

COACHING

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Dominant features and negative trends in the current World Taekwondo Federation (WTF) competition system

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Abstract

Background. The introduction of the Protector and Scoring System (PSS) laid to rest, accusations of game manipulation in WTF sport taekwondo and ended disputes regarding scoring decisions; but, at a significant cost. **Problem:** The current WTF taekwondo competition system, with the PSS as its core feature, has given rise to a variety of strikingly negative trends, such as the overreliance on weak, stationary kicking techniques with the front leg, a preference for relatively tall and lean but less athletic competitors, and the appearance of a variety of unconventional, and sometimes bizarre scoring techniques. This article will argue that these characteristics are interrelated and largely the result of the hurried, unmanaged introduction of the PSS, which turned taekwondo competition from a full-contact combat sport into a partly light-contact, points game.

Aim. This article aims to encourage a discussion about the fundamental soundness of and necessity for the PSS.

Methods. Since the topic of this article lacks broad scientific research and empirical data, the methodology of this article relies largely on an analysis of deductions, and is based on a literature review, personal experience, conversations, and observations.

Results and conclusion. On a positive note, today's taekwondo leadership has finally acknowledged how the quality of taekwondo sparring and competitions has worsened, although it remains to be seen whether or not the WTF can fix the problem.

Note on Romanization: The Romanization of Korean words was conducted according to the McCune-Reischauer system. However, Korean personal names were left according to the individual's usage. Korean names are according to Korean tradition, family name first.

Introduction and background

Regarding the technical evolution of full-contact-based sparring with body protectors (*hogu*), promoted by the 1973-founded World Taekwondo Federation (WTF), academic literature in English is rather limited. Early taekwondo textbooks, which are all instructional manuals, mostly dealt with so-called 'traditional taekwondo,' which centers on forms training and self-defense [see for example, Hwang 1949; 1958; Choe 1955; Choi 1959; 1965; Lee C.U. 1972]. Moreover, these authors often advocated non-contact sparring only [Choi 1965: 292;

Son, Clark 1968: 268-9]. The first textbook solely dedicated to WTF-style sparring appeared in 1980, written by Ko Eui Min, a former Korean national team coach. Around the same time, several Korean university students and coaches started to do some research, mostly for their master's theses, centering on kicking techniques for sparring and scoring frequency [Kim H.M. 1977; Yu 1980; An 1983]. Most notable are the works of Lee Sung Kook [1983; 1984; Chōng *et al.* 1985], who was several times a coach for the Korean national team and later became the President of Korea National Sport University. Likewise, Kim Sei Hyeok [1993], the most successful Korean national team coach of all time, analyzed the use and frequency of kicking techniques during the early 1990s for his master's thesis. Subsequently, Kang Won Shik (President of the Kukkiwon, 2010-2013) and Lee Kyong Myong [1999: 102-38] contributed to the topic by listing the most important taekwondo rule changes and equipment modifications from 1962 until the late 1990s, although they did not analyze or discuss the effects

of these modifications on technique and game style. Moreover, a variety of other authors dealt with competition issues and/or technical skill developments to a limited extent [Yang 1986; Kim Y.O. 1990; Capener 1995; Sö 2007; Gillis 2008].

A study by Udo Moenig [2011] attempted to present a history of sport taekwondo kicking techniques. The author argued that the evolution of kicking techniques was greatly accelerated and influenced by the introduction of full-contact sparring and competitions, with the influence of rule change and equipment modification on sparring techniques playing a role, as well. The article described how strength and powerful blows strongly emphasized in early taekwondo competitions were gradually replaced by a focus on speed and tactical agility, including, the introduction of a vast array of steps and non-static sparring stances, and the decision to award points for instep roundhouse-kicks, which contributed strongly to the shift to a focus on speed. Moreover, the increasing use of the instep roundhouse-kick in sparring, first accepted as a scoring technique during the late 1960s, led to the development of direct counterattack kicking techniques, which omitted the conventional, blocking phase in defense, countering an attack almost instantly with another kicking technique; for example, as a roundhouse-kick attack initiated to the open side of the torso being answered with an immediate back-kick. Moreover, ever increasing speed and new tactics contributed to the introduction of feint motions and a variety of different, innovative kicking techniques over time, such as the turn-kick, fast-kick, and double-kick [Ko 1980; Yu 1980; Lee S.K. 1983; 1984; Chöng *et al.* 1985; Yang 1987; Kang, Lee 1999; Kim C.M. 2002].

During the 1990s, applied sparring technique consisted mostly of roundhouse-kicks in their different forms, which greatly emphasized counterattack kicks, front leg fast-kicks for attack, and double-kicks [Kim S.H. 1990]. A very passive game strategy, often with very few exchanges during three times three-minute rounds, with action mostly arising only toward the end of a match, had already developed during the 1980s. However, by the 1990s, this strategy contributed increasingly to the perception that taekwondo games were boring to watch. Moreover, chronic disputes between coaches and athletes on the one side, and referees and corner judges on the other side, regarding scoring decisions loomed large. In addition, accusations of game manipulation and favoritism in taekwondo competition became a huge problem during the 1990s and early 2000s [Moenig 2015b]; although, to be accurate, the subjectivity of decisions over point awards, and accusations of manipulation are actually problems present in all sports systems using human judges as arbiters.

As a result of these problems, the taekwondo establishment opted for the introduction of an electronic body protector, also referred to as the Protector and Scoring

System (PSS),¹ and for a complete overhaul of the scoring and competition rules with the beginning of the new millennium. Among a variety of changes, the sparring time per round and the size of the competition area were reduced, and a ‘stall rule,’ a ‘sudden death’ rule, point ceilings, and multiple points for head and turning kicks were progressively introduced. Moreover, a video review system was added and the qualification process for the Olympics was overhauled and integrated with a ranking system for athletes. Lastly, electronic head gear (or the E-helmet) was pioneered, in addition to a variety of minor amendments to the WTF Competition Rules of the last decade. However, while well-intentioned, many of the amendments to the competition rules and modifications to the protective equipment brought a variety of unforeseen outcomes to taekwondo sparring [see a detailed discussion in Moenig 2015b].

This current study will provide an update on several issues touched upon in former studies, since certain negative game strategies and trends have greatly accelerated in the past couple of years. The WTF leadership also seems to have recognized these problems and initiated a discussion for reform. A seminar at the Taekwondowon,² in Muju (Republic of Korea), in October, 2016, provided a platform for input from thirty experienced coaches from around the world for possible solutions. The central problems identified by the participants of the seminar in Muju are the shortcomings of the PSS and the “over-use” of front leg kicking techniques [see World Taekwondo Federation n.d.]. This study will argue that the fundamental problems in contemporary taekwondo are not the shortcomings of the PSS, but the use of the PSS itself, a point which was neither recognized by the participants of the seminar in Muju, nor appears to have been seriously considered by the WTF. Moreover, the use of the PSS and the over-use of front leg kicking techniques are both issues that are interrelated and which caused a variety of additional problems. This article will describe these problems, argue about their causes, and most importantly, aims to encourage a discussion about the fundamental soundness and necessity of the PSS. The issue of the PSS actually goes to the core of the reforms of the competition system of the last decade, and sport taekwondo’s future direction and validity hinges on this how it deals with this issue and reforms concerning it going forward. Since this article is limited in its breadth of scientific research and empirical data, the methodology of this article relies largely on an analysis of deductions, based

¹ Nowadays, the term PSS includes the electronic head gear as well.

² The hugely expensive and vast Taekwondowon, which was largely financed by the Korean government and inaugurated in 2014, is promoted by the Korean taekwondo establishment and the Korean government as the new center of taekwondo activities, education, and tourism.

on a literature review, personal experience, conversations, and observations, but also includes a statistical analysis of the ratio of front-leg versus back-leg use of kicking techniques by athletes in competition before and after the introduction of the PSS.

This article describes and analyzes the most strikingly negative trends of the current taekwondo competition system concerning the use of the PSS. First, the discussion focuses on the excessive use of front leg kicking techniques, which has changed taekwondo sparring in a profoundly negative way. Next, this study discusses the dominant physical features of sport taekwondo athletes nowadays, points out that, in contemporary taekwondo sparring, the most representative physical characteristic of athletes is having long legs, meaning superior reach, relative to others in one's weight division, and argues that this trend has been accelerated by the introduction of the PSS. Lastly, this study asserts that the introduction of new, unconventional scoring techniques has exerted a very negative effect by greatly limiting the defined range of techniques executed by competitors, and, thus, has affected the 'quality' of sport taekwondo competition.

The over-use of front leg kicking techniques and the PSS

Even though, arguably, none of the PSS systems developed over time have been working satisfactorily so far, the current imperfect system is still preferred by officials, coaches, and athletes to the endless disputes regarding legacy scoring decisions [Kailian 2010:367-405]. On a positive note, the PSS put accusations of game manipulations to rest and greatly reduced the number of disputes regarding scoring decisions. However, the introduction of the PSS came with a significant cost: the near destruction of the intricate, artful, technical sparring/ kicking style and system that had evolved over the decades prior to its implementation.

Front leg kicks are usually less powerful than rear leg kicks. Therefore, in pre-PSS taekwondo scored by human corner judges, front leg body kicks scored sometimes, but not as often as rear leg kicks. Powerful blows with the rear leg (to the torso or head) represented the usual way to accumulate points, or finish the match with a knockout. However, athletes want to win, and they generally do not care so much about how they achieve victory. They mostly seek the easiest and safest path to victory, and the new competition system using the PSS has proven that it is very easy to score points with front leg kicking techniques. The relatively simple to execute push- and side-kick-like techniques with the front leg to the torso (as attack or defense), comprehensively referred to as 'cut-kicks,' score surprisingly easily and often, in the current system relying on the PSS. This, ironically, seems to be a product of the shortcomings of the electronic body protector. The

electronic body protector indicates points above a certain threshold upon impact, adjustable to the weight division. However, as at least one scientific study by Ramazanoglu [2013: 6] suggests, the Daedo electronic body protector "scores points even with low impact forces," making kicks with high impact forces unnecessary in such a system. Arguably, the various systems that have been developed and used over the years, appear to have similar problems in one way or another. The bottom line is that they do not always work properly as intended. In any case, the need for strength, style, and powerful kicking techniques seems to have diminished in order to score in the current competition system [Moenig 2015b: 5-7].

In addition, in this system, high kicks to the head and face represent a simpler way of accumulating multiple points than kicks to the torso. Therefore, high kicks with the front leg (mostly in the form of roundhouse- or axe-kick-like techniques) have become another set of preferred techniques. As with kicking techniques to the torso, front leg high kicks are often much easier to execute than kicking techniques with the rear leg, because attacking with the front leg usually exposes the attacker to fewer types of counterattacks. Moreover, the distance to the opponent is shorter with the front leg than with the rear leg; therefore, front leg kicks can score points relatively faster than rear leg kicks, and also and give less time to the opponent to react. The trend to use a disproportionate number of front leg high kicks started with the introduction of the video replay system in 2009, when judges at tournaments were advised to award points for *any* contact between the foot and the head of the opponent. Since the video replay camera cannot measure the force of the impact, and the viewer also cannot judge that force when viewing the impact on the screen, *any* contact is considered acceptable. Subsequently, an amendment to the WTF's *World Taekwondo Federation – Competition Rules & Interpretation* [July 14, 2013], validated this degree of contact with the policy statement declaring that points should be awarded "when any part of the foot touches the opponent's head." Even though the sentence was taken out in the following year [see WTF, *World Taekwondo Federation – Competition Rules & Interpretation* July 1, 2014], the policy remains in place when conventional head gear is used. So, since in this scoring system force upon impact is no longer required, front leg high kicks, which often lack strong force, and even accidental or incidental contact, are sufficient for accumulating points by mere touch to the face.

Another factor to be considered in this context is the quality of the video equipment itself, as well as the number of cameras being used. If the video camera lacks close/fine resolution capability, any proximity of head and foot will appear blurred and ill-defined. As a result, a coach may have at least some chance of winning a video appeal. If the video review judge spends an inordinate amount of time studying the screen, it might leave the

Table 1. Analysis of front-leg and back-leg use before the introduction of the PSS
World Championships 2007, China, male finals, using the conventional body protector

Weight division	Number of front-leg use	Number of Back-leg use	Front-leg/ back-leg use ratio (rounded up or down)
-54 kg/ blue	5	19	1 to 4
-54 kg/ red	2	25	1 to 13
-58 kg/ blue	8	40	1 to 5
-58 kg/ red	2	28	1 to 14
-72 kg/ blue	7	22	1 to 3
-72 kg/ red	11	30	1 to 3
-84 kg/ blue	6	11	1 to 2
-84 kg/ red	3	21	1 to 7
Average	5.5	24.5	1 to 5

Table 2. Analysis of front-leg and back-leg use after the introduction of the PSS
World Championships 2015, Russia, male finals, using PSS

Weight division	Number of front-leg use	Number of Back-leg use	Front-leg/ back-leg use ratio (rounded up or down)
-54 kg/ blue	26	53	1 to 2
-54 kg/ red	68	51	1 to 1
-58 kg/ blue	129	15	9 to 1
-58 kg/ red	115	16	7 to 1
-74 kg/ blue*	66	5	13 to 1
-74 kg/ red	65	54	1 to 1
-87 kg/ blue	63	18	4 to 1
-87 kg/ red	98	5	20 to 1
Average	78.75	27.125	3 to 1

Notes:

- This statistical study was conducted as part of this article.
- Matches were chosen for their full-length availability on YouTube (see links after Bibliography), and for their relative comparability, such as final matches in World Championships of similar weight divisions.
- * The Iranian competitor's so-called 'monkey-kick' was not counted in this study as a kicking technique (see the discussion in the following section about the monkey-kick).
- Kicking techniques in which the leg was not fully extended were also counted.
- Double-kicks were counted as back leg kicks. However, when a double-kick was initiated with the front leg (front-leg-double), the first kick counted as a front leg kick and the follow-ups as back leg techniques.
- After the introduction of the PSS, to determine or identify whether a technique qualifies as 'proper' kicking technique becomes increasingly difficult, because of the numerous front leg knee lifts, leg blocks, holding of the front knee or leg in the air, multiple kicks without putting the foot down, and use of unconventional hybrid techniques.
- A small number of counting mistakes is possible because of poor video quality, camera angle, and/or an absence of slow motion availability in the analysis.

impression that that the reviewer is actually looking for a way to grant the appeal. Prior to the E-helmet, when awarding head and face-contact points, corner judges had one second to make their decisions. However, under video review conditions, video reviewers often take several *minutes* to study and analyze images before coming to a decision. As well, video reviewers are cautioned not to become unwitting advocates of the appellant in a misguided attempt to "level the playing field" [Kailian 2010: 299-306].

The introduction of the electronic head gear, first tested in tournaments in 2014 and adopted soon after in 2015, helped to consolidate the direction of taekwondo sparring becoming a point or light-contact game. In competitions using the E-headgear, high kicks involve

two sets of criteria: a mechanical, pre-set level for 'head kicks,' and a subjective, visual confirmation criterion for determining and confirming contact to the face. In the case of kicking techniques to the face, the area which is not covered by the E-helmet, scoring – a point by *any* contact– is visually confirmed when witnessed by two corner judges who press their buttons within one second. In the case of kicking techniques striking the E-headgear, scoring has to meet the threshold level of force set on the helmet for points; however, the level is set so low that almost any kick scores upon contact.

In all the discussed scenarios involving kicking techniques to the torso or head, a light blow, with a slight impact or simple contact, with the front leg, registers a point as well as a powerful blow with the rear leg. The rise

of the over-use of front leg kicking techniques is directly related to the use and shortcomings of the PSS. In addition, the policy of rewarding points to the head by any contact, as a consequence of the introduction of the video replay, contributed strongly to this trend. The bottom line is that the PSS, and the current rules, encourage and award athletes using front leg kicking techniques, because this has proven to be the easiest and safest way to point accumulation and victory in the scoring system. As a consequence of these various issues, taekwondo has devolved from a full-contact combat sport, to a degraded, light-contact, point game. Since the PSS turned taekwondo sparring into a partial light-contact, point game, the over-use of the front leg has actually become one of the inevitable results. As following analysis demonstrates, prior to the implementation of the PSS, athletes and coaches favored the use of the more powerful rear leg over the use of the front leg.

Even though small, the sample demonstrates an obvious trend; namely, a general shift from using predominantly back leg kicking techniques before the implementation of the PSS (front-leg/back-leg use ratio: 1 to 5) to an over-use of front leg kicking techniques (front-leg/ back-leg use ratio: 3 to 1) after its introduction. Back leg roundhouse- and double-kicks have been mostly replaced by front leg cut-, roundhouse-, and high kicks as the predominant sparring techniques. While a few athletes still use front and back leg techniques relatively equally, it seems, especially, that tall athletes (relative to others in their weight divisions) use the front leg almost exclusively. For example, the athlete who had the highest ratio of front leg use in this study (20 to 1) was Radik Isayev, a middleweight (-87 kg), from Azerbaijan, who is a whopping 2 meters and 2 centimeter tall and is also particularly lanky for one in his weight division.

Front leg push-kick-like cut-kicks, used much as jabs in boxing, were already popular in Korea during the late 1980s, but were largely replaced with fast-kicks (front leg roundhouse-kicks) during the 1990s [Moenig 2015a: 127-8]. Steven Lopez (USA) may have been the first prominent athlete to introduce and use cut-kicks and cut-motions (front leg knee lifts) extensively. Lopez had already developed his game style, centering on these techniques, prior to the introduction of the electronic body protector [for example, see *Taekwondo Olympic Games Athens 2004 Steven Lopez (USA) vs Victor Estrada (MEX)*].

With the exception of front leg knee lifts, the method of exclusively using front leg kicking techniques also contributed to the disappearance of a great variety of stepping and feint motions, which used to be one of the most exciting hallmarks of taekwondo sparring. On the other hand, nowadays, taekwondo sparring has become often very stationary, without much application of strategy. Moreover, the most common counterattack seems to be just lifting the knee or leg with a cut-kick motion or block against any front leg attack. The athletes in some

matches merely constantly go back and forth, alternating with cut-, roundhouse-, and inside-out kicks and leg blocks, in a manner now popularly called 'foot fencing,' an appalling spectacle which is quite dreadful to watch.³ The implementation of the PSS has profoundly influenced the preferred choice and use of techniques, and the techniques that generate points in the easiest and safest ways in this system are done by stationary kicking with the front leg. Lastly, concentrating on front leg kicking techniques seems also to be a successful strategy for lesser skilled athletes, thereby 'allowing' them to avoid having to master a greater range and variety of techniques, skills, and fighting postures.

The dominant physical feature of athletes in the current sparring system: relative height and reach advantage over others in one's weight division

The introduction of the PSS has led to changes in the physicality of competitors as well. The dominant feature of early taekwondo competition during the 1960s was power, which increasingly gave way to speed and style, starting in the 1970s [Kim C.M. 2002: 40; Moenig 2015a: 121-2]. However, this trend has recently been replaced by a reliance on techniques that utilize the physical advantages of leg extension and reach. Superior reach, which basically in taekwondo sparring means having relatively long legs compared to others in one's weight division, has always been an advantage, but could be compensated for by power and strength, and/or superior technique and strategy. However, these alternative features and paths to victory have been greatly eroded in the current competition model, and the typical taekwondo athlete nowadays is often lanky and even thin.

Naturally, certain competition rules in the sparring systems of various sports favor certain athlete body types. Judo and wrestling athletes tend to be short, stocky, and strong, since a lower center of gravity is of advantage in grappling contests. For example, one of the main goals in judo sparring is to disrupt a competitor's center of gravity in order to throw the opponent down. "To improve stability, we can increase our base of support like spreading our feet apart... We can also improve stability by lowering our center of gravity by bending [our] knees... [Moreover], the mass of a body also determines stability – a heavier object is harder to move than a lighter one" [Kirby 2014]. This all means that shorter and stockier athletes relative to others in their weight division have an advantage, since such athletes' lower center of gravity is more difficult to knock them off balance.

³ For example, see Yun [2016], who states, "This is why people are saying Taekwondo looks like foot fencing, flamingo fighting..."

Superior reach is an advantage in all combat striking sports, but superior reach can be compensated for by strength and power in full-contact matches. However, this compensation applies much less in present taekwondo competition. As taekwondo has become a partial, light-contact, point game, athlete's strength and muscle mass are no longer significant deciding factors in this system. Instead, having a longer reach than the opponent means that being tall and having long legs offers a decisive advantage in this system. Actually, it seems to be one of the main attributes and physical characteristics of taekwondo athletes these days.

According to Georg Streif [email communication, May 2, 2017], the current head coach of the German men's national team, it is very common in many combat sports for athletes to want to qualify for a lower weight division in order to gain advantage through superior reach, which has also become a very strong factor applied when taekwondo coaches pick their athletes. Since successful taekwondo athletes nowadays tend to be very tall relative to their weight division, they are also very lanky. In addition, most athletes still have to lose a considerable amount of weight before competition, which is called 'making weight' or 'weight cutting'. One approach of weight cutting is to lose fat and/or muscle mass in the weeks before a competition; another is to lose weight in the form of water (dehydration) in the final days prior to the event. Since most athletes, at least on the international stage, tend to be highly trained these days, they already have minimum body fat; therefore, the latter method is the more common practice. Nonetheless, both methods of weight loss bring potential health risks to the athletes when carried to the extreme. Rapid weight loss can lead to eating disorders and negative "long-term effects", such as "brain, kidney and vision problems" [Popkin 2016]. Moreover, lanky athletes with insufficient muscle mass often tend to be less athletic and explosive than well-developed athletes, and the present taekwondo system seems to have accelerated these trends. The author is not aware of the existence of any statistics on or studies of the ratio of athletes' height and weight division and their success in competition, but this would be an interesting topic for future research.

The appearance of new and unconventional scoring techniques in sparring

"The electronic scoring system used at the Olympics apparently doesn't care whether or not fighters use the correct technique. That's resulting in a lot of bizarre kicks that no true practitioner of the Korean martial art would recognize, in a departure that some say cheapens the sport" [Associated Press 2016].

The argument that the double-kick, introduced during the mid-1980s, has been the last truly new kicking

technique evolved in taekwondo sparring, [Moenig 2011: 28], seems no longer accurate. Given a large enough number of athletes and matches since the introduction of new rules and/or scoring equipment, some athletes and coaches will always find the weaknesses in any new system and exploit them. Naturally, they will explore new ways of scoring and paths to victory.

As a consequence of the introduction of the PSS, a number of new scoring techniques emerged in sparring, which were not considered valid scoring techniques in the pre-PSS, human judge system. A variety of non-conventional kicking techniques have become legitimized as scoring techniques during the last decade, for the simple reason that they were recorded by the PSS. Many of these hybrid techniques, bestowed with informal names inspired by the animal kingdom such as the so-called 'donkey-kick,' the 'scorpion-kick,' which shares similarities with the 'donkey-kick,' and another bizarre, very eccentric leg swing, termed the 'monkey-kick,' also called the 'fish kick,' emerged. In addition, a few more modified, and other newly invented, scoring techniques emerged. What all these unorthodox moves have in common is that they may produce points, since the only criteria that the electronic PSS has for scoring points is a simple threshold level of contact between the sensors of the foot and the electronic body protector, or the head gear. Unconventional kicking techniques became increasingly popular, since they are relatively easy to execute, require little skill, and score in the new system, even without any significant amount of power, just as any conventional, 'proper' kicking technique.

Note: Most of the terms used, in English or Korean, to describe these newly emerged techniques in this study are informal ones often used by athletes. For most of these techniques there exists no official vocabulary. The techniques described in this section were either mentioned in popular literature or observed by the author in competition and training.



Figure 1. The inside-out-kick
Source: Author

The ‘inside-out-kick’ or ‘twist-kick’ (*pit’ürö-chägi*, 비틀어차기, Figure 1) was actually adopted from *taekkyöŋ* and was not mentioned in taekwondo literature before the 1970s [Moenig 2015: 74]. The kicking technique was often popular among traditional-minded practitioners in common taekwondo school training and in alternative taekwondo organizations, such as Hwang Ki’s (Hwang Kee) *tangsudo* (*Tang Soo Do*) schools. However, the technique was never considered a scoring technique in WTF sparring due to its low impact force, as well as its comical appearance. These days, the kick has been utilized by athletes in WTF sparring, and occasionally scores points, because of the often low impact requirements or shortcomings of the electronic body protector. The technique is often combined with multiple kicking motions (without putting the leg down), such as roundhouse kicks and alternate inside-out movements.

The so-called ‘scorpion-kick’ (*chöŋgal-k’ik*, 전갈킥) is a spinning-back-kick-like motion (Figure 2), which, after a back-spin, the kicking leg is swung from below to the back of the head at an oblique angle. The ‘donkey-kick’ (Figure 3), in principal similar, is executed in front, in a hook-kick-like motion. The donkey-kick is often executed to the torso (*chungdan-hurigi*, 중단 후리기) as well. However, the classification is often not clear since some athletes refer to both techniques with the same name; either ‘donkey-kick’ or ‘scorpion-kick,’ while others refer to them interchangeably.

The hook-kick or whip-kick was also a rarely used kicking technique in the pre-PSS conventional system. In taekwondo literature, the kick was first described in 1968 by Henry Cho [235], who treated it as a variation of the spinning-back-kick.⁴ Cho used also the same name for both kicking techniques, calling them simply “hook-kicks” [235-6]. The difficult to execute spinning-back-kick developed into a common sparring technique, not often used but with spectacular effects. On the other hand, the front-motion hook-kick was not a common-used sparring technique in taekwondo, partly because of the difficulty to execute the kick, and also due to its relatively low impact force.

However, in the new PSS era, in which force and aesthetics are of minor concern, athletes commonly practice and use in competitions hook-kick-like and spinning-back-kick-like donkey- and scorpion-kicks. Some athletes are scoring points very successfully with these two hybrid techniques.

For the first time, “an Iranian athlete...used excessively this orthodox technique [during the World Taekwondo Championship, 2015, in Russia]...the Monkey Kick [*chegi-chägi*, 제기 차기, Figure 4]...is really a distorted technique [in] a circular inwards movement, using the inner edge of the foot” [Rojas 2015].

⁴ The spinning-back-kick was independently first described by Choi Hong Hi [1965: 88] and Yi Kyo-yun [1965: 43] in martial arts literature.



Figure 2. The scorpion-kick
Source: Commons



Figure 3. The donkey-kick
Source: Author



Figure 4. The monkey-kick
Source: MasTKD

This bizarre technique registers points via to the PSS' mechanical nature, as long as the kicker is not holding the opponent in the clinch. Actually in competitions in Korea, the athlete who uses this technique is now penalized with warnings and registered points are deducted by judges. In fact, this is a common sense policy that should apply to all competitions and scoring systems concerning techniques like this.



Figure 5. A modified back-kick
Source: Author



Figure 6. The short-kick
Source: Author

A back-kick-like technique developed which is, in principal, a back-kick, but without turning the upper body (Figure 5). Since the upper body of the athlete is not turned, the awkward kicking motion lacks force and is basically only a tap with the foot. It would never be considered a scoring technique in any truly full-contact

system. In addition, a very short roundhouse-kick-like technique (*tchapke-chagi*, 째게차기, Figure 6) emerged, often executed with a jumping motion very close to the opponent. Lastly, a so-called 'sandwich-kick' was invented, in which the athlete jumps with both legs into the air and tries to hit the headgear with a clap-like motion with both feet. This technique actually requires quite a bit of athletic ability and is not very often performed.

To sum up, since some athletes realized that these unconventional techniques would occasionally produce points when they hit the electronic body protector at the right angle, or would automatically register a point on the electronic head gear, and since the PSS' registering of points cannot be overruled in WTF-sanctioned competitions, these unconventional techniques fundamentally became as good as any other technique in the context of the rules. It is likely that none of these techniques would be recognized as scoring techniques in a conventional system, in which human judges evaluate and record the scoring. Human evaluation is subjective, therefore, often controversial, but at least humans are able to distinguish between 'proper' scoring techniques and obvious score manipulation and invalid techniques.

Concerning the body protectors, the PSS registers scores electronically after a certain threshold level of impact has been met (assumably it works properly); in the case of the E-headgear, scoring seems usually to happen after even very light contact.⁵ The PSS neither has aesthetic considerations nor concerns itself with conventional technique in its electronic calculations; therefore, any non-conventional kicking technique or strike with the foot has the potential to score. Indeed, athletes can even score on *themselves* in some situations. The introduction of the PSS did not contribute to an advancement of precise execution or use of technique; to the contrary, it actually contributed to the partial erosion of sport taekwondo's style, technique, and expression of art, because exclusive dependence on the PSS created

⁵ The threshold level that the PSS is set for depends on the weight division, age group, and gender. According to Dr. Gregory S. Kailian, author and 'S' class international referee [email communication, May 7, 2017], "before any competition using e-hogu or e-headgear, the referee chair tells the technician what levels to set...WTF has their criteria for works matches. Everything else is negotiable, as long as the levels don't change during a competition." In the case of the E-headgear, any slight tap seems to register points [see a demonstration of the Daedo E-headgear, Daedo International 2014]. According to Michael Arndt [personal email communication, May 9, 2017], former taekwondo heavy weight World Champion and Business Unit Director Boxing and TKD for Double D, Adidas martial arts licensee, in the case of the E-headgear, "there is almost no pressure necessary.

A touch is enough [to score points]."

more problems than it solved. The irony of today’s taekwondo competition paradigm is that the sport itself is being forced to ‘dumb itself down’ to accommodate the limitations of the PSS and some hastily contrived rules, instead of crafting the rules to support and enhance a satisfactory sport taekwondo competition environment.

Conclusion and discussion

At the aforementioned seminar in the Taekwondowon, coaches emphasized the following shortcomings: not enough action in taekwondo matches, too many stoppages, and the difficulty of the viewing public to understand the rules of taekwondo [see World Taekwondo Federation n.d.]. Indeed, many current matches in taekwondo tournaments have become painful to watch, and the WTF taekwondo leadership has finally realized how dreadful taekwondo sparring and competitions have become. Moreover, the taekwondo establishment is concerned about the appearance of karate on the Tokyo Olympic stage in 2020, which is considered a potential threat to the hegemony of taekwondo in the Olympic martial arts world. The world community will watch and compare these fundamentally similar combat sports. If taekwondo competition does not improve its current system, it will likely not be judged favorably going forward.

The current rules are definitely too complicated for non-taekwondoists to understand, and referees regularly require specific training for each subsequent event, to the extent that world level matches often require up to a week of additional re-training. Much of this training is focused on de-conflicting PSS-related issues and problems which emerged in the immediately preceding competitions. Therefore, the rules need to be streamlined and simplified. First and foremost, there needs to be a simplification of the point system. Scoring methods should be obvious to everyone without requiring lengthy, intricate explanations. The former world-level coach, Ko Eui Min (who lives in Germany) suggested in a recent discussion that all techniques to the trunk should be awarded only one point; and all head and face kicks only with three points.⁶ This would be a scoring system that every non-taekwondoist could easily grasp. In addition, the introduction of the video replay component, while positive, brought with it the potential for matches to be interrupted by coaches needlessly challenging referee decisions and scoring outcomes. Should the video

replay system therefore be dropped? The complaint that there is not enough action in taekwondo matches seems to be partly an outcome of the preferred body type of athletes in the current system. Tall and lanky athletes with minimum muscle mass have a harder time executing fast and explosive techniques. Moreover, they may have limited athletic abilities and as a result are often not able to execute spectacular techniques, such as combination kicks, jumping kicks, and double-kicks aggressively. A return to truly full-contact rules would eliminate this problem, since strength and athleticism would again be valued paths to victory.

Yet, as mentioned earlier, the central problems identified by the participants at the seminar in Taekwondowon are the shortcomings of the PSS and the “over-use” of front leg kicking techniques [see World Taekwondo Federation n.d.]. Therefore, “wider sanctions...for various front leg actions” [as proposed by the WTF, see World Taekwondo Federation n.d.]⁷ are the WTF’s suggested solutions for the over-use of cut-kicks and front leg kicks. However, these sanctions combined with the decision to no longer give warnings (*gyeonggo*) but only full-point deductions (*gamjeom*, see Article 14.2, WTF 2016) might result in many contests being decided by the accumulation of referee-given penalties – the worst of all possible outcomes. Another cosmetic change, such as awarding two points for kicks to the trunk (see Article 12.3.2, WTF 2016), also seems to have not been well thought-through, because it would partly neutralise the point advantage for using high kicks and further diminish the value and use of punches (which are awarded with only one point). A solution, suggested by Kim Sei Hyeok (world-level coach of the ROK and former head of the KTA), would be to take sensors out of the bottom of the socks so that push- and cut-kick-like techniques would no longer score. However, even if all these modifications were implemented, they would likely not really solve the problems; rather they would only be likely to lead to other contentious protests, complications, and issues. These are all limited and superficial fixes that do not address the fundamental problem, which is the WTF’s sole dependence on scoring by the PSS, and their lack of confidence in trusting their own experts to de-conflict unclear situations and to determine the winner in controversial matches.

It appears that athletes are over-using the front leg kicking techniques because the PSS is very conducive and generous to their use. The fundamental dilemma is that the electronic system simply causes or ‘dictates’ the front leg game style. The excessive use of front leg kicking is a byproduct of the implementation of the PSS

⁶ Ko, a former Korean National Team coach, was the Chair of the WTF Technical Committee until 2008. The conversation was held in the presence of Ko, Kim Sei Hyeok, Steven D. Capener (former U.S. national team athlete, professor, author, and authority in taekwondo matters), and the author in Seoul Kangnam, September 24, 2016.

⁷ The proposal was enacted shortly after. See *World Taekwondo Federation – Competition Rules & Interpretation*, article 14.4.1.5 [WTF 2016]: “Lifting the leg to block, or/and kicking the opponent’s leg to impede the opponent’s kicking attack, or lifting a leg or kicking in the air for more than 3 seconds to impede opponent’s potential attacking movements, or kick was aiming to below the waist.”

and it is this the policy for high kicks – point by contact – that has transformed taekwondo sparring into a light-contact point game. All light-contact systems favour front leg kicking techniques, since they are easier to execute, and power and force of impact are not required to score points. One cannot escape the irony that WTF taekwondo competition now mimics that of the ITF in certain ways. Moreover, light-contact systems disproportionately favour tall athletes with superior reach, since power and strength are secondary in such systems. Lastly, the improper use of PSS data may have contributed to the erosion and distortion of clearly-defined scoring techniques due to exclusive reliance on electronic-dictated scoring results. Hasty introduction of the expensive PSS, and the unquestioned acceptance of electronically scored points, has brought such a myriad of negative side effects to taekwondo competition that sport taekwondo sparring has become distorted almost beyond recognition. Since 2009, the WTF has in fact enacted rule amendments very frequently and as much as twice a year, compared to once every few years before that [see WTF 2016]. Moreover, active championship matches are the *last* place where new rules/interpretations should be introduced in order to see what will happen as a result of new changes. ‘Reinterpreting’ their rules at virtually every event demonstrates a lack of confidence by the WTF in its understanding of its own system. Likewise, any new solutions suggested by the WTF appear to be halfhearted, cosmetic fixes for a basically flawed system. On the other hand, a valuable suggestion would be to use both PSS outcomes *and* human, corner judge scorers to determine point acquisition [Kailian 2010: 405-9]. Two strong justifications for this are that human judges can be trained to evaluate the ‘art’ and aesthetics of techniques, and that the aesthetic factor in the evaluation of points has been mostly overlooked in the discussion about the direction taekwondo should be going [Kailian 2010: 308-400]. Lastly, a truly radical solution to these interconnected problems might be to do away with the PSS altogether and go back to exclusive human judging and truly full-contact rules. Many leading figures whisper their disdain for the PSS and such a radical approach in private, but do not dare to consider it in public. The taekwondo establishment has invested so much of its reputation and standing in the PSS that the only feasible option, dropping it, seems to be missing from the agenda.

Acknowledgments

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YouTube links to the matches from Table 1 and 2

1. *2007 world taekwondo championship 54 kg Final (KOR) vs (THA) (2007)*, uploaded by Muhlis K., May 29. Retrieved from <https://www.youtube.com/watch?v=9NQMjvaTJKc&index=1&list=PLxNOQJqN-HeOesmtzVn5brZ2cpxRq7w2Lg>
2. *2007 world taekwondo championship 58 kg male Final (2007)*, uploaded by Muhlis K., May 29. Retrieved from <https://www.youtube.com/watch?v=6xWFTQNHaxW&list=PLxNOQJqNHeOesmtzVn5brZ2cpxRq7w2Lg&index=11>
3. *2007 Taekwondo World Championship 72 kg Male Final 3/3(2007)*, uploaded by Muhlis K., May 20. Retrieved from <https://www.youtube.com/watch?v=oMmKypbB08&list=PLxNOQJqNHeOesmtzVn5brZ2cpxRq7w2Lg&index=25>
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Dominujące cechy i negatywne trendy w obecnym systemie współzawodnictwa Światowej Federacji Taekwondo (WTF)

Słowa kluczowe: sparing, współzawodnictwo, system ochrony ciała z licznikiem punktów: Protector and Scoring System (PSS), technika kopania nogą przednią, punktacja

Abstrakt

Tło. Wprowadzenie systemu ochrony ciała z licznikiem punktów (PSS) zakończyło oskarżenia Światowej Federacji Taekwondo (WTF) dotyczącej manipulacji w czasie zawodów taekwondo i zakończyło spory dotyczące decyzji punktowych, ale przy znacznych kosztach.

Problem. Obecny schemat oceniania konkurencji w taekwondo wraz z systemem PSS, wywołał wiele uderzająco negatywnych trendów, takich jak nadmierna przewaga słabych, nieruchomych technik kopania przednią nogą, preferencja stosunkowo wysokich i szczupłych, ale mniej wysportowanych zawodni-

ków, a także pojawienie się niekonwencjonalnych, a czasami dziwacznych technik punktowania. Niniejszy artykuł stwierdza powiązanie tych cech spowodowane w dużej mierze wskutek pośpiesznego, niekontrolowanego wprowadzenia PSS, który zamienił zawody taekwondo z pełnokontaktowego sportu walki w grę częściowo *light-contact*.

Cel. Ten artykuł ma na celu zachęcenie do dyskusji na temat podstawowej trafności i konieczności zastosowania systemu PSS.

Metody. Ponieważ problematyka tego artykułu nie jest poparta szeroko zakrojonymi badaniami naukowymi ani danymi empirycznymi, metodologia owego artykułu opiera się głównie na analizie wniosków i na podstawie przeglądu literatury, osobistych doświadczeń, rozmów i obserwacji.

Wyniki i wnioski. Za pozytywne można uznać stwierdzenie, iż obecne kierownictwo federacji taekwondo w końcu uznało fakt, że jakość sparingu i zawodów taekwondo uległy pogorszeniu, chociaż należy jeszcze sprawdzić, czy Światowa Federacja Taekwondo może rozwiązać ów problem.