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**Mike Polioudakis**

### **Base, Repetition, Variation, and Moves in Martial Arts**

The following comments apply to karate and Tai Chi. The comments arise directly from my failed attempt to teach a Tai Chi class and start a Tai Chi group.

A “student” or a “practitioner” can mean anybody who does a martial art at whatever level. An “adept” is beyond beginner. I avoid the term “master”. A “more advanced student” is merely more advanced, and is not necessarily an adept or a master.

Nearly all beginners, and even many supposedly advanced students, stand in bases that are too narrow, with bad effects. It is hard to train people out of this fault unless they are willing to practice a lot on their own, and they won't do that. These twin problems are the start of the comments here. The problem with practice leads to issues of: variation, repetition, what a “move” is, how moves lead to deeper principles such as yin and yang, the relation of theory and practice, and to problems with mistaken attitudes on the part of many beginners in Tai Chi.

I don't like using the idea of “chi” casually. It is highly misleading. Still, here it is easier to use the idea, and people who don't believe in chi can make adjustments themselves. “Center” refers to a place about one-and-a-half inches (five centimeters) below the navel. In Chinese, it is “tantien”. It features in ascetic practices such as yoga, and in some Buddhism, Hinduism, and Taoism. The “center” is both a breath center and energy center. In Taoism and Asian martial arts, it is the center of your chi. If you don't believe in this center either, you can think about an imaginary place below your navel that serves as a focus for breathing and moving.

#### **BASE**

“Narrow” and “wide” refer to the dimension from side to side, roughly parallel with your shoulders, and do not refer to the dimension that goes from front to back.

Rather than fool around with explanations, try an exercise that gets the point across. It helps already to know how to breathe from your “center”, but, if you don't, then just breathe as deeply and slowly as you can from your middle guts below your stomach. It helps to know “forward” stance (“arrow” stance) and “back” stance (“bow” stance), but, if you don't, then just stand with one foot at least three feet in front of the other, and stand as low as is comfortable, as if you were striding to deliver the ball in bowling. If you know forward stance, do it. Now breathe slowly and deeply. Feel the breath go low into your guts. Feel the breath move smoothly through your body. Now, without moving your feet, bend from your hips. Put your hands on the floor. Now, breathe deeply again, for ten slow deep breaths.

(If you don't know the difference between bending at the hips versus bending at the waist, practice until you can feel the difference. You do not have to be fully adept at bending from the hips to get the idea of this exercise. If you can put only your finger tips on the ground, use your finger tips. If you can put your

fists or palms on the floor, do that. If you cannot put your finger tips on the floor, put a book, several books, or a stool, on the floor until you can rest.)

When you are bent over, if your breath does not come as easily and as deeply as it did when you were standing up, and if you cannot feel your breath moving around your body as you did before, then your base is wrong. You have to change your base. Usually you have to widen your base by putting a channel in the middle of your base, along the length of your base, a channel between your feet, running from front to back.

Now do the same thing with back stance. The same comments apply.

You can try this exercise with other stances but it does not come across as well with “cat” stance and with stances that require you to cross your legs, as when striking with the back of the fist (“chop with fist” in Tai Chi, and the opening moves in Bassai [Passai] in karate).

You must practice the correct base until it is automatic. You must practice moving in the correct base, in the same stance, and from stance to stance. You must do this at home. You cannot expect to have the correct base, and be able to move correctly, only from the time you spend in class.

If your base is wrong, then your breath cannot move easily. If your breath does not move easily, then chi cannot move easily. Chi will get “bottled in”. You will not help yourself but harm yourself. If your base is wrong, you will not derive any health benefits from Tai Chi, and you might hurt yourself. If your base is wrong, you cannot generate power, and your opponent can easily knock you down or can move around you to strike you. You will not be able to strike or block properly unless you have a good base. Your chi will never “rise”. You will never be able to project chi or power. You will never be able to focus a blow or a block. Only if your base is good can you get health benefits and can use Tai Chi as a martial art. You must have a good base. For reasons not clear to me, “hard external” martial arts, such as karate, kenpo, Tae Kwan Do, Tai boxing, and some types of kung fu, usually force students to learn a good base while “soft internal” arts such as Tai Chi, Pa Kua, Hsing I, Silat, and types of kung fu, do not, although adepts do have a good base. In Wing Chun, I’ve seen both. Good MMA fighters have a clear channel and a wide enough base, for example George St. Pierre.

The best way to learn a good base is from an instructor.

Here is a simple aid to help with learning a good base. In forward stance and back stance, your feet and legs should not cross. A channel, at least the width of one palm, should run between your feet. You can get a sense for this channel by putting a 1X4, 1x6, 2x4, 2x6, or other similar long board on the floor, and then standing so that the board runs down the middle of your forward stance or back stance.

It is not enough to be able to stand correctly. You have to move correctly too, forward, backward, to the side, turn, and turn around, in any stance, and you should be able to go from stance to stance. Unluckily, movement presents a problem for using an aid such as a board. First, when not using the aid, in actual movement, your feet have to come together a bit (narrow the channel) while you move, and then go apart again (widen the channel) as you settle into the next step. You move like a skater does across the ice or over the rink. Second, your feet do come up off the ground as you step but they do not come up high,

maybe only two millimeters, not high enough to clear a board that is even only an inch high. You cannot move properly if you put a board between your feet to make sure that you stand properly without moving. With the board between your feet, when you move, you will raise your feet too high. Later, when you don't have the board, you might retain the bad habit of raising your feet too high when you move. So you cannot use a 2x6 board to practice correct movement unless you know to correct for the bias and to raise your feet later when you are not using the board. Between the bad habit of raising your feet slightly too high versus the bad habit of standing with your feet too close together (or crossed), standing with feet together is worse, so it might be useful to use the board even at some risk. One traditional way to cure a person of a bad stance was to knock him-her down when he-she was in a bad stance but modern people won't tolerate this teaching method.

## VARIATION AND REPETITION

My karate sensei (teacher), Robert Graves, had an excellent balance between variation and repetition, and I was lucky he got the idea of that balance across to me. Also, if I asked, he explained moves as he taught, at the right level for me, and I was lucky for this too. His explanations included simple mechanics such as compression but he also explained that many ideas for moves rested on the I Ching (Book of Changes), and yin and yang. One of my Tai Chi teachers, Philip Ho, used variation massively; he never did the same move in the same way twice. Two of my Tai Chi teachers, Philip Ho and Perry (forgot last name), offered more ideas about underlying principles than sensei Graves had done but not very much and not very mystical. One Tai Chi teacher, Steve Harrigan, used "mystical" ideas even more often, but usually he was not too "airy fairy" and usually he was correct.

To do any martial art (or any "deep" art such as music) you have to do both repetition and variation, and have to mix them properly. Mixing repetition and variation is an art in itself. I am happy with my ability to mix repetition and variation in my own practice but I was inept at showing beginners how. This issue is important in teaching Tai Chi for the reasons below.

Skill requires practice. Doing the same thing over and over again exactly is boring. When people get bored, they won't practice. It would seem variation helps cure "practice blues" but it doesn't.

Beginners know the boredom of exact repetition, and see the usefulness of variation for alleviating boredom, but they won't accept variation. They get nervous if they see variations because they can't feel the underlying unity. They are like a beginner in music trying to learn major chord, minor chord, seventh chord, and variations with diminution and augmentation all at once; that is too much variation; they can't hear the underlying unity and can't fix on what is most important out of the variation. Beginners demand one thing that they can do over and over again until they master it and feel confident, but, then they won't do it over and over again.

To stand correctly, breath correctly, move correctly, use chi, generate power, focus blows, focus blocks, get health benefits, and avoid injury, you have to practice stances and practice moving in stances, over and over again. Standing in one stance for 10 minutes is boring, let alone standing for the minimum of 45 minutes that traditional Asian training requires. Beginners won't do it. Even if I suggest they move within a stance, such as stepping backwards and forwards in back stance, they won't do it very long. Even if I

suggest shifting between stances, such as between back stance and forward stance, and also moving while in a stance, they won't do it very long.

#### "POSTURE" versus "MOVE" (MOVEMENT), VARIATION, AND REPETITION

A "move" in Tai Chi or karate is not a posture, and is not simply a specific technique or counter. A "move" is a movement that aims to teach a principle of movement and-or of interaction. A move does not have only one application in a particular situation but has several possible applications in various situations. A move is the external representation of principles of movement and-or principles of interaction. Doing a move is more like playing a melody than like playing a single note or single chord. It is more like playing a "1 3 5" chord in any key than like playing "C E G" (a "1 3 5" chord in one key). A "jab" in Western style boxing is not a posture that a boxer does exactly the same way each time, in exactly the same situations, with exactly the same results; nor is the counter to a jab always the same. "Ward off" in Tai Chi (like "high block" in karate) is not one move that is done the same way, in the same situation, in all such situations. "Ward off" demonstrates a principle of movement that is done differently and in different situations. What all a move teaches is too much to go into here.

To appreciate that a move is not one set thing, it is useful to learn a little variation along with the move, and to learn a few different applications along with the move. With beginners, it is not a good idea to teach too much variation or too many applications, but some variation and some applications are still a good idea. More advanced students should be able to see variations and applications on their own. In the long run, doing the move one way merges with variations; see below. A fun book about "down block" in karate found 75 different uses for the simple "down block" (roughly "brush knee" in Tai Chi) (I forgot the exact name of the book and the author.)

In contrast to the idea of a move is the idea of a "posture". A posture is a set body arrangement where the body, head, feet, and hands all are in exactly the same place each time, the way to get into position is the same each time, and the way to get out of this posture to the next posture is the same each time. Starting from the idea of a posture, a practice form of many moves (karate kata or Yang 108) becomes merely a string of postures, like a set routine in ballet. Sometimes beginners have to learn like this. Some people never get over this way of doing. In contrast, when I learned karate, and especially later when I learned Tai Chi, I did not learn a "move" as a posture or as one thing. I always learned variations and alternative uses of the move when I learned the move.

The idea that a move is one simple posture is a mistake that gets in the way of seeing deeper principles that a move should teach. Variations can help make the deeper principles clear, but variations can also confuse people, and people won't practice variations.

At the beginning of learning a martial art, a student usually learns a move as like a posture, and learns one application to make the move concrete and to have something to visualize while doing the move. Sometime along the usual course of learning a martial art, a student learns that a move has variations, and that the variations have different applications (one variation can have more than one application). The student then practices the variations and applications while practicing the move. To an outsider looking on, the move, the variations, and the different applications would be obvious. Later along the usual course of learning a martial art, a student does the move with less variation and without obvious

applications. The student does the variations and applications through slight twitches in the body or through images in his-her head. To an outsider looking on, it might seem as if the student has reverted to the beginning where a move is done one standard way with one standard application, a posture. This mistaken view is perfectly reasonable but is still a mistake. The onlooker cannot see inside the more advanced student's head, can't see the slight variations that more advanced students do or imagine, can't see imagined uses of the move and its variations, and can't see the years of previous training in which more advanced students did variations and alternative uses.

Beginners are like onlookers. To them, advanced practitioners seem to do postures when they really do moves. On the one hand, we have doing a move one way for convenience in practice, with variations and several applications always in the back of your head. On the other hand, we have a posture. It can seem as if these two ways of moving are the same, but they are not. It is hard to get across how they differ. I think an important advance in learning martial arts comes when a person feels this difference.

Somehow an instructor has to find the right balance of repetition with variation, right from the beginning. I was not able to do this.

#### SKILLS, MOVES, IDEAS

As any martial artist, athlete, artist, or plumber can verify, some skills are not learned or done mostly by intellect even if, afterwards, what happened can be explained by ideas and systems, and even if we learn an idea system along with learning a skill. You learn to ride a bike by with your body even if a physicist can explain what happens with formulas. You learn to play most music with your ears and fingers even if your teacher explains intervals, scales, and harmony as you learn, and even if a theorist can explain why one note follows another or one passage follows another. Some great musicians learned to play entirely by ear (Bix Beiderbecke, maybe young Mozart). Martial arts do have elaborate idea systems (yin, yang, chi, five elements, eight trigrams, rooting, circles, etc.), and idea systems can be used to teach, but seldom do people learn, at first, primarily by making their bodies conform to an idea system.

Traditionally in some martial arts, students repeated moves without ever being given an explanation and without ever being reassured that what they learned was part of an idea system – even if the instructor knew that the art was part of an idea system and the instructor could have explained the deep underlying principles. Teachers expected the moves themselves to teach deep underlying ideas, without need for explicit words, on whatever level the student could get. If the student could figure out an idea system to go along with the moves, the ideas did not get in the way, and the ideas helped, then so much the better; but an idea system was not needed. Only to some students would the teacher explain the idea system. To beginners, the moves seem like postures. For some students, the moves remain postures, while, for other students, eventually the moves turn into moves.

To learn without explanation, you have to repeat. Some people think it is necessary to repeat exactly and without variation to learn without explanation, that is, it is necessary to learn by postures rather than moves. I think that is not so. I think it is necessary to repeat with some variation so as to learn without explanation. I cannot give guidelines as to how much variation and what kind of variation.

Although beginning students were allowed to learn through their bodies alone and did not get instruction in the idea system, traditionally, in Asian arts, an idea system was always there and always important. A student could not reach the highest levels unless the moves did bring him-her to an idea system, and he-she could find links between the moves and an idea system. You could only find the idea system, and find links with the idea system and what your body did (unity of theory and practice), if you have had the right balance of repetition and variation, including various applications. Sooner or later, you get back to pesky ideas such as chi, focus, yin, yang, circles, figure 8s, etc. Sooner or later, you have to find some correspondence between what your body does and these ideas. I was lucky that both my karate teacher and my Tai Chi teachers explained as we went along, and they were able to tune their explanations to the level to my current skill level and my near future skill level.

Although upper level students need an idea system, and need links of an idea system with the body, lower level students do not need an idea system and sometimes are hurt by it. Introduced at the wrong time and in the wrong way, an idea system becomes simply chatter, mumbo jumbo, and magic words. Even upper level students are hurt by introducing big ideas at the wrong time. It is natural to speculate about ideas like chi, yin, yang, five elements, eight trigrams, inversion, sticking, etc, but it is not always useful, can be silly, and can be harmful. It is natural to speculate on the ideas behind the White Crane system, Hsing I, Pa Kua, karate, Tae Kwan Do, and Aikido, but you can learn them with or without ideas and your speculation can be silly. You are lucky if you can find a teacher who really knows, and can give you explanations that are tuned to your current skill level and near future skill level.

When an idea system emerges for a student after long exposure to correct moves, through repetition with variation, it does not necessarily emerge as an idea system in the sense of math, physics, or law. It can emerge in the sense of art or in the way we think of "the lay of the land". It can emerge several ways. To say more about this topic is not useful here.

You can learn a skill without also learning an idea system but only if you repeat, repeat with the right variation mixed in, and learn alternative applications. An idea system can emerge after you have learned a skill but only if you really learn the skill, and to do that, you have to repeat, have to mix in variation, and have to learn alternative applications. You can learn a skill and learn an idea system together with a skill, but only with repetition, variation, and application.

## BACK ON REPETITION, VARIATION, AND PRACTICE

Again, I was not able to find a workable balance of repetition and variation for students.

You have to practice, and you have to repeat in practice. Repetition really means repetition. Repetition means doing the same move (not posture) many thousands of times, which means doing the same move a hundred times in a day or several hundred times a day. You don't have to do the same move hundreds of times each day, a thousand days in a row, to get it. You might do one move a hundred times today, then do a different move a hundred times tomorrow, and so on, rotating through moves. But, one way or another, repetition with variation has to happen. Practice has to happen. Gichin Funakoshi, from Okinawa, the founder of the most well-known Japanese karate ("Shotokan"), said hitting a "striking board" (makiwara) a thousand times a day was not too much, and you should practice twice as much with your left side as your right side (other sides for lefties).

The following sounds paradoxical but is not. Think of the “more advanced students” from above. It is not possible to understand variation properly unless a person has practiced the same movement over again thousands of times. Once a person understands variation properly, it makes sense to do (what looks like) the same thing over and over again. Eventually, usually after several years, you can see the variation in what before seemed like exactly the same thing. By doing (what looks like) exactly the same thing, you are actually practicing variation. At the same time, you cannot learn to do a move that looks like exactly the same thing but really has variation inherent in it, unless, sometime in the past, you did practice the actual variation. Variation and repetition reinforce each other and eventually become almost the same thing.

From the outside, it can look as if a practice form (karate kata of Yang 108) with a sequence of moves is like a dance routine, with no variation, that goes through a sequence of postures. Really, a practice form is a sequence of moves with suggestions of variations and various applications, and the transition between moves can be as important as moves. To do a practice form this way, feeling variations, feeling various applications, and feeling the importance of transitions, requires that first it be done over and over again almost exactly the same, and then be done over and over again with variations and applications. In the end, it appears to be a sequence of postures when really it is not. A beginner has to learn a form as a sequence of postures but eventually he-should should feel it as something more.

## ATTITUDES

Problems with finding the right balance of repetition and variation were made worse by some attitudes. I also did not know how to get people over these attitudes.

In this mistake, a “technique” is like the martial arts version of a “posture”. People have the mistaken idea that a technique only is a technique only is a technique only; each technique has a counter (which also is a technique); each counter has a counter; and fighting consists of technique - counter with technique - counter with technique - counter with technique - etc. People feel they have to learn a long table of techniques-and-counters, and apply the right counter to the right technique as they fight, like learning the multiplication tables. A move is not a technique. This mistaken attitude contradicts the idea that a move is not one set posture but is the external representation of underlying principles, and a move is intended to teach the principles. I don’t know what to say about this attitude other than that it is wrong, it might be necessary in the beginning, and people usually get over it with time.

Americans think there is an essence to any activity, they can learn the essence by seeing once, learning the essence must be fun, doing the essence must be fun, the essence includes the variations, Americans can see the variations immediately when they see the essence, so Americans don’t have to practice, and Americans don’t have to repeat to learn variations. It has to come naturally. If it doesn’t come naturally, you can’t force it. If it doesn’t come naturally, it isn’t fun. “High block” (“ward off”) has an essence, you see the essence right away when you first see “high block”, including variations, and it makes no sense to dwell on variations. You see “high block” once, you get it, then you can use it like an expert, you don’t have to practice, and there are no separate variations to learn. Often this attitude boils down to “I want to have fun, I only want to have fun, I won’t learn if it isn’t fun, I won’t repeat because that isn’t fun, variation gets in the way of fun, so, if I have to repeat and vary, I won’t do it at all”. This is like thinking you should

be able to see a golf swing once, get the idea, magically do it on your own, be able to use it for all kinds of shots and situations, and it will be fun all the time. I don't know what to say. This attitude is wrong. You do have to repeat. You have to repeat with variation. You have to repeat variations. You cannot learn the essence of anything without repetition, variation, and repeating the variation. Mostly martial arts are fun. They are also boring and they require a lot of repetition even if they are fun. If you are not having fun at all, and cannot tolerate practice, then switch to another activity. If you are not having fun but have your heart set on being a tough guy martial artist, then you will have a hard time.

Some people seek to learn Tai Chi not as a martial art but for health and vigor; often these people have a different wrong idea. They have the wrong idea especially if they dislike Tai Chi as a martial art but they still have the wrong idea even if they accept that Tai Chi originated as a martial art and accept that other people study Tai Chi as a martial art. I have called this attitude "Tai Chi as 'magic dance'". These people think in terms of postures rather than moves. They think each posture is a magic thing in itself, like one particular word in a magic spell. If they say the word wrong, or leave it out, or change the order of words, then the spell doesn't work, and they don't get health and vigor magically from Tai Chi. A move becomes a frozen magic posture that you get into, dwell on for a moment, and then move on to the next magic posture, until you are done with the whole spell. If your hands are not in exactly the same position every time you do "single whip" then you did it wrong, you will not achieve health and vigor, and horrible things will happen. You garbled the spell. Demons will get you. These people want to know exactly what to do, in exactly what order, to make sure they get the full benefits of health and vigor. It does not help to say that moves are not magic postures but are the external representation, for learning, of principles. These people don't want moves-and-principles or anything like that. They want a magic formula. Magic formulas are notorious for having to be repeated. So, it would seem, these people would be willing to repeat the same exact moves in the same exact order; but they are not willing. They get bored. You would think variation and attention to underlying principles would alleviate their boredom and get them back to practice; but it does not. They don't practice that way either.

People have a mistaken attitude because they distort the idea of learning through your body, by doing moves, without necessarily using your intellect at first. They also see the moves as magic postures and treat the ideas associated with the underlying principles as magic words. They have picked up on the idea that postures (not moves), if repeated enough times, automatically teach deep ideas. They know, in theory, about the needs for variation and application, and they know, in theory, that moves are only the external representation of underlying principles; but they don't want to learn that way. Instead, they treat moves as exact magical postures. While there is some truth to the idea that moves (not postures) teach automatically, learning with this attitude in mind also leads to errors. The errors include thinking in terms of postures rather than moves, thinking of Tai Chi as "magic dance", boredom, not practicing, not seeing variations, not seeing unity in variations, not seeing the deep principles you are supposed to see, and pretending to understand deep principles by bandying words such as "chi", "yin", "yang", and "projecting". At the same time that people want magic dance, people want to hear chatter about underlying principles without really understanding those principles, such as chi, yin, yang, flow, projecting chi, five elements, eight trigrams, softness, etc. This chatter does not really enhance learning, and it does lead people to mistakenly see moves as magic postures. People cannot connect the magic postures with the deep principles named by the words "chi", "yin", "yang", etc. but only with the words "chi", "yin", "yang", etc. Thus they cannot connect the moves in any way that helps them see transitions between moves and helps them see the underlying principles. Since the spread of "New Age" ideology, many Americans have

taken up wanting magic postures and magic words. People misuse a valid idea about how people learn skills to fall back into an ideology of magic.

I stress that I did not learn Tai Chi this way - as repetition of magic postures, designed to automatically teach me deep principles, coupled with magic words - yet I learned Tai Chi from a Chinese American who was born and raised in China, and had spent most of his life in Chinese culture. I learned it from a man who never did the same move the same way twice. He was annoyed at the idea of magic postures and magic words. He did understand deep underlying principles, and sometimes talked about them, but not much. He expected underlying principles to emerge in you as a result of doing Tai Chi, which included practicing Tai Chi often and doing Tai Chi with variations and various applications. He also explained as best he could, and as much as he felt like, at the time. If the ideas did not emerge in you, or emerged in different people differently, that was fine too. Not everybody is destined to become a master of chi and of yin and yang. I learned Tai Chi using both repetition and variation, with appropriate explanations when possible, through both my body and my intellect, without postures, with appropriate explanations using traditional ideas, and with no reference to magic ideas.