The distinction between *gong* (skill) and *fa* (technique) is ubiquitous in Chinese martial arts. Utilizing Maurice Merleau-Ponty’s notion of ‘embodied intentionality’, I examine this distinction. I draw specific examples of the kinds of skills under discussion from a particular style of taijiquan – Hong Chuan Chen Shi taijiquan (Master Hong Junsheng’s transmission of Chen taiji boxing) – and I argue that understanding taijiquan in terms of embodied intentionality allows us to understand important taijiquan concepts such as *chansijin*, *yin*, and *yang*. Although in this article I focus on one specific style of martial art, I argue that the general analysis of the gong–fa distinction based on embodied intentionality is widely applicable.
INTRODUCTION

In many traditional Chinese martial arts, *gong* (or skill training) was reserved for the master’s disciples. Discipleship in Chinese martial arts at times has the status of an adoption, where the disciple-master relationship is identical to that of father and son. This is certainly the case in Master Hong Junsheng’s lineage of Chen style taijiquan, in which gong training was traditionally reserved for the most loyal and trustworthy students. Today, however, it is taught more openly. Common sayings about gong and *fa* (technique movements) reflect the perceived value and importance of gong training. These include sayings such as, ‘If I don’t want to teach a person, then I will teach him fa but not gong’; ‘If you are too busy to practice both, then practice gong instead of fa’; ‘I’d rather teach ten fa than one gong’; and ‘If you train your whole life, but don’t train gong, your efforts are wasted in old age’.

Clearly, training that led to the development of gong was held in high regard. But what exactly is gong and why is it so important? Can the Western philosophical tradition tell us anything about the difference between gong and fa? Can it explain why gong training is viewed as superior to training only fa?

Utilizing Maurice Merleau-Ponty’s notion of ‘embodied intentionality’, I examine this distinction. I draw specific examples of the kinds of skills under discussion from a particular style of taijiquan – Hong Chuan Chen Shi taijiquan (Master Hong’s transmission of Chen taiji boxing). Additionally, applying Merleau-Ponty’s notion of embodied intentionality affords a clearer understanding of the role of *yin* and *yang* in taijiquan practice. The distinction between gong and fa is ubiquitous in Chinese martial arts. Although I focus on one specific style of martial art, I believe the general analysis of the gong/fa distinction based on embodied intentionality is widely applicable.

WHAT ARE TECHNIQUES (FA) AND WHAT ARE SKILLS (GONG)?

Let’s think of techniques (*fa*) as *meaningful bodily movements*. The meaning of a movement is normally a combination of defensive and offensive maneuvers. Various techniques are usually given names that indicate the general intention behind the movement or that describe the shape of the movement (e.g., Chen style practitioners will be familiar with names such as ‘white crane spreads wings’, ‘Buddha’s warrior attendant pounds the mortar’, ‘single whip’, etc.). Let’s think of skills (gong) as *bodily abilities which make techniques more effective*. If one person’s use of a technique is more effective than another person’s use of that technique, other things being equal, we might say that the first person performed the technique more *skillfully*. Generally speaking, the difference in application efficacy is a difference in the level of gong.

One martial art is distinguished from another not necessarily by the techniques but by the skills used to apply the techniques effectively.

For example, most martial arts, including Western boxing, have a straight punch. Often the straight punch of one style will appear very similar to the straight punch of another style. However, there can be great variations in the underlying body mechanics used to deliver the punch. Within a style, practitioners can differ in how well they execute those body mechanics. These differences both *between* and *within* styles are best thought of as differences in gong. Gong in this sense is often specific to particular martial arts. The skills that make the techniques of one style effective might be different from the skills that make the techniques of another style effective. Without the development of gong, techniques will either not work at all or will only work on inferior opponents. We need to know more about the difference between gong and *fa* in order to understand in detail why and how skill increases the efficacy of technique.

Of course, there are skills involved in the execution of any technique. These skills are usually a basic level or foundational level of skills sometimes called *jibengong*. These skills include balance, stamina, basic coordination, flexibility, etc. These basic skills are common in some form or other to almost all martial arts. While these types of foundational skills might be necessary to execute the technique effectively, they are rarely sufficient.

It might be helpful to distinguish two general kinds of skills: (1) athletic skills and (2) martial skills. Athletic skills are the attributes practitioners need to demonstrate their martial techniques in isolation, such as the choreographed training routines *quanzhuo* or *taolu* (*kata* in Japanese).

1 Master Liu Chengde is one of Master Hong’s senior disciples. The agreement of lineage presented to Master Liu’s students (and grand-students) during the discipleship ceremony reads in part: ‘This agreement has come to be due to the heartfelt relationship presented to Master Liu’s students (and grand-students) during the discipleship between gong and fa?’

2 Sayings such as these are common among noted Chen style masters such as Master Feng Zhiqiang [2000] and Master Chen Zhonghua [2010] as well as Master Liu.

3 This way of representing the name of Hong’s lineage comes from one of his senior disciples, Master Liu.

4 My discussion of *taolu* is focused exclusively on their value as self-defense movements. However, *taolu* have much greater significance in Chinese culture than being merely a set of self-defense movements. For a more extensive consideration of the significance of *taolu*, see the article in this issue by Daniel Mroz [2016].
These skills also contribute, no doubt, to combat effectiveness, but they are not sufficient by themselves to reach the higher combat levels of any art.

For example, contemporary Chinese wushu, with its standardized routines, is impressive to watch because of the speed, flexibility, and gymnastics incorporated into the routines, but it is sometimes criticized by traditional martial artists as lacking martial content (i.e., useful self-defense techniques). These routines are sometimes referred to as ‘hua quan, xiu fa’, or ‘flower fist, brocade leg’. The routines are beautiful to watch but, according to these critics, do not constitute legitimate combat training. I take no stance on the accuracy of that criticism in this article. My point is simply that there exists a conceptual distinction in martial arts discourse about types of skills that is relevant to the distinction between gong and fa.

Martial skills will be those attributes a practitioner must develop in order to attain a high level of combat effectiveness. These are the skills needed to know how to fight and to defend oneself against an attacker. A further distinction is needed at this point, however, insofar as there are different types of combat skills. As an initial attempt to elucidate this further distinction, let’s say there are both: (2a) brute skills and (2b) refined skills. Brute skills are easier to understand. If practitioner A can move his fist from point x to point y in less time than practitioner B, then we can say practitioner A has more speed-skill than practitioner B. Likewise, if practitioner C does lots of push-ups and therefore develops more upper-body strength than practitioner D, we can say practitioner C has more strength-skill than practitioner D. The same can be said for training which makes the body harder and more resistant to strikes. There is little doubt that strength, speed, and body conditioning are attributes and skills that enhance combat techniques.

It is the second sub-category of martial skill that is the focus of this article, and the one that I believe is referred to in the common sayings at the start of this article. It is sometimes said that true martial skill should allow the practitioner to defeat a stronger and faster opponent and it should allow the older practitioner to maintain his combat effectiveness against younger assailants. Indeed, it is claimed that this kind of skill or gong training is a necessary condition for martial ability in old age and is captured in the often cited taijiquan expression of ‘four ounces overcoming a thousand pounds’. When martial artists talk about avoiding localized strength when generating force (for example, using only the arm muscles to punch) and work to develop movements that coordinate the entire body, they are talking about more refined uses of strength as opposed to brute strength. Refinement is a matter of degree and different martial artists will manifest abilities with differing degrees of refinement. I will explore what such differences in refinement amount to later in this article.

I should add that the analysis of gong I am about to offer is incomplete, or will be viewed as incomplete from the perspective of some practitioners of taijiquan. I will avoid entirely, as did Master Hong in his discussion of taijiquan, any discussion of qi, jing, and shen, elements which are often regarded as essential to understanding gong in traditional Chinese martial arts. It is beyond the scope of this article to address adequately the Chinese metaphysics needed to explain these concepts. Most importantly, martial arts styles which include these elements tend to agree that correct physical training (including structural alignment, correct use of force, and proper breathing and relaxation) are necessary to develop these more esoteric aspects of the art. My discussion of martial gong will attempt to begin at the beginning.

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5 The separation between athletic skill and martial skill, according to some critics, can be seen in many martial arts schools. Critics claim that students perform the choreographed routines beautifully and with a high degree of skill, yet when the students spar, their techniques have no significant relation to the routines. If they have sparring skills at all, those skills are developed independently of the routines. For example, the sparring of kung fu practitioners might be indistinguishable from kickboxing. To my knowledge, no compelling data exist which would show the frequency or extent of this phenomenon among practitioners of Chinese martial arts. Finding good data is especially challenging since self-defense focused martial technique might be quite different than sport martial art technique common in mixed martial arts (MMA) competitions. Hence, an absence of traditional martial artists in MMA competitions would not be a sufficient indicator of a general lack of self-defense efficacy. The conceptual distinction between athletic skills and martial skills is nonetheless valuable as it affords practitioners a chance to examine the skills developed in their own practice in relation to martial efficacy.

6 Clearly brute skills and athletic skills often overlap. Speed and strength are useful in both solo performance and combat.

7 We can think of iron palm and iron body training here. The practitioners of these skills develop greater striking power because their fists or palms are harder, and their bodies are less likely to be affected by strikes because of their conditioning. Having a harder fist is not itself a technique but it will make fist techniques more effective.

8 This expression is mentioned by Master Feng [2000], Master Hong [2006], Master Chen [2010], and other notable Chen stylists in numerous publications and interviews.

9 It is sometimes said that training should convert jing into qi, and qi into shen, and ultimately shen or spirit merges into emptiness or what is sometimes referred to as wuji. Wuji is prior to taiji and is said to give birth to taiji and from taiji 10,000 things emerge. There is much to be said about how martial arts training is a form of spiritual development, but that would be a topic for another article.
THE PHENOMENOLOGY OF EMBODIED SKILL

Merleau-Ponty rejected both empiricist accounts of perception and intellectualist accounts. Taylor Carmen aptly describes these rejected positions: ‘The concept of sensations or qualia as primitive building blocks of perceptual experience on the one hand and [the] equally emphatic denial that perception is constituted by or reducible to thought or judgment on the other’ [Carmen 2005: 51]. Merleau-Ponty argues instead that the body has its own kind of intentionality, its own way of making sense of the environment, which cannot be accounted for by either empiricist or intellectualist theories.

A phenomenological analysis of perception and behavior reveals that the body does not respond to objective external stimuli via sensations which are isomorphic to those stimuli, nor does it wait to be animated by the mind, but actively enhances its perception of the environment leading to a greater refinement in skilled coping.

Hubert Dreyfus summarizes two of Merleau-Ponty’s concepts that are central to my analysis of gong and fa: the concepts of an ‘intentional arc’ and of ‘maximum grip’. The intentional arc names the tight connection between the agent and the world; as the agent acquires skills, these skills are ‘stored’, though not as representations in the mind but rather as more and more refined dispositions to respond to the solicitations of more and more refined perceptions of the current situation. Maximum grip, meanwhile, names the body’s tendency to respond to these solicitations in such a way as to bring the current situation closer to the agent’s sense of an optimal gestalt [Dreyfus 2008: 1].

Let’s begin with the intentional arc. It is easy enough to provide examples of this relationship between the embodied agent and his environment. Consider the toddler reaching for the shapes and colors dangling from her mobile, just out of reach. From a seated position, the toddler remains frustrated by her inability to reach the object. But if the toddler stands, then, with a bit more stretching, she will succeed in touching one of the colorful objects. In doing so, clearly the toddler’s behavior is intentional: it is about the object.

Crucially, this engagement does not leave the toddler’s world as it was prior to the grasping attempts. After enough successes and failures from different positions, objects now appear differently than before. Objects can now appear to be within reach or out of reach. The child’s environment has become enriched; formerly undifferentiated elements are now saliently discriminable. Notice too that the child becomes more efficient at reaching objects because now she can discern when she needs to move only her arm or whether she needs to move her entire body in order to be successful.

According to Merleau-Ponty, this discernment is not a matter of the child having an inner representation, or the result of some process of calculating distances; rather, this knowing is presented in how the world shows up.

The same kind of change in how the world appears to us occurs when we learn to parallel park. Through much trial and error, most city drivers learn to perceive when a parking space is large enough to accommodate their car. Country drivers less familiar with parallel parking often agonize over whether or not they can fit into the space. The two types of drivers differ not only in how the space appears to them, but also in terms of how the car feels backing into the parking space (i.e., in how well they can execute the task). The city driver feels when to cut the wheel to slip into the spot without clipping the other car, while the country driver starts and stops repeatedly while checking the mirrors or perhaps backing over the curb. We might say the city driver feels the parking space through his car, while the country driver suffers from a kind of perceptual deficiency since he is unable to feel the parking space adequately through his car.

It is important to note that, even when we are talking about the same parking spot, what solicits the city driver to attempt to park in the space and inhibits the country driver from an attempt is how the spot appears to each driver. The objective features of the space, such as its dimensions, are insufficient by themselves to explain the behaviors of each driver. How the world appears to each driver solicits different courses of action, and those actions in turn affect how the world shows up to solicit them.

Merleau-Ponty uses the examples of a woman with a feather in her hat avoiding anything overhead that may break it off and a driver entering a narrow opening: ‘The hat and the car have ceased to be objects with a size and volume which is established by comparison with other objects. They have become potentialities of volume, the demand for a certain amount of free space’ [Merleau-Ponty 1962: 143].

The lived world is not that of the physicist or the geometer; rather, it is a network of potentialities which encourages or inhibits certain courses of action. Objects have meaning or significance that emerge from our engagements with them.

If Merleau-Ponty is correct and the embodied agent is related to her environment through a network of intentional arcs, then understanding the agent’s environment necessarily requires an account of the agent’s behaviors; likewise, understanding what the agent is doing requires an account of how she experiences her environment – the network of
significance or solicitations she encounters. But what governs this ongoing interaction between the embodied agent and environment? What provides the general normative structure of the interaction such that it leads to improved coping and an enrichment of salient environment features?

Merleau-Ponty’s answer is that the embodied agent aims toward a kind of optimal gestalt: ‘Whether a system of motor or perceptual powers, our body is not an object for an “I think” [but] a grouping of lived-through meanings which moves towards its equilibrium’ [Merleau-Ponty 1962: 153]. This equilibrium is explained further by Merleau-Ponty in terms of perceptual clarity and richness, and in terms of our intentional behaviors functioning as expected.

For example, we naturally hold objects in our hands at the optimal distance for viewing, and we position our bodies in such a way as to get the best view of distal objects and events. When we reach for the objects that appear within reach while sitting at a table and writing, we do in fact succeed in grasping them. When going up the stairs in the dark, our feet find the stairs where the body expects them to be. Merleau-Ponty speaks of the body being ‘geared onto the world’:

My body is geared onto the world when my perception presents me with a spectacle as varied and as clearly articulated as possible, and when my motor intentions, as they unfold, receive the responses they expect from the world. This maximum sharpness of perception and action points clearly to a perceptual ground, a basis of my life, a general setting in which my body can co-exist with the world.

[Merleau-Ponty 1962: 250]

And further:

The distance from me to the object is not a size which increases or decreases, but a tension which fluctuates around a norm. An oblique position of the object in relation to me is not measured by the angle which it forms with the plane of my face, but felt as a lack of balance, as an unequal distribution of its influence upon me.

[Merleau-Ponty 1962: 302]

Once again, we see that for Merleau-Ponty our encounter with the world is essentially normative. The normativity is grounded in the embodied agent’s continuous attempt to reach equilibrium in a given situation. The body is aware of deviations from what it finds optimal and seeks to relieve that tension. Dreyfus makes frequent use of Merleau-Ponty’s claim that the body responds to the solicitations of the environment without relying on mental representations of the goal. For Merleau-Ponty and Dreyfus, motor intentionality is a form of non-representational intentionality. What the organism knows is not stored as representations but in how the world shows up and solicits that organism. As Merleau-Ponty explains, ‘it is to allow oneself to respond to their call, which is made upon it independently of any representation’ [Merleau-Ponty 1962: 139].

Merleau-Ponty uses the analogy of a soap bubble to illustrate how no representation of the end state or goal is needed to explain how the embodied agent moves toward an optimal gestalt. The final spherical result does not have a causal role to play in the bubble forming. Rather local forces acting on soap film result in the bubble’s production. Likewise, local solicitations on the embodied agent produce responses in the agent that result in movement toward the optimum gestalt. As Dreyfus notes, there is more involved than just a causal relation when the agent responds to a solicitation:

According to Merleau-Ponty, in absorbed coping the body of the performer is not just responding to causal forces like a soap bubble; it is solicited by the situation to perform a series of movements that feel appropriate without the agent needing in any way to present what would count as achieving the goal.

[Dreyfus 2002: 415]

We could think of an infant learning to crawl or to reach for objects. The infant is not cognitively sophisticated enough to represent those goals to itself, but feedback from its interaction with the environment reinforces or inhibits some movements instead of others. And, importantly, that feedback has intentional content. Dreyfus offers the example of a player returning a tennis serve: ‘Indeed I cannot represent how I should turn my racket since I do not know what I do when I return the ball’ [Dreyfus 2008: 13]. The tennis player’s body automatically adjusts the racket to meet the oncoming ball at the optimum angle without the agent representing to herself what that angle is.

To summarize, there are three elements central to Merleau-Ponty’s account of the embodied agent’s relationship with the environment. First, the embodied agent has some sense of what is optimal in a given situation and the agent strives to reach and maintain that optimal
relationship with the environment without making use of mental representations; the embodied agent also refines what counts as a good gestalt. Second, the agent becomes more skilled at coping with aspects of the environment through successful interactions. Third, this refinement in skill is concurrent with an enrichment of salient aspects of the environment, i.e., how that environment appears. I now want to employ these three elements to say something about the difference between gong and fa.

GONG, FA, AND EMBODIED SKILLS

The student is initially taught technique as a series of movements. The student might then be expected to increase the fluidity, speed, and power with which the movements are executed. Indeed, solo performances of martial techniques are often quite impressive in terms of their athleticism.

At this level of learning technique, gong training may or may not be introduced. It is important to realize that there is more than one way a person can move his body into a particular position, and more than one way a person can use his body to issue force. To the untrained eye, two people may appear to be performing the same movement since their torsos, limbs, and overall postures seem to be identical. However, which parts of the body initiate the movement, and how those parts perform the movement to generate force, can be radically different.

Someone could be taught choreographed routines in which one technique is followed by another, without being subject to the training necessary to develop the understanding of one’s body needed for higher-level skill training. In Master Hong’s transmission of Chen taijiquan, gong training initially consists of coordinated bodily movements called ‘positive and negative circles’. One of the most important parts of training the positive and negative circles is learning how to sense or feel what is known as the kua, or what we can think of as the hip joint. In taijiquan training, there is a requirement to ‘round the dang’ which refers to a kind of openness of the groin or crotch area, and which refers more to a quality of and receptivity to movement in that area rather than simply a physical structure. Rounding the dang or crotch involves the hip joints, the tailbone, the hip crease and kua, and also the perineum and buttocks area. There is a feeling of sitting down while the practitioner is standing. The hip joint feels as if it is floating in a contained space, free to rotate. We could imagine a ball floating inside a cube not touching any of the sides to get a sense of experiencing the kua and hip movement. In fact, taijiquan instructors in this lineage prioritize training the crotch area.\footnote{It is important to note that in Hong’s system of Chen taijiquan all movements in the routines are variations of positive and negative circles. For further discussion of this, see Mroz [2016].}

Instruction regarding these two circles does not happen primarily in a verbal form, and as training progresses, the requirements for correct movement cannot be seen but only felt.\footnote{Emphasis on the crotch region or dang can be found in Hong [2006]. Master Liu and Master Chen have also verbally emphasized correct use of the dang as essential to Hong’s transmission of taijiquan.} The reason for the lack of verbal directions is quite simple: the novice practitioner lacks a sufficient understanding of the important areas of the body (such as the kua and dang) to correctly interpret verbal instructions. For example, the direction to ‘turn the waist’ typically results in incorrectly turning from the top (i.e., the shoulders or chest) or moving the hips in the same direction as the waist (i.e., not distinguishing the hips from the waist).

Part of the problem is that the novice practitioner is likely to have a very vague or limited conception of their waist. Additionally, because they have no sense or feel for their kua, the novice will misinterpret their visual perception of what the teacher is doing. In other words, the novice lacks the training to pick up salient features of their visual experience, much like the country driver who cannot determine whether the parking space is large enough for parallel parking. Thus, the student is in danger of copying the external movement of the teacher without grasping the subtle underlying mechanics – in other words, training fa without any gong.

The danger of failing to grasp the underlying mechanics by merely copying the external movement is mitigated by three instructional methods: (1) the teacher physically manipulates the student’s body in ways that more closely approximate correct movement; (2) the teacher allows the student to feel the teacher’s body as the teacher is moving; and (3) the teacher might prevent certain parts of the student’s body from moving thereby preventing the student from initiating the movement from the wrong part of the body. The teacher might have the student place their hands on the teacher’s kua as the teacher

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performs the positive and negative circles correctly. The teacher might also perform the movement incorrectly as the student would, in order to illustrate the difference. Thus, the teacher leads the student toward a better sense of what optimal movement and position feel like.

With correct training of the positive and negative circles, awareness and control of the kua develops. The kua movement becomes coordinated with the movement of other parts of the body. In Hong Chuan Chen Shi taijiquan, that coordination begins to produce a kind of force known as chansijin, or 'spiral force'. The various movements of the routines are now expressions or manifestations of chansijin, and proper training of the routines becomes another way of training gong.

To get a better sense of the basic aspects of chansijin, hold your arm straight out in front of you. Notice that, by rotating the arm, you can turn your hand palm up or palm down. There are two directions of rotation. When the palm turns up, consider this a positive rotation; when the palm turns down, consider this a negative rotation. Now sit on the floor with your legs straight out in front of you. You can keep the entire leg rigid and you can rotate the leg from the hip joint inward, or you can rotate your legs outward. For most people, the hips naturally rotate outward and the feet point outward at 45 degrees when sitting in that position. Don’t turn from the ankles or knees; turn the leg as one unit from the hip joint. When the knee and foot turn out away from the other leg, consider that a positive rotation; when the knee and foot rotate in toward the other leg, consider that a negative rotation. Notice too that your torso can turn to the left or to the right. Consider the former a positive rotation and the latter a negative rotation.

We have three basic ‘units’ of the body which can rotate: the leg unit, the waist unit, and the arm unit. This is of course over-simplified but it should get the idea across. As you’re sitting on the floor you can coordinate rotations of these three units in different ways. You could have the right arm and right leg perform a positive rotation, or you might have the right arm and left leg both perform a positive rotation. The left leg could rotate negatively and so could the right arm. You could also turn the waist to the left or right while you perform these other rotations.

However, taijiquan is not practiced sitting down; it is practiced standing upright. The feet will now be planted on the floor and so cannot turn in or out as they can when seated. Rotating the legs while standing becomes more challenging because the ankles must allow the legs to rotate without the feet moving. The knees will appear to point upward slightly or downward slightly instead of simply pointing in or out. When the knee points upward it is a positive rotation of the leg, and when the knee points downward it is a negative rotation of the leg.

The knees cannot shift or collapse inward; they simply change their direction upward or downward as the leg rotates. When the right leg rotates negatively and the knee points down, the left leg will rotate positively and the left knee will point upward. This action of the legs will cause the waist to turn to the left. Likewise, the opposite action of the legs will cause the waist to turn right. By pushing into the ground with the feet while at the same time rotating the legs in coordination, the torso is made to rotate. The torso does not initiate its own movement or turning.

Westerners are often more familiar with punches thrown by boxers, even if only through televised bouts, and are sometimes also familiar with the admonition given to boxers to avoid throwing ‘arm punches’. Boxers are taught that the arm muscles are relatively weak, and a stronger force is delivered through the arm when the force is generated in the waist and legs. Westerners see boxers pivot on their toes while turning their waists. Western striking arts such as boxing advocate a more global approach which relies on the entire body when issuing force. Much like a boxer needs to turn his waist to issue a powerful punch, the taijiquan practitioner is training the coordination of his legs, waist, and arms to issue force more effectively. Recall our experiment of rotating your arms positively and negatively. In a similar fashion, though not identical, to how a boxer might rotate her arm while throwing a punch, the taijiquan practitioner rotates her arms while striking. The rotation of the arms must be coordinated with the rotation of the waist and the rotation of the legs. The speed and direction of the rotation must be coordinated from the feet through the hands.

Chansijin involves more than just coordinated rotation of the torso and limbs. The points of rotation, such as the hip, shoulders, and elbows must be in the proper position while rotating, and they must be relaxed. In other words, the proper bodily structure and alignment must be maintained while the rotations are occurring. As with the rotations, proper body structure and alignment are essential to the transmission of force.

As an experiment, stand in front of a wall with your right foot about two feet from the wall, and your left foot farther back in what is sometimes called a bow stance, forward stance, or hill climbing stance. Place your right hand on the wall about shoulder height and prepare to push into the wall with your right hand powered by your rear left foot. Before you start pushing, raise your right shoulder up close to your

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14 A boxer’s jab involves a negative rotation as the palm of her hand moves from a vertical position by her chin or in front of her face to a horizontal position facing downward at the point of impact.
Now begin pushing, driving your hand into the wall by pushing hard with the rear left leg. Notice that your shoulder will start to fatigue quickly and much of the force from your rear foot is lost as you fight to keep your raised shoulder from moving backward. While pushing with constant force, let your shoulder drop as low as possible (no need to force it down). You will feel a greater pressure now in your rear left foot and the right hand. You have established a more direct line of force between your foot and your hand. You can also relax your body more with improved alignment.

Now notice the position of the tip of your elbow. Is it pointed directly down toward the floor or is it pointed sideways to some degree? If you relax the arm and let the tip of the elbow point down naturally, you will again find a greater connection to the rear foot than if the elbow is pointing sideways to any degree. When taijiquan practitioners practice ‘loosening the shoulder’ and ‘sinking the elbow’, this allows for greater relaxation and a more efficient transmission of force from the legs. In more advanced practitioners, the ability to relax and drop the shoulder is so refined that it appears as if there is one diagonal line from the neck to the elbow; the squared angle normally present due to the shoulder is almost eliminated. This more refined ability further enhances the transmission of force.

When the positive and negative rotations of the limbs and torso are properly coordinated, and the proper alignment and body structure is maintained, practitioners will begin to feel this connectivity as diagonal lines through the body while rotating. For example, one diagonal line will extend from the rear left foot to the front right hand while turning right in a right-sided positive circle. The force is transmitted from the foot to the hand through the body in a straight line, and the experience of this straight line of force also has a spiral quality to it; one feels the body rotating on the line.

Recall the experiment of pushing against the wall. With enough practice and awareness, you can feel when your force gets ‘caught’ in the shoulder, or elbow. Force can also get ‘caught’ in the back, the hips, and the knees. As you get better at finding the optimal alignment, you will find that the line of the force will become increasingly direct (i.e., straight from ground to hand). The goal of the basic training and routine training is to reduce the places in the body at which force is prevented from traveling directly from the ground to the point at which the force is issued. The body is learning to recognize and maintain optimal body position. Chansijn is not a matter of imagining ‘energy’ moving through the body in some sort of spiral pattern. Chansijn is the result of proper coordination of the entire body.

The solo practice of the routines helps the practitioner recognize optimal body positions in relation to their own movements. She can learn that she has to move her weight to one foot before stepping with the other, or to prevent her hips and knees from shifting instead of rotating. She can develop an isolated sense of optimal body position, but by itself this increased awareness cannot tell her how to find and maintain an optimal body position in relation to the opponent. The practitioner’s increase in skill is only focused on her own body. The practitioner learns to cope better with her own bodily movements, and, as a result, parts of her own body and their positions become more salient. Diligent practice produces in the student awareness of areas of the body, such as the kua, that were previously unrecognized and outside the realm of purposeful control.

If, as Merleau-Ponty argues, the body is a grouping of lived-through meanings, then the taijiquan practitioner’s body becomes something more because the body has become more meaningful. The body has become a locus for a whole new network of meanings. Correct taijiquan training radically transforms one’s sense of embodiment. One becomes aware of the hip joint, individual vertebrae, the tailbone, the shoulder joint, and other areas of the body. Awareness permeates the body in a new way, or perhaps we should say the body is aware in a new way.

The gong training of the positive and negative circles is further refined and gains new significance as additional skills are developed. It is sometimes said in taijiquan practice: ‘Know yourself through practicing the routines, then know others through tui shou [push hands].’ Practice of the routines, which incorporates the gong of the positive and negative circles, leads to self-knowledge in the form of a radically enriched experience of embodiment. How does an enriched sense of embodiment relate to knowing others as one goal of push hands training?

16 Chansijn actually involves more than I have just described. For example, the 45-degree angle plays a central role in this system of taijiquan. It is beyond the scope of this article to explain all the structural requirements of this type of taijiquan, but it is important to note that these are physical requirements, not metaphysical imaginings.

17 Think of writing with your dominant hand compared to your non-dominant hand. There is greater awareness and control with the dominant hand. Analogously, with correct taijiquan training, the entire body changes from functioning like the non-dominant hand to functioning like the dominant hand.

18 The author has heard both Master Liu and Master Chen explain push hands in this fashion during verbal explanations of stages of taijiquan practice.
Without training the circles and the forms correctly, correct push hands training is impossible and so ting jin is never cultivated. The proper movement patterns learned through solo training are necessary in order to avoid direct confrontations of force with one’s training partners while all the while remaining in continuous contact with them. Additionally, the sensitivity to the transmission of force through one’s own body cultivated through careful solo practice primes one to be better aware of the transmission of force through the partner’s body. Ting jin, or literally ‘listening energy’, is the ability to sense subtle changes in the opponent’s force.

Tui shou is the student’s first confrontation with an opponent, albeit a friendly and quite helpful opponent. Pan shou is taijiquan training with a partner. One partner applies force to the other person’s body. The force could be applied to any part of the practitioner’s body, though in practice force is typically applied to the arms and torso. The recipient of that force has to detect and respond to that force in an appropriate way. What does ‘appropriate’ mean in this context?

As an initial attempt at an answer, let’s say the recipient of the force neither fights the incoming force nor flees from it. The recipient of the force must neutralize the incoming force and issue force at the same time. In taijiquan terminology, yin and yang must happen concurrently, not sequentially. How does the practitioner neutralize force and issue force at the same time? The answer is by using the chansijin or spiral force developed in solo practice. Without the enriched sense of embodiment, particularly control of the kua, provided by correct solo training, the practitioner simply would not understand their own body well enough to practice push hands correctly. Practicing push hands allows the practitioner to learn how to sense the opponent’s incoming force and how to use the appropriate amount of spiraling in response. Some spirals might be tighter and faster, while other spirals might be larger and slower.

The practice of push hands further enriches the practitioner’s sense of embodiment. The movements of solo practice take on further meaning and become more precise because now they are performed with a sense of the opponent’s force and position. As awareness of one’s own body increases with the awareness of the opponent’s body, the practitioner reaches a stage at which she may even have greater awareness of the opponent’s body than of her own. Such a taijiquan practitioner can sense where their center of gravity is, where the opponent’s stance is weak or strong, and how exactly the opponent is applying force. By the same token, the advanced taijiquan practitioner is able to sense increasingly subtle variations in how force is applied to their own body.

Push hands allows the practitioner to test their body structure and the rotation of their limbs and torso to see whether they are able to receive and issue force properly (i.e., using chansijin). Recall again our wall pushing experiment. The wall is static; it does not change its direction of resistance. Push hands training allows the practitioner to cope with a wide range of changing forces being applied to their body. Push hands is an ongoing experiment that tests the habits that are being engrained during solo training. It can also become increasingly aggressive, with increases in both speed and force. Indeed, there are push hands competitions. However, if practitioners have not developed enough taijiquan skill, such encounters can easily come to resemble wrestling matches (albeit entirely upright, and often of apparently low or limited quality). Push hands is not the goal, but a means to develop free fighting or san shou (literally ‘free hand’ ability). As with other types of martial arts, some taijiquan practitioners in Master Hong’s lineage engage in free style sparring, attacking each other freely to test the efficacy of their techniques.

Master Hong explains the essential characteristic of movement in this style: ‘We have established that Chen style taijiquan movements conform to the unity of opposites’ [Hong 2006: 12]. This ‘unity of opposites’ is manifested in multiple aspects of a movement. Using a positive circle exercise as an example, we can see the following pairs of opposites: empty/solid, open/close, positive/negative rotation, and withdraw/issue. The unity of opposites is achieved through the development of spiral force or chansijin.

Furthermore, Master Hong states: ‘The myriad of changes are rooted in one source. Only silk reeling is the foundation [silk reeling is a reference to chansijin]; each taiji movement is shaped in spirals that must be rounded and loose, like a towel repeatedly wrung’ [Hong 2006: 28]. Then, later in the same text, we find: ‘Open and close, hardness, softness; curvature and straight line are coordinated through spirals, that result in contradictory harmony’ [Hong 2006: 62]. And lastly: ‘The method is in the movement of the dang and the knees’ [Hong 2006: 65].

Thus, for Master Hong, the elements of yin and yang are incorporated into taijiquan training by the development of chansijin. According to Master Hong’s analysis, movements which do not involve chansijin are not taijiquan movements, regardless of external appearances.

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19 For practitioners with some basic understanding of kua usage, push hands can further that understanding. In most cases, however, the presence of a pushing partner takes the student’s awareness off their kua and other important elements of body and its mechanics and causes the student to focus too much on the point of contact with the opponent. Essentially, the expansion of bodily awareness happens in stages, not all at once.

20 Free fighting or free sparring is mentioned as the stage after push hands training by Master Feng, Master Chen, and Master Liu.
Individuals practice taijiquan routines for decades in some cases without ever having practiced taijiquan. These individuals practice the external shape of the routines, and might even be able to use the techniques somewhat effectively, but both practice and application will lack chansijin and will not qualify as taijiquan. The spiraling of limbs and torso produce the interplay of yin and yang, or what Master Hong calls ‘the harmony of opposites’.

The movements of the right arm while performing the positive circle exercise involves a variety of harmonious opposites. The right arm has both revolution, as the hand moves away from the body and returns to the body in a roughly circular shape, and rotation, either positive or negative. When the hand begins the positive circle, it moves upward and outward from the center of chest to eye level; this is the positive (yang) half of the revolution. During the positive half of the revolution, the arm performs a negative (yin) rotation as the palm rotates from facing 45 degrees upward at the chest to facing 45 degrees downward at eye-level with the arm extended (i.e., the palm rotated negatively a full 90 degrees). The negative (yin) half of the revolution which involves the hand returning to the body at elbow level is accompanied by a positive (yang) rotation of the arm which turns the palm from 45 degrees downward to its original position at the chest of 45 degrees upward.

The positive and negative rotations of the arm throughout the positive circle revolution also produce a harmonizing of yin and yang as expressed in the relationship between the hand and elbow. We find the elbow withdrawing and sinking (yin) which produces an issuing-rising (yang) effect of the hand. The opponent feels drawn in by the yielding yin aspects of the elbow and at the same time feels pushed out or repelled by the hand.

The positive and negative revolutions and rotations of the right arm are coordinated in pairings of opposites with each side of the lower body through the spiraling of the right and left leg. When the right arm opens outward from the body as the torso turns to the right, the arm performs a negative rotation. The right leg, being on the same side of the body, performs the opposite rotation and rotates positively. When the right arm closes toward the body and rotates positively, the right leg rotates negatively. Hence, the yin rotation of the right arm is coordinated with the yang rotation of the right leg, and the yang rotation of the arm is coordinated with the yin rotation of the leg.

The upper and lower body on opposite sides coordinate by performing the same rotations. The right arm coordinates with the leg left by performing the same rotations. As the right arm opens outward and rotates negatively, the left leg also rotates negatively. As the right arms closes and rotates positively, the left leg also rotates positively. Hence, we can see that in terms of the coordination of the upper and lower body same sides coordinate by doing the opposite, and opposite sides coordinate by doing the same.

Just as within a single arm there are additional pairings of yin and yang, there are multiple pairings of yin and yang within each leg and in the relation between the legs as they rotate. When either leg rotates negatively, the knee closes and the kua opens. If either leg rotates positively, the knee opens and the kua closes. Should one leg’s knee close and kua open, the opposite happens with the knee and kua of the other leg.

There are many other pairings of yin and yang. For example, there is the opposite side coordination between the left kua and right shoulder. When the left kua drops the right shoulder also sinks at the same time. Additionally, this sinking of the shoulder also sinks the elbow (yin) which raises the hand (yang).

Many years of practice are needed to understand and to manifest in one’s taijiquan the interplay of yin and yang. As practitioners advance, the meaning of these concepts becomes increasingly sophisticated because of changes in how they experience their own bodies. One understands the interplay of yin and yang not because one has a theory, but because one’s body is this dynamic relationship.
CONCLUSION

Training gong involves the establishment of a variety of intentional arcs designed to enhance combat effectiveness. Those intentional arcs are refined along with the agent’s sense of optimal gestalt. Iterations of these intentional arcs during training exhibit the three components presented in Merleau-Ponty’s phenomenology of embodied intentionality.

If the routines (quan tao or taolu) are thought of as catalogues of techniques, then a practitioner can have all of the information (i.e., all of the techniques) but not be able to see its relevance in a concrete situation.21 The practitioner can know many techniques but be unsure about when to use them or how to adjust them to variations in the attack. Relevance is not determined conceptually or even at the level of conscious awareness in Chen style taijiquan; relevance is determined by the listening skills of the practitioner’s body.

At closer fighting ranges, where the opponents are already close enough to strike or even grapple with each other, it is very difficult to perceive visually an oncoming attack. The hand is faster than the eye. The cultivation of ting jin allows the practitioner to sense directly subtle changes in the opponent’s movements through a highly refined tactile awareness. The sooner the defender can anticipate the opponent’s attack, the precise characteristics of the opponent’s force, and changes in the attack, the greater the defender’s advantage.

A skilled martial artist may perceive the opponent betray their intentions or telegraph their actions by changes in their body (for instance, where the opponent looks, how they shift their weight, the deep breath they may take before attacking, how force is applied to the defender’s body, etc.). The novice martial artist, however, is often blind to the available information. Gong training aims to actualize as much of that information as possible. The martial artist who knows the techniques but lacks gong is forced to make up for this lack of discrimination by compensating with speed or strength. For example, such a practitioner has to wait for the opponent’s attack to be fully underway and then must try to be faster to avoid the attack and then counter.

The development of chansijin allows the practitioner to receive the opponent’s force while maintaining an optimal body position. Optimal body position amounts to balancing the instances of yin and yang. The practitioner’s awareness of yin and yang becomes more refined through practice. Less experienced practitioners are often defeated in push hands because they cannot adequately perceive and maintain the balance of yin and yang. In taijiquan this lack of yin/yang balance is sometimes referred to as ‘double-heavy.’22 The practitioner not only harmonizes the yin and yang of her own movements (for example, in the positive circle exercise, or the movements of the routine), she harmonizes her movements with the yin and yang of the opponent’s movements. By not fighting the opponent’s force, the taijiquan practitioner is less vulnerable to a stronger opponent than a defender who confronts the attacker’s force head on. By not fleeing from the opponent’s force, the taijiquan practitioner remains in contact to sense the opponent’s intentions and remains in a position to issue force against the attacker. Yin and yang are essential to the self-defense aspects of taijiquan because they unite defending and attacking into the same movement and so may provide a significant combat advantage.

Uniting defending and attacking into one movement decreases the amount of time with which the opponent can respond to the counter-attack. It also makes it more likely the attacker will be caught by surprise. Moreover, the assailant’s own attack immediately puts her at a disadvantage since the neutralization of the attack is part of the counter-attack of the taijiquan practitioner. Accounts of the abilities of masters such as Master Chen and Master Hong speak of how opponents would seem to almost throw themselves to the ground. The master’s skill would not allow the opponent’s force to disturb or reach his center. The master neutralized the incoming force and, at the same time, the master (using chansijin) would direct the opponent’s force back into him. In such contexts, the attacker becomes the victim of the force of their own attack.

Because the perceived environment, in this case the combat situation, contains so much more information for the skilled martial artist, the practitioner can be solicited to a wider range of possible responses. The enriched sense of the practitioner’s own embodiment further increases the range of responses, since the body can do more, or in Merleau-Ponty’s terms, the body has a greater network of meaning. The skilled practitioner directly perceives a wider range of relevant techniques and is better able to change to a new technique in response to the perceived environment.

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21 Gilbert Ryle [1946] made a similar claim in his analysis of the distinction between knowing-how and knowing-that. Ryle argues that understanding the relevance of a rule, or being able to apply a rule correctly in an appropriate situation, is not a matter of further rules or propositional knowledge but a matter of skill. Merleau-Ponty offers us one way of understanding what such a non-conceptual skill amounts to through his discussion of the intentional arc.

22 Earlier manuscripts on taijiquan were not clear about the nature of double-heavy or how it was to be avoided in practice and application. Master Hong explains in his book that Chen Xin first introduces the concept of double-heavy in his Taijiquan Treatise. See the forward by He Shugan in Hong [2006].
to the opponent’s counter measures. She feels the range of possibilities much as the city driver feels the parking spot is large enough for parallel parking. At higher levels, advanced practitioners are not limited to particular techniques, such as movements from the quan tao, because these individuals embody certain skills which can manifest themselves in novel ways. One is freed from thinking of a martial art as a set of specific techniques.

Differences in martial skill among taijiquan practitioners in Master Hong’s lineage depend on the degree to which each person manifests the chansijin in their movements. All members in a group of practitioners can know the entire eighty-one movement first routine (yi la); they can also know how to apply the techniques. The difference in efficacy of those techniques resides in the level of refinement of the chansijin. A practitioner who relies on brute strength or speed to make the technique work is a lower level practitioner compared to the person who relies instead on chansijin.

Ultimately, then, martial ability resides not in how many techniques a person knows, but in how skillfully a single technique is performed. For practitioners of Master Hong’s transmission of Chen style, to a large extent this difference in martial ability amounts to how precisely the person rotates their joints in coordination, particularly the hip joint. Because the rotation of the joints is difficult to see, it often appears that high-level practitioners are not moving at all, yet the opponent is thrown or struck with great force. The force produced by the coordinated movements resulting in chansijin exceeds localized uses of force, and more grossly coordinated whole-body movements. Power is a matter of refinement.

High-level gong training allows the martial artist to compensate for an opponent who is stronger and faster. Gong training affords this ability by: (1) developing an enriched sense of optimal position to receive incoming force from the opponent and to issue force against the opponent; (2) increasing the number and richness of salient environmental factors relevant to anticipating and understanding the opponent’s attack; and (3) refining the practitioner’s ability to respond to an attack by increasing the range and effectiveness of possible responses. As the level of gong increases, these three attributes manifest with a diminishing amount of conscious involvement by the practitioner.

Although Chen style taijiquan was used to illustrate the distinction between gong and fa, my contention is that martial artists in general could be well served by examining which aspects of their training develop attributes (1)-(3) and to what degree those attributes are developed. Training which does not develop those attributes, or which does so only minimally, is much less likely to produce effective fighting and self-defense ability.

With such an emphasis on Chen style taijiquan in this article, one might reasonably wonder about the general applicability of the analysis offered here to other martial arts. While it might be the case that many martial artists do not have the conceptual distinction between gong and fa, or concepts directly analogous to that distinction, in the repertoire of concepts used to think about their art or to describe their art, nonetheless normative judgments are crucial to all martial arts practices. There are ways one ought to practice and ways one ought not to practice, and the details of those prescriptive claims are specific to each martial art. In relation to combat or self-defense, these judgments are intended to make the practitioner’s style-specific techniques more effective. Normative claims are motivated by the fact that some ways of selecting techniques and performing techniques are better (i.e., effective against a wider range of opponents) than other ways of selecting and performing techniques.

Understanding how the gong/fa distinction can be generalized requires us to ask a set of related questions, such as: (1) Why, in relation to this particular martial art, are some ways of selecting and performing a technique better than others? (2) What skills must a practitioner have in order to actualize these better ways? And this second question can be further subdivided into: (a) What skills must the practitioner have to determine when to use this technique as opposed to other techniques (what I previously called ‘relevance’) and (b) What skills must the practitioner have in order to adapt the technique to the specific situation and effectively execute it? These latter two questions are general questions about gong.

In most martial arts, anticipating and understanding the angle of attack is crucial information that can be used to avoid and to respond to an attack. A very fast defender can perhaps succeed despite being limited in her anticipatory abilities because her superior speed affords her a shorter response time. She can sometimes even have a delayed response.

It is important to note that, although the cultivation of chansijin is the basis of martial ability in Hong’s system, it also has tremendous health benefits (e.g., keeping the joints loose and the body supple). It is also useful to consider how the three attributes are developed differently in different martial arts. For example, the gong essential to the development of these three attributes in jiu-jitsu practitioners or wrestlers will be different than the gong needed to develop these three attributes in kung fu practitioners.

Each practitioner can ask this simple question: Why is my teacher better at these techniques than I am? The teacher is not better simply because she has more techniques. Generally speaking, having more techniques isn’t what makes each particular practitioner effective. Is the teacher’s superiority a matter of size, speed, or strength, or is the superiority the result of something else?
writes of the ways in which multiple movement types – both martial art and non-martial – and the greater sensitivity (e.g., recognizing visual cues about the nature and direction of the attack or feeling the initiation of pressure applied to the body) affords her more time to make the adjustment, which is essential if the defender is slower than the attacker. Higher-level anticipatory skills also allow for greater energy conservation.

While anticipating the nature and direction of the attack is a general skill, it will be instantiated differently depending on the combat range in which the practitioner operates. In Merleau-Ponty's terms, training at different ranges will reveal different types of solicitations in the combat environment. Mid- to far-range striking arts will rely heavily on visual solicitations to anticipate attacks. Closer range striking arts (such as wing chun or northern praying mantis) will likely rely on arm and hand sensitivity to feel the opponent's movements. Grappling arts will rely on how the opponent's weight feels against the entire body. Different types of weapons training may involve distinct skills related to anticipating attacks as well. The meaning of the combat environment as a network of solicitations will vary depending on the kind of art studied.

Positional awareness not only provides information about what the opponent can do; it also provides information about what the opponent cannot do. This means that positional awareness plays a role in anticipatory success. Of course, positional awareness also provides the practitioner with information about her movement or technique options. An attack, whether empty-handed or with a weapon, initiated from one location with a specific trajectory and terminus affords some follow-up movements and prevents others. A skilled martial artist might wisely move into the space least accessible to their opponent's subsequent attack. Indeed, one can control an opponent not only by immobilizing them but also by only giving them certain movement options. By using positional awareness, the martial artist can be one step ahead of their opponents. The specific nature of positional awareness will depend on the type of martial art. Drills which develop a student's ability to recognize likely movement trajectories from various points of initiation would be one way to begin to develop better positional awareness.

The degree to how purposive or intentional skill development is in contrast with technique acquisition seems to vary from art to art and from teacher to teacher. Often students acquire some of the relevant skills by trial and error and without much conscious awareness. Students repeatedly try to get techniques to work on each other and over time they start to be more successful without having a clear sense as to why. In other cases, students are given specific drills or exercises which are not techniques but which develop basic abilities needed to perform techniques more effectively. The teacher is fully aware that the purpose of the drills is the development of specific skills. In still other instances, techniques are taught and drilled in such a way that students are instructed to pay attention to certain salient features conducive to skill acquisition. Rather than a more haphazard acquisition of skill through trial and error, the student is guided to focus on certain elements to enhance the efficacy of training.

Master Hong provided a clear and thorough account of the fundamental skill of Chen style taijiquan in terms of chansijin. These kinds of conceptual resources are not necessarily available in all martial arts. My hope is that martial artists can enhance their own practice by researching the skills that underlie the effective use of their techniques. The very fact that martial artists make normative claims about practice and evaluative claims about the efficacy of different practitioners shows a basic grasp of the distinction between skill and technique. Once the underlying skills are identified, attempts can be made to improve the efficiency with which those skills are developed. From the perspective of Merleau-Ponty's phenomenology of embodiment, skill development is a matter of continuously refining the ability to recognize the right sorts of solicitations and then responding appropriately to them. In turn, refinements in response will enrich the solicitations of the combat environment, affording yet a greater range of responses.

The analysis I've offered lets us say more precisely what constitutes bad or ineffective training. Ineffective training is training which fails to develop a proper relationship between solicitations and responses. For example, relying too heavily on choreographed routines might actually develop an insensitivity to certain solicitations because practitioners rely on their prior knowledge of what movement comes next rather than refining their anticipatory awareness. Training two-person routines with overly cooperative partners might inhibit both solicitation awareness and response refinement. If the cooperative partner always performs an attack in such a way as to make the partner's response effective, the partner is never forced to adapt and to refine the response.

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25 Mroz (2016) provides an excellent example of positional awareness when he writes of the ways in which multiple movement types – both martial art and non-martial art – can be understood in terms of Master Hong's positive and negative circles.
REFERENCES


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**Journal DOI**
10.18573/ISSN.2057-5696

**Issue DOI**
10.18573/n.2017.10091

*Martial Arts Studies*
Journal design and production by Hugh Griffiths