

# **Action versus Reaction**

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## **Action vs. Reaction and how it affects Law Enforcement**

Throughout history, law enforcement has battled with action and reaction whether they were aware of it or not. Officers face it during every criminal trial when they are cross-examined by a defense attorney. In addition, it has been responsible for every police officers death since the first recorded death in 1791, to the most recent death in 2012. It is integrated into every step an officer takes throughout their entire law enforcement career so having an understanding of it could be crucial to success. Studies have shown reaction is actually faster than action itself which creates confusion with the old saying, "Action is faster than reaction". Since law enforcement is primarily a response to a stimulus, is it possible to lower the number of officer deaths and assaults by understanding action and reaction and ways to make it work for law enforcement instead of against? Some people believe he who strikes or acts first, will almost always be the victor. I on the other hand believe victory goes to he who acts most intelligently. It is important we look more in depth into action and reaction and how it is applied specifically to law enforcement so it can possibly save lives.

To start, it needs to be identified which is actually faster, action or reaction. Andrew Welchman (2010) is a Scientist at the University of Bringham and conducted a study to evaluate which is faster, action or reaction (Welchman, 2010). The study involved the timing of numerous different people pushing buttons as an action and as a reaction. The study results indicated reaction is 21 milliseconds faster than someone's initial action (Welchman, 2010). Although this may seem like an insignificant amount of time to you, in law enforcement small increments of measure such as inches and milliseconds, can mean life or death. The reason for the difference in

the two types of movement is unclear but Welchman believes it has something to do with the way our brain processes actions we initiate and spontaneous reactions to changes in our environment (Welchman, 2010). In easier terms, a person making a conscious decision to jump would be slightly slower than if that same person jumped as a reaction to a very loud noise. Now that we understand a spontaneous reaction is actually faster than initial action itself, we need to look at what a person has to go through in or to perform an action so we might obtain a better understanding of how police officers could apply it to help save lives. By taking a closer look at Colonel John Boyd's theory of the OODA loop cycle, it will help with clarification on what a person goes through in order to perform any action.

Colonel John Boyd was a United States Air Force Officer from 1951 to 1975. He was a fighter pilot and was dubbed "40 second Boyd" because he had a standing challenge that he could start in a position of disadvantage while flying a fighter aircraft and within forty seconds, be in a position of advantage over his opponent. Legend has it, Boyd never lost when challenged to his forty second bet. During a Discourse on Winning and Losing (1961), Boyd states his reason for success was based on his theory of Observe, Orient, Decide, and Act or OODA loop cycle (Boyd, 1961). Boyd says every action is based on this continual loop and how fast a person can process through it. In addition, if you are able to reset the other person's OODA loop, you will be able to obtain valuable time you can use to perform your action prior to the other person performing theirs (Boyd 1961). This is the theory Boyd credits he used to win his fighter jet challenge. In order to be able to use this cycle or loop to your advantage, you must understand each phase of the loop.

The first step in the loop is to observe. Everyone continually observes or sees the unfolding circumstances surrounding them on a daily basis to determine if they are going to be directly or indirectly affected (Boyd, 1961). We often do this without even thinking about it. In law enforcement, this plays a vital role with our ability to properly identify and handle dangerous situations. For police officers, seeing and observing are two crucially different things. If an officer does not properly identify a threat in time to take action to stop or prevent it, it could mean the difference between life and death. Since the majority of our sensory information is taken in through our eyes, it is vitally important we (law enforcement officers) observe what we are seeing in order to continue in the loop to quickly reach the desired act phase. This is why most people have heard good police officers referred to as “trained observers” because there is a difference between looking at something and actually observing what you are looking at. An example of the difference between seeing and observing would be watching a suspicious person walking down the street. An untrained officer might just see a person simply walking at a fast pace and not think anything more about it. Therefore he would move no further along in the loop. A trained officer might notice the same subject walking at a fast pace but also observe them flexing their jaw muscles, clenching their fist, watch being worn on their left hand, and the subject repeatedly rubbing his right side. A trained officer would likely deduct the fast pace could be a sign of determination, the muscle flexing and clenching of the fist would likely indicate agitation, the watch worn on his left hand would likely indicate his strong or dominate arm is his right, and the repeated rubbing on the right side as being a sign of reassurance that something on their side is still there, like a gun. A trained observer might assume the suspicious person was on his way to harm someone and would use his right hand if he were to draw his weapon. By observing and not just seeing, the police officer could move more quickly onto the

next phase, orient. If you remember, the more quickly you move through the loop, the better your chances will be at success and in the above mention situation it could result in you being prepped and ready to prevent a deadly encounter.

Orient is simply how you interpret a situation (Boyd, 1961). Everyone orients in ways that are filtered through their own experiences and perceptions. This phase is closely related to the observe phase because one can directly affect the other. One of the main problems with decision making comes at the orient stage (Boyd, 1961). An example would be someone pointing a gun at another person. Most adult humans know if someone is pointing a gun at them they can see the gun and then orient that they are potentially in grave danger. This is due to past experiences and perceptions of how bad people use guns. However, if a gun were to be pointed at a young child who has no experiences or perceptions to relate to, the child would simply see the gun and then orient that there was nothing to worry about and move no further along in the loop.

Understanding this explains why training and experience is vital for law enforcement officers. If a police officer is dealing with a subject he does not know is armed on a traffic stop and observes the subject displaying different signs of extreme anxiety but does not orient it as a sign of danger that he is about to attempt to murder him, it could easily result in tragedy. It is also important to understand every time new information comes in at the observation and orient phase, your OODA loop will reset and start over at step one, which adds additional time in reaching the final act phase (Boyd, 1961). Resetting the OODA loop is important to understand so you can use it to change your position of disadvantage to a position of advantage, just like Colonel John Boyd did as a fighter pilot during his challenge.

The next step decide, can be broken up into two categories, conscious and subconscious influenced decisions. A conscious decision is an action where you evaluate what is before you and then make a decision on what you are going to do in the next phase, act. Often during a conscious decision people overanalyze what they are deciding on. Scientist at the University of Rochester (2008) conducted a study on conscious and subconscious decisions and determined when the conscious mind is primarily used in decision making, it was accurate approximately seventy percent of time (Rochester, 2008). A subconscious decision is a quick reactive decision which is based on what is embedded in your subconscious mind from your past experience or training. An example of a subconscious decision would be getting startled. Depending on what your life's experiences are, your subconscious reaction might be to respond by screaming, running, or even striking towards what startled you. It all depends on what is embedded into your subconscious mind. The Scientist found decisions primarily using the subconscious mind were accurate approximately nine-five percent of the time (Rochester, 2008). The decide phase is where training and experience plays a huge role for everyone, especially police officers. If you are a well prepared and trained police officer, you will more quickly react to a situation properly because you are using your training and experience to react subconsciously, instead of acting with your slower conscious.

The final act phase is the area where law enforcement throughout the United States spends the majority of their time training, trying to perfect certain actions. It is often thought of as being more important than any of the other phases; officers stand stationary on a range while practicing pulling the trigger. Often, police officers will practice actually pulling the trigger on their weapon while shooting a stationary target or swinging their baton at a stationary object in

preparation for a dynamic confrontation. When the desired outcome does not occur or officers have a high miss percentage, people are left confused on what went wrong. Although act is an important aspect of the cycle, it is easier to see from the above mentioned studies, focusing solely on practicing an act, is not the most important phase nor will it prove to be most beneficial in a real dynamic situation.

To clarify this point, we can reference a New York Times article (2008) covering New York Police officer's accuracy with their weapons. A study of departmental use of force reports over a ten year period involving officer involved shootings, revealed New York police officers actually hit their intended human target thirty-four percent of the time. In most of the situations, the officers were not even being fired upon (Times, 2008). In addition, officers had a fifty-five percent accuracy rate when defending themselves against dogs, most being pit bulls. These police officers were well trained on the act of firing their weapon and were required to pass a minimum firearms standard prior to carrying their weapon on duty. Even though they have a high hit percentage while practicing on the range, why did it not convey over to having a high hit percentage in a dynamic situation?

The reason is while officers are qualifying on the range they will usually hear a buzzer or a command to engage their target and then they will have a certain time limit to react and hit the target. In this situation, officers have already proceeded through the first three phases of the OODA cycle and are simply waiting to act or shoot the target upon command. This is a straight forward and simple process. The primary thing to notice is while on the range, everything is going according to plan and nothing unexpected occurs to reset their OODA, buzzer goes off and

then they shoot. During the real life situations the New York officers faced, something most certainly occurred the officer did not plan for. As we discussed earlier, if something unexpected occurs it will result in your OODA cycle being reset which will either slow you down because you have to start the cycle all over or cause you to be inaccurate in your actions, which would translate into you being successfully attacked or missing the target. By understanding the affects of what happens when the OODA loop is reset, you can alter your training and actions which will result in greater success.

To help you understand how to reset someone's OODA loop and how to apply it to help law enforcement, I will reveal a technique I have used in the past while training with the SWAT team. I am currently a SWAT team member and serve in the capacity of the team leader and trainer for the team. Keep in mind, I am training with highly trained officers who specialize in marksmanship. During weapons training on the range, we sometimes train on a dueling tree which resembles a regular tree but is made out of metal and it has six round plates that protrude outward to the side much like straight branches. These plates can swivel from one side of the tree to the other. Two people will stand beside each other at a pre-determined distance away from the tree and three plates will be on the left and the other three plates will be on the right. Whoever is on the left shoots the plates on the left and whoever is on the right shoots the plates on the right. The goal is to shoot the plates on your side as fast as you can, causing them to swivel over to the other side. This usually goes back and forth until someone shoots accurately enough to get all of the plates on the other person's side. Once that occurs, they are the winner. So, both shooters stand in their designated spot and observe their target, orient what exactly it is they have to do, decide as soon as the buzzer signals where they are going to shoot, and then they are set, waiting

on the fourth phase in the loop which is to act. As soon as the go buzzer signals, the other shooter implements his fourth phase and starts to draw his weapon to shoot. I on the other hand use my flashlight and quickly shine it in their eyes and then I start shooting my target. Since we often do this in low light situations it is very affective and results in my victory.

What occurred is simple but very important to understand, especially for police officers. We both went through the first three phases of our OODA loop cycle and then waited for the go buzzer to signal. When the buzzer told us both to begin, I reset my opponents OODA loop by shining the light in their eyes. This caused him to abandon his original intended act phase, observe the blinding light, orient what exactly happened, decide he needs to fight through it, and then act by shooting his targets but by then it is usually too late. So, by simply using my light, I was able to reset his OODA loop and temporarily disorient him which bought me the extra time needed to ensure my victory. As you can see, if a cop were to apply this same principle while handling dangerous situations, he would most likely increase his chances of victory. I do this tricky technique to help officers understand what the OODA loop cycle is and how it can affect them both positive and negative. Now, if we take another look back at the New York Times report on their police department's study, we can better understand why officers succeeded at the range but not in a live dynamic situation.

In the real life situations something occurred the officer did not expect which will cause the officer's OODA cycle to reset which in return, changed the outcome of the situation in the form of a missed target. As the New York officers took aim on their human target, the person more than likely moved in one way or the other and did not stay stationary, like the targets on the

range did. A potential reason New York officer had a higher percentage of hits on dogs is because dogs are less likely to do something unexpected to reset the officer's OODA cycle. If a dog started running straight towards them to attack, it unlikely deviated from the straight path which did not cause the officer to reset their OODA cycle. So in simple terms, in law enforcement, anything that occurs unexpectedly in a dangerous situation is basically like a light shining in their eyes prior to the buzzer going off.

If officers do not understand action versus reaction and how to use it to their advantage, it could be deadly. If citizens do not understand the process, they will be confused when evaluating a police officer's actions. If those citizens are sitting on a jury judging an officer's use of lethal force, that lack of understanding could prove to be detrimental to the officer. For example, if I were to ask you if it was lawful for a police officer to use lethal force against a threatening subject armed with a knife standing five feet away from him, what would you say? What if I increased the distance to ten, fifteen, or even twenty feet away, would it change your opinion on whether an officer could use lethal force or not? If you were sitting on a jury right now faced with this scenario, what would your verdict be if an officer shot and killed a threatening subject wielding a knife who was twenty feet away from him? Often, people do not understand action versus reaction and would feel the officer was fairly safe if a person was standing twenty feet away, threatening them with a knife and therefore think they should not use lethal force. In reality, they could not be more wrong.

Dennis Tueller, a Salt Lake City police officer, conducted a study addressing action and reaction when dealing with an armed subject holding a contact weapon (Tueller, 1983). The results of his experiment changed law enforcement operations forever both in the field and in the courtroom. His study revealed an average person could cover twenty-one feet in approximately 1.5 seconds. During the study, Tueller had a police officer stand twenty-one feet away from a person holding a training knife. As soon as the person holding the knife moved in a threatening manner, the officer was to draw his simunition weapon and engage to stop the threat. The best outcome achieved was the officer was stabbed in the chest at the same time he delivered one round on the assailant but it usually resulted in the officer just getting stabbed (Tueller, 1983). There are numerous medical documents to show one round not only does not usually kill someone nor will it stop someone's forward momentum. By using what we previously discussed, you can understand what each person is thinking and why the officer was unable to retrieve his weapon and respond in time. The person wielding the knife only has to engage the act phase where as the responding officer has to start at the observe phase. So, understanding all of this would tell you bringing a knife to a gun fight does not always mean you are going to end up on the losing end.

Do to my profession and me haven been in a similar situation with a subject wielding a knife, I decided to try my own experiment similar to the Tueller study. I armed myself with an air soft pistol and provided my training partner with a training knife. We measured off twenty-one feet exactly and stood on opposite ends. The way it worked was my partner would initiate action whenever he wanted and then I would respond by drawing my weapon and firing an air soft round at him. Depending on where it hit him and how far away he was from me when he was hit,

we decided he would fall down if I hit him center mass and momentum would unlikely continue him forward, depending on his distance from me. I have recorded documentation of me being able to draw my weapon and hit center mass on a consistent basis in under one second. Needless to say, I felt fairly confident. The short version of the results, I consistently got stabbed.

Now that we have taken a look at different aspects of action and reaction, how would law enforcement use this to their advantage? The answer is relatively simple. Always apply what I have deemed the three keys to success: reality based training, tactical observation, and respond in a way to reset your adversaries OODA loop in every situation you are faced with. To show you how affective the three keys can be I will reveal the rest of my personal experiment. After my many failed attempts at standing and shooting at my training partner when he lunged for me, I decided to apply the three keys. Since we were involved in reality based training (mimicking real life situations) we were already applying key number one. I did not need to tactical observe (actually observing in detail what I was seeing) since I already knew he was holding a knife in his right hand and appeared to be agitated. So, for the third key application what I did was after he initiated his forward momentum, I did not automatically draw my weapon and shoot him; instead, I took a big step laterally in one direction or the other, yelled very loudly, and then fired multiple rounds at my training partner. The results to me were astounding; I had a one-hundred percent success rate. I did not get stabbed and I delivered numerous rounds on his person. I went from getting stabbed over and over to not getting stabbed at all and winning the fight. By changing his expectations (him lunging and stabbing me) I was able to disrupt his OODA loop which ended up in my victory. This experiment changed my perceptiveness on action versus reaction in a big way.

Throughout my twenty plus years involved in martial arts I have heard numerous times, he who strikes first will usually be the winner. Throughout my fifteen plus years as a law enforcement officer I have heard people teach, if someone is going to shoot you, you will likely get shot but your vest and a determined attitude can still bring you victory. All of those theories are based on action being faster than reaction. By understanding in detail what makes up action and reaction and how to use it to your advantage, you can see that if you change even the smallest of variables, you can disrupt someone's OODA cycle which can change the entire outcome to you having the upper hand, even if you are in a responsive career such as law enforcement. The number of ways a person can reset someone's OODA cycle is infinite, all you have to do is think outside of the box, be good or better than your opponent at what you are doing, and always apply the three keys. I constantly apply this to law enforcement which is my world. However, since every living thing goes through the same cycle, you too can use it to your advantage if you every find yourself in an undesirable situation where your family is relying on you to protect them.

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