IMAGERY

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"The typical makeup of any golf shot"

Swing-10%
Setup-40%
Mental image-50%

Jack Nicklaus

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What is imagery?

In its simplest terms, imagery can be likened to daydreaming. It is simply the process whereby an individual sees and feels pictures or images in the mind. It also is a tool that elite athletes have been using for years to maximize their competitive performance. Jean-Claude Killy, one of only two individuals to win three gold medals in alpine skiing in the same Olympics, reported that he always mentally went through each gate on the ski course, as he stood in the starting gate. Similarly, the great professional golfer Jack Nicklaus, reported that he never hit a golf ball until he visually saw himself hitting the ball in his mind. In fact, there would be few athletes competing at elite levels anywhere who would not use imagery systematically in both practice
and competition.

Uses of imagery

While the use of imagery is often associated exclusively with the learning of new sport skills, athletes use imagery for a number of different purposes. Some of these other uses include building confidence, helping to correct a skill, preparing to get the most out of a practice or specific drill, assisting with psychological recovery (e.g., coping) and motivation (e.g., seeing oneself standing on the podium with the gold medal hanging around the neck).

How imagery works

 There have been a number of explanations advanced over the years to explain why imagery works. At the present time, the explanation that is most accepted involves the suggestion that imagery helps an individual develop a mental blueprint of the action required by creating a motor program in one's nervous system. This stored blueprint then serves as a guide for future skill reproduction.

Learning to image

 The key to successful imagery is the skill to create a "real" blueprint in your head. There are two words in the preceding sentence that are important in the use of effective imagery. The first is real. Imagery can be thought of as a process in which one takes in as much information as possible about a skill in order to actually re-create that physical reality. In other words, the individual is trying to create the actual physical experience in the mind. The second word of significance in the preceding sentence is skill. Imagery is a skill, and as such, must be practised. Just as individuals vary in levels of physical skill, they also can vary in their levels of skill at producing effective images. The good news is that it is a skill that can be improved through practice. Before considering the factors necessary to be an effective imager, let's see where you stand in terms of imagery effectiveness.

Imagery Exercise

Think back to the last time you sat in a dressing room waiting to start an important game or event. When you have clearly identified a situation, proceed to the following instructions. It will be necessary that you hold each image for 15 to 20 seconds before proceeding to the next instruction.

1. Close your eyes and get as relaxed as possible - pause

2. In your mind, see yourself as if you were sitting in that room right now. As you wait to start the contest, look
around the room. Notice the colour of the walls, the type of lights, the seating arrangement and the faces of the
individuals who also are in the room - pause

3. Hear the sounds in the room as you wait - your breathing, the voices of others in the room, the sound of footsteps
within the room - pause

4. Now, focus on the feelings within your body - the feel of the muscles in your face, neck, shoulders, lower back, arms
and legs - pause

5. Focus on your emotions - pause

When you have completed the images, rate yourself along the following dimensions:

Visual - How well did you see things in the room?

A   B   C
Clear   Fuzzy   No Image

Sounds - How clearly did you hear the sounds?

A   B   C
Clear   Fuzzy   No Sound

Body Awareness - How aware were you of how your body felt?

A   B   C
Aware   Remotely   No Feelings

Emotions - How aware were you of your emotional state?

A   B   C
Aware   Remotely   No Emotions

If you are not familiar with imagery, you might be wondering about the importance of sound, body sensations and emotions in producing effective images. Vision, as you might expect, is the primary sense used by sighted individuals during imagery. And, so it should be, as we generally use our eyes to take in about eighty per cent of the information that we gather daily from the outside world. But, we also use our other senses to take in information. Imagery works in much the same way. A good image, not only contains a visual component, but also kinaesthetic, auditory, and emotional components. Simply, the more you can recreate in your mind the actual visions, sounds, physical sensations and emotions associated with the experience, the more powerful the imagery tool becomes.

Now, back to your ratings. The more A's that you recorded, the greater your skill at producing an effective image. If you scored B's and C's, then you need some practice.

To be a more proficient imager, the following factors need to be considered.

Vividness - For an image to be effective, it must be vivid. The vividness of an image relates to the degree to which all of the senses are involved. As mentioned above, to create reality in the head, it is necessary that the image involve as many of the senses as possible. A softball player imaging the slide into home plate, should be able to see, feel, sense the emotion and hear the sounds that would be associated with the actual sliding action into the plate. Vividness also is associated with the clarity of the image. Are the sights, feel, emotion and sound of the sliding action clear, or are they ill-defined and fuzzy? A point worth considering with regard to vividness concerns

the fact that there appear to be individual differences in the ability to get vivid images using all the senses. For example, some athletes may have difficulty getting a clear visual image, but have no difficulty sensing the feel of a movement. While athletes should work at getting clarity from all senses, they should not be too alarmed initially that one of the senses is not as clear as it might be.

Controllability - Another key ingredient in an effective image is the idea of controllability. Athletes need to be able to control their images to facilitate the required blueprinting of the correct movement pattern. Controllability refers to how well the images can be manipulated or altered according to the wishes of the individual. In other words, can you make the image do what you want it to do? While this might seem easy like an easy task, there are a number of athletes who have difficulty controlling images. For example, a gymnast once informed me that each time he imaged his pommel horse routine, he fell off the horse in his image! Athletes who can slow images down, speed them up or even reverse them are exhibiting good control.

The perfect image - To create "reality" in the mind, athletes must concentrate on imaging the behaviour perfectly. If the image you create is not exact, it will be necessary to re-attempt the behaviour until you get it right in your mind. This is simply an extension of the "perfect" practice rule that athletes adhere to when practising physically.

Follow-through - It is important that the skill, event, or event segment be imaged in its entirety. The imagined rehearsal of a triple jump takeoff without the run-up or the putting of a golf ball without the follow-through is often more of a hindrance than a help. What generally occurs in situations of partial imagery rehearsal is that errors occur at the point of change between the rehearsed and unrehearsed images. It would be much like an architect trying to build a house with a blueprint that contained only the plans for the basement and second floor. As the plans for the first floor are missing, few would be surprised if structural errors occurred when the basement and second floor were actually joined during construction.

 As a corollary to this, it is important to image not only the entire performance associated with a skill, but also a specific positive outcome. For example, a basketball player imaging free-throws, should image the shooting action as well as the outcome of the shooting action (e.g., the ball banking off the boards into the hoop). Also, it necessary that the athlete ensure that the outcome imagined is the one desired. While this may sound obvious, for athletes who have trouble controlling images, getting the right outcome imaged is not always a foregone conclusion. But, for an image to be effective it is necessary that the outcome match what the athlete wishes to achieve.

Timing is everything - Since we are attempting to create reality in the mind, it should come as no surprise that the time taken to image an event should parallel the time it would actually take to physically complete the event. That is, if it takes a hockey player 15 seconds to skate a full circuit of the rink, it should take that amount of time to

image the same event in the mind. A timing test such as this provides a crude measure of how well an image is matching reality.

Orientation - Images also can be classified into two distinct categories, internal and external. Images that involve seeing or feeling the behaviour from the perspective of the individual are known as internal images. Individuals using an internal focus see things just as if they were actually doing the activity (i.e., through their own senses). Individuals, using an external perspective, view the image from an outsider's perspective (i.e., like viewing their own performance from the stands). While these two perspectives do exist, studies have not been able to determine conclusively which perspective is best. However, it appears as if good performers often use both perspectives when imaging a skill or routine, flipping back and forth between perspectives when appropriate. For example, a gymnast imaging a floor routine might image the run-up internally while flipping to an external perspective to image the back handspring portion.

Practice Exercises

 Of all the attributes noted above, vividness and controllability appear to be the two which are most critical in determining the effectiveness of imagery. As such, exercises for these two factors will be outlined below.

Vividness Exercise

 Implicit in the preceding discussion is the suggestion that images are formed from one's experiences. Therefore, it follows that if one can remember an experience, then it can be imaged. Unfortunately, remembering an experience is easier said than done. Compounding this problem is the fact that many things that we do, including sport skills, often become so automated that we lose awareness of how we are actually doing it. Take walking as an example. Chances are, if you asked ambulatory individuals to image walking, most would have some difficulty getting a vivid image. This is likely to occur, not because they didn't know how to walk, but because they knew how to do it too well. That is, the skill of walking had become so automated that the individuals were not aware of how they were doing it. One way to get a better image of walking would be to become more aware of the actual act of walking. Similarly, one of the keys to developing vivid images in the sport setting is to become more aware of how you do the skills relevant to your sport.

 One exercise that can be used to develop vividness through awareness is as follows (5 minutes/session):

1. Select a basic skill in your sport.

2. Break the skill into discrete segments (select segments that you would use to learn the skill). An example of an

exercise that we have used to train figure skaters illustrates how a skill might be broken down.

 Right Forward Outside Counter

 a. Feel your feet in your skates
 b. Align skates
 c. Extend arms out
 d. Bend knees
 e. Push off left skate
 f. Lift left skate, trace on right
 g. Bring left skate forward
 h. Bring left skate back
 i. Turn

3. Practice each segment physically with the intention of becoming very aware of the sensations occurring during the segment.

4. After each physical practice, close your eyes and imagine how the segment looked and felt.

5. Repeat 3 and 4 until you feel comfortable with the image that you are creating (i.e., it is vivid).

6. Repeat 3 and 4 until all imagery segments are mastered.

7. Physically do the entire skill, close your eyes and imagine how the entire movement looked and felt.

Control Exercise

 The ability to control images also is critical in the development of effective imagery. One of the exercises that we use to practice control is outlined below (5 minutes/session).

1. Identify something familiar to you in your sport (e.g., if you are in a ball sport, select the ball; if your sport has an apparatus, select that; if use equipment, you could select that).

2. Create a vivid image of the item that you have selected.

3. Now, imagine the item enlarging slowly until it's the size of a house, then bring it back to normal size.

4. Now, reverse the process and imagine the item is shrinking slowly until it's the size of a grape, then imagine it returning to normal size.

Finally, it needs to be mentioned once again that while most elite athletes have well-developed imagery skills, it was only through consistent practice that they perfected this skill. It is suggested that you practice daily using the vividness and controllability exercises listed above. However, never spend more than 10 minutes in any one session. After you have mastered the ability of getting consistently vivid and controllable images, incorporate the use of imagery into the technical, tactical and physical parts of your practices, and then finally into those parts of your competitions.