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The Psychology of Performance Under Stress

"The more officers increase their awareness of the impact of the mind on performance, the better they will be able to control their performance in a stress-filled environment."

By
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The future of police work necessitates renewed efforts aimed at maximizing human performance in the presence of extreme amounts of stress. For far too long, we have failed to reach the performance potential of officers. This has often been due to our failure to talk honestly about real weaknesses in training and to explore solutions to these problems. How many officers will have to be shot in the line of duty, how many accidental shootings of innocent victims will occur, and how many officers will suffer from alcohol abuse, divorce, or job burnout before new, effective solutions are developed?

In recent years, many questions

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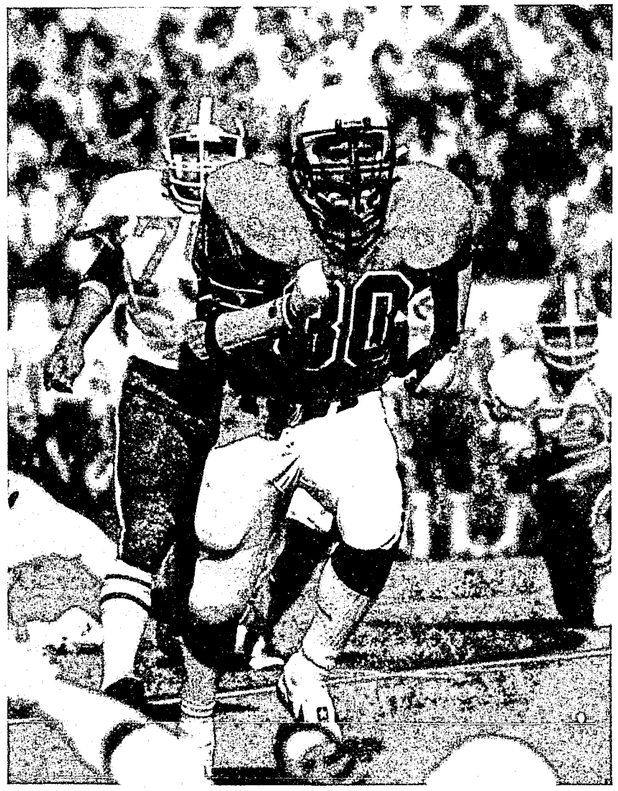
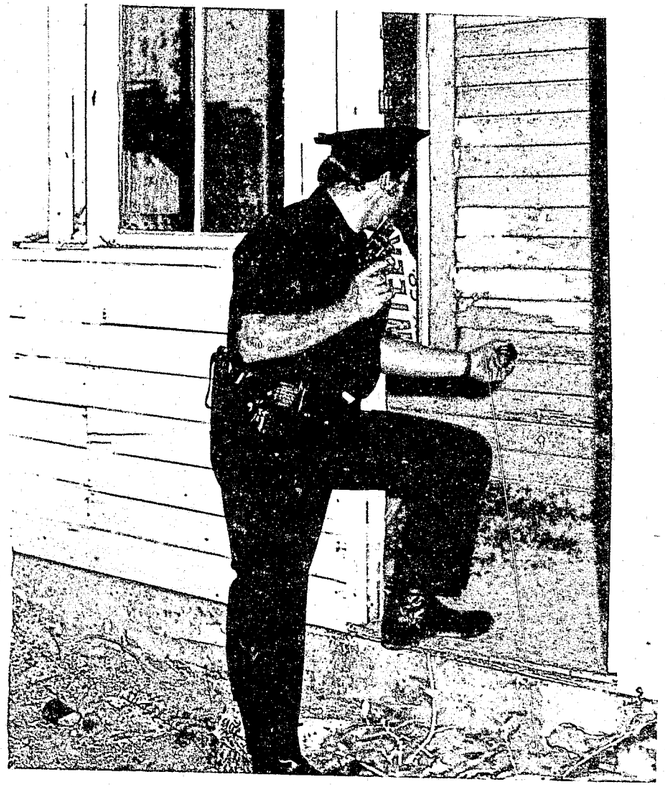
Dr. Rotella



University of Virginia football

have arisen concerning stress. What is stress? Why is everyone suddenly so concerned about it? Is stress good or bad for police officers? How does it affect the health and happiness of officers? Is stress always detrimental to work performance? If not, when and how can it help? Can officers learn to control their response to stress? If possible, how can they learn to use stress advantageously?

Ever since Knute Rockne's famous halftime talk in which he urged the Notre Dame football team "to get one for the Gipper," coaches have been well aware that emotionally arousing pep talks could influence behavior and performance. Perhaps unfortunately, most assumed the best way to prepare for a stressful performance was to get "sky high." Coaches who jumped to this conclusion failed to analyze all of the variables involved. Notre Dame had far greater talent than almost all of its opponents, often winning games by a margin of 50–80 points. A major challenge at Notre Dame was to get athletes who were *bored* playing against inferior opponents interested in the competition. For these players a pep talk may have been quite appropriate. But if you were coaching the opposition, who was already scared half to death about being embarrassed by Notre Dame's superior athletes, a very different approach might be required. They most likely needed confidence instilled and help to calm down and become relaxed. The opposing team athletes were far from bored and disinterested. The impact stress has upon the learning and performance of athletes is relevant to police officers as well.



Knoxville, Tenn.

Athletics and Police Work: Similar Problems

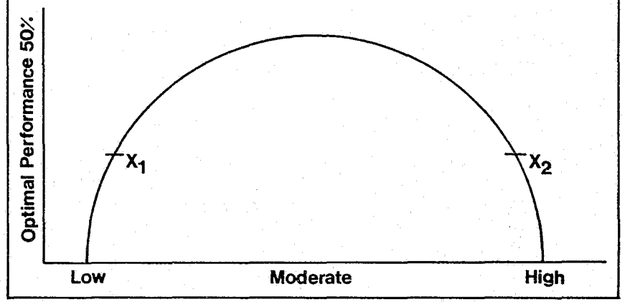
Stress is an environmental situation which may cause heightened arousal and anxiety. Arousal is the physiological response to stress; anxiety is a psychological response to stress which involves preoccupation with one's own thoughts. It is important to understand that stress is not innately bad. It may be a much needed stimulus to prepare individuals for action. It allows people to stay interested and excited about life. Positive stress is called *eustress;* however, when stress gets out of control and becomes a negative influence, it is typically referred to as *distress.*[1] When distress occurs, arousal and anxiety have surpassed the optimal level for performance.

Athletes, coaches, police officers, and their managers share many similar problems. They encounter stressful events on a regular basis. While exposed to potential stressors, they must perform a variety of complex mental and motor tasks. Sometimes, they perform flawlessly and are treated as heroes. As a result, they are often elevated to superhuman status, which is supposed to be error free. But this only adds to their problems because occasionally they get too anxious, make mistakes, and choke. Others suffer from the same human misfortune, but the problem is magnified in athletics and police work since performance is observed publicly.

When athletes perform, they typically think that they are in a "life or death" situation. Police officers must perform at times in situations that are truly a matter of life or death. Irrespective of whether the stress experienced is real or imagined, the response is similar and may facilitate or debilitate performance.

Fortunately, many individuals in sports and police work appear to thrive on opportunities to perform under potentially stressful situations. Many report they need the resulting anxiety and arousal to remain stimulated and excited about life. But even for these people, stress can cause

Figure 1 The hypothesized inverted-U relationship between one's level of arousal and performance.



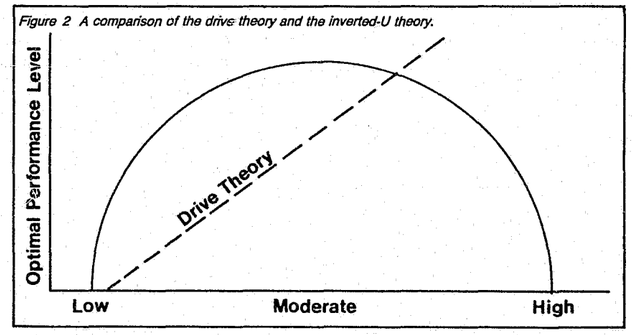
performance problems. It can cause coaches or athletes to second guess themselves at a crucial point in a contest. It can cause them to narrow their attention while preoccupied with anxious thoughts and thus fail to consider all of the available cues and information. Anxiety may cause athletes to think about past or future performance when they should be concentrating on the present. The receiver in a football game may drop a wide open touchdown pass because he remembers the one he dropped last time he was "wide open" or the hero he will be if he dares catch the pass. The free-throw shooter in basketball may miss a needed free throw because he dwells on being the goat or the hero. In both cases, the athletes failed to focus their attentions appropriately due to anxiety.

When confident and appropriately aroused, these athletes would quite naturally concentrate on the ball and the rim to the exclusion of all else. The mind clearly plays a crucial role in determining whether an athlete or coach will perform effectively or ineffectively when faced with a stressful situation. The same is true for police officers and their managers.

If an officer involved in a high-speed car chase becomes distracted for a moment because of anxiety, a serious accident may occur. Perceptual errors during a shooting incident can result in serious consequences. For example, an unnecessary shooting could easily take place if an item as innocent as a hairbrush is perceived to be a gun. Perceptual narrowing of attention is particularly dangerous because it can prevent even knowledgeable and skilled officers from using all of the information that is normally available to them.

The problem of anxiety interfering with attention can even prevent an officer from hearing instructions from a superior, a problem that can be exaggerated if the officer was reprimanded recently. The officer may appear to be listening, although he is actually lost in thought defending his own ego by cursing his superior or feeling sorry for himself. Either way, the officer is failing to listen and comprehend instructions crucial to completing the assignment successfully. Equally damaging is the fact that many errors in police work go unreported and unimproved because officers are too anxious of what the resulting consequences may be.

Figure 2 A comparison of the drive theory and the inverted-U theory.



Performing Under Pressure

The first step to preparing for performance in a stress-filled environment requires an understanding of one important concept. That concept, the "inverted U" theory of arousal and performance, can greatly impact performance under pressure.

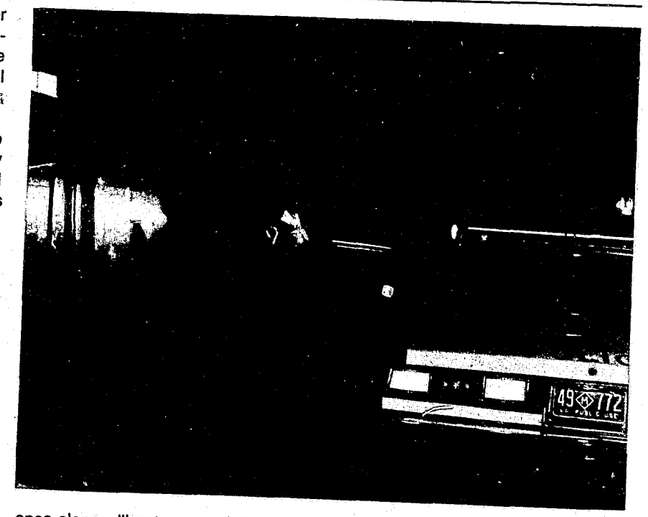
The inverted U relationship implies that for optimal performance, each individual must attain an intermediate or moderate level of arousal. At the two extremes, either very low or very high levels of arousal, performance may suffer. For example, a basketball player performing optimally may be able to make 90 percent of the free throws attempted, but under different conditions may perform at a 60-percent level of efficiency. Given the inverted U hypothesis, this could be the result of either underarousal (X) or overarousal (X^2). (See fig. 1.)

Similarly, the player referred to as a "good practice player," but one who apparently "clutches" or "chokes" at

"Police officers . . . must learn to control their minds and use the mind to influence and direct performance . . ."

game time, may simply be the player who becomes overaroused. An effective coach or teacher would recognize this pattern and help the individual learn to control the level of activation in order to maximize performance.

Many of our earlier approaches to performance were based on a now outdated theoretical approach called "drive theory." [2] This approach was based on the premise that performance would directly improve as drive, and therefore arousal, was increased. (See fig. 2.) Today, it is well-documented that this approach is not valid, although many leaders still behave as if it were.[3]



Increasing Self-Awareness

It has often been believed that people either have or do not have the ability to perform under stress. The best way to find out is to expose people to a stressful situation and let them "sink or swim." This assumption, despite its long-lasting appeal, is not valid. Too many people who use to fall apart and "choke" have learned how to perform flawlessly under stress. Many others who once performed admirably in stressful situations have experienced a poor performance and learned how to "choke."

It is obvious that performing under stress in an admirable manner is a skill that is susceptible to learning. However, it is not learned automatically; it must be taught.

Simulated practice is a step in the right direction. But typical simulations are not enough. Practice and experience alone will not prepare all officers effectively. Officers must increase their self-awareness of the influence their minds have on their bodies. Many athletes are successful for weeks, months, or even years, but when they start performing poorly, they fall apart and don't know how to regain control.

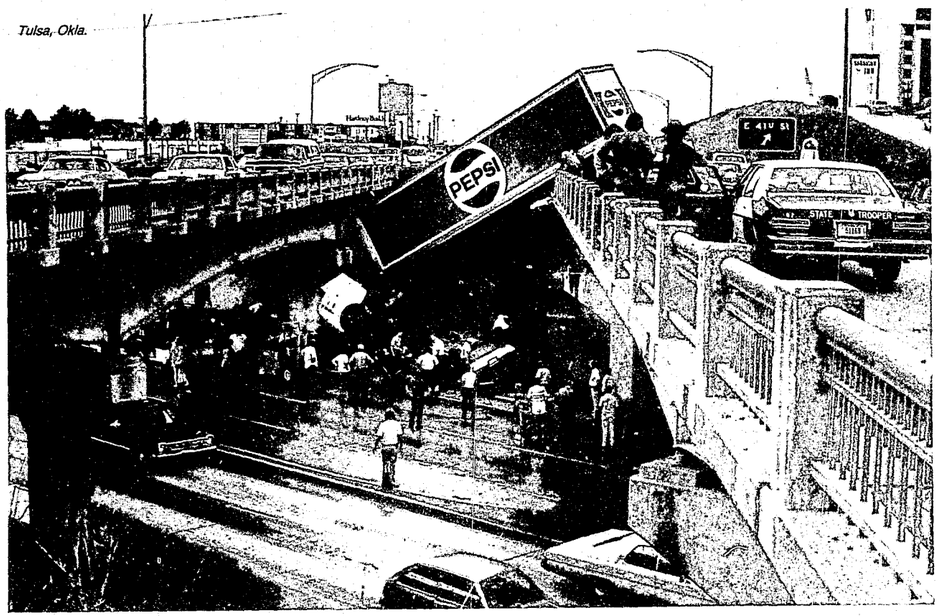
The reason is that too many people use their performance to direct their minds. When they perform well, their minds think in a positive, self-enhancing manner. When they perform poorly, their minds think in a negative, self-defeating fashion. This reaction must be changed. Police officers, like athletes, must learn to control their minds and use the mind to influence and direct performance rather than the reverse. In doing so, they can set themselves up for positive, successful experiences when faced with stress.

The more officers increase their awareness of the impact of the mind on performance, the better they will be able to control their performance in a stress-filled situation. Stress will no longer dictate the direction of their mind.

In order to control the mind, officers must be aware that people are in many ways similar to a computer. Much like computer input, the mind tells the body what to do. But humans have more capabilities and more control. People can program themselves for *success* or *failure* depending upon what *they choose* to put into their highly complex machine.

Athletes and police officers have the ability to intellectualize and provide themselves with the most useful

". . . the key to performance problems . . . [is] the manner in which officers cope and respond to the anxiety and arousal that occurs when faced with a real or imagined stressful situation."



Tulsa, Okla.

input. Unfortunately, there are many occasions when even experienced individuals respond emotionally. When this happens, they waste the advantage they possess. They emotionalize rather than intellectualize. Too often, the result is inappropriate thinking and behavior which leads to performance failure.

Officers need to look at situations in a realistic, rational manner. They must be taught how and when to control their emotional responses in order that they make them work *for* them rather than *against* them.

It is easy for the mind to run wild with anxiety. It is easy to dwell on what might happen rather than on what to do if it does happen. Anyone who has ever awaken in the midddle of the night from a nightmare recognizes that thoughts alone can cause a stress response. You do not have to be in a stress-filled situation; your mind alone can cause you to think that you are in real danger.

Positive Thinking: Is it a Solution?

Positive thinking certainly has a time, a place, and a useful role. But positive thinking alone isn't enough. It may cause more problems than it cures.

Positive thinking may cause officers to place themselves in situations they are not prepared to manage. It may even cause officers to relax too much and go into a situation unprepared. When this happens in sports, an upset may occur. The consequences are much more serious when it happens in police work—a life may be lost or a career ruined.

Effective performance in a stressful situation will require positive thinking combined with 1) thorough preparation, 2) self-awareness, and 3) skills for coping positively with the situation. This is not an easily attainable task. Officers will always be walking a tightrope between being unprepared and lackadaisical and so overprepared that they burn out early from having their every waking moment preoccupied with their work. Balance between the two can only be realized with self-awareness and frequent self-checking. Officers who find themselves getting cocky, lethargic, or bored must be able to *read* the danger signals and pick up their vigilance and preparation.

Officers who find themselves overtired from always thinking about their work need to read these signals and learn to back off a little. This can be done only if one understands and knows how to read and respond to the mind and body.

Turning Anxiety Into Power

Anxiety is not always detrimental. Great performers have, for years, reported that they get anxious prior to performing. It is important to realize that there is nothing abnormal with being anxious. Everyone has had anxious thoughts cross their minds. Clearly, anxiety is not the key to performance problems.

The key lies in the manner in which officers cope and respond to the anxiety and arousal that occurs when faced with a real or imagined stressful situation. There are a wide variety of ways in which individuals respond to their anxieties. However, these responses can be categorized into three broad categories: Avoid anxiety, maintain anxiety, reduce anxiety. These responses initially found among athletes are seemingly quite applicable to police officers.[4]

A brief description of these different responses will help clarify how one individual can allow anxiety to destroy him, while another can turn anxiety into a source of power and growth.

The first broad category of responses to anxiety may be described as anxiety avoidance. In general, individuals who fall into this category approach the situation which produces the anxiety but respond with an ineffective coping strategy. The ineffective coping strategy may take a variety of forms.

Many athletes who fit into this category initially are attracted to and give sport participation a try. Involvement, however, causes them to feel anxious and uncomfortable. To them, the challenge of competition appears to be more than they can handle. They respond to these anxious feelings by quiting. Frequently, to justify this action, they form a negative impression of sport competition. A personal crusade against the evils of sport may follow, but certainly does not always occur.

Other athletes in the anxiety avoidance category respond quite differently to their attraction to sport and the resulting anxiety. They escape from their anxiety by thinking positively about every situation that causes them to feel anxious. To these individuals, positive thinking is a solution to all of their problems. They may perform quite well if they are very talented. They usually fail to perform as well as possible due to a lack of preparation for stressful situations they will have to face. These talented individuals perform quite well, certainly better than others who think negatively.

A third response in the anxiety avoidance category again involves approaching sport participation, getting anxious, and then escaping. Here the escape is markedly different from those mentioned previously. The escape involves frequent and excessive alcohol abuse and drug use. These escapes are used on the eve of an important contest in order to

Lackland Air Force Base
San Antonio, Tex.

relax and get to sleep or following a competitive event. Such escapes ultimately function as short term relief with long term consequences, which are negative to performance and physical and mental well-being.

The second broad category is called anxiety maintenance. Again, the individual participates in sports, but deficiencies are perceived when appraising competitive situations. The athlete perceives that physical skills and mental coping skills are not equal to the task demands. In response, the athlete feels anxious and gets lost in the "work of worry." Athletes in this state worry about everything that might happen or go wrong. They worry, worry, and worry some more. They never get around to doing anything productive to counter their worries. The result is a highly stressed and inefficient person unless a new coping strategy is implemented.

The third category, anxiety reduction, involves an efficient and productive response to the anxiety likely to occur in sport. Such individuals approach sport and perceive the competitive situation in a realistic manner. They carefully and honestly appraise their personal abilities and skills and compare them to the anticipated task demands. As was true for the other categories, this may cause athletes to get anxious. But their coping response is far different and more effective. They begin by intellectually rather than emotionally reading and interpreting their anxieties. Why am I anxious? Is there a good reason for my anxiety or is my mind running wild? If there is good reason, what can I do about it?

Coping Responses of Athletes to Stress

*AVOID ANXIETY	*MAINTAIN ANXIETY	*REDUCE ANXIETY
1. Approach Sport a) Feels anxious and uncomfortable b) Quit and leave further sport participation c) Form negative impression of sport competition	1. Approach Sport a) Athlete perceives deficiencies when appraising competitive situation b) Physical skills are not equal to the task demands c) Feels anxious d) Gets lost in the "work of worry"	1. Approach Sport a) Athlete perceives the competitive situation realistically b) Appraises personal abilities and task demands c) Athlete goes through effective coping process d) Athlete realistically appraises task demands 1) Gets anxious 2) Reads and interprets anxieties 3) Anticipates upcoming problem situations likely to occur 4) Consciously attempts to solve problems by planning a realistic strategy 5) Athlete is prepared and confident for competition 6) Athlete "thinks positively"
2. Approach Sport a) Feels anxious b) Escapes from anxieties c) Thinks positively d) May perform quite well if very talented e) Never attain maximum potential		
3. Approach Sport a) Feels anxious b) Escapes from anxieties c) Drug abuse d) Excessive alcohol use		

* All responses are capable of being changed.

More effective athletes are better able to anticipate upcoming problem situations far in advance of being placed in stressful situations. As a result, they have plenty of time to plan a realistic strategy for solving the anticipated problems. The anxieties are responded to far in advance so that the athlete is *prepared* and *confident* when faced with the competitive situation. Thus, the athlete is able to think positively and have positive thoughts quite naturally. In this way, athletes in the anxiety reduction category turn anxiety that is destructive to others into a source of power that provides them with strength and confidence.

Mastery and Coping Rehearsal

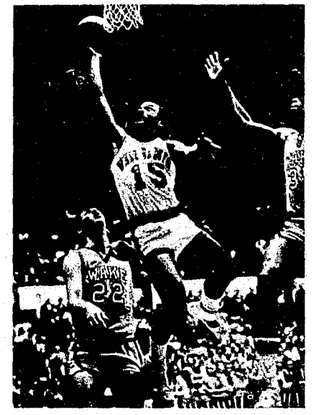
Today, sport athletes are being taught stress management skills in a very systematic fashion. The intent is to provide each athlete with the ability to prepare himself in the best possible manner for competition.

Two aspects of this training which have been found to be quite useful to athletes and should be applicable to police officers are *mastery* and *coping* rehearsal. The two techniques are similar in that they make use of visual imagery but they are, in practice, noticeably different in design and function.

Mastery rehearsal is designed to provide athletes with confidence in their ability to perform flawlessly in any stressful competitive situation. It has been well-documented for years that visual imagery provides actual learning to take place at a level just below the threshold necessary for actual movement.

Rather than allow an athlete's mind to anxiously run wild and "imagine" everything is going wrong, mastery rehearsal requires athletes to induce a relaxed state and then to visually imagine themselves performing in a particularly stressful situation with perfect execution. Athletes attempt to visualize the situation in living color with the picture including other people involved, environmental objects (equipment, obstacles, fields, audience), and weather conditions. Mastery rehearsal should include getting prepared for competition hours before a contest begins and until it's completed.

An important element involved in mastery rehearsal is to channel imagery in a positive and useful manner rather than in a negative, destructive direction. It is also used to provide repeated experience with success for young inexperienced athletes or more mature athletes who recently have had negative experiences.



University of Virginia basketball

Athletes are usually asked to develop a written script for perfect performance. Next, they are requested to convert their script into a cassette tape recording. They are then instructed to listen to the tape recording at least once a day and/or prior to going to sleep at night.

Mastery tapes may be particularly useful as the competitive event nears. There is little doubt that confidence is a crucial ingredient to successful performance in sport. Mastery rehearsal, however, has its limitations. It does not prepare athletes for every situation that is likely to occur. It does not provide a strategy for recognizing and controlling anxiety-induced distracting thoughts and feelings. Coping rehearsal is designed to meet this need.[5]

Rather than dwell on only the positive, coping rehearsal openly admits and attempts to anticipate inappropriate thoughts and feelings that are likely to occur in highly stressful situations. Once the situations and responses are anticipated, a strategy for coping effectively is designed and practiced repeatedly.

Coping rehearsal, like mastery rehearsal, first requires the creation of a script that will eventually be converted into a cassette tape. Typically, the script is created by getting a team or group of coaches and athletes together and asking them to create a master list of situations that they have experienced prior to, during, or following competition which have elicited emotionally charged and distracting thoughts. The distracting thoughts and feelings are detailed. They will ultimately serve as the cue for recognizing an inappropriate and distracting thought that can interfere with performance.

An example drawn from the shooting test given to police officers in their training program at the FBI National Academy, Quantico, Va., may serve as a model for understanding coping rehearsal. (See fig. 3.)

Once this master list is created, a strategy for gaining self-control is described. The strategy basically involves four short steps that will be implemented each time a distracting thought enters the mind. Step 1 is to recognize the distracting thought as quickly as possible. Even the best athletes or shooters are occasionally distracted, but they are able to regain attention control more readily. Anticipation and repetition of potentially interfering thoughts on the tape sensitize individuals to their potential occurrence so that they can readily recognize, then eliminate, them. Step 2 requires the individual to shout the word "stop" to himself for the purpose of ceasing the inappropriate thought. In step 3, the individual repeats the words "let go" and "easy," which are words that have been associated with previously learned relaxation training. They initiate an immediate relaxation response. Step 4 has the individual repeat a positive word or thought appropriate to the desired attentional target. In the shooting test example,

the thought might be "target" or "bull's-eye." This word would be repeated over and over until attention naturally flows to the bull's-eye.

The following is a brief example of how a coping rehearsal script may read:

Prior To:
- "If I fail, I'll be real embarrassed."
- "I wonder who will know if I fail."
- "Man, am I ever uptight."
- "I just know I am going to fail."
- "What am I thinking, 'Stop,' 'Let go,' 'Easy.' "
- "I will do fine. I am prepared."
- "I have every reason to be confident. I have prepared for this."
- "Others have taken it for years and done well. I'll do fine."

During:
- "Damn, I missed my first five shots. I'm in big trouble."
- "How could I do this. I wonder if I have time to catch up."
- " 'Stop,' 'Let go,' 'Easy,' 'Target.' "
- "There, I've got it going now. I'm going great now."
- "I'm going to do just fine. Wouldn't you know, rain."
- " 'Stop,' 'Let go,' 'Easy,' 'Target.' "

The basic idea is to prepare each individual for every possible situation that might interfere with performance. The better prepared by anticipating and listening to the coping rehearsal tape, the more readily control will be gained. Too often, the typical alternative has been to have each person make each error, and then hopefully, learn from their errors. This is obviously an ineffective and inefficient approach to performance under stress.

Coping rehearsal has many beneficial effects, not the least of which is that it concentrates attention on preparing in a productive manner. This is much preferred to not thinking about performance at all or worrying about it. In a positive and realistic way, it prepares people to respond effectively in situations that cannot or are not experienced frequently.

One criticism of mastery and coping rehearsal is the difficulty of anticipating many situations. In some ways this is a valid criticism, but they do provide skills which may be used in the unexpected. This is particularly true if an effort is made to occasionally present an imagined situation and ask athletes to transfer their coping skills to these new situations. In police work, veteran officers could help others by reflecting on situations and responses they have had in stressful situations. Tape recordings could be prepared for particularly challenging situations, especially those that occur infrequently.

Figure 3

Anticipating Distracting and Inappropriate Thoughts for Developing Coping Rehearsal Program for Shooting Test

PRIOR TO TEST	DURING	FOLLOWING
"If I fail, I'll be really embarrassed."	"Damn, I missed my first 5 shots, I'm in big trouble."	"That test was crazy. I didn't have a chance."
"I wonder who will know if I fail."	"Great, I'm off to a great start. If I can just keep it going, now I'll have it."	"The test was unfair. It doesn't prove anything."
"I bet this test isn't fair."	"I wonder how much time I have left. That can't be right. That's too fast."	"It wasn't my fault I didn't pass. Other people kept distracting me."
"I feel awful. I drank too much last night."	"Damn, it looks like rain. Just my luck—it will rain and I won't be able to see through my glasses."	"I'm so embarrassed. I can't believe this."
"I just had a terrible practice run. What a terrible day for testing."	"This is ridiculous. I can't shoot with my weak hand. Why even try? I'm going to fail anyway."	
"I just dropped all my skills. I must be scared. No way I can shoot."		
"I just had a great practice run. Damn, I just wasted my best shots. I'll never repeat it."		
"Wouldn't you know it. I have to shoot next to the worst shooter. Gosh, he could hit me he's so bad."		
"Everyone is better than I am. The guy next to me never misses. I'm in big trouble. They must think I am terrible."		
"I can't believe it. I must shoot in a few minutes and the instructor wants to change my shooting technique."		
"One teacher is getting me excited. The other calms me down. I wish they'd leave me alone. They are just messing me up."		

FBI Academy, Quantico, Va.

Conclusion

Preparing individuals to perform in stressful situations is a highly complex and difficult task. It will take both increased awareness and coping skills. New strategies are being developed to facilitate optimal performance in athletes. These strategies have relevance in helping police officers prepare for performance under stress in their work world.

FBI

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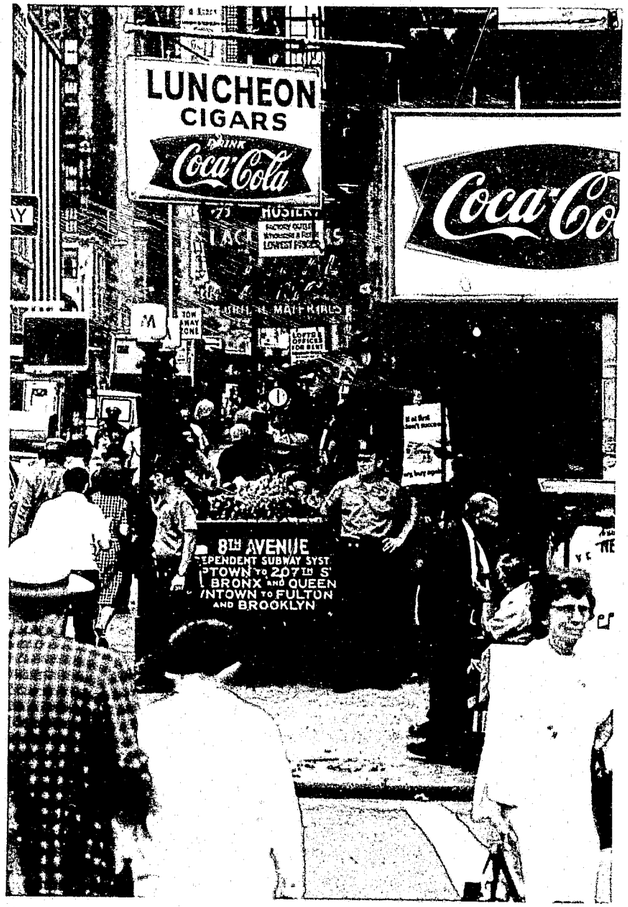

New York City

Footnotes

[1] Hans Selye, *Stress Without Distress* (New York: J. B. Lippincott, 1974).

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