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## From Bushid# to science: a new pedagogy of sports coaching in Japan

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# From *Bushidō* to science: a new pedagogy of sports coaching in Japan

#### AARON L. MILLER

**Abstract:** This article introduces readers to a new pedagogy of Japanese sports coaching, which is based on science rather than  $Bushid\bar{o}$ , rational thought rather than samurai wisdom. In doing so, it illustrates one alternative way that the Japanese are currently approaching sports, something that has up until now generally been ignored or overlooked by many scholars. It draws on the latest research in Japanese and English as well as long-term observational fieldwork to explain the roots of sports science, its introduction to Japan as well as how it is being used in Japanese basketball today. It interprets various voices to show why scientific approaches are having trouble displacing so-called 'traditionally Japanese' coaching pedagogies. Although many well-known Japanese coaches, professors and national sports organizations support them, scientific pedagogies of sports coaching currently face various difficulties making inroads in Japan because they are 'too new', 'too confusing', 'too difficult to understand', 'not authoritarian enough' or 'too Western', and therefore not seen as suitable to the 'traditional' Japanese sporting landscape.

**Keywords:** Bushidō, science, sports, coaching, pedagogy, Japan

#### Introduction: beyond Bushidō coaching

Many people who participate in or observe the Japanese sporting world believe that there exists a uniquely Japanese sports coaching pedagogy based on *Bushidō*, the samurai 'warrior code of ethics'. Many authors, including some scholars, have written about the 'traditional' way that sports are battled in Japan, amply noting how (mostly male) Japanese athletes play and coaches coach sports like samurai (Whiting 1977, 1990, 2004, Yoshida 1986, Kondō 1995, Aota 1996, Ushigome 1996, Murasaki 2002, Aoyama 2003, Sugano 2003, Koseki 2004, Saitō 2005, Matsuse 2008). Baseball has been the most susceptible to samurai (Whiting 1977, Ushigome 1996, Yoshida 1986) and *Bushidō* invocations (Sugano 2003, Sayama 2007). Japan's national baseball team is simply called 'Samurai Japan'. This view has deep historical roots; it was said that in the Meiji Period, 'despite foreign provenance, baseball reputedly nourished traditional values of loyalty, honor,

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and courage and therefore symbolized the new Bushidō spirit of the age' (Roden 1980, p. 520). But Bushidō has had influence on other sports in Japan as well. As Chapman notes, 'many sports in Japan, from karate to baseball, are imbued with an ideology of Bushidō (the "way of the warrior") a modern construction of a samurai ethic steeped in masculine stoicism' (Chapman 2004, p. 319). Even in lesser-known sports like futsal – an indoor version of soccer conceived in Uruguay in the 1930s – athletes say that the 'samurai spirit' helped them become great (Kai 2003). The terms 'samurai' and *Bushidō* can be seen in titles of golf books (e.g. Setsu 1970) as well as in assertions by athletes like Dai Tamesue, who calls himself a 'samurai hurdler' (quoted in Yamaguchi 2008). The samurai ideology has infiltrated American football in Japan, too. In his study of Japanese football coach Shinotake Mikio, Nagashima quotes the coach's own writings at length. Shinotake called his coaching philosophy 'samurai football' (Nagashima 1996, p. 22), explaining that, while Euro-American 'spiritual structure' is rooted in chivalry and fair play, in Japan the 'spiritual pillar' is Bushidō: 'It is a wonderful model, a crystallization of samuraism, based on the history and tradition of Japan in which we live and move. I will not swerve from this conviction. Aim to maintain the spirit of the warrior and be strong!' (quoted in Nagashima 1996, p. 24). Echoing baseball, Japan's men's national soccer team is currently dubbed 'Samurai Blue'.

But the infusion of Bushido into baseball must not be taken for granted; it is actually the result of a multifaceted historical process led by several influential figures (Blackwood 2008). As Kelly explains, 'samurai baseball' is the product of a 'complex interplay of nationalized sporting style, educational pedagogy, urban entertainment, media creation, local identity and the realities of sports practices' (Kelly 2009). Even though much writing on Japanese baseball would like us to think otherwise, samurai or Bushidō baseball is something that has been constructed over time. (The same could likely be said of samurai and Bushidō constructions in other sports, although such research remains relatively thin compared with studies of Japanese baseball.) The coaching of Japanese sport has also been susceptible to this Bushidō rhetoric, but 'Bushidō' coaching pedagogies are in many ways rather common in many sporting nations throughout the world, though they may not be articulated as such. Bushid $\bar{o}$  is merely a local term used in Japan to describe a style of masculine, authoritarian, militaristic and disciplinarian sports coaching that we can find in other sporting nations (see, e.g., Feinstein 1986). It is likely that Japan's international success in baseball has validated the repetition and reproduction of this so-called 'traditionally Japanese' coaching approach based on the samurai and Bushidō. This success in baseball has also perhaps convinced some Japanese coaches in other sports that they ought to mimic 'Bushidō baseball coaching pedagogy' if they too want to enjoy international success.

 $Bushid\bar{o}$  coaching pedagogy is a construct aimed at simplifying the complexity of Japanese sports coaching in an easily digestible, nationalistic manner. Thus, it is often what non-Japanese are told when they observe Japanese sports. Because

most sports originated in the US and the UK, Japanese often select 'the West' (ōbei) as the point of comparison when they seek to justify culturally essentialist theories of the uniqueness of Japanese athletes and coaches. However, such constructions essentialize Japaneseness, Japanese masculinity and Japanese sports culture as well as oversimplifying Japanese understandings of 'the West'. In this way 'Bushidō coaching' is yet another example of nihonjinron, the ever-present 'theories of Japanese (cultural) uniqueness' propounded by many Japanese – and non-Japanese – scholars and authors. Nihonjinron must not be categorically dismissed, however; they are important to dissect because they highlight the national, unified identity that many involved in Japanese sports seek. As Kelly explains, the idea that all Japanese athletes are samurai or derive their playing style from samurai wisdom 'is yet another instance of the capacity of modern sports to embody interests and anxieties of national prestige and national identity by metonymic claims that certain personal qualities and interpersonal values can be elevated to the status of enduring national character and collective personality' (Kelly 2009, p. 438). The rhetoric of  $Bushid\bar{o}$  in Japanese sports thus highlights the power that nationalism continues to hold over those involved in Japanese sport. The term Bushidō is not only deployed in sports nihonjinron because it evinces Japaneseness; it also serves as a symbol of Japanese masculinity. Although female participation in sport has grown significantly in the past few decades (Sasakawa 2006), in many ways sports are still widely considered to be masculine domains in Japan (Chapman 2004, Light 2008). It must therefore be remembered that *Bushidō* is a simplified, gendered and nationalistic discourse that may be quite commonly heard within Japanese sports, but it does not completely or accurately account for the many ways that sports are coached, played and practiced in Japan.

Indeed, there is actually great debate in Japan about how to best coach athletes, just as there is in other nations. Also, as in other nations, these so-called 'old', 'traditional' pedagogies of sport – including those that derive spiritual inspiration from yesteryear warriors - are currently 'passing through a deep crisis' (Raveri 2002, p. 15). For example, the Japan Amateur Sports Association (JASA) has come to use various typologies of coaching (Martens 2004 [1997], pp. 11–16) that have originated outside Japan to convince aspiring coaches not to be autocratic 'commanders' (see, e.g., JASA 2008a). Leading scholars of Japanese sports have also suggested that various athletes are now eager to 'turn away from the austere asceticism characteristic of the martial arts and samurai baseball' because 'interscholastic and intercollegiate sports have become ruthlessly competitive.... Fewer young people want to subject themselves to the kind of Spartan discipline demanded to represent their schools' (Guttman and Thompson 2001, p. 228). As Raveri rightly notes, many Japanese sportspeople are today skeptical of these so-called 'traditionally Japanese' approaches, many of which invoke the samurai or Bushidō, some of which are characterized simply as 'disciplinarian', 'militaristic', or 'strict'. Some believe that such approaches should now be discarded, and that such 'tradition' must be 're-invented' in Japanese sports. This is especially the case in Japanese basketball, where I have done most of my research on Japanese sports. A main informant from my doctoral research (completed between 2008 and 2009), a former professional turned university basketball coach whom I call Coach K, rejects *Bushidō* rhetoric entirely. His own pedagogy, which draws heavily on sports science, is constructed to oppose what he perceives to be an 'old', 'traditionally Japanese' and emotional coaching pedagogy, which he believes is based on *Bushidō*. According to Coach K, sports coaches in Japan employ one of two pedagogies: the '*Bushidō*' or the 'scientific'. The former is said to invoke a traditional and emotional 'Japanese' spirit and the latter symbolizes the importance of 'Western' scientific rationalism and thinking in sports. To him, *Bushidō* represents *the* traditional Japanese sports coaching pedagogy and science represents *the* modern Western pedagogy. Coach K is not alone, however.

There are various influential Japanese sporting institutions (e.g. JASA, the Japan Institute of Sports Sciences (IISS), the Japan Basketball Association (IBA)) that are currently attempting to convince Japanese sports coaches that they should embrace a 'scientific' approach to sport and reject older approaches which focus, in their minds too heavily, on the 'spirit' of the samurai. There is some evidence that these efforts are convincing some Japanese coaches and institutions to move away from Bushidō towards science. Some widely publicized deaths of young athletes due to heatstroke have likely lent credence to these scientific pedagogies and perhaps helped them spread. In Machida City in 2007, for example, a basketball player died from practicing excessively in hot weather. A year later NHK, Japan's public broadcaster, reported that the city had begun courses to teach its coaches about the dangers of heatstroke, hiring Nippon Sports Science University Professor Kenji Hiranuma to lead the lectures. Hiranuma recommended that practice schedules be 'scientifically' planned to fit the humid Japanese environment (NHK News 2008). Such tragic deaths and intense competition-cum-burnout have caused some people to question 'traditionally Japanese' pedagogies based on Bushidō spirit (e.g. Oda 2005). As a result, some coaches have adopted less disciplinary and more accommodating coaching pedagogies, some under the name of 'science'.

Despite these rather conspicuous efforts by JASA, JISS, JBA, and various professors at universities with sports science faculties, up until now there has been little scholarship on the alternative ways that sports are played or coached in Japan today, let alone the alternative pedagogies coaches bring to bear on such instruction. This article fills that void by detailing one new sports coaching pedagogy in Japan that relies on sports science, describing how it has been constructed by various influential actors and institutions to be seen as conflicting with 'traditionally Japanese' pedagogies, especially those based on *Bushidō*. Following that, it interprets why this 'new' scientific approach is facing difficulties getting off the ground before finally explaining how in Japan, invented 'traditions' like *Bushidō* die hard when challenged by 'modern' traditions that come from 'the West'.

#### Research methods and theory

This article is based on six years of residence in Japan (largely in educational institutions where sports are a major part of daily life) and one year of intensive observational fieldwork with a Tokyo-area private university's men's and women's basketball teams. (I refer to this university and the teams as 'MU' throughout this article.) Although I did not choose this field site for the explicit purpose of writing about sports science, observing these teams served to complicate my own understandings of Japanese sports, which I had previously believed always followed a pattern of authoritarianism and strict discipline. That was my initial assumption because I had mostly been taught by 'lenient', 'player-friendly' coaches as a young athlete in the United States (I played American football and basketball in high school). Even when one of my coaches was 'strict', he did not dare raise a hand to use corporal punishment, for example. When I went to Japan to teach English in rural public schools, I was surprised to see such corporal punishment firsthand, so I began writing about the subject in detail (Miller 2009a). When I first embarked upon this fieldwork, I was seeking to find a field site where I could view corporal punishment again, this time using improved Japanese language skills to better understand the controversy that by that time I had learned surrounded the practice. For various reasons, however, it turned out that the coaches of these basketball teams were against the practice, so I switched the focus of my study of coaching pedagogy more generally (Miller 2009b).

I also undertook observational fieldwork at the Japan Sports Association's (IASA) coaching certification courses, where coaches were called upon to abandon 'traditional' Japanese coaching methods (although the term 'Bushidō coach' was rarely used). My motivation for observing these JASA courses was to confirm that the use of scientific coaching in Japan was not isolated to my field site with the aforementioned university basketball team, and I quickly found that sports science-based approaches to sport are quite widespread in the Japanese sports world, at least at the policy level (Miller 2011). Although it perhaps says more about my pre-research assumptions than about Japanese sports themselves, I was surprised to learn that one of Japan's most important sports institutions propounded a strikingly similar scientific pedagogy to Coach K's. At these courses, I sat alongside hundreds of Japanese sports coaches seeking to acquire 'professional' certification. We listened intently to lecturers explain the value of a scientific approach to sport coaching. We were asked to read extensively on the history and development of sports science. Many of the references cited in this article are from these courses; they represent the lectures of some of Japan's most respected sports science professors, sports medicine doctors and trainers. What I discovered in observing these university basketball teams and coaching certification courses was that advocates of a scientific approach to sports are today seeking to spark a catalytic shift away from a reliance on *Bushidō* rhetoric and authoritarian, disciplinarian coaching practice.

These interpretations are based on various statements by a wide range of informants (e.g. students, professors, coaches, players, fans and administrators), coupled with my own readings of both Japanese and English language sports literature. As a symbolic anthropologist, I seek to detail the interactions between actors in Japanese society in context in order to uncover and interpret their symbolic value. Doing so, I believe, can offer new ways to understand a foreign culture like Japan, a nation to which many non-Japanese have in the past ascribed exotic status or at least described as 'peculiarly different'. (Indeed, I had done as much myself when I first came across corporal punishment in the rural public schools mentioned above.) In addition, I seek to triangulate what people say and what people do with what people have said and done in the past. In this sense, this anthropological endeavor depends much on historical interpretation. Finally, in this work I hope to build on the emic, or what Coach K and the JBA and JASA materials say, with my own etic attempt to understand this dichotomy between *Bushidō* and science.

While this dichotomy of  $Bushid\bar{o}$  and science is not a figment of my own creation, I want to be clear that I do not wish to suggest that these are the only possible sports coaching pedagogies in use in Japan today. Bushidō and science are certainly not the only two possible lenses through which Japanese sports can be viewed, nor the only pedagogical positions from which sports can be taught. They just happen to be the two pedagogies that appear to have the most current cachet, and anyway they happen to be what I have had the opportunity to observe and read about; there can be and indeed probably are other sports coaching pedagogies that other fieldworkers in Japan will discover in the future. What follow, therefore, are my own personal and rather humble interpretations of Japanese sports coaching; ambitious scholars are most welcome and indeed encouraged to build upon them with examples of other pedagogies or approaches to Japanese sports. I do hope that this article shows, however, that the dichotomy of Bushidō and science can actually serve not to *limit* our understanding of Japanese sport but to help expand it, especially as we have up until now relied almost solely on samurai or Bushidōbased discourses of Japanese sports. It is about time we moved beyond Bushidō.

#### Japan's gradual adoption of scientific approaches to sport

The earliest evidence of a scientific approach to sports can be traced back to ancient Greece. The ancient Greeks did not distinguish between science and philosophy – they were considered one and the same (Dampier 1961, p. vii) – and Greek physicians such as Galen (AD 129–200), who attended to Marcus Aurelius in Rome, wrote about subjects we might include under the heading 'exercise physiology' today. Ancient Greek philosophers, such as Plato and Aristotle, also discussed the 'scientific' nature of sports. At the time, however, such 'science' was less concerned with what we today call 'science' and more with 'medicine'

(French 2003). Thus, Hoberman (n.d.) shows that loose forms of 'sports science' exist far earlier than the fields of sports science were formally established.

It was not until the early 1900s that sports science came into its own. This was in Germany under the term 'sportwissenschaft' (literally 'sports science'). Hoberman summarizes the relevant early developments: 'The term "sports physician" was first used in 1904, the first sports physicians' congress held in 1912, the first university course on sports medicine held in 1919, the world's first sports college (Berlin) established in 1920, and the first sports medical journal founded in 1924' (Hoberman n.d., p. 11). The work of these German physicians eventually led to the conception, in 1927, and the foundation, in 1928, of the Association Internationale Médico-Sportive (now known as the Fédération internationale de médecine sportive). Sports science developed throughout the mid-twentieth century in Europe and the United States, chiefly out of the growth of the Olympic movement and the desire to find methods for improving athletic performance (Kent 1998, p. vii). The case of sports psychology, widely seen as a component field of sports science today, reveals how this process unfolded. According to Jenkins, up until 1960 sports psychology was 'mainly concerned with motor learning and sport skill acquisition. It then became recognized as a sub-discipline of physical education [and] by the 1980s, it had become part of sport science' (Jenkins 2005, p. 294). This example illustrates that the term 'sports science' did not always denote a consolidated enterprise encompassing exercise physiology, kinesiology, sports psychology, kinanthropometry, biomechanics and sociology of sport, as it typically does today.

Although the UK and the US greatly influenced Japanese sports in the Meiji period (Abe and Mangan 1997, 2002, Abe 2006), in the 1920s and 1930s Japan was probably more heavily influenced by German sports ideas than by other nations'. The first recorded example of Japan using 'scientific' methods in sports or physical education came in 1913 when the Education Ministry codified a 'scientific gymnastics' curriculum borrowed from Sweden (Guttman and Thompson 2001, p. 153). Although physical education was in the following decades increasingly co-opted by militarists, and some 'scientific' approaches to physical activity may have been shelved in favor of rigorous training methods that mimicked battle, it is clear that the use of science in sport began in earnest as Japan tied closer political links with Germany. Not long after sportwissenschaft developed in Germany, the first 'Sports Science Congress' (supōtsu kagakukai) was held in Japan in 1933 (here sportwissenschaft was translated as supōtsu kagaku).<sup>3</sup>

World War II shifted attention away from sports, understandably. In the years immediately following, Japan had to focus on rebuilding its economy. As a result, Japan lagged behind European and North American nations in its use and development of sports science in the early postwar period. Though instruction in sports and physical education had hitherto been based on each instructor's 'personal experiences', the 1954 Education Ministry's Course of Study (gakushū

shidō yōryō) marked a turning point towards a 'systematic theory of physical education' (keitō shugi taiikuron) that incorporated 'scientific instruction' (kagakuteki na shidō) (Sugimoto 1995, pp. 152–156). In the following two decades, for example, though sports psychology research expanded worldwide, Japan did not establish its own Japan Sports Psychology Association (Nihon supōtsu shinri gakkai) until 1973 (Fujita 1998). By the 1970s and 1980s, many nations had opened national institutes for sports science research but Japan did not make similar plans until 1990 and JISS did not open until 2001.<sup>4</sup>

Today, sports science appears at first glance to be thriving in Japan. In addition to scientific sports policy drafted at the Education Ministry, JASA and JISS, there are an increasing number of sports science departments in Japanese universities. MU was the first Japanese university awarded a Ministry of Education, Sports, Science and Technology 'Global Center of Excellence' (GCOE) grant specifically aimed at sports science research, in June 2009. In documents describing the GCOE, the term 'science' (kagaku) is clearly used to legitimize the seriousness and reliability of using sports to improve the health of the Japanese people. The formal title of the MU GCOE is 'Sports Science for the Promotion of Active Lives', and its need is justified with the use of statistics alleging an increased number of Japanese citizens with health problems (e.g. 'metabolic syndrome'), an aging society and children who do not exercise enough. With rising health-care costs burdening national coffers, sports have lately been seen as 'free' ways that people can keep themselves healthy (Miller 2011).

Many Japanese scholars and institutions also advocate a scientific approach to sports, although in some cases their stated goal is improved performance, not necessarily the maintenance of health. Over the last few decades, some of Japan's 'national sports federations' (kyōgi dantai) have begun to discuss sports using scientific rhetoric. The JBA, for one, justifies Japan's need for a 'national training center, sports medical support, mental support, nutritional coaches, and sports science support' by saying that 'gold medal winners at the Olympics train athletes in such environments' (JBA 2004, p. 35). They add that 'understanding players' bodies scientifically is an essential condition to improve their athletic ability', that 'sports science staff must be trained in order that they can understand basketball and scientifically analyze each movement of each player' and that 'sports science staff must work closely with medical staff for [the] safe and effective development [of athletes]' (JBA 2004, p. 36). Toward that end, body measurements, including tests of 'body strength, muscle strength, and stamina', and 'basketball specific field tests' are taken over time (JBA 2004, p. 40). The JBA also organizes lectures on sports science, sports medicine and anti-doping in an attempt to construct an 'effective, rational system based on science and medicine for winning' (JBA 2004, p. 44). The JBA, desperately concerned with improving its ability to produce better results on a global stage (in the way that, for example, Japanese baseball has) has appropriated sports science as its means to get there.

#### Sports science in practice: the case of MU basketball

Sports science is not simply a matter of institutional policy; it also significantly influences the way various Japanese coaches lead their respective sports teams in practice. For example, basketball coaches at MU advocated and employed a scientific approach to coaching sports. Most notable among them is the aforementioned Coach K, the 'general manager' (sōkantoku) of both MU's men's and women's basketball teams. On my first day meeting him, he told me that he preferred 'scientific coaching methods' (kagakuteki na shidō hōhō). Coach K often travelled to the US to collect new coaching ideas and techniques based on science. He was convinced that the best basketball was played there; he called it the 'Mecca' (honba) of international basketball. He explained that if he did not keep contact with his friends and colleagues in the US - some of whom were assistant coaches in the National Basketball Association (NBA) or head coaches of American college teams - scientific coaching information would never reach Japan. 'You see', he explained, 'Japan is still a locked country (sakoku jōtai) when it comes to sports', referring to Japan's long period of isolation in the seventeenth, eighteenth and early nineteenth centuries. Coach K added that, while male Japanese basketball players play competitively on an international stage until the age of 18, because of the lack of scientific information entering Japan and the sprouting heights of international players, their competitiveness decreases thereafter. Since Coach K was at one time an officer for the JBA, it might not be surprising that his personal pedagogy dovetailed with their institutional policy, but it may have been that Coach K's experiences have influenced the JBA as much as the other way around.

Coach K's idea of a scientific basketball coaching pedagogy included detailed prescriptions for the use of statistics, effective and rational time management, the keeping of records, utilizing information regarding opposing teams as well as information gained from statistics or detailed shot charts and the keeping and using of detailed game plans and practice checklists. In chapter 4 of his book for aspiring basketball coaches, Coach K emphasizes daily player management, including checking players' body weight, the number of hours they sleep and their intake of food, drinks and supplements. He advises coaches to have good relations with doctors and players in case the latter get injured and to make routine checks of players' health throughout the season. In chapter 7 of the same book, Coach K details how a coach should plan and manage practices for each period of a season. Such seasonal management involves splitting the season into four parts: preparation period number 1 (which aims to strengthen the muscles and hone individual skills); preparation period number 2 (which aims to cultivate strength and agility and establish collective techniques, as well as to set team rules); game period (which aims to maintain strength as both a team and as individuals); and recovery period (which aims to rest the players' bodies to allow them to recover from fatigue, strain and injury). For Coach K, scientific basketball coaching therefore represents the incorporation of rational planning based on established fundamental techniques, medical and technological healing of the injured, nutritional strictness, an emphasis on quantifiable statistics/records to measure improvement/performance and keeping detailed records during both practices and games.<sup>5</sup>

Science was only one part of Coach K's coaching pedagogy, however. He also had a desire to raise student athletes who could 'think' as well as play. He often referred to his coaching style as 'thinking basketball' (kangaeru basukettobōru). In the aforementioned book, Coach K writes that coaches should not push their thoughts on players so much so that players cannot make their own decisions. For Coach K, 'thinking basketball' is a way to justify the intelligence and seriousness with which basketball coaches and players approach their 'profession'. He explained that when he was working full-time and playing basketball for a Japanese construction company in the now defunct Basketball Japan League (basukettobōru Nihon rīgu), he was the only player on his corporate team who was given 'regular' deskwork. Other basketball players had been given easier work because they were perceived to be 'dumb jocks'. Coach K therefore aimed to change the image of the Japanese athlete as intellectually inferior to white-collar Japanese workers (sararīman) by developing this new, 'thinking', way to play basketball.

Coaches in different sports at MU often worked together to implement their scientific pedagogies. Before and after the team's two-week spring training camp, the MU track and field coach (Coach I), who was a friend of Coach K's, measured the players' balance, speed and jumping ability to determine whether the camp's training regimen was improving their 'core muscles'. Coach K and Coach I believed that these muscles were used in both basketball and track and field and therefore could be strengthened using similar training. Coach K and Coach I told me that they measured the players' improvement and used these data to write scientific papers. Coach K and Coach I were among a handful of coaches at MU who were also professors in the School of Sports Sciences. By teaching in the gymnasium and the classroom, these coaches ensured that their scientific approaches to sports were effectively spread both in theory and in practice. Both coaches were extremely well liked in each realm. Some of the other basketball coaches who worked on Coach K's coaching staff also advocated a 'scientific' pedagogy of coaching. For example, the head coach of the men's basketball team, called Coach S, explained that 'no game was won by being 'psyched' (kiai) alone' and that 'strategy (senryaku) was more important than spirit (seishin)'. These coaches - Coach K, Coach S, and Coach I - agreed that sports could and should be scientifically analyzed. They also agreed that modern technologies - themselves the products of scientific research - could and should be employed to improve, or help recover from, athletic performance (Miller 2011).

### Scientific departures from 'hard training' lshigoki, seishin and konjō

When Coach K called coaches that he did not care for 'Bushidō coaches', he was both questioning the contemporary effectiveness of their 'traditionally Japanese' approaches as well as justifying the professionalism and seriousness of his own scientific pedagogy. Although other Japanese professors and practitioners who base their own pedagogies on science may not agree with the language Coach K uses and may not use the term Bushidō to describe such 'bad' coaches, many echo his general complaints. For example, they associate such 'bad' coaches with a commander-style (meireigata) of coaching (Tanaka 2008), lament that such coaches educate based upon their own personal experiences alone (Inayama 2008) and assert that such coaches employ harsh training tactics like excessive running, violence or corporal punishment (Fukubayashi 2008, Sakamoto 2008).

Approaches to sports based on sports science and sports medicine can employ or emphasize quantifiable methods of testing (e.g. the use of statistics), strictly defined and specialized roles within a team, a general appeal to rationality over emotionality and the importance of decision-making based on information (e.g. science-based nutritional information) rather than on individual experience (e.g. 'this is how I was taught so it must be the right way'). In contrast, approaches to sport based on  $Bushid\bar{o}$  are said to employ intense training or require intense effort, especially using the term  $h\bar{a}dot\bar{o}reiningu$  ('hard training'). They are also said to summon the rhetoric of spiritualism, especially using the term seishin, and to invoke a discourse of 'guts' or 'willpower', especially using the term  $konj\bar{o}$ . In these regards, on a discursive level at least, these so-called 'traditional' approaches differ strikingly from these scientific approaches. A summary of some of the perceived differences between these pedagogies is outlined in Table 1.

One commonly shared belief among such scholars is that 'scientific coaches' reject the use of 'hard training' (and/or what is known in Japan as shigoki) and encourage precautions against ōbā tōreiningu ('over training'). Hādo tōreiningu derives from the similar English expression, 'hard training', and shigoki derives from the verb shigoku, which means 'to beat' or 'to train' or 'to wring out'. Coach K believed in neither of these things, writing in his book: 'Pushing players without letting them express themselves will spur their growth to a point, but when they lack a sense of achievement, they will soon lose their desire.' 'Hard training' in Japanese sports generally implies not allowing players to drink water freely, so the rejection of such 'hard training' by sports scientists and sports doctors is symbolized by warnings given about the possibility and danger of 'heatstroke' (necchūshō). Because Japanese summers can be extremely humid, heatstroke is a serious concern among many Japanese coaches, so JASA details ways to avoid it during their coach certification courses. Coaches at the IASA courses I attended were shown a DVD in which the narrator noted that the number of ambulances called for players suffering from heatstroke had quadrupled in

Table 1 Perceived differences between 'Bushidō coaches' and 'scientific coaches'

	'Bushid $\bar{o}$ coaches'	'Scientific coaches'
Type of coach	Commander-style ( <i>meireigata</i> ); employs authoritarian decision-making	Questioner/listener/suggestive-style (shitsumon teiangata); employs cooperative decision-making
Type of guidance	Coercive, expects obedience	Instills independence and individual decision-making ability
Training methods, rest and recovery	Hard training Little or no water given even	Scientifically-tested training (never 'over training')
policies	during hot summer training Little or no recovery period given Few days off, if any	Players decide when they drink water, regardless of training; training plans set according to season Set recovery periods given to let muscles rest (chōkaifuku)
Training goals	Generally prioritize education over winning	Set days off Generally prioritize winning over education
	Aim to develop endurance and character through physical hardship	Aim to develop skills through tested and proven training regimes
Priorities	Generally prioritize experience over information	Generally prioritize information over experience
Method of measurement	Emphasis on qualitative nature of sports (i.e. importance given to intangible terms like 'spirit' (seishin), 'guts' (konjō), and 'character development' (ningen keisei))	Emphasis on quantitative nature of sports (i.e. use of tangible, verifiable statistics, records and medal counts)
Source of strength	Strength derived through spiritual effort; emphasis on 'spirit' (seishin) and 'guts' (konjō) for strength to persevere during intense game situations	Strength derived through cognitive effort; emphasis on 'rational thinking' and 'mental training' (mentaru toreiningu) for 'mental toughness' (mentaru tafunesu)
Position re: hierarchy	Top-down, strict hierarchy (kibishii jõgekankei) based on seniority	Merit-based, 'flat' social organization based on talent or ability

recent years. The DVD explained that the 'Wet Bulb Globe Temperature' could actually be higher in Tokorozawa (Saitama Prefecture, near Tokyo) than in the subtropical southern prefecture of Okinawa. This issued a warning to coaches in the Tokyo Metropolitan area, where the course was being held, that they ought to pay attention. The DVD's narrator read: 'Know about heatstroke... do not do more than possible when it is hot... replenish fluids... know the amount of sweat equivalent to body weight... inadequacy of body strength is the cause of heatstroke.' The DVD then explained the scientific details of how heatstroke occurs and how to deal with it in emergencies: 'Take the victim to a shaded

area and give them a sports drink... give them an ice pack... or if it is very severe . . . call an ambulance or take them to a hospital.' A JISS-based scientific researcher speaking afterwards added that 'top athletes always manage their own bodies, so it is important for all coaches to create an environment in which players feel they can drink water whenever they like'. Shibuya and Urakubo (2007, p. 156) note that in the past Japanese coaches did not always allow their players to drink water because they wanted them to share a sense of collective struggle that they could endure together as a team. This suggests that there may be a difference of opinion between older-generation coaches (perhaps associated with 'Bushido') and newer-generation coaches (perhaps associated with 'sports science') regarding not only training methods but also the ultimate purpose of sports. That is, if the purpose of sports is to train the collective (or individual) 'spirit' (seishin), then a lack of water is a better means to that end because the subsequent suffering strengthens people's belief that they have 'endured together'. On the other hand, if the ultimate purpose of sports is the maintenance of 'health'  $(kenk\bar{o})$  – and sports science and sports medicine advocates surely describe health as a central goal – then drinking water becomes a necessity. Here sports are less about building a shared sense of spirit and more about building body strength. Finally, if the ultimate purpose of sports is to encourage 'thinking', then it seems essential to ask one's charges to decide for themselves when their bodies needed refreshment. That is exactly what Coach K did.

Once again, Coach K is not alone in his belief that players ought to think for themselves. Oda (2005), a sports journalist, also argues that practices in which players endure endless 'hard training' with no water breaks are 'poor' and 'hopeless'. In their place, he suggests more 'cooperative' rather than 'competitive' styles of coaching:

We need not coercive guidance ( $shid\bar{o}$ ) but guidance with a sense of purpose, guidance that respects independence and guidance that does not push values but rather tolerates each individual's values. We need guidance that teaches how to make losers into winners and guidance that values the process of building one's individuality.

(Oda 2005, p. 19)

Oda explains how, as a high school baseball player, he had argued with his coach when he was commanded to shave his head as an initiation rite. When he refused to comply, the captain of the team kicked him to the ground, causing him to quit the team. This incident, he says, is a major reason why he now argues that Japanese coaches should be more 'scientific' and place less emphasis on 'spiritual education' (seishin kyōiku) (Oda 2005, p. 227).

Many critics of spirit-oriented 'hard training' with no water breaks are also critics of the so-called 'guts-ism discourse' (konjōshugi) known to be common in Japanese sports. Some argue that Japanese sports should end its relationship with the term 'guts' (konjō) and instead begin using the phrase 'mental toughness'

(mentaru tafunesu). Education professor and sociologist of sport Sugimoto Atsuo argues that konjō is 'senseless' and that the 'hard training' associated with it can cause children to dislike exercise, drop out of school or quit their sports team (Sugimoto 1995, p. 156). Psychology professor Ichimura Sōichi, a member of Japan's Olympic Committee, says that baseball training activities like senbon nokku ('one thousand fungoes') and judo training activities like sen'nichi keiko ('one thousand days training'), which allegedly aim to cultivate konjō and seishin, are 'not for beginners' (quoted in Oda 2005, p. 168). Such arduous training regimes, Ichimura asserts, are part of a konjōshugi mindset that young athletes should avoided.

MU basketball coaches did not regularly emphasize konjō seishin, or hādo tōreiningu. To them, these values were not considered as important as the learning of fundamental basketball techniques, learning to think for oneself as a player and the development of mentaru tafunesu through 'mental training' (mentaru tōreiningu). For these coaches, as well as for many other scholars and coaches throughout Japan, 'spirit', 'guts' and 'hard training' were associated with 'Bushidō coaches', or at least with 'old', 'bad' coaches who employ 'traditionally Japanese' pedagogies. These people view a 'scientific' approach to coaching as a necessary departure from these 'old' pedagogies, relics of Japan's authoritarian, disciplinarian and militaristic sporting past.

## Why 'scientific pedagogies' have not (yet?) displaced 'Bushidō pedagogies'

Though MU coaches rarely use these terms, many MU basketball players had been trained under junior high school and high school basketball coaches who had often used the terms seishin, konjō and hādo tōreiningu. This meant that the scientific thinking pedagogies employed at MU struck these players as something new, different and difficult to understand. One player called Nana told me that she went to a high school where the basketball coaches 'only taught us how to run'. 'All they teach is konjō', she explained. 'You just listen to what the coach says and you do it.' Though at first it seemed to me that this was a complaint, when I asked her whether she wished she had attended a high school where players were not forced to run excessively, she replied, 'No, not really. You know, looking back, I realize that at the high school level it would not have been enough for our coaches just to teach us basketball, so I am glad I learned a little bit about konjō.' Clearly in some cases players appreciated their difficult training if it meant they had grown.

It was not just the players who found Coach K's coaching to be new and different; even an assistant coach on MU's women's team had difficulty understanding the shift in approach. Despite being his assistant, Coach H was twenty years older than Coach K (age 72 to age 52 at the time) and had experienced a world of 'hard training' and 'shut up and follow me coaches' (damatte! ore ni tsuite koi kochi) for

most of his life as a basketball player and coach. Like some MU players, Coach H seemed skeptical of Coach K's de-emphasis on seniority-based hierarchy. One day I was watching a drill in which players had to make one hundred points by layups in a two-minute period. This required that everyone run at top speed up and down the court and it allowed for only a few missed shots in this extremely short period of time. Coach H explained that this drill was important because it helped train the players' ability to overcome tough pressure situations even when they were tired, thereby preparing them for such situations at the end of big games. When the team could not make the one hundred points in the two-minute period, this drill often caused frustration and anger. Coach H then singled out certain players for not making their individual shots, which would teach each player the meaning of responsibility. Coach H said this was especially important because teams today lacked the 'rigid hierarchal relations' (kibishii jōgekankei) that they once had. He lamented the fact that MU's 'upperclasswomen' (sempai) today never scolded their 'underclasswomen' (kōhai):

When I was a player, if an underclassmen did something wrong, you know, made a bad pass or failed to catch a good pass, the upperclassmen would yell at him. Something like, 'You idiot!' Sometimes a  $k\bar{o}hai$  would make a good pass, but the *sempai* could not catch it, and the *sempai* would *still* blame the  $k\bar{o}hai$ ! Today, it is much different. Now it is 'You are you and I am me'. *Sempai* no longer make  $k\bar{o}hai$  take responsibility.

Because two MU freshmen were among the team's starting members, as well as among the team leaders in scoring and minutes played, it was uncomfortable for upperclasswomen to call on these younger players to take such responsibility. Coach K rarely talked about responsibility to his players, and he rarely advised older players to make younger players account for their mistakes. Indeed, it was his decision – not Coach H's – to start these freshman players. This *lack* of attention to seniority-based hierarchy had Coach H wondering about Coach K's new coaching pedagogy. Moreover, this lack of coaching consistency led to confusion among players. Since Coach H often led practices in Coach K's absence, the players had difficulty deciding which form of hierarchy to follow: Coach K's merit-based hierarchy (which rewarded talent not seniority) or Coach H's seniority-based hierarchy (which rewarded seniority and not talent). There was thus often tension in the gymnasium as these two coaches each had different views regarding how to lead the players.

As mentioned above, sometimes these scientific pedagogies were seen as too difficult to understand or were too different from what MU players had previously known. Some MU players were used to doing exactly as they were told, *not* 'thinking' about what their role should be. Informants told me that old coaches in Japan would be satisfied if their players had obeyed their instructions, but Coach K desired that players think on their own and fulfill their roles. One talented freshman starter, Rasa, had particular problems with it. She said that she found

Coach K's pedagogy of coaching 'pretty difficult': 'Moving in exactly the way the coach wants you to move is something [we learned in] high school, but in university, and even in games, you have to think by yourselves and play. That's pretty difficult... I have to become more of an adult.' Rasa said that practices were 'militaristic' (guntaishiki) at her 'powerhouse' ( $ky\bar{o}g\bar{o}~k\bar{o}k\bar{o}$ ) high school, but that such practices were easier because she only had to follow her coach's orders. In her mind, authoritarian coaches were easier to deal with than coaches who asked players to think on their own.

In this way, some players desired an authoritarian coach who would tell them what to do because such coaches were 'easier to understand'. Although I never heard a player say she preferred 'Bushidō coaches', some players made it clear they preferred a certain degree of authoritarianism. For example, Ore, a fourth-year player, said that, before Coach K took over at MU, she had been coached by a former member of Japan's women's national basketball team. Though Ore did not call this coach a 'Bushidō coach', she said that she had been extremely 'strict' (kibishii). This coach would not allow players to talk idly on the court nor would she abide equipment or clothing strewn on the sides of the court. It was 'more than rules, though', Ore added. 'She expected us to have manners becoming of human beings.' When I asked Ore who was 'stricter' – her former or Coach K – her answer came easily: 'Coach K just lets us do what we want. He pretty much leaves us alone. Sometimes I like that, but I usually prefer a coach who just says, "Do it!" (Yare!) It's so much easier that way.' This finding is corroborated by Professor Sawai Kazuhiko, a Japanese sports scholar, who observed 'adult soccer classrooms' (otona no tame no sakkā kyōshitsu) and found that even casual adult soccer players prefer to be coached by 'strict' authoritarian coaches because they are 'used to' this sort of coaching. Sawai explained that if they were coached by 'encouraging' coaches, these adults would not 'feel like they were really playing sports' (personal communication 29 July 2009). It seems that, to some, following a coach's orders has come to be perceived as epitomizing the very essence of playing sports.

Finally, scientific approaches to sports coaching face difficulty in Japan because they are perceived as 'Western'. Many Japanese people involved in sports continue to make concerted efforts to protect 'tradition' when they believe it to be challenged by imported practices and/or ideas. This is because such 'foreign imports' are often deemed to be incompatible with Japanese 'tradition'. As Bellah explains, 'no complex society has maintained a stronger sense of what is native and what is foreign than Japanese society' (2003, p. 188) and these nationalistic distinctions have set the stage for various forms of sports nihonjinron (Befu 2001, pp. 6, 18–21). Indeed, the labeling of 'sports science' as 'Western' has further fueled such nationalistic sentiments. Because sports and sports science are seen as products of the 'West', many Japanese coaches are reluctant to use 'Western' training methods or philosophy in their own coaching. Because sports and sports

science are perceived within Japan to be symbols of the West, they signify the 'Foreign Other', just as the ideas of samurai and  $Bushid\bar{o}$  symbolize the 'traditional' and 'old' aspects of Japanese sports playing and coaching – the 'Japanese Self'. It is the strength and persistence of these symbolic meanings that make it especially difficult for scientific thinking pedagogies to make inroads in Japan.

The reasons why influential coaches like Coach K and his colleagues at MU (as well as organizations like JASA, JISS and the JBA) have thus far failed to displace *Bushidō*, spirit-based, 'old' and 'traditionally Japanese' sports pedagogies are complex. To many Japanese, these pedagogies are seen as too new, too difficult to understand, and/or represent Western notions that are perceived to be incompatible with 'traditional' Japanese values. Though they may in the future take greater hold, sports science-based approaches have thus far had difficulty displacing *Bushidō* or spirit-based pedagogies because they are perceived to conflict with pedagogies that people involved in Japanese sports already know, have already used and/or perceive to be the necessary essence of Japanese sports.

It must be remembered, of course, that scientific approaches to sports are rather new to Japan (see note 5). JISS opened only in 2001, MU's Faculty of Sports Sciences opened only in 2003, and the first and only Global Center of Excellence for Sports Science was granted to MU in 2009, seven full years after the first GCOEs were granted to faculties and institutes in other scholarly fields. It is therefore plausible that in the next few decades science-based approaches to and pedagogies of sport will not only gain more traction at MU, where its sports science faculty has the space and resources to lead future sporting innovation, but they may become more influential throughout the rest of Japan as well.

#### Conclusion

Contrary to what much writing on Japanese sports would have us believe, samurai or *Bushidō*-based sports coaching pedagogies are not the only pedagogies used in Japan. To prove that, this article has described one example of a science-based sports coaching pedagogy. It has also traced sport science's historical roots and adoption in Japan, as well as its current applications by various individual coaches and national sporting organizations. It then analyzed how such scientific approaches to sport depend on a rejection of 'hard training'/shigoki, 'spirit' and konjō discourses. Finally, it showed why these pedagogies are having difficulty displacing 'old' and 'traditionally Japanese' pedagogies.

It should be noted that many of the 'problems' perceived of  $Bushid\bar{o}$ -based coaching pedagogy can also characterize an approach based on science. For example, both approaches have the potential to lead to inflexible coaching that does not allow in other pedagogical elements. What remains to be seen is whether a hybrid of these two pedagogies – or other similar pedagogies – can be fused in the way that muscular Christianity fused with  $Bushid\bar{o}$  in the Meiji Period (Abe 2006).

Japan's strong resistance to but also simultaneous acceptance of things 'West-ern' is one of its hallmarks as a modern nation. It is not simply an 'intrinsic' Japanese spirit combined with techniques or 'science' borrowed from the West that makes Japan special, however; rather, it is out of a conflict of ideas that happens between Japanese people themselves that a balance between tradition and innovation, old and new, spirit and science, is struck. Though influential actors such as Coach K have tried in earnest to change the Japanese sports world, they have not always been greeted with open arms, even by their own players or assistant coaches. Out of this conflict a balance will be struck eventually, although it does not appear to have been struck just yet.

As in other realms of Japanese life, in sports this is a delicate balance between 'indigenous' knowledge or spirit (in this case, *Bushidō*) and imported technique (in this case, science). Some have called this 'wakon yōsai' or have equated the distinction with '(Japanese) tradition' and '(Western) modernity'. Other scholars have questioned this description in their studies of Japanese life (Bellah 2003, p. 208), but it is important to understand that this delicate balance continues to be the business of many involved in Japanese sports, largely because sports continue to be perceived as masculine realms in which nationalistic struggles are played out.

Documenting these new and alternative ways that sports are *being done* in Japan is essential in order to move beyond simplistic renderings of Japanese sports life. No longer can we accept the 'conventional wisdom' of Japanese sports as a 'warrior's realm' fit for samurai alone. No longer can we ascribe a samurai or *Bushidō*-based pedagogy to all Japanese sports coaches. No longer can we ignore or overlook the deep conflict between Japanese sport enthusiasts looking beyond its borders for new approaches, and those looking to Japan's own past. No longer can we ignore or overlook the diversity of practice, pedagogy and policy rhetoric that all very clearly exist within Japanese sports.

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#### **Notes**

- 1. Informants have been given pseudonyms to protect their identities.
- 2. There are many possible definitions of sports science. Williams defined the 'science' employed to the sport of rowing broadly but succinctly as 'the knowledge ascertained by observation and experiment, critically tested, systematized and categorized... the objective study of observed and measured phenomena both qualitative and quantitative' (Williams 1967, p. 16). Bloomfield et al.'s volume (1995) on sports medicine and science divides research on these fields into the anatomy of biomechanics and sport performance, physiology and nutrition and sport, sport psychology and performance enhancement, and sports medicine. Hoberman defines sports science as 'those natural scientific disciplines that can be applied to the theory and practice of athletic performance. This range of disciplines includes anatomy, with special emphasis on the musculoskeletal system; physics, with special emphasis on the biomechanics of movement (the application of mechanics to the study of postures and movements); and physiology, which assesses the energy costs and efficiency of physical activities' (n.d., p. 2). Jenkins notes that sports science can include 'kinanthropometry, biomechanics, exercise physiology, sport psychology and sociology of sport' (2005, p. 296). In Japan, definitions of 'sports science' appear to be broader and include the so-called 'soft-sciences' (see next note).
- 3. The German term wissenschaft ('science') casts a wider definitional net than the English term 'science', which itself derives from the Latin scientia (scire, 'to learn', 'to know'), in that the former term also includes history, philology and philosophy. The definition of 'science' in English, meanwhile, 'may be defined as ordered knowledge of natural phenomena and the rational study of the relations between the concepts in which these phenomena are expressed' (Dampier 1961, p. xii). As a result, as the Japanese first borrowed the term 'sportwissenschaft' from German, the study of 'sports science' in Japan has been equally broad in scope, arguably going beyond the range of issues dealt with by scholars of 'sports science' in English-speaking nations. The Osaka University of Health and Sports Sciences, which offers various graduate programs in sports science, uses the following definition of 'sports science': 'The word "science" has two meanings: 1) to discover and develop new ideas, and 2) to make knowledge and technique universal. Applying these to sports, the former is related to performance and improvement challenging human limitations, equivalent to developing new training methods, skills and equipment. The latter is related to sports promotion for a healthy and fulfilling life equivalent to data and transmission on management and instruction methods for safe and joyful sports' (Osaka University of Health and Sports Sciences Online n.d.).
- 4. The Australian Institute of Sport was opened in 1981 with a Sports Science Unit, the Society of Sports Sciences was founded in Britain in 1977 and the British Association of Sports Science was founded in 1984. Moreover, the International Council of Sport and Physical Education changed its name to the International Council of Sports Science and Physical Education in 1983.
- 5. Coach K became animated when he explained that 'most Japanese basketball coaches in Japan did not leave detailed notes about their practice plans' and ensured that his own team managers recorded detailed notes about each day's practice.
- 6. This emphasis on 'thinking' is part of what makes Coach K's personal pedagogy distinct, but it should be noted that there are many coaches and institutions in Japan that also advocate a 'thoughtful' approach to sports in Japan. For example, JASA's coach training texts echo the importance of creating an environment in which players think for themselves (JASA 2008b, p. 17) and Light (2008) describes a similar coaching pedagogy in his work on rugby.
- 7. After playing for this construction company team for nearly a decade, Coach K led it to two league championships, in 1990 and 1992, as its head coach. The team was dissolved in 1994. At that time, some of the teams in this league were incorporated into the Japan Basketball League

- (*nihon basukettoboru rīgu*), which is one of two 'professional' basketball leagues currently active in Japan today. The other is called the bjLeague (*beejay rīgu*).
- 8. A Wet Bulb Globe Temperature estimates the composite effect of temperature, humidity, wind speed and solar radiation on humans. Athletes, as well as industrial hygienists and relevant military personnel, use this measurement to designate maximum exposure levels to potentially dangerous temperatures.
- 9. Light's work on Japanese rugby (2008) offers another recent example of the rejection of a *Bushidō*-like approach to sports coaching. Light found high schools in which, as with Coach K's 'scientific' pedagogy, rugby was taught differently from what is typically perceived to be a pedagogy based on 'guts-ism' (*konjōshugi*).

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