



ARTICLE OF THE MONTH

THE PHYSIOLOGY OF HOCKEY



“Speed of Mind”

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Can we teach players to think like Wayne Gretzky? The short answer is, "no." So, if you're into short answers, there's no reason to read further.

However, the follow-up question is much more relevant: Can we teach players to think better, to anticipate the next play, to make quicker decisions? Now there's a project coaches should get excited about.

During the preparatory season for the 1980 Olympics, Herb Brooks told players, "you've got million dollar legs and a nickel brain - - but, in the next six months we're going to do something about that."

As a physiologist, my job was to present a plan to the coaches to build those million dollar legs, and I knew this task was possible in eight months. However, I took particular notice of Brooks' plan to prepare their minds, because this seemed ambitious, to say the least.

After all, the conventional wisdom was that rink sense, anticipation, and creativity were qualities acquired only by the gifted players and only through years of experience, not from coaching. So it was interesting to watch the progress of these Olympians as their coach drilled them endlessly to pursue a goal that would later be called a "miracle on ice."

Brooks was an observer.

He studied the philosophy and style of the great, Russian teams, because he admired the way they played, and he needed to know more about this formidable opponent in the upcoming Olympics. 1980 would be the first year since starting Soviet hockey that Anatoly Tarasov would not be the coach.

Brooks quoted Tarasov from time to time, because he himself, played against Tarasov's teams in the Olympic games of 1964 and 1968. One of Tarasov's favorite thoughts was, "speed of hand, speed of foot, speed of mind. The most important of these is speed of mind. Teach it."

Nothing could be worse than to speed up the feet through months of dry- land and on-ice training and then to play with the same slow brain, of last season. It would probably be better to slow down the feet, so they would not race ahead of the mind.

Tarasov, like Brooks, directed hours of practice making sure the players could skate faster for the length of a game. At times the practices resembled physical torture - - endless skating drills that built speed, endurance, and mental toughness. Both coaches knew that *speed kills*.

Tarasov's purpose was to get his team to play at an elevated pace every shift of the game. This would force the North Americans out of their comfort zone, causing mistakes and exposing their weaknesses.

But, Tarasov, like Brooks, knew the puck could move much faster than the player, no matter how fast a skater. Therefore, practices required quick, deceptive passes, time after time, until passing and receiving became second nature. Practices were seldom a matter of stationary drills in one end. Instead, the players moved up and down the ice with great speed and with quick passing.

When they got to the games, they were well within the elevated comfort zone they had established from hours of training. The opponent was not. Transitions were so, quick, passing so precise that the pace was overwhelming.

To execute this kind of game successfully, however, it was necessary to develop the mind, so it would always remain one step ahead of the puck. "Cardiac, this is not a track meet," Brooks warned, when he thought my training plan was over-emphasizing the legs.

How did they do it - - these two master coaches?

To borrow from the words of Bud Grant, former Viking coach and one of the greatest in history, "coaching, like teaching, is a matter of creating an environment where students can learn. A great teacher is one who helps the student grow to the point where they no longer need the teacher."

This is the way Tarasov coached Valeri Kharlamov, the Wayne Gretzky of Soviet hockey. Tarasov recognized brilliance in Kharlamov when he was a young teenager, so he had him skate with the older Red Army team, the best players in the country. In order to challenge Kharlamov to think, rather than to rely exclusively on superior skills, Tarasov would create an environment that required what he wanted to teach.

Kharlamov was to scrimmage for an entire hour with three other skaters against five opponents. Four-on-five scrimmage, but Kharlamov could never come off to rest. His line-mates and opponents rested, but Kharlamov stayed on the ice. This way he would have to use his head, coast when he didn't have a chance to create or prevent a goal, saving energy for the quick burst at an opportune time.

Using the mind, rather than just the legs.

Anticipation. This is the key to dominance in hockey. This is the attribute that set Gretzky apart from the rest. The player who senses what will happen next is going to be the best.

In fact, at higher levels of hockey, there is a rule that is inviolate. Every play you make is successful or not depending upon your anticipation and preparation - - much more than your skill and determination, because everyone plays with skill and determination.

Brooks and Tarasov set up problems in practice, and challenged players to find solutions.

They might not tell the players what they were doing, but practices included thousands of decisions at top speed. They wanted to reward creativity, rather than discourage it by demanding players be robots. They rigged the environment, so players had to anticipate the next play in order to succeed.

European coaches include competitive drills with rules manufactured to bring out the lesson of the day. For example, a game of 3-on-3 keep-away could be no more than a stick handling drill for the best player. In that scenario, line mates turn into spectators - - cheerleaders who are not required to think or move.

However, if the rule requires the puck carrier to pass the puck within two seconds, he learns to plan ahead. Even before getting to the puck, he must decide where his next pass is going, forcing him to think like Gretzky.

The challenge for the two line mates in this keep-away game is just as great.

Before your teammate gets to the puck, you must get open and present a target, perhaps holler to him. There is no room on the ice for spectators. Receivers have to anticipate and move to support.

If the coach wants the forwards to use the point more in the offensive zone, add, a wildcard player (perhaps the coach himself), positioned on the blue line. Whichever team has the puck really has four players, because they can use the wildcard. Players will learn quickly the best way to succeed is to emphasize the man advantage.

Do the same thing with a half-ice 3-on-3 scrimmage. The game is like half court basketball, but if you are on defense, in order to get on offense, you get the puck out to the wildcard on the blue line.

Use the wildcard also when you're on offense. Create confusion in the defense by using the extra player.

As Bud Grant would say, "teaching is about creating an environment for learning." It's not about telling players to do X, Y, and Z like robots.

More than any other sport, hockey is a game of quick decisions, many of them spontaneous and creative. As coaches, we cannot possibly anticipate every decision and tell players in advance what to do in every situation. .

Read-and-react. Create. Anticipate. These are the qualities of great players, so we must create an environment for these qualities to grow.

In hockey, creativity means using all your resources (teammates) to get the job done. If we want to be the coach of a future Gretzky, we better allow for trial and error. We shouldn't always second-guess a forward who dekes on a breakaway if we think he should have shot, who passes instead of taking a shot, or vice versa.

To allow creativity means we may be surprised by the outcome. After all, Michael Jordan would say, "the art of creativity means you sometimes surprise yourself."

In six months, the 1980 U. S. Olympic hockey player became a synergistic team. Of course, each individual improved skills like skating, passing, shooting, and defense.

But the whole became much greater than the sum of the individual skills. Players learned to rely on each other, anticipating the thoughts and needs of teammates.

The "miracle" in the Olympic games would never have happened without intelligent preparation for just this kind of team synergy.

When you think about it, this is the formula for every *miracle* of human achievement. Without a thoughtful plan - - without a consistent work ethic - - without fearless leadership - - miracles never happen.