frame, dependent. In the setting of potential rewards, individuals tend to be risk averse, preferring a sure gain to a gamble. By contrast, in the setting of potential losses, they lean toward risk-taking behavior, preferring to chance a potential win over a certain defeat.

To assess risk preferences of the respondents to a downed-officer rescue, the survey included a scenario-based question framed as either a gain or a loss (see table 1). Depending on the version of the survey they received, respondents answered either question one, expressed as a gain (saving of officers), or question two, presented as a loss (death of officers). In each question, the overall number of surviving officers remained the same; the decision differed solely in terms of certainty versus gamble and, therefore, reflected risk preference. To keep results comparable with previous studies of risk preference, neither option explicitly stated that the action could result in the death of a responder.<sup>4</sup>

*Table 1*

### Risk Preference Questions and Responses

**Scenario:** An explosive device detonates, injuring three officers as they respond to a reported man-with-gun call. They are lying on the ground, screaming, with shrapnel

wounds to the lower extremities. There is quite a bit of blood. If they do not receive medical aid, all three officers will bleed to death. Which of the following do you feel is the best option?

**Question One:** 873 respondents replied to the version framed as a gain (saving of officers).

- A rescue attempt in which one officer will be saved: 269, or 30.8 percent, chose this response.
- A rescue attempt in which a one-third chance exists that all three officers will be saved and a two-thirds chance that no officer will be saved: 604, or 69.2 percent, selected this answer.

**Question Two:** 829 respondents responded to the version presented as a loss (death of officers).

- A rescue attempt in which two officers will die: 88, or 10.6 percent, agreed with this approach.
- A rescue attempt in which a one-third chance exists that nobody will die and two-thirds chance that all three officers will die: 741, or 89.4 percent, picked this course of action.

Prospect theory would predict that in the setting of a potential gain, participants would be risk averse and favor the rescue attempt in which one officer would be saved over the all-or-nothing gamble by a margin of approximately 3 to 1.<sup>5</sup> However, the survey respondents chose the all-or-nothing approach nearly 2.5 times more often. Prospect theory would similarly forecast risk-taking behaviors for decisions framed in terms of losses. In question two, as in question one, only a single officer can survive. However, in contrast to question one, question two offered options relating to the deaths of officers (i.e., losses). As predicted by prospect theory, respondents took risks in this setting. In fact, they exhibited significantly more risk-taking behavior than previously published experimental controls.

These findings proved consistent with results from the previous observational study.<sup>6</sup> In the setting of downed-officer rescue, the respondents violated decision-making rules as predicted by prospect theory. In contrast to the general population, the respondents were consistently risk permissive, and this risk preference was frame independent. As a consequence, regardless of whether the individuals were optimistic (gain) or pessimistic (loss) of a successful outcome, they still would have proceeded with a rescue attempt. These findings may be specific for downed-officer rescue or may reflect the general acceptance of danger required to be a law enforcement officer. The net result, however, revealed that the respondents would willingly take risks to save their colleagues regardless of eventual outcome.

### Heuristic Techniques

While a conscious, rational process reflects the traditional view of risk assessment,<sup>7</sup> recent studies have demonstrated that the decision-making process of the brain is frequently illogical. A dual-process model involving two systems of thought and information processing best describes the current understanding of decision making.<sup>8</sup> The first, the experiential system, is characterized by intuitive, rapid, and frequently automatic information processing. The second, the traditional analytical rational system, is deliberate and methodical but slow.

When making critical decisions under time pressure, individuals do not have the luxury of a slow, reasoned judgment. They must make decisions swiftly, or catastrophic outcomes may occur. To quickly process available information and generate a response, the mind relies preferentially upon system one, which can generate rapid decisions, in part, by unconsciously simplifying complex problems into feasible judgments through the use of shortcuts, or heuristics.<sup>9</sup> These provide the brain with imperfect but generally efficient rules of thumb for expeditious problem solving. Identified rules include the representative, availability, anchoring, and affect heuristics.<sup>10</sup>

The affect heuristic has become known as the good-bad rule.<sup>11</sup> Simplistically, emotions (affect) felt

toward the problem influence the decision-making process in an unconscious manner. This contrasts with the traditional view of the emotionally sterile, conscious process of rational thought. In applying the affect heuristic, people view good and bad as mutually exclusive categories. In other words, something seen as positive by the decision maker cannot have negative consequences. Similarly, the prevention or correction of something harmful is desirable.

This heuristic may have significant implications for the decision-making process in downed-officer rescue. The vast majority of respondents (99.1 percent) regarded saving a life as good or very good. Nearly all (99.4 percent) described their personal feelings toward rescuing a downed officer as either good or very good. In the context of the affect heuristic, any potential negative consequences of actions perceived as positive were minimized. This finding may help explain why officers would attempt a rescue even when logic might dictate otherwise.

The respondents considered bleeding and trouble breathing as negative conditions, whereas they perceived the prevention of both as a positive action. In the context of the affect heuristic and the strong positive feelings identified with saving the life of a downed officer, the presence of bleeding or trouble breathing and the desire to intervene to fix both or either would be expected to drive officers toward a rescue attempt. The sight of blood produces extremely visceral negative emotions reflecting primitive fear circuits.<sup>12</sup> Although logic would argue that a large-caliber gunshot wound with exposed brain matter would prove incompatible with life, the sight of blood may unconsciously override logical decision-making processes.

### Psychological Benefits



Officers who reported participating in an actual downed-officer rescue were significantly more likely to rate the experience as positive compared with those who reported seeing such an incident portrayed in the media. This simply may reflect a dislike of incidents concerning downed officers depicted for entertainment purposes. Alternatively, it may indicate that active involvement in the rescue provides some measure of comfort and speeds the healing process. Some have argued that given the risks of their profession, officers could not perform their duties without the knowledge that should they require aid, their colleagues would respond without hesitation to extract them from danger. Thus, the performance of a downed-officer rescue may be altruistic and, at the

same time, meet a personal need by confirming that the expected response will indeed occur.

### Law Enforcement Implications

The results of this research were not surprising and essentially confirmed the findings noted in the earlier observational study.<sup>13</sup> However, they revealed some important insights into the decision-making process in downed-officer rescue. Most important, the respondents did not demonstrate classic framing dependency of rational risk assessment. Based upon this finding, the vast majority of respondents would proceed with a rescue regardless of anticipated outcome.

The tragedy at Columbine led to a new paradigm in the response to the active shooter, completely reversing previous tactics, techniques, and procedures of containment. In a similar manner, new strategies and approaches to downed-officer rescue must be developed, disseminated, and incorporated into police training. Only half of the respondents reported participating in any formal training in a downed-officer rescue in the past five years. Although not specifically asked, it would be interesting to know how many respondents had participated in active-shooter training during the same time period. Instruction in downed-officer rescue must begin at the police academy or its equivalent. Two percent of respondents reported having been involved in downed-officer rescues despite being on the force less than one year, yet only 22 percent of respondents with less than one year of law enforcement experience reported any formal training in downed-officer rescue.

Analogous to the introduction of the tactical patrol rifle, specialized equipment must be made available for immediate response in downed-officer rescue. This may include ballistic shields or blankets, drag straps and handles, and appropriate tactical medical supplies. Unfortunately, this equipment and the necessary training can have heavy costs associated with them. However, in much the same way that it would be unthinkable in this country to send an officer into the field without a weapon, deploying officers without providing the means for effecting their rescue seems unconscionable.

Most important, this training and equipment cannot solely be limited to specialized tactical units. In this study, the majority of officers involved in actual downed-officer rescues (44.4 percent) were assigned to the patrol division. No-notice deployments, such as active-shooter incidents and downed-officer rescues, must be viewed and trained for as a patrol-level function if lives are to be saved.

## CONCLUSION

Members of the law enforcement profession openly acknowledge the dangers inherent in the performance of their sworn duties. As with soldiers on the battlefield, they have come to expect that should they find themselves in life-threatening circumstances, their fellow officers will respond with maximum effort to rescue them.

The authors' recent research has shown that officers will risk their lives for their colleagues regardless of the potential outcome. With this in mind, these valiant warriors deserve the best training and equipment available to enhance their attempts to rescue a fellow downed officer. The most innovative tactics, superior weaponry, and protective clothing cannot completely safeguard those charged with enforcing this nation's laws. They also must possess the knowledge that their fellow officers will be able to successfully rescue them without unduly risking their own lives. Referring to the debt the British people owed members of the Royal Air Force during the Battle of Britain, Prime Minister Winston Churchill said, "Never in the field of human conflict was so much owed by so many to so few." Today, his words hold true for all law enforcement officers who willingly place themselves in harm's way to protect their communities and their fellow officers.

## Endnotes

<sup>1</sup> M. Sztajnkrycer, "Risk Reduction in Officer Rescue: A Scenario-Based Observational Analysis of Medical Care," *Force Science News* 109 (November 2008).

<sup>2</sup> A. Tversky and D. Kahneman, "The Framing of Decisions and the Psychology of Choice," *Science* 211 (1981): 453-458; M. Friedman and L. Savage, "The Utility Analysis of Choices Involving Risks," *Journal of Political Economy* 56 (1948): 279-304; and D. Kahneman and A. Tversky, "Prospect Theory: An Analysis of Decision Under Risk," *Econometrica* 47 (1979): 263-291.

<sup>3</sup> A. Tversky and D. Kahneman, "The Framing of Decisions and the Psychology of Choice"; D. Kahneman and A. Tversky, "Prospect Theory: An Analysis of Decision Under Risk"; and D. Kahneman, "A Perspective on Judgement and Choice," *American Psychologist* 58 (2003): 697-720.

<sup>4</sup> A. Tversky and D. Kahneman, "The Framing of Decisions and the Psychology of Choice."

<sup>5</sup> Ibid.

<sup>6</sup> M. Sztajnkrycer, "Risk Reduction in Officer Rescue: A Scenario-Based Observational Analysis of Medical Care."

<sup>7</sup> J. Evans, "Logic and Human Reasoning: An Assessment of the Deduction Paradigm," *Psychological Bulletin* 128 (2002): 978-996; and J. Evans, D. Over, and K. Manktelow, "Reasoning, Decision Making, and Rationality," *Cognition* 49 (1993): 165-187.

<sup>8</sup> J. Evans, "Deciding Before You Think: Relevance and Reasoning in the Selection Task," *British Journal of Psychology* 87 (1996): 223-240; P. Slovic, M. Finucane, E. Peters, and D. MacGregor, "Risk as Analysis and Risk as Feelings: Some Thoughts About Affect, Reason, Risk, and Rationality," *Risk Analysis* 24 (2004): 1-12; and J. Evans, "The Heuristic-Analytic Theory of Reasoning: Extension and Evaluation," *Psychonomic Bulletin and Review* 13 (2006): 378-395.

<sup>9</sup> D. Gardner, *Risk* (London, UK: Virgin Books Ltd., 2008).

<sup>10</sup> P. Slovic, M. Finucane, E. Peters, and D. MacGregor, "Risk as Analysis and Risk as Feelings: Some Thoughts About Affect, Reason, Risk, and Rationality"; and A. Tversky and D. Kahneman, "Judgment Under Uncertainty: Heuristics and Biases," *Science* 185 (1974): 1124-1131.

<sup>11</sup> D. Gardner, *Risk*.

<sup>12</sup> H. Bracha, "Human Brain Evolution and the Neuroevolutionary Time-Depth Principle: Implications for the Reclassification of Fear-Circuitry-Related Traits in DSM-V and for Studying Resilience to Warzone-Related Posttraumatic Stress Disorder," *Progress in Neuropsychopharmacol Biological Psychiatry* 30 (2006): 827-853.

<sup>13</sup> M. Sztajnkrycer, "Risk Reduction in Officer Rescue: A Scenario-Based Observational Analysis of Medical Care."

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