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Introduction

The Tactical Engagement Cycle (TEC) is a conceptual framework representing the dynamic phases of a self defense encounter. It occupies the actionable domain of Defend on the Eight Point Path to Self Defense and serves as a practical learning tool for contextualizing a violent interaction and analyzing tactical strategy. To be clear, the TEC model is not specific to the Seven Star Praying Mantis Kung Fu style and can be meaningfully applied across any style and/or domain of combative application. In today's paper, section one will introduce some key working definitions; section two will explore foundational characteristics and properties of TEC; section three will introduce tactical considerations using the DDELTA framework; and section four will explore how to manage DDELTA having identified Pre-Attack Indicators.

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1. Working Definitions
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4. Managing DDELTA

The article marks the completion of my eight-part series on Theory of Mind in Self Defense, in which I have endeavored over the last two years to provide readers with relevant, informative and insightful information on the ecosystem of interpersonal violence and self defense. The entirety of this flagship series is intended to serve as a practical resource that is not just targeted towards the professional self defense community, but more importantly to all individuals from all communities (private and public) who have an interest to better understand interpersonal violence with the goal of increasing personal safety and security. If you have not done so already I would encourage you to read each of my previous articles as they provide deep analysis and insight into the complex ecology of interpersonal violence and self defense.



Nathan A. Wright
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Flagship Series on Theory of Mind in Self Defense



Master Luo Guang Yu
罗光玉 1888-1944

1. Working Definitions

Tactical Engagement Cycle (TEC)

The Tactical Engagement Cycle (TEC) neatly breaks down the dynamic phases of a combative engagement into three parts: 1) Pre-Engagement, 2) Engagement, and 3) Post-Engagement. Like a snapshot in time, the model simplifies the complex and dynamic nature of a combative interaction serving as a practical learning tool to help you break-down and analyze techniques, tactics, and strategies for such. Stage one is primarily about positioning, stage two is about offensive and defensive sequencing, and stage three is completion. The context of this article will focus on civilian self defense application - also commonly referred to as interpersonal defense.

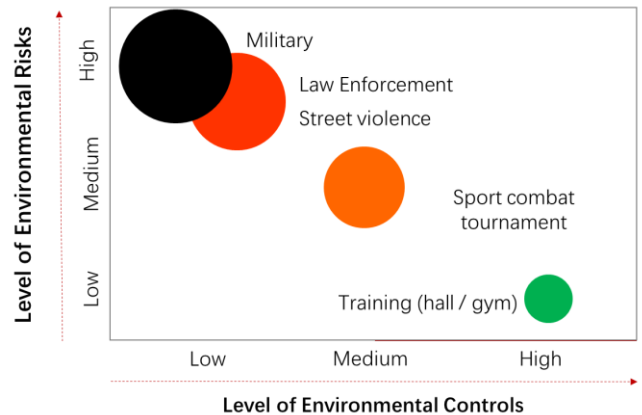
Domains of Functional Application

Combative systems (traditional or modern) and their associated training regimes can be grouped across four primary domains of application including: 1) military application, 2) law enforcement application, 3) civilian self defense application, and 4) combative sport application (amateur and professional).

The Domains of Combative Application Matrix (Chart 1) is a convenient and more visual way to understand functional applications across two variables: 1) Degrees of Environmental Control (DoEC) and 2) Degrees of Environmental Risk (DoER). Degrees of Environmental Control represents the various factors in the environment that contribute to regulating personal safety and security for a given engagement. Located on the x-axis of the chart, it represents a sliding scale of control moving in ascending order from low to high (left to right). Degrees of Environmental Risk represents the potential severity of impact on personal health. Located on the y-axis of the chart, it represents a sliding scale of risk moving in ascending order from low to high (bottom to top). DoEC and DoER have an inverse relationship meaning that a higher degree of control in the environment corresponds to a lower degree of risk (danger). Conversely, a lower degree of control in the environment corresponds to a higher degree of potential risk. Lets look at three examples.

Civilian Defense. This covers what is typically thought of as self defense for street violence, more accurately described as interpersonal violence. This can encompass a wide range of different scenarios, but is most generally characterized by a low degree of environmental control with a correspondingly high degree of environmental

Chart 1: Domains in Combative Application



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risk. Low DoEC begins with no fixed time or place, meaning that violence can occur anywhere and anytime (i.e. when you are least expecting it). It also means there can be a lack of guardianship, in which there is no one around to help you like a friend, a stranger or a law enforcement officer. Lastly, and most importantly, it can mean that there are no known limits on what a violent offender (VO) might be willing to do in terms of using violence to achieve an outcome. This corresponds to a high degree of risk meaning that you could potentially sustain life threatening injuries or even death.

Combative Sports. This covers professional and amateur combat sports like Sanda, MMA, Thai boxing, wrestling, BJJ, etc. This domain can be characterized by a medium level of control with a medium level of risk. Organized competitions take place within a range of environmental controls with the purpose of protecting the health and safety of its participants. This includes a fixed location and fixed time of competition, as well as additional fixed time constraints on rounds for example. It takes place within the context of an understood and agreed upon set of rules that participants must adhere to (to ensure safety and fairness). It includes judges, referees and/or supervisors to ensure participants are following the rules of competition and are not cheating. It may include the use of safety equipment in the form of gloves, mouth guards, foot guards, head gear and groin protection to protect the health and safety of participants. Lastly, athletes compete in the 'spirit of competition' with a focus on winning, as opposed to inflicting violence for the purpose of achieving a criminal outcome. All of these variables establish a medium degree of environmental control.

In turn, the risks of sustaining life threatening injuries or even death are significantly lower - although not zero - compared to that of ‘street violence’.

General Training. General Training is a sub-domain of all primary domains of application and represents the physical activities engaged in for the purpose of progressive skill acquisition and development. This can include any type of generalized training regime that is unique to each combat system. For example, this more often than not includes ‘working out’ in the gym (training hall) with your teacher, coach, instructor and class-mates. You may be drilling techniques or engaging in variable levels of sparring and scenario training with partners. This sub-domain is characterized by a high degree of environmental control and a low degree of corresponding risk. Participating parties are generally cooperative, training environments tend to supervised, and training typically makes use of protective safety gear and/or equipment. This type of environment is conducive to promoting safety for the purpose of sustainable learning.

Ecology of a Interpersonal Defense

Remember that interpersonal defense (civilian application) occurs within the ecology of a potentially violent crime. Recall from the Stages of a Crime Model (see Chart 2) that the context of a violent interaction occurs situationally at stage three of Attempt to Commit. At this stage the violent offender already has intent to commit, has identified a target, approaches, positions in relation to the target, and attacks seeking a payday (or some form of gratification). This stage often transpires instantaneously occurring over the matter of just a few seconds, but can also include

progressive **escalation** depending on the type of violence and complexity of the evolving situation. From the perspective of the law-abiding citizen, this is an interpersonal self defense context in which you must defend yourself, and where I applying the TEC today.

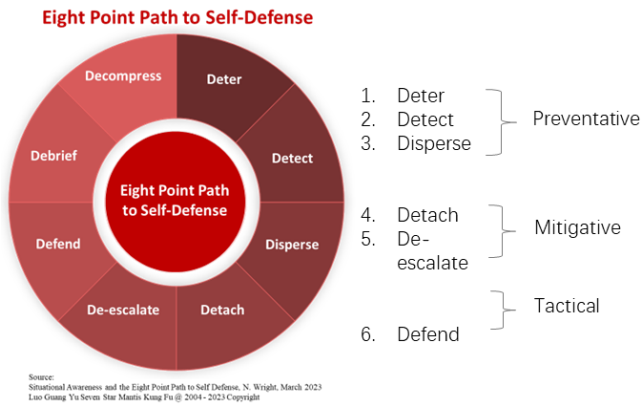
Preventative, Mitigative and Tactical Strategies

It is important to understand the relationship between TEC and The Eight Point Path to Self Defense (EPPS) model (see Chart 3). Remember from my last article that EPPS prescribes eight actionable self defense strategies that includes Deterrence, Detection, Dispersal, Detachment, De-escalation, Defense, Debrief and Decompression. Each of these can be grouped into one of three general categories including: 1) Prevention strategies, 2) Mitigation strategies and 3) Tactical strategies. Prevention strategies (deter, detect, disperse) are measures used to avoid a dangerous and potentially violent interaction before it occurs. Mitigation strategies (detach, de-escalate) are the measures used to halt (bring a stop to) a dangerous encounter midstream and/or reduce the risk of severe physical injury from occurring. Tactical Strategies (defend) occur in the context of a violent interaction and involves the operationalized use of defensive force to physically defend yourself against someone who intends harm against you. This is where I am applying the TEC model today.

Not all strategies are equal and follow a descending hierarchical rank order of importance. Most importantly, prevention strategies are superior to all. Avoiding a

Chart 2: Stages of a Crime Model

Stage One	Stage Two	Stage Three	Stage Four
Intent to Commit	Preparation to Commit	Attempt to Commit	Completion
<ul style="list-style-type: none"> • Mental state • Cognitive and emotional dysregulation • APD, Factor I • Psychopathy, BPD • ACE's, toxic chronic stress, dire socioeconomic conditions • Driven by motive 	<ul style="list-style-type: none"> • Planning and preparation • Risk-reward assessment • Resource and capabilities planning (means) • Advance scanning (opportunity) • Target Selection 	<ul style="list-style-type: none"> • Approach and positioning • Communication (verbal and non-verbal) • Escalation <div style="background-color: #800000; color: white; text-align: center; padding: 2px;">Violent Interaction</div> <ul style="list-style-type: none"> • Completion and possibly exit or not 	<ul style="list-style-type: none"> • Completion of act • If arrested and detained will be charged granted a hearing in court of law to determine level of innocence and/or guilt



violent interaction altogether will ensure 100% safety and security. Mitigation strategies are next and tactical strategies are last. The underlying premise is that it is best to avoid and/or mitigate live street violence because of the significant levels of risk involved that could negatively impact your life (physical injury, psychological suffering, and criminal liability).

Techniques vs Tactics vs Strategies

In explaining the TEC model, I will be referencing terms like techniques, tactics and strategies quite often, and want to provide context to their meanings and use. Techniques are the easiest to understand as they make up the building blocks to self defense in the form of kicking, striking, grappling, throwing, and weapons (non firearm use). Next, tactics make up the inter-related groupings of techniques (clusters) that come together to form increasingly complex fighting patterns. Lastly, strategies are the conceptual organization of increasingly more complex inter-related groupings of tactics that are characterized by an intended goal (outcome) and the conceptual properties of such. As an example the EPPS references eight strategies.

Discussion of techniques, tactics and strategies follows a bottom-up approach progressing from the small (micro level), to the medium (the meso level), to the large (the macro level). Micro level analysis is characterized by the local unit of observation in techniques with a focus on structure and function. Meso level analysis is characterized by the integrated set of relational connections in techniques that is both process and function oriented. Macro level analysis is the fully integrated set of relational connections in groups of tactics that is conceptualized and goal oriented.

2. Characteristics of Tactical Engagement Cycle

The Tactical Engagement Cycle (TEC) represents the conceptualized phases of a violent interaction neatly breaking them down into three basic parts: 1) Pre-Engagement, 2) Engagement, and 3) Post-Engagement. Like a snapshot in time, the model simplifies the complex and dynamic nature of a combative interaction serving as a practical learning tool to help the practitioner break-down and analyze techniques, tactics, and strategies for enhanced learning and skill development. Phase one primarily focuses on positioning; phase two focuses on offensive / defensive sequencing; and phase three represents the completion of the combative engagement.

2.1 Phase I – Pre-Engagement

Pre-Engagement is the first phase of TEC and represents the immediate lead up to a violent interaction. Note that the actual physical engagement has not yet been initiated by the violent offender, although it has already been threatened - either verbally and/or non-verbally - and an attack is immanent (under the reasonable person

Chart 3: Tactical Engagement Cycle in Self Defense



assumption). While the range of different situations and circumstances in self defense encounters is virtually unlimited, there are only two scenarios that are broadly relevant to you at this point in time – namely Knowing versus Not Knowing. Knowing means that you have pre-knowledge (are aware) of an immanent attack. You have identified the threat in advance and have some degree of lead-time to tactically prepare. Not Knowing on the other hand means that you do not have pre-knowledge of the attack. This equates to being caught entirely off-guard leaving you highly vulnerable.

Distinctions of Proactive and Reactive Violence

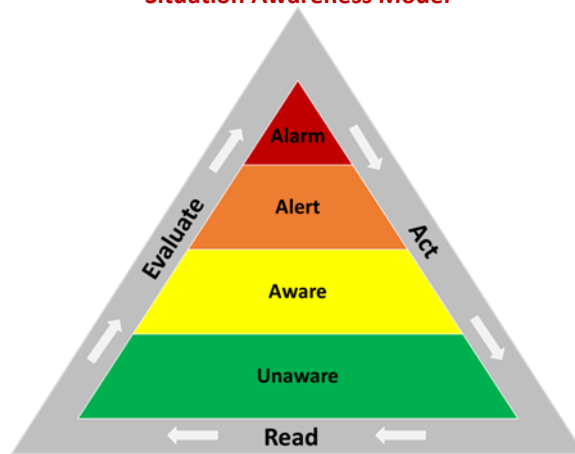
Recall that in proactive (instrumental) violence, a VO will typically use indirect tactics to gain situational, spatial, psychological, and a physical advantage. They will try to take you by surprise, overwhelm you and complete the attack as quickly as possible. This can include blending into the environment to leverage the element of surprise; using ploys and trickery to make you lower your guard; and including making the use extreme physical violence to incapacitate you, most likely leaving you in shock and unable to cognitively react. Often making use of weapons to deliver blunt force trauma or a stab wound, you will be at such an immense physical deficit that it will be difficult to physically match the intensity of the VO.

In Reactive (affective) violence, VO's typically employ direct tactics. This means there is little or no attempt to make use of deception or decoys in efforts to leverage the element of surprise. The VO will approach directly entering your space, escalate verbally, and make use of extreme fear tactics to intimidate (including the use of a weapon) before attacking. In this context, Direct Tactics are more easily observed and predicted ahead of time, granting you time to identify the threat/s and tactically prepare. Refer back Characteristics of a Violent Interaction in which I go in to great detail outlining the different approaches.

Tactical Mindset

Regardless of whether you are able to preemptively identify the threat, or are completely taken off guard, you will need to make a critical mental switch to ensure that you are of the right mindset. This means you must now be of willing mind to engage in the use violence in order to directly defend yourself against it. This is a simple yet profound truth and not an easy mindset to bridge. It speaks to the reality that in order to prepare for violence you must be able to mentally conceive of using it. It is

Chart 4: REAL State of Awareness and Situation Awareness Model



Source: Luo Guang Yu Seven Star Praying Mantis Kung Fu@2004-2024

difficult to do things that you cannot conceive of, so your mind must be ready for where your body may be forced to go. In terms of mental states, you should be in Condition Red (see Chart 4) which means you are on high alert, are hyper vigilant, are mentally prepared for conflict, and can act physically at a moments notice.

Fight or Flight

At this point your body will experience the flight or fight stress response, in which your HPA-axis stress response (flight or fight mode) is activated. Your body is flooded with epinephrine and norepinephrine, your breathing rate increases, your muscles tremble/twitch, your stomach is queasy (digestive functions shut down), you sweat profusely, your thoughts feel sporadic as a result of heightened awareness from the neurotransmitter glutamate, and you will lose all sense of time as you are now surviving in the moment. At this point all you will have to rely on is your willpower, your instincts, your fitness level and what little of your training is still mentally and physically accessible.

Reading, Evaluation and Planning Skills

Having made the switch to establish the right mind set, the next preparatory element requires exercising a heightened sense of Situational Awareness which includes two macro skills sets: 1) Tactical Reading Skills (TRS) and 2) Tactical Evaluation and Planning Skills (TEPS). Recall from the REAL States of Awareness and Situation Awareness Model (see Chart 4), the acronym REAL denotes Reading, Evaluating, Acting (Execution) and

Looping. Tactical Reading Skills relates to the ability to perceive, comprehend and project intentions and movement in the VO. This should yield predictive value with regards to projecting movement and determining the VO's MLCOA and MDCOA. MLCOA is 'most likely course of action' and MDCOA is 'most dangerous course of action'. Tactical Evaluation and Planning Skills involve real-time situational analysis and planning of your BFCOA (Best Fit Course of Action), which equates to actionable decision-making. Both TRS and TEPS occur real-time in the mind of the defender and dictate your level of effectiveness with regards to doing the right things during a tactical engagement.

Positional Entry Setup and Exit

Outside of being mentally prepared and exercising TRS and TEPS, you must now also become tactically active which begins with movement and Positional Entry Setup and Exit Skills (PESES). PESES is about positioning yourself advantageously in relation to the VO. Up front, this entails actively seeking out technically sound positions that maximize your offensive optionality while also minimizing defensive gaps in your person. Reciprocally this relates to putting your opponent into inferior positions creating that create defensive gaps while diminishing their own offensive optionality. On the back-end of your exit, this relates to creating distance from the VO in a manner that minimizes defensive gaps and keeps you safe. All of this is heavily reliant on footwork and managing dynamic change using the DDELTA framework.

PESE is not static, but rather is a dynamic process requiring proactive movement and continuous jockeying for position (sometimes subtly) in efforts to navigate yourself out of bad positions and into better ones. This is the very same strategy the VO is looking to implement, and in doing so becomes a "deadly game of strategy" premised on the very concept of positional entry setup. Under the assumption that the VO is likely much more experienced at using street violence than you are, your first priority should be to present yourself as a 'hard target with the goal of discouraging the VO from attacking. Creating hesitation in the mind of the VO may lead them to opt for an 'easier target'. Alternatively, if you present yourself in a weak and/or vulnerable position, this will make you an 'easy target' and surely invite an aggressive attack without hesitation from the VO, where even the best techniques will fail you.

2.1 Phase II – Engagement

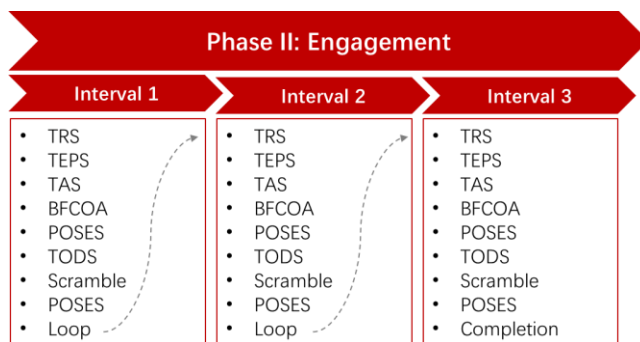
Engagement is the second phase of the Tactical Engagement Cycle, and represents the execution stage of the attack. On the State of Awareness model (see Chart 4) this is represented by the Action domain, and is the most dangerous phase of the interaction because of the potentially life threatening injuries that could result. This exchange reflects the operationalized use of defensive force using both empty hand and/or weapons maneuvers, including for example pushing, grabbing, slapping, punching, biting, tripping, kicking, throwing, cutting, stabbing, and slashing.

The Engagement phase is not a perfectly continuous exchange as is often portrayed in fictional media and entertainment. Rather, it is chaotic, disjointed, and choppy, more accurately characterized as a series of short rapid intermittent exchanges, intermixed with sporadic scrambles before looping back into new intervals of positional jockeying and follow-on exchanges. In the context of tactical self defense, these patterns of intermittent attack and defense are referred to as Tactical Interval Flow (TIF, Chart 5).

Tactical Interval Flow (TIF)

Tactical Interval Flow (TIF) (see Chart 5) conveniently breaks down the engagement phase into a series of smaller intervals, each containing a number of constituent elements. These elements include reading (TRS), evaluation and planning (TEPS), positional entry setup (PESES), action (TAS), offensive/defensive sequencing (TODSS), scrambling, positional exit and looping. As a general rule of thumb, the Engagement phase typically occurs over no less than one interval before coming to completion, and depending on the situation up to three (3) intervals or more. Each interval transpires over the matter of a few seconds representing what might be more commonly thought of as a flurry.

Chart 5: Tactical Interval Flow



Source: Luo Guang Yu Seven Star Praying Mantis Kung Fu @2004-2024

**Chart 6: Tactical Offensive
Defensive Sequencing**



Source: Luo Guang Yu Seven Star Praying Mantis Kung Fu@2004-2024

Tactical Action Skills (TAS)

Tactical Action Skills (TAS) are the operationalized execution of fighting movements, patterns and skills characterized by a Best Fit Course of Action. If TRS and TEPS are about effective decision making (i.e. doing things right), then TAS is about efficiency of execution (i.e. doing things well). Efficiency of execution more specifically relates to properties of precision, timing, speed, and power (PTSP). Precision is about accuracy of the movement task relating to structural integrity, spatial orientation (positional placement) and targeting. Timing is predicated on positional orientation and reaction timing - either being ‘On-time’ or ‘Off-time’ (too early or too late), while speed and power are self-explanatory. All else being equal, precision holds rank importance over power, and timing over speed.

Tactical Offensive & Defensive Sequencing (TODS)

Tactical Offensive and Defensive Sequencing (TODSS) represents the array of offensive and defensive

techniques, tactics and combinational patterns for use in BFCOA. In the stand-up domain this generally includes kicking, striking, grappling, and throwing that is integrated with footwork. In the ground-fighting domain this generally includes wrestling and grappling. Separately, this may also include weapons use, but this is a specialized topic that remains outside the scope of this paper.

Conceptually, tactical offensive and defensive sequencing skills - under the reasonable person and reasonable force assumption in self defense - can be used to end a violent interaction in one of three ways (see Chart 7): 1) by either physically incapacitating the VO to a point where they are unable to physically continue and you can escape, 2) by putting up enough fight and/or resistance to a point where the VO becomes frustrated and/or gives up believing the reward no longer justifies the risk and you can escape, or 3) by putting up just enough fight to distract the VO momentarily giving yourself a chance to escape. The alternative to these scenarios is victimhood and potentially life threatening injury.

Scramble, Positional Exit and Loop

The last three elements in Tactical Interval Flow includes the Scramble, the Exit and the Loop. A Scramble physically occurs when the defender and VO tie-up in a clinch exchange (grappling and/or wrestling) that is characterized by dynamic back-and-forth jockeying for position with an inability to establish dominance control. The scramble does not come to an end until either one party re-establishes dominance control with follow-on offensive sequencing, or, there is a separation in space and time permitting both parties to gain distance (exit) and reset. Scrambles can occur in the standup position and on the ground.

Chart 7: Theoretical Outcomes of Tactical Offensive Defensive Sequencing

1. Survival	2. Survival	3. Survival	4. Victimization
Successfully defend attack and incapacitate the VO leaving them unable to continue and giving you time to escape. ✓	Successfully defend attack frustrating VO to bail, and/or distracting them momentarily giving you time to escape. ✓	Unsuccessfully defend attack but put up enough resistance to momentarily distract VO giving you time to escape. ✓	Unsuccessfully defend attack becoming incapacitated and unable to continue, or injured and left frozen in fear. ✗

Source: Luo Guang Yu Seven Star Praying Mantis Kung Fu@2004-2023

Positional Exit relates to the action of creating distance from the VO in a manner that takes you outside of their offensive range, while minimizing defensive gaps in the process. It is premised on good footwork and macro skills (TRS, TEPS, TAS), occurring either at the end of offensive sequence, a defensive sequence, or a chaotic scramble. The ability to create adequate space in a manner that keeps you out of the VO's attack range provides temporary safety, allots time to further read/feel the situation, evaluate a new BFCOA (including escape routes), and if need be Loop back into a follow-on interval for attack an defense sequencing.

Looping denotes forward continuation from one completed interval and into a new one. In real time it permits evaluation of prior decisions (successful / not successful), predicting new movement patterns in VO (MLCOA / MDCOA), planning your next move (go / no go), and execution on your next BFCOA. Interval looping continues until the interaction comes to end.

2.3 Phase III – Post-Engagement

The Post-Engagement phase represents the end of the Tactical Engagement Cycle based on one of four outcomes: 1a) you incapacitated the VO brining the violent interaction to an end, 2b) you were able to escape (with or without injury) brining the VI to an end, 2a) the VO completed the crime and left without harming you bringing the VI to an end, or 4) the VO completed the crime and you were victimized sustaining injury in the process brining the VI to an end. Following these various outcomes and depending on the seriousness of such you may need to Debrief law enforcement and Decompress (both physically and psychologically).

Debrief

Depending on the seriousness of the altercation, who sustained what injuries, to what degree, and if law enforcement is involved, you may need to provide / file a written statement in the form of a police report to law enforcement. If for example, in circumstances of justified self defense where you reasonably defended your person against an attack, and in the course of events the VO was severely injured, you may still be exposed to potential criminal legal risk. In this regards, it is important (if possible) that you stay nearby the scene in a safe location, call 911, and take mental notes of what happened immediately after the altercation. Be sure to locate any witnesses who saw the event and that they stick around. In the case that the VO used a weapon, be sure that its position is not disturbed.

When law enforcement arrives be sure to tell them you were the intended victim, you were attacked, and that you defended yourself. Depending on the seriousness of the altercation it may (or may not) also be advisable to seek legal counsel before providing any additional details (verbal or written) to law enforcement. Remember that not only do you have the natural, moral and legal right to defend yourself against aggression, but you also have the right to remain silent and the the legal right to an attorney. I would highly suggest you read my article on Foundational Concepts and Legal Principals in Self Defense (11) for a more thorough background on self defense law in Canada. American jurisdictions will be nuanced form state to state, but depart drastically from Canadian federal law regarding the use of weapons and particularly firearms.

Decompress

After an altercation has taken place and depending on the severity of the event you will need time to decompress - recovering both physically and mentally. In the immediate aftermath - assuming you were able to escape without injury - you may still be suffering from physical exhaustion including the effects of an adrenaline dump. Your body will still be flooded with adrenaline, your heart and breathing rate will be rapid, you will have no energy reserves left, and you may still be in a state of shock. Your body and mind will require time to clam down before you can begin processing what happened. If you were injured, and depending on the degree of such, you may be in need of immediate emergency aid. In the following days, weeks and even months your body will require time to heal, as well your mind. Depending on the seriousness of the altercation, you may suffer from various degrees of PTSD. You may not sleep well as your mind seeks to comprehend and bring meaning to the traumatic event. Your "nerves" may or may not be on edge as you remain are in a state of heightened sensitivity. You may or may not become easily "triggered" experiencing extreme mood swings and stress response from seemingly harmless events occurring in the environment. In increasingly severe cases, you may suffer from varying degrees of depression in which you will need support from family, friends, and mental health professionals. This is the stage of Decompression.

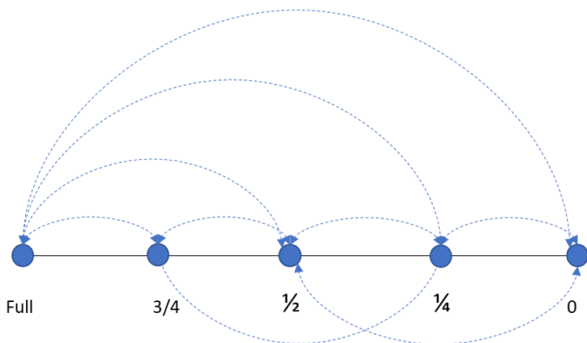
3. Tactical Considerations in DDELTA

DDELTA is an important analytical framework for understanding and proactively managing tactical considerations and changes in such across the Tactical Engagement Cycle. These variables include Distance, Direction, Energy, Level, Timing and Alignment. Before we can explore how to manage these variables, it is first necessary to understand what they are and the general theory behind each. The first four factors of Distance, Direction, Level, and Time represent your physical orientation to the VO in three dimensions of space and one dimension in time. Alignment represents your mechanical posturing and Energy represents your level of force output in relation to the VO.

Tactical Consideration #1 – Distance

Distance is one of three spatial parameters referring to the proximity between you and the VO. It assumes longitudinal movement (both forward and backward) on the sagittal plane for the purposes of closing distance and/or creating it. Distance Management Theory (DMT) posits five ranges (see Chart 8) that includes: Full (distance), Three-Quarters (distance), Half (distance), Quarter (distance), and Null (distance). Full distance denotes a proximity in which both you and the VO are out of attack range – generally equivalent to two meters apart or more. Three quarters distance is kicking range; half distance is striking range; quarter distance is short striking and grappling range, and null distance is grappling / wrestling / throwing range. Managing Distance is about proactively controlling proximal terms of engagement in a manner that creates optimum range for PESE and TODS performance.

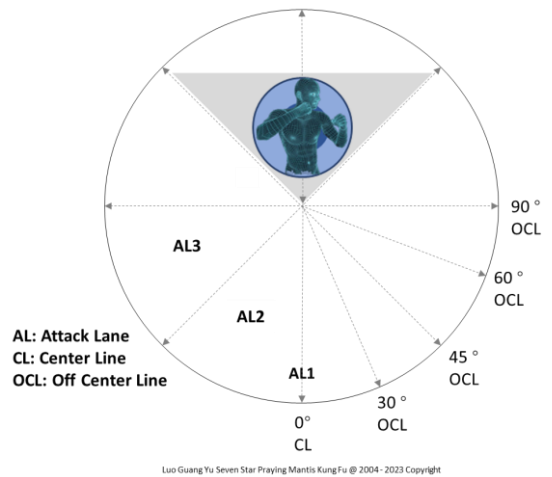
Chart 8: Tactical Distance Theory



Tactical Consideration #2 - Directionality

Directionality is the second spatial parameter incorporating lateral movement (side-to-side left and right) on the coronal plane in relation to the VO. Tactical Directional Theory (see Chart 9) posits three directional attack lanes including Attack Lane 1 (AL1), Attack Lane 2 (AL2), and Attack Lane (AL3). AL1 represents orientation along the Center Line (CL) of the VO, while AL2 and AL3 represent angles that are oriented Off Center Line. Managing Direction is about proactively controlling the lateral terms of engagement in a manner that creates optimum angles for PESE and TODS performance.

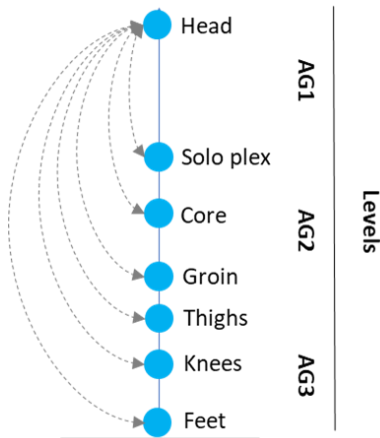
Chart 9: Tactical Directional Theory



Tactical Consideration #3 - Level

Level designates the third spatial dimension concerned with vertical orientation on the transverse plane in relation to the VO. Tactical Level Theory (see chart 10 on next page) designates three Attack Gates (AG) including Upper (AG1), Middle (AG2) and Lower (AG3). The Upper Attack Gate (AG1) corresponds to the head and neck region of the VO. The Middle Attack Gate (AG2) corresponds to the mid-section including the solo-plex, core (gut) and groin regions. The Lower Attack Gate (AG3) corresponds to the lower bodily region including thighs, knees and ankles. Managing Levels is about controlling the vertical terms of engagement in a manner that creates optimum vertices for PESE and TODS performance.

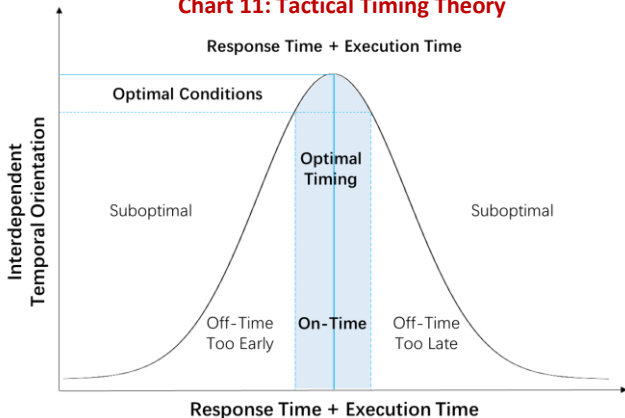
Chart 10: Tactical Level Theory



Tactical Consideration #4 - Timing

Timing integrates the previous three spatial dimensions and reflects your temporal orientation in relation to the VO. Tactical Timing Theory (TTT) posits two elements including Response Time and Execution Time. Response Time represents the time it takes you to not only read the VO's movements (Recognition Timing), but also the time it takes to initiate a BFCCOA. Execution Time represents the time it takes to complete a BFCCOA. Cumulatively, the summation of these two times (RT + ET) will result in an outcome either being positively On-Time or negatively Off-Time. On-Time assumes best fit temporal conditions for successful execution, while Off-Time assumes less than optimal temporal conditions resulting in unsuccessful execution - either being too early or too late. Managing Timing is about proactively controlling the temporal terms of engagement in a manner that creates optimum opportunities for PESE and TODS performance.

Chart 11: Tactical Timing Theory

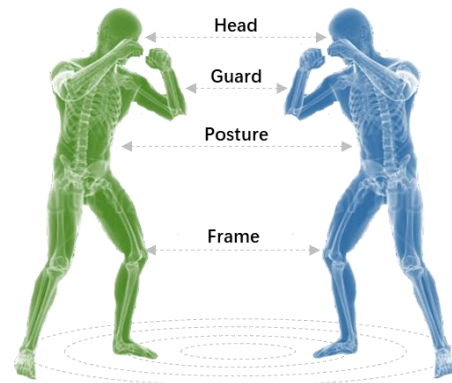


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Tactical Consideration #5 - Alignment

If the first four tactical considerations are about navigating space and time in relation to the VO, then tactical alignment is about mechanical positioning and placement. Tactical Alignment Theory reflects four domains that includes Head, Posture, Guard, and Frame. Head reflects positioning of your head, eyes, and chin. Posture reflects positioning of your upper torso (shoulders, sternum, hips); Guard reflects positioning of your arms (hands, wrists, elbows, shoulders); and Frame reflects positioning of your legs (knees, ankles, feet). Managing Alignment is about proactively controlling intrapersonal and interpersonal positioning in a manner that creates optimum alignment for PESE and TODS performance.

Chart 12: Tactical Alignment Theory

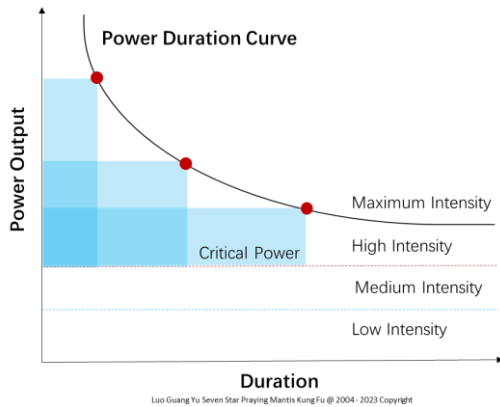


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Tactical Consideration #6 - Energy

Energy is the final integrating factor and reflects the work rate output (energy expenditure) at which you transfer energy through movement tasks. Tactical Energy Theory is measured by Maximum Power Available (MPA) and Rate of Force Development on the Power Duration Curve. It posits four generic output levels including Low, Medium, High, and Maximum. Maximum represents maximal effort at 100% output. High represents 85%-95% effort, Medium represents 75-85% effort, and Low represents 65-75% effort (Conservation mode). Managing Energy is about controlling the work rate of the engagement in a manner optimizes PESE and TODS performance.

Chart 13: Tactical Energy Theory



4. Managing DDELTA with Pre-Attack Indicators

Managing DDELTA does not take place in a vacuum. It is a mutual interplay between you and the VO. A deadly game of strategy in which both parties are projecting changes in movement (making reads), deciding on a BFCOA (making decisions), and acting on such while adjusting real-time (TRS + TEPS + TAS). In this regards managing DDELTA across the TEC is about managing the dynamic patterns of change. In less abstract terms it is about being in the right place and the right position at the right time for optimum for PESE and TODS performance. Conversely it is about avoiding being in the wrong place and the wrong position at the wrong time.

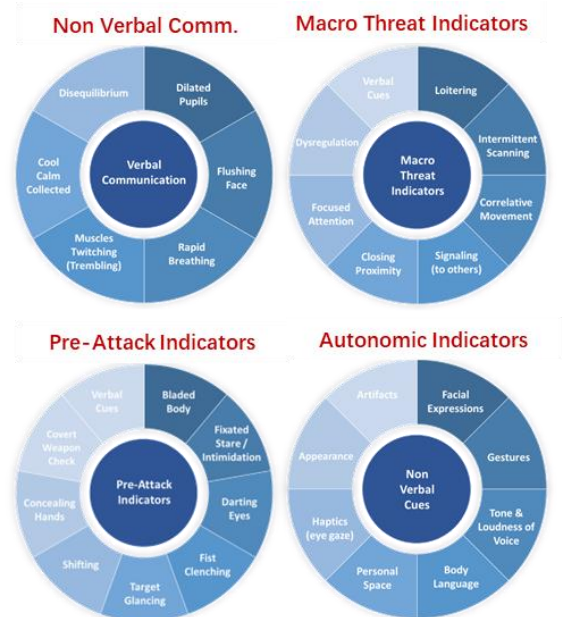
Let's explore in more detail some of the initial pre-conditions in the form of Pre-Attack Indicators that you may encounter, and how to present yourself as a "hard target" while creating optimum pre-positioning for engagement. Assume a hypothetical situation in which you are face-to-face with a VO, and under the reasonable person assumption believe that you are under immanent threat. What patterns in DDELTA should you be looking for and what general guidelines do you need to follow?

Recall in my article titled, "Characteristics of a Violent Interaction and Threat Indicators", I introduced patterns of abnormal behavior (anomalies) emitted by VO's in the environment. Conceptually these can include Macro Indicators, Non-Verbal Indicators, Verbal Indicators, Autonomic Indicators and Pre-Attack Indicators. Here we are most concerned Pre-Attack Indicators as these assume the VO is within proximal distance to attack. Examples of these can include blading, thousand yard stare, darting

eyes, fist clenching, target glancing, shifting, concealing hand, weapon check and verbal cues. When any these are identified in clusters of three's they can provide contextual signaling that an attack is immanent.

- **Bladed Body.** This is almost always a precursor to an attack, or at least an indicator that one is being considered. The VO will be slightly off your center line, and their body will be slightly angled with one leg back. This gives them balance to load on a punch or rush forward to grab you.
- **Thousand Yard Stare.** This can feel like the VO is looking through you or beyond you as if you are not there. In these situations the person may be thinking about or visualizing a planned attack in their mind.
- **Darting Eyes.** When the eyes of the VO dart from side to side this can be a sign that reveal they are quickly reconfirming escape routes, making sure there are no witnesses, or signaling with other accomplices before they attack.
- **Fist Clenching.** In preparation to strike you they may clench their fists.

Chart 14: Threat Indicators



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- **Target Glancing.** This refers to brief, repeated shifting of the individual's eyes to an area of your face or part of the body where they wish to strike. Repeated target glances to your chin or nose could mean the VO is gauging the distance for a punch.
- **Shifting.** The VO may shift their weight and slightly turn their body in preparation to load up on a punch.
- **Concealing Hand.** A VO may conceal their hands in their pockets or under their clothes if they are carrying a weapon. Hands may also be put into a hoodie pocket or deceptively behind their back to make you drop your guard before they sucker punch you.
- **Covert Weapon Check.** The VO may lower their lead hand and covertly check to ensure their weapon is in place before they use it.
- **Verbal Cues.** The VO may directly warn you that they will attack if you do not meet their demands. Sudden silence after a verbal engagement may indicate they are about to attack.

When confronted with any of these signals danger is imminent and you must present yourself as a "hard target." Below is a short list of summary guidelines that you should pay attention to and follow using the DDELTA framework. Above all else, when in close proximal distance you must at all times keep your eyes on the VO and pay close particular attention to their hands.

Alignment

- Strong confident body language.
- **Head:** Eyes up, chin down, focus on VO, never look away and never expose your chin.
- **Posture.** Shoulders braced, chest up, back straight, do not square up to VO, do not slouch, and never turn your back to VO.
- **Guard:** High guard, both hands up, elbows in, shoulders down, never drop your hands.
- **Frame:** Athletic stance, feet shoulder width, staggered, knees bent, feet forward, weight on balls of feet, do not stand tall.

Distance, Direction, Level, Time

- **Distance:** Set strong spatial boundaries, create full distance, do not let VO crowd you, and never stare down nose to nose.
- **Direction:** Stay slightly angled Off Center Line, ideally on outside of VO's lead foot, do not square up.

- TRS and TEPS skills will determine your Response Timing. TAS skills, mental preparedness and physical attributes will determine Execution Time. This will be determined by your mental state and training.

Energy

- In Condition Red / Black you must be prepared to act on a BFCOA with maximum energy output for maximum duration. This will be determined by your natural physical attributes, fitness level and training.

6. Concluding Remarks

This concludes my discussion on the Tactical Engagement Cycle (TEC). The TEC is a powerful conceptual framework representing the dynamic phases of a self defense encounter. Occupying the actionable domain of Defend on the Eight Point Path to Self Defense, it represents the operationalized use of force and serves as a practical learning tool contextualizing the dynamics of a violent interaction. It further layers in a typology of functional skillsets and tactical considerations including TRS, TEPS, TAS, PESES, TODDS and DDELTA, making it a powerful tool for analyzing tactical strategy. DDELTA in its own right represents a number of key tactical considerations including factors of Distance, Direction, Energy, Level, Timing and Alignment.

The article marks the completion of my eight-part series on Theory of Mind in Self Defense, in which I have endeavored over the last two years to provide readers with relevant, informative and insightful information on the ecosystem of interpersonal violence and self defense. The entirety of this flagship series is intended to serve as a practical resource that is not just targeted towards the professional self defense community, but more importantly to all individuals from all communities (private and public) who have an interest to better understand interpersonal violence with the goal of increasing personal safety and security. If you have not done so already I would encourage you to go back and read each of my articles as they provide deep analysis and insight into the complex multi-factored ecology of interpersonal violence, self defense law, personal psychology, self defense persona, theory of criminal mind, characteristics of a violent interaction, situational awareness, threat assessment, and TEC. It will provide with you a complete end-to-end framework and knowledge base that can be integrated into any self defense system.

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Who We Are

We are a diverse group of people dedicated to the transmission and promotion of traditional Seven Star Praying Mantis Kung Fu (Qi Xing Tang Lang Quan). We represent the proud family lineage of Master Luo Guang Yu, who made the style famous in the Shanghai Jingwu Association in 1919. In 2019 we celebrated the 100-year centennial anniversary of Seven Star Mantis in Shanghai.

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