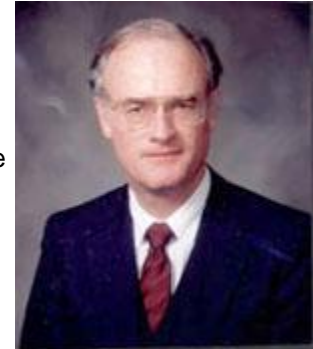


Symbolic Language of Kumite

Sport Karate

By: Robert Thoburn, MD

In martial arts the dictum of never getting hit is well known. The question is how does one go about not getting hit; yet get in position to counter with maximum efficiency. The attacker and the defender occupy personal space. The rest of the space on the mat is called tactical space. There is optimal space within the tactical space that will give the attacker an advantage for every offensive technique. Similarly, there is optimal tactical space that will give the defender a safer harbor; yet still provides the most efficient counter. The most heuristic players will know and be able to execute these options.



Mr. Bob Thoburn, MD

The direction and momentum of an attacker's movement is of great importance to the defender. Momentum is the product of the mass and velocity of the attacker. A vector is an entity that has magnitude and direction. The vector of momentum is a quantity that has magnitude and direction and is usually represented by a line segment with a given direction and with a length representing the magnitude. The vector of momentum in kumite is the direction and momentum of the attacking athlete. Early recognition of this movement affords the correct evasive response and prepares the defender for counterattacking successfully. Watch a cat react to a sudden movement of your foot as it saunters by. An understanding of the physics of karate, keen perception, agility and explosive movement are the hallmarks of a good defensive martial artist. Studying the kinetics of kumite develops perception. Explosive movement is necessary for evasion and reaching the optimal tactical space. Plyometric exercises are the way to explosive power.



In the symbol above the circle represents the body of the attacker. The long arrow is a lunge jab (kizami), left leg front kick (mae-geri) or spinning back kick (ushiro-geri) in the closed stance and a step through jab (oi-zuki), reverse punch (gyaku-suki) or rear leg front kick (mae-geri) in the open stance. The arrow represents the direction of movement of the weapon.



The arrow on the right is a jab and the arrow on the left is a reverse punch. The long arrow passing through the middle of the attacker is the vector of momentum. The direction of the arrow indicates the direction of momentum and the length of the arrow represent the magnitude of the force. An experienced defender can pick the direction and speed of the movement very early in the process. Intuition or perception is the process used to detect early action of this type. Intuition is the immediate knowing of something without conscious use of reasoning that comes from repetitive practice and experience. It is insight or a sixth sense used to know what your opponent is going to do. It is nothing more than distilled experience and simulation provides reams of experience. Conscious thought is too slow to be effective in this situation. The response must be from the unconscious mind and automatic from long and dedicated practice. The defender has a vector of momentum when evading an attack and another vector for countering.

Intuition and perception are developed through the use of simulation training, visualization (mental imagery), hours of viewing videotapes and sparring practice both alone and with a partner. Simulation is the mimicking of different entries and defenses until you react to them without thinking. Holding target mitts or the larger kicking/punching bag is an excellent way to develop intuition by observing the early moves of an attacker. You become use to the attack and can visualize your defense and counter. Visualization is the process whereby you mentally see the offensive and defensive moves in your mind. With this technique you can practice in your spare time anywhere. This is a very powerful technique that has been shown to be nearly as good as the actual physical training itself. New neurons or attachments are laid down and the proper neural pathways are trained. Scientists and artists use visual imagery to create new theories, knowledge and conduct thought experiments.

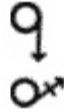
Once the direction of momentum and speed are determined, one needs to determine what direction or vector is the most efficient for evading a particular attack. If the attacker is performing a simple jab from the left stance his left foot advances forward as he punches with the left hand. The defender is in the left stance as well. This is referred to as the closed stance.

The defender now has the opportunity to shift left, right, back or forward. If he shifts right he is moving outside or to the attacker's back (ura). If he shifts left he is moving inside or to the attacker's front (omote). This is the x & o of karate. Use this information for creating a strategy for your next fight after profiling your opponent's characteristic patterns.



Evasion symbol

This symbol represents the defender. The arrow with a line through it represents the right foot sliding in a right forward direction from a left lead closed stance.



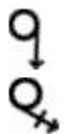
o Lunge jab, front kick, step through punch, reverse punch

Offensive techniques:

Lunge punch (kizami), left front kick, back kick (closed stance), step through punch (oi-zuki), reverse punch (open stance)

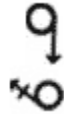
The symbols above represent an attacker performing a lunge punch, left leg front kick, back kick (left lead closed stance); left reverse punch (gyaku-suki) or step through punch or rear leg front kick (attacker right lead open stance). The defender quickly slides to the outside or back of the attacker. As the attacker lunges forward with his left foot to punch, the defender adroitly slides forward and to the right. He not only avoided the punch, but he is behind the attacker out of range of other weapons, yet in optimal position for a quick counter. All of his weapons are still options with some being better than others. The key is to be alert and perceptive at all times so that you can detect the nature of the attack at the earliest possible moment similar to the cat. The reaction must be intuitive. Conscious thought is too slow and will not work. It may be difficult to get outside of a very quick step through punch where the attacker wishes to end up to the right and slightly behind the defender. Here attacking the attack with a punch to the upper chest or head may be the best choice. Attacking the attack with takedown is a good choice for a spinning back kick as well.

The defender can add embellishments if needed such as head and upper body evasive movement or fakes. The arms and hands can utilize various deflecting and blocking techniques to supplement the evasion. Depending on the perceptive ability and speed of the defender and speed of the attacker, the defender must weigh his options. The key is to get off line, i.e., avoid the vector.



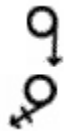
Lunge punch, front kick, step through punch, reverse punch, back kick

The defender could slide back and right if time did not allow a forward right move. This one may be a little less safe from further attack, but still usually affords the correct distance and timing for an efficient and effective counter. Part of evasion is to show the attacker a smaller target by turning your body sideways to the attacker.



Lunge punch, front kick, step through punch, reverse punch, back kick

In this case the defender is moving to forward and left by sliding with the left front foot. Here there is a little more time to evade the punch, but he is now face to face with the attacker who has more weapons ready to deploy. The chance of getting hit in this position is greater since you are still in the line of fire if multiple techniques were used.



Lunge punch, front kick, step through punch, reverse punch, back kick

Here the defender moves back and left by sliding with the right rear foot or moving back and left with the left lead foot. She remains face to face with the attacker and at risk for further techniques. This option may be less desirable than some of the other options.



Lunge punch, front kick, step through punch, reverse punch, back kick

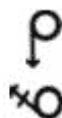
In this situation the defender moves straight back to evade an attack by stepping back with the rear foot. This is a very commonly used evasive tactic especially with less experienced players. If the back step is only one-half step the counter can be successful. If a full step or more is taken the counter from this position will generally be ineffective because the distance and timing will be incorrect. The attacker can move faster forward than the defender can retreat in reverse. However, a back kick (ushiro-geri) or a spinning jump reverse roundhouse kick (uromawashi-geri) can be effective, but the success rate is low. Alexandre Biamonti and Christophe Pinna sometimes employ these techniques successfully. In general, moving backward more than a half step should be a last resort option for several reasons. It is easier to score on a retreating player (Wayne Otto), wasted energy, may increase confidence of the attacker, may decrease confidence of the defender and does not usually allow an effective counter.



Lunge punch, step through punch, reverse punch, back kick

In this case the defender is attacking the attack. No evasive footwork has been used. He may block or head dodge, but he is generally counting on his speed and body position to score with this tactic. Multiple countering techniques are available to the defender.

Open Stance



Lunge punch, front kick, back kick; step through punch, reverse punch

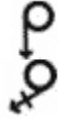
With the open stance where the attacker has a right lead and the defender has a left lead the evasive movement is modified. The attacker's techniques could be a lunge punch, right front leg kick or back kick from the open stance or a step through punch, reverse punch or rear leg front kick from the closed stance position. The defender moves forward and left by sliding with the left front foot to get behind the attacker (ura) and out of the line of movement or vector of momentum. His countering position is good.

Similarly, the defender can move back and left by sliding with the right foot to evade the lunge punch and counter from that position. Depending on their relative positions this evasion is slightly less desirable than the previous one, but this movement allows a little more time to evade the attack.

Here the defender is sliding inside of the vector, but the attacker still has some weapons available. If the counter is performed while the attacker is in yin (weaker, end of attack) the advantage is with the defender.

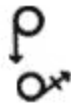
In the above the defender slides back and right with the right rear foot which allows time to evade the lunge punch, step through punch or front kick followed by the countering techniques. If the counter is performed with appropriate speed and timing this counters can be effective. The attacker has other weapons available in this position.

Theoretically, the best options are straight forward>ura-forward>ura-backward>omote forward>omote backward>straight back. This is the ideal that should be worked toward for the best result.



Chudan or Jodan-Geri

Closed Stance



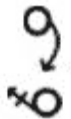
Chudan or jodan-geri

Here the attacker is performing a left front leg roundhouse kick from the closed stance or rear leg roundhouse kick (chudan or jodan-geri) from an open stance to the body or head of the defender. Stepping outside to the back of the attacker is usually not possible with this offensive technique. One option is to slide forward and left with the right front foot to evade and counter before the attacker can launch other techniques. Multiple countering options are available to the defender from this position



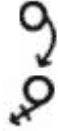
Chudan or jodan-geri

Sliding back and left evades the kick, but the defender is still in the line of fire for additional offensive techniques. This option is less desirable, but multiple countering options are available here.



Chudan or jodan-geri

Moving into the attacker by sliding forward with the left foot is an excellent option. Explosive movement and acute perception are required to make this happen correctly. This maneuver evades the kick by getting inside and affords many countering options including a punch to the upper chest or head or a takedown. An alternative is holding your position and block the chudan-geri with a chambered knee and forearms held in front or the jodan-geri with forearms held up vertical to the mat and then explode in for the counter.

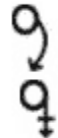


Chudan or jodan-geri

One-half step back can allow evasion without creating too much distance to counter effectively, but beware of serialized techniques. A full step back will probably present timing and distance issues for countering and wasted energy, but provide effective evasion. Other countering options are available, but percentage of success may be lower.



Open Stance



Here the attacker is performing a front leg roundhouse kick from an open stance or a rear leg roundhouse kick from a closed stance to the head or body of the defender. The defender generally does not want to slide left in the situation. As above, the options are moving forward, right or back. The other attacks from an open stance can be determined from the information given and will not be repeated here.



The attacker is performing a reverse roundhouse kick to the head (ura-mawashi-geri). The defender is sliding forward and left to the back of the attacker. The b. symbols show the defender moving back and

left, while the c. symbols show the defender attacking the attack.

Conclusion

These symbols offer a geometric or spatial visual image of some kumite attacks and evasions. Use them for creating your strategy and tactics. There is a mathematical ideal for the attacker and defender. The attacker and defender occupy space on a mat. The remainder to the space is called tactical space. Every offensive technique has optimal tactical space for evasion and countering. Through a sixth sense, intuition or keen perception of early movement the defender must instantly know what technique the attacker is employing.

This must occur automatically without conscious thought. Explosive power is necessary to achieve the optimal tactical space for effective evasion and countering. The evader must know the countering options and be able to select from among them the most effective ones for the situation at hand. Constant study and arduous training is required using simulation, visual imagery, videotapes, shadow boxing and sparring at different speeds. Work toward the ideal.

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& Nick De Paolo

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