



Paradigms in tactical decision-making

By Sid Heal

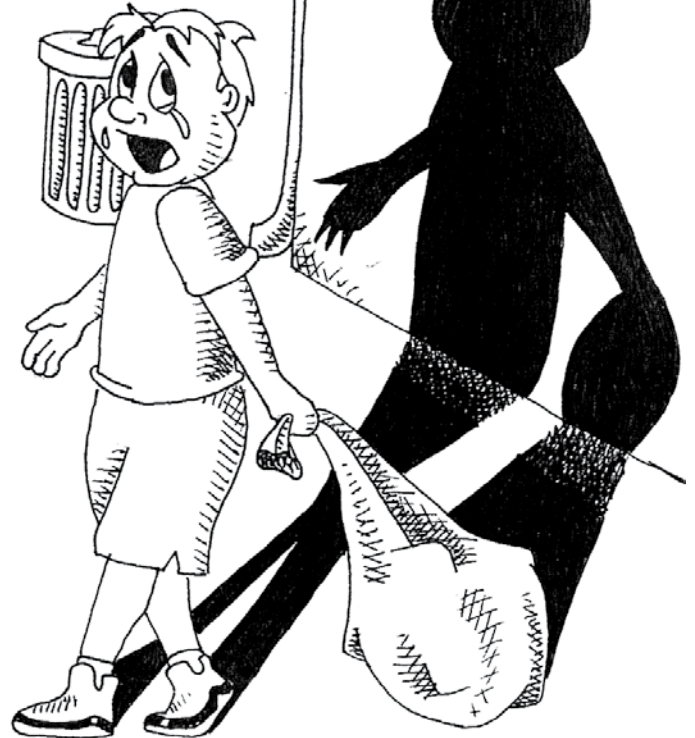
With a pounding heart and tear-streaked cheeks, the little boy walked nervously into the darkness. No matter how much he had pleaded with his mother, she had not relented. He had been told to take out the trash hours ago, but like all little boys, had found so many other things which had required his more immediate attention. Now it was his bedtime and he couldn't procrastinate any longer.

As he reached halfway, the harsh light from the porch only made the shadows seem darker and he grew more and more apprehensive. He tried singing softly, but his throat was dry and tight with dread as he nervously approached the trash can near the garage wall.

Suddenly he saw it! Dark and mysterious, it was rising from the ground in front of him, black against the garage wall. He shrieked in terror and jumped back. Instantly the thing moved with him, mimicking his every action. He screamed with fright and throwing the trash aside, raced frantically back to the safety of his house.

To an adult, it seems amusing for a child to be afraid of his own shadow, but in the little boy's mind, his actions make perfect sense. His world is filled with magical and mystical creatures. Some, like the Easter Bunny, the Tooth Fairy or Santa Claus, are benevolent. Presents under the Christmas tree are only one example of the generosity and goodwill of these beings. It is just as easy for a child to believe that other creatures such as ghosts and goblins also exist. Lack of proof notwithstanding, it is no harder to believe in the Boogie Man than the Tooth Fairy. Children view the world differently than adults, and it is not the true state of facts, but our perception of them that govern our actions.

In order to function in our world, each of us develops methods and procedures for sorting through a myriad of data which must be accurately judged in order for our actions to be effective. Based upon our unique individual experiences and observations, we form a frame of reference which we use as a standard to evaluate this huge amount of data. This frame of reference is often referred to as a "paradigm."



In order to function in our world, each of us develops methods and procedures for sorting through a myriad of data which must be accurately judged in order for our actions to be effective. Based upon our unique individual experiences and observations, we form a frame of reference which we use as a standard to evaluate this huge amount of data. This frame of reference is often referred to as a "paradigm."

The word paradigm comes from the Greek "paradigma," meaning a map or pattern. A paradigm, then, is a pattern or model which we use to quickly perceive and evaluate data, communicate ideas and regulate behavior. Paradigms allow us to work with imprecise information and uncertain facts. They provide a means to quickly orient us to a proper direction without overburdening us with useless data. They also assist in determining relationships between bits of

information. Seemingly unrelated factors may become intensely meaningful when understood in the context of our personal experience.

Imagine seeing six or seven men standing in a circle on a street corner when one sees your patrol vehicle. Immediately all the others look in your direction. Why did the individual who first saw you consider it important enough to tell the others of your presence? Is he performing lookout duties?

What is the attraction that holds the attention of so many? Why is your presence such a concern?

Although confusing and incomplete, the pieces begin to form a mental image, and based upon your training and experience you may recall previous drug transactions, gambling or gang activity. As you draw closer, the group may begin to separate and you may recognize one of the individuals from a previous arrest or you may see that one of the men has a basketball and recognize your younger brother as the “lookout.” As more bits of information become available you intuitively (and subconsciously) continue to form a mental picture of what is taking place and what you should do next. Your suspicions may be heightened or alleviated as your perceptions continue to give shape to your thoughts. The point is that neither scenario provides sufficient information to make a completely reliable decision, yet both are urging some action. Depending upon your interpretation of the situation, you may call for back-up or smile and wave at your brother and his friends.

This hypothetical example is confusing enough and yet only a few clues were provided. In a real life situation you would be inundated with information. Without conscious effort you would simultaneously evaluate the time of day, lighting conditions, area of the city, actions of other bystanders and the men’s dress and grooming. You would remember similar incidents from your experience and training and perhaps an earlier briefing or conversation with other officers or local business owners. To a greater or lesser degree, each of these factors would influence your ultimate decision.

Confusion is inherent in the human decision-making process. It is only through the use of a paradigm that we are able to adequately deal with situations that never yield adequate information with which to provide complete assurance that what we are going to do is correct. Without a paradigm we would soon become overwhelmed by the amount of information available, coupled

A paradigm is a pattern or model which we use to quickly perceive and evaluate data, communicate ideas and regulate behavior.

Paradigms provide two essential services in the human decision-making process. Initially, they allow an individual to quickly sort through a vast array of incomplete, confusing and even conflicting information. They do this by providing a framework for comparing previous experience with what is presently known about a situation to integrate the factors into some understandable arrangement. Second, they provide a method for identifying valuable information.

with an inability to readily determine which is valuable and which is not.

Imagine you are visiting a friend in a large, unfamiliar city. You telephone him from the airport and he provides you with detailed instructions to get to his house including directions, street names, major landmarks and so forth. Shortly after you rent a car and leave the airport you become confused and must stop and reread the directions to try and make sense of your friend’s instructions. Once again, you attempt to follow the directions but become even more confused. After driving a half hour or so, you stop at a gas station and buy a city map. While examining it you begin to get a feeling for the way the streets flow. Major landmarks are depicted and you notice several of the street names your friend had mentioned in his directions. You identify other landmarks and prominent features that can be used as checkpoints or milestones to reassure yourself you are moving in the right direction as you travel. You even recall things he had mentioned but that you had not recorded. Eventually you discover that you are some distance away from the planned route but can quickly make up time by following an alternate route that takes you very close to his house. You then ignore the directions describing that portion of the route that you’ve already passed and plot

an intersecting course. Quickly you drive to his house, having used only a portion of the information he provided, while incorporating entirely different information from the map. Further, when he asks if you had problems, you are able to recall the map in great detail and explain not only what route you took but where you erred, where you rejoined the planned route as well as many other navigational factors. Based upon your experience, you may even have already planned your return route.

The map used in our example is precisely what a paradigm does in the human decision-making process. Without some structure to evaluate their worth, loose facts become just so much gibberish. However, when the map became available, we could quickly sort through a large amount of information to reach a decision on the proper action to drive to our friend’s house. Further, relationships obscured in our friend’s directions became obvious when placed in the context of the city map. New options were apparent. Alternate routes could easily be determined and evaluated. The map provided an orientation that was lacking without it.

Thus it is with “maps” in the human decision-making process. Paradigms provide two essential services in the human decision-making process. Initially, they allow an individual to quickly sort through a vast array of incomplete, confusing and even conflicting information. They do this by providing a framework for comparing previous experience with what is presently known about a situation to integrate the factors into some understandable arrangement. Second, they provide a method for identifying valuable information. Persons confronted with problems do not suffer so much from a lack of information as from an inability to separate that which is useful from that which is worthless. This “filter” effect allows us to quickly determine an appropriate course of action without becoming overwhelmed by the amount of information available.

Two other lessons can be drawn from the illustration of the little boy. First,

paradigms are not permanent. They are always changing. Adults interpret situations differently than children. One person has a different view than another. Hindsight yields a different perspective than foresight. Second, and even more important, is that paradigms can be inaccurate. As the little boy in the story matures, he'll discover there is no Boogie Man.

... paradigms are not permanent. They are always changing . . . paradigms can be inaccurate.

Factors affecting paradigms

Paradigms develop and change as a result of four distinct but related factors. These are *personal experience, personal observation, communication* and *training*. Mostly, paradigms are shaped without conscious effort. They evolve and change as we become more adept in interpreting life's stimuli, and hopefully, more effective in dealing with them. However, certain types of communications, most notably tactical briefings, attempt to place all relevant information into an understandable context. The circumstances are described in such a manner that a frame of reference is automatically implied. Hence, they have a very strong influence on creating a frame of reference.

Training is another attempt for changing our paradigms and is the only one that requires personal effort. For example, when new ideas, concepts or procedures are presented, students are often told to "have an open mind" or not to "prejudge." This requires personal effort to enable us to accept unfamiliar ideas without rejecting them outright.

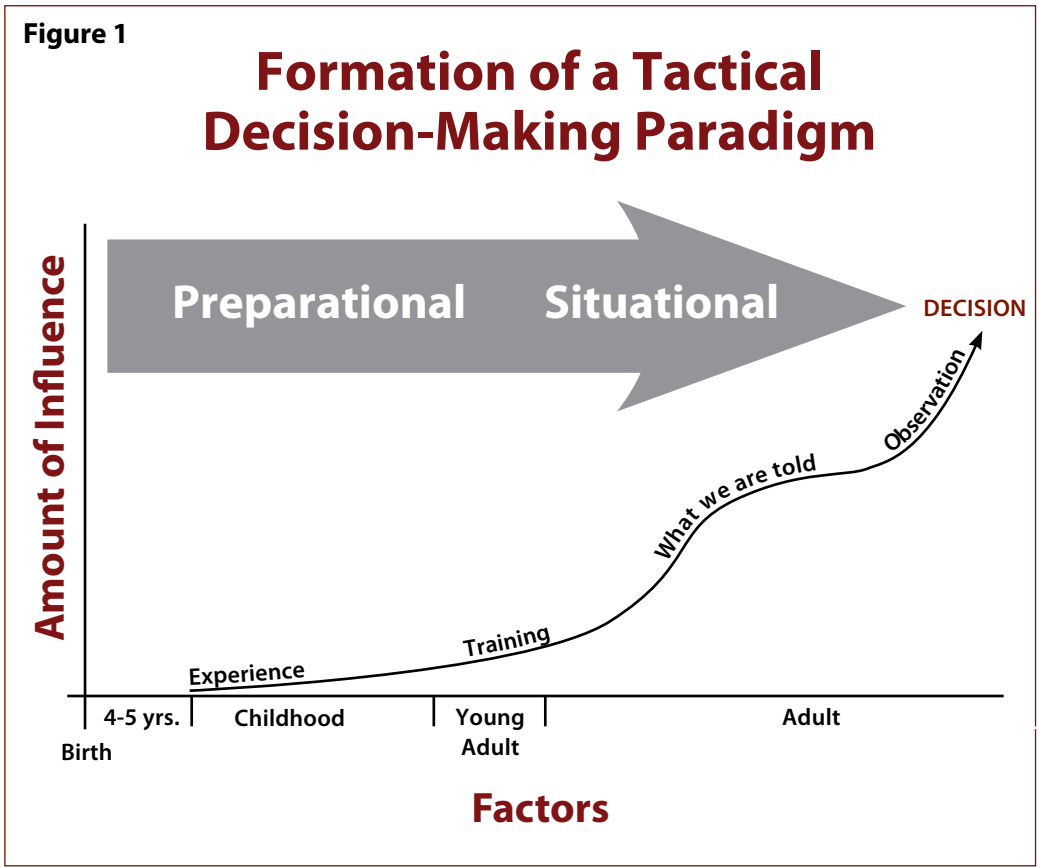
Of the four factors, *personal observation* is by far the most important, because all human perception is attained through one or more of the five senses. But of all the senses, vision has the most impact. The phrase "seeing is believing" is a good example of the importance people place on vision in forming opinions. It is also the most valuable in

attempting to put information into perspective quickly and is the fundamental building block of experience.

Based upon our experiences, paradigms begin forming at an early age. As we mature our experience becomes broader and we become wiser. More accurately put, we are better able to discern actions that will yield intended results by avoiding those that have proven ineffective or counterproductive. *Experience* is so powerful in forming paradigms that it can cause other, sometimes useful, information to be discarded. This occurs when information is presented that is counter to what is already believed. Experience is second only to observation in its ability to create an impression strong enough to create a paradigm.

The third factor is what is communicated to us. It has been said that human beings are the only animals able to profit from another's experience. Since experiences can only be shared by *communication* of some sort, this has a heavy impact in forming paradigms. This is why briefings and debriefings play such an important role in broadening experience and improving performance. Information may be gleaned from informants, witnesses, family members, bystanders or other police officers. When the same or similar information comes from more than one person we are inclined to take it more seriously. This phenomenon is called the "omnipresence of the message" and creates an extremely powerful influence in forming an opinion.

The last factor in forming a paradigm is *training*. Training attempts to provide new skills or improve existing ones by providing information and experience in dealing with problems likely to be encountered. In order for training to occur, it must be accepted. This is the only time a conscious effort at changing a paradigm is required since the individual seeks to improve performance by altering his or her reactions to problems. A well-trained individual gains a substantial advantage over a novice and views situations with a much different eye. Even the courts have



noted that the training and experience of a police officer provide a different viewpoint and allow him to understand and interpret actions that would pass by the uninitiated completely unnoticed. Training is especially relevant when it involves safety issues since failure to resolve these problems can be life-threatening.

If it were possible to depict the relationship and impact of each of the four factors in shaping a paradigm for a tactical decision, it would probably look something like the graph depicted in Figure 1. This figure illustrates the impact of each of the four factors in the order in which they would likely occur, and in comparison with the amount of impact they are likely to have on the ultimate decision.

Initially, experience is the primary factor and can take years to mature. Although it is a factor which involves a lifetime, it begins not at birth, but at the age when long-term memory starts to develop (around age 4). For without memory, there can be no experience. For tactical decisions, it develops very gradually but increases during the teen years and rises more steeply in adulthood. This is because children are usually sheltered from situations that are likely to create experiences upon which to base tactical decisions. If the decision in question is one relating to personal morals, values or ethics, however, this portion of the graph would show a dramatic increase early on since our younger years are when we internalize our strongest beliefs in these areas.

As we move along in our lives, the next factor is training. Law enforcement officers and military personnel are specifically trained to make tactical decisions — the better the training, the greater the skill. This is the only time when our own effort shapes our frame of reference and it brings the first sharp increase in forming our paradigm. The expression, “train like you fight and you’ll fight like you trained” reflects the impact training has on our abilities in this area. When viewing training in this light, it becomes clear why it is such an important investment for those who are required to handle these types of situations.

Paradigms are a crucial part of the total picture necessary to convince lay persons why “snap” judgments are so crucial in police work.

Understanding the role that paradigms play in the human decision-making process is important because they explain why a police officer may infer that an individual is lying instead of mistaken; why reaching into a waistband is to retrieve a weapon and not to scratch; why the shiny object in the suspect’s hand is a gun and not a flashlight.

What is communicated to us plays a part in developing experience but is most important when assessing a specific incident. Since we are often forced to rely upon those who have witnessed or experienced some situation which now requires our intervention, communication plays a major role in the development of the current frame of reference. The graph, however, depicts a flattening out of the curve because we virtually never rely entirely upon the statements of others in making tactical decisions. They are always supplemented and attenuated by personal observation, training and experience.

The sharp ascending line near the end of the graph depicts the impact of personal observation. In tactical settings, this is usually the last of the four factors to occur but has the most dramatic influence. New, often indisputable factors are revealed. Suspicions are confirmed or denied. Previous decisions may be judged valid, ineffective or even counterproductive. Future decisions will be predicated upon everything that is known about the situation to this point.

The large arrow near the top of the graph represents time. Since paradigms are formed over time, our viewpoint will change as new factors become known.² Thus, the formation of a frame of reference is never complete. Our experiences and training are always preparatory in nature. For good or bad, our way of looking at any given problem is shaped by factors such

as our culture, race, sex, religion, education and so forth. The cumulative effect of these factors, coupled with our previous efforts in dealing with similar situations, become experience. Training is also preparatory in nature. Our training contributes not only to our experience but is a powerful influence in its own right in that it provides insight and (hopefully) has been oriented precisely to the current situation.

The other end of the arrow identifies factors which are situational in nature. This portion of our paradigm is formed by contemporaneous factors specifically related to the circumstances at hand. As such, situational factors are more precisely attuned to solving the problem than the broader preparational ones. Further, as long as they do not openly contradict what is already believed about these types of situations in general, they tend to have a greater impact on one’s frame of reference. If we are told something consistent with our experience and training, it reinforces our belief that both are valid and we tend to rely on the information even more strongly. It is especially convincing when personal observation is the source.

Understanding the role that paradigms play in the human decision-making process is important because they explain why a police officer may infer that an individual is lying instead of mistaken; why reaching into a waistband is to retrieve a weapon and not to scratch; why the shiny object in the suspect’s hand is a gun and not a flashlight.

The role of paradigms in crisis decision-making is particularly vital because of the constantly changing nature of the circumstances coupled with severe time constraints. Crisis situations are so dynamic that a decision delayed is often rendered ineffective because the circumstances will have changed. Paradigms are a crucial part of the total picture necessary to convince lay persons why “snap” judgments are so crucial in police work. This aspect is even more critical when the lay persons are on a jury panel. Without paradigms, the human decision-making process would become

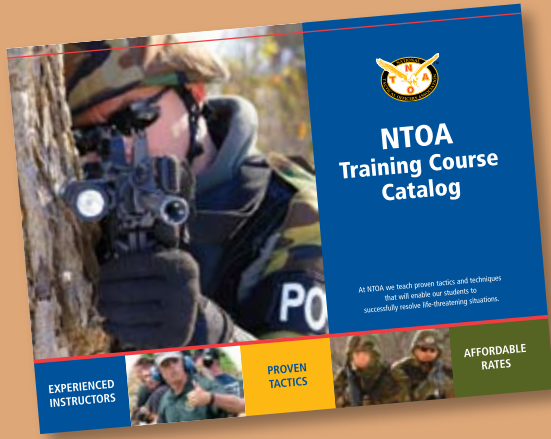
a jumble of incomprehensible factors and much too cumbersome to effectively react in crisis situations.◀◀

Endnotes

1. Although this usually refers to vision, "personal observation" includes anything perceived by one or more of the five senses.
2. A *paradigm* should not be confused with an *attitude*. While a paradigm refers to a mental frame of reference and is used to evaluate information for rapid, effective decision-making, an attitude is a state of mind, feeling or disposition. While a paradigm will evolve slowly (over a lifetime) as information and experience continually become available, an attitude may depend solely on a person's present feeling. While attitudes certainly affect decision-making, they are much more transient and far less powerful than a paradigm.

About the author

Commander Sid Heal recently retired from the Los Angeles County Sheriff's Department after serving in law enforcement for more than 30 years, more than half of which was spent in units charged with handling law enforcement special and emergency operations. Heal currently serves as the NTOA's technology advisor and has long authored the "Tactical Concepts" column for The Tactical Edge.



The image shows the cover of the 'NTOA Training Course Catalog'. The cover features a blue background with a photograph of a soldier in tactical gear. Text on the cover includes 'NTOA Training Course Catalog', 'At NTOA we teach proven tactics and techniques that will enable our students to successfully resolve the most demanding situations.', 'EXPERIENCED INSTRUCTORS', 'PROVEN TACTICS', and 'AFFORDABLE RATES'.

NTOA TRAINING PROGRAM

Take advantage of our seasoned instructors, proven tactics and cost-effective training. Our training is innovative and groundbreaking yet based on tried-and-true tactical concepts. Choose from more than 50 courses and receive members-only discounts.

To receive a copy of our current course catalog, or to request training, contact our training department at 800-279-9127, ext. 2.



The advertisement for the HHIT-IR thermal inspection tool features a dark background with a grid pattern. On the left, there is a circular logo with a power symbol. The text 'HHIT-IR thermal inspection' is prominently displayed. To the right, the 'TACTICAL ELECTRONICS' logo is shown in red. Below the logo, a list of features is provided: 'REAL-TIME LIVE VIDEO TRANSMISSION', '30 FRAMES PER SECOND', 'AUTOMATIC GAIN FOR OPTIMAL PERFORMANCE', '180,000 EFFECTIVE PIXELS', and 'FOCAL LENGTH: 1FT. - INFINITY'. A photograph of the HHIT-IR device is shown in the lower right. At the bottom left, the word 'ADVANCED' is written vertically next to a play button icon. The website 'tacticalectronics.com' is at the bottom right.

HHIT-IR thermal inspection

TACTICAL ELECTRONICS

REAL-TIME LIVE VIDEO TRANSMISSION
30 FRAMES PER SECOND
AUTOMATIC GAIN FOR OPTIMAL PERFORMANCE
180,000 EFFECTIVE PIXELS
FOCAL LENGTH: 1FT. - INFINITY

ADVANCED

The HHIT-IR Thermal Inspection Tool is a light-weight, highly portable inspection tool, providing the user with unsurpassed capabilities for thermal imaging inspection of rooms, containers, packages, and barriers. The thermal camera views precisely what the user witnesses while simultaneously transmitting video to all Tactical Electronics wireless monitors.

tacticalectronics.com