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Message from the  
**Chief of Sport Performance**  
**Alan Ashley**



Thanks for your continued interest in Olympic Coach! We're excited to bring you this next issue and continue to engage in the discussion of best practices and to share information with coaches at all competitive levels.

As this issue goes to print, we're closing out the successful Team USA Olympic and Paralympic Sochi experience, including the Team USA delegation White House visit with President Obama, and the inaugural Best of US program, where athletes and teams were recognized for outstanding performances in Sochi. We're so excited for our athletes to have these once-in-a-lifetime experiences and to showcase their talents and personalities. It was particularly special to see our Olympians and Paralympians celebrating success together at this event as one "Team USA".

Our athletes train every day in hopes of realizing their Olympic and Paralympic dreams and continue to set the example for all of us in terms of work ethic, perseverance and a commitment to excellence. Their dreams are realized in no small part due to public support through clubs, academies, school and community programs and the interest and support of sponsors and donors. As one of the only National Olympic Committees that is not government funded, we must find ways through sponsorship, private giving and the support of the community to help Team USA athletes find ways to keep competitive with the rest of the world. This is a complicated formula that requires patience, understanding and collaboration between all of our sport constituency groups. We should acknowledge and recognize that we all have a part to play in supporting the individuals responsible for the pipeline as well as being collaborative and innovative when it comes to working together for the benefit of the athletes striving to succeed at the very top internationally. Team USA not only applies to our athletes but to all of us working together on behalf of the Olympians and Paralympians.

In this issue, we cover topics such as coach burnout, the new US Tennis Association's Coach Youth Tennis curriculum, an article investigating "mental toughness" and "habits", and a transcript from the presentation by USA Diving's Drew Johansen and Abby Johnston. We're excited to provide a variety of information all focused toward athlete development and execution.

We hope to see you in June at the National Coaching Conference in Arlington, Virginia June 18 – 20 hosted by our partner SHAPE America and fellow USA Coaching Coalition members the NCAA, NFHS, and NSCA.

Thanks again for your support!

## **The Nature of Olympic Athlete Contribution: An Exploratory Study**

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Contribution is a wide-ranging construct that can be difficult to pinpoint and define as it comes in a multiplicity of manifestations ranging from philanthropy, corporate social responsibility, and civic engagement. Inevitably, the lack of a concrete definition for contribution has led to much variability in the interpretation of this construct; thus minimal scholarship has specifically examined the motivations of individuals to contribute. In recent years, Lerner and colleagues (2005) have developed the "five C's" model of positive youth development, which provides a working framework for how positive development facilitates contribution. The five C's represent characteristics that should develop in thriving individuals in society: competence, confidence, connections, character, and caring. According to the model, individuals who exhibit these five characteristics should have a greater propensity to display the sixth "C" of contribution beginning in late adolescence/early adulthood and eventually as adults. Lerner's model states that individuals can make contributions in four areas: the self, family, community, and civil society. Activities within the scope of these four areas of contribution include pursuing higher education (the self), caring for sick or elderly relatives (family), volunteering at a local community center (community), or participating in social activism movements (civil society) (Lerner et al., 2005). To our knowledge, no empirical studies have examined the perspectives of Olympic athletes in regard to their contributions as high-profile athletes.

### **Literature Review**

Philanthropic activity is regularly considered a primary means of contribution among high-profile athletes and teams. In a recent study, Babiak, Mills, Tainsky, and Juravich (2012) examined the contributions of athletes such as Andre Agassi, Tiger Woods, and Lance Armstrong, whose multi-million dollar charitable foundations have generated significant recognition amongst the popular press. Further, Babiak et al. found that over 500 professional athletes in North America had charitable foundations in 2008, with many of these claiming 501(c) status – that of a tax-exempt non-profit organization. Such tax incentives act as a significant motivator for donors – often distorting the boundaries between altruism and self-interested activity – resulting in what is labeled as strategic philanthropy (Babiak et al., 2012). Through interviews with athlete founders, Babiak et al. found that these athletes possessed positive affective states in relation to their charitable behaviors, but the underlying motives, such as advanced networking opportunities and favorable publicity, were also evident.



Another form of contribution – engagement in community initiatives – is often a contractual obligation for high-level athletes. The Sport Philanthropy Project (2007), for example, has worked to leverage the economic, cultural, and symbolic capital of professional teams and foundations by associating them with community health care initiatives. In their discussion on corporate citizenship in European football, Walters and Chadwick (2009) identified the benefits of brand promotion and city support as sports organizations engage in outreach programs, particularly when on-field performance is suffering. However, the authors stated that this type of corporate social responsibility is often conducted with minimal authentic altruism. According to Sheth and Babiak (2010), research has demonstrated how sport executives often utilize ethical and philanthropic strategies to maintain an organization's image when a team is not performing in the wins column. Taken together, these findings demonstrate how corporate social responsibility – specifically philanthropic activity and ethical behavior – are viewed as necessary for business sustainability due to their benefits for employees, athletes, fans, sponsors, and the local community (Sheth & Babiak, 2010). Whether such motives are altruistic, strategic, or a combination, Sheth and Babiak recognized that corporations seek to further social good, beyond the economic interests of the corporation itself, and engage in socially responsible activities that are not required on legalistic grounds.

Much of the research on corporate social responsibility has been conducted at an organizational level and there is a lack of research examining the perspectives of individual athletes on the nature of their contributions (Agyemang, n.d.). Aoyagi et al. (2008) discussed how altruistic behaviors have been associated with well-being, life satisfaction, and social connectedness for individuals, which has been further linked with personal gratitude (Chen, 2013). McCullough, Emmons and Tang (2002) posited that grateful athletes have a greater tendency to view the contributions they receive from support groups as crucial to their success, while less grateful athletes tend to attribute success to personal effort alone. Such findings are important to consider as it relates to contribution given that grateful people tend to display more pro-social behaviors – such as helpfulness – than less grateful people (McCullough et al., 2002).

Agyemang (n.d.) described athlete citizenship as the personal conduct of an athlete that contributes positively to society by engaging with the public outside of athletic competition. Butterworth (2013) called for athletes to embody an active, engaged, and constitutive citizenship, which not only acknowledges, but also at times contests the political complexion of sport, citing examples of Andy Roddick, Scott Fujita, and Steve Nash. Andy Roddick boycotted the 2009 Dubai Tennis Championships and refused to defend his title at the event in response to Shahar Peer – an Israeli female tennis player – denied an entrance visa to compete in the women's championship held the week prior. Scott Fujita – former New Orleans Saints linebacker – has stood against hegemonic masculinity within football and has publically supported women and LGBT rights. Steve Nash is noted by Butterworth (2013) for his open stance, while a member of the Phoenix Suns organization, publically opposing SB 1070 – a discriminatory immigration law that allowed Arizona State police to question individuals under a 'reasonable suspicion' clause that may promote racial profiling.



Though some would advocate that athletes should not to engage in political discourse, Kaufman and Wolff (2010) encouraged athletes to exercise their right to participate in democracy and utilize sport as a vehicle for social change. The urgings that athletes should be active citizens in various societal domains is not without its critics. For example, Feezell (2005) maintained that athletes do not have any additional reason to act morally, and criticized college athletics programs that require athletes to engage in community outreach programs. In essence, Feezell calls for active citizenship from all community members, rather than positioning athletes as exemplary symbols of civil society. In other words, according to Feezell, it is unreasonable to presume that the responsibility to contribute is greater for an athlete than a non-athlete.

According to the Olympic Charter, “The goal of the Olympic Movement is to contribute to building a peaceful and better world by educating the youth through sport practice in accordance with Olympism and its values.” (p. 15). However, in recent years, many researchers and journalists have argued that the current commercialization of the Olympic Games has deviated away from Baron Pierre de Coubertin’s vision of Olympism as one of international humanism, peace, and cultural understanding (Kim, 2013). Given this commodification of Olympism, Kim suggested that “athletes participating in the Olympics should not become part of any corporate promotional strategy” (p. 2205). Similarly, in critiquing and challenging the Olympic industry, Lenskyj (2012) warned against viewing Olympic athletes as role models, as they often exhibit behaviors that fail to satisfy the basic standards of good sportsmanship. British journalist Simon Barnes (2012) argued that the Olympic Games are not about world peace and humanitarianism anymore, and he challenged the virtuous notions of sacrifice prevalent in Olympic attitudes.

Further, McMillan (2013) highlighted the inherent self-oriented nature of elite athletes – s citing an Olympic skier’s recognition that selfishness is necessary in order to win at the highest level. Given the years of investment in themselves that is required in the pursuit of Olympic success, there has been an increasing desire in some athletes to transcend their sport and make notable contributions to their community and the world (McMillan, 2013).

Johann Koss (2014), President and chief executive officer of Right to Play – an international organization that utilizes the power of play as an educative and emancipatory tool – recently wrote an article published in the Huffington Post entitled *Olympic Athletes and the Power to Give Back*. Though he recognizes the contradiction between athletes mainly focusing on themselves through training and acting as role models for others, he maintains, “Athletes are an invaluable social resource who play a critical role, not only in inspiring our children to pursue their dreams, but in using the universal language of sport to *do better*” (Koss, 2014, para. 2). He praises Olympic athletes’ power to give back, pointing to Canadian speed skater Clara Hughes, who regularly makes donations of time and money to Right to Play and other social causes including mental health awareness. Despite this growing movement of Olympic athletes wanting to make positive impacts in society, little academic attention has been given to the role of contributions in the lives of Olympic athletes. Though organizations such as Right to Play boast over 300 professional and Olympic athletes acting as Athlete Ambassadors – many of whom are still training and competing in their respective sports – no research has been explored addressing the motivations behind



Olympic athletes' voluntary engagement with similar organizations, or with contributing in a broader sense. The current study represents an exploratory study and the purpose consists of examining the perceptions, motivations, and pressures of contribution experienced by Olympic athletes.

## Methods

### Participants

The two participants in the current study are Canadian Olympians; one active and one recently retired. Their demographic profiles are presented below. In order to protect the identity of the participants, identifying demographic features have been omitted.

**Participant one.** The first participant is a 24-year-old female who has spent most of her life participating and competing in a variety of sports. She was a competitive swimmer for the majority of her life until she was recruited to compete in her current multi-event sport. She has eight years of competitive experience within her multi-event sport and has competed at the regional, provincial, national, and international level. As a member of the Canadian national team, she has competed at the Pan American Games, national championships, multiple world cup events, world championships and the London 2012 Olympic Games. She is currently training for the 2016 Olympic Games to be held in Rio de Janeiro, Brazil.

**Participant two.** The second participant is a 30-year-old recently retired female athlete. She began competing in her sport at 15 and competed at the regional, provincial, national, and international level over her 15-year career. She competed as a member of the Canadian national team for approximately eight years. Her athletic career culminated with her appearance at the 2012 Olympic Games in London, England. After the Games, she retired and has since transitioned into an administrative role within a National Sport Organization.

### Instrument

A semi-structured interview guide was developed and consisted of four sections. In the first section, the participants were asked to provide a brief summary of their sporting experience throughout their lives. Here, participants were asked, "Can you give me a snapshot of your athletic career to date?" The second section asked the participants to explain what contribution meant to them and describe ways they currently contribute or have contributed in the past. A sample question in this section was, "Why do you contribute in the ways that you do?" The third section asked questions pertaining to perceived pressure to contribute. Here, participants were asked questions such as, "Do you feel your success as an athlete influences how you feel about contribution?" The fourth section asked participants to identify barriers to contribution. A sample question in this section was, "What are some things in your life that make it difficult to contribute?" Probing questions were used in each section to obtain a richer account of the participants' thoughts, feelings, opinions, and experiences.



### Procedure

Upon obtaining ethical approval to conduct the study from the university's Research Ethics Board, participants were contacted by one member of the research team via telephone to verify if they would be willing to participate in the study by taking part in individual interviews. Both participants voluntarily agreed. One interview was conducted in person and the other occurred by telephone. Both interviews were audio recorded. The interview conducted in person was recorded using a digital audio recorder, while the phone interview was recorded using Another Call Recorder (NLL, 2014). Interviews lasted 30 minutes (participant one) and 42 minutes (participant two). Both interviews were transcribed verbatim using InqScribe (Inquirium, 2005) and were uploaded to NVivo 10 (QSR International, 2012) for analysis.

### Data Analysis

A thematic analysis was conducted guided by the procedures recommended by Braun and Clarke (2006). Following transcription of the interviews, three members of the research team independently read the transcripts for familiarity, generated initial codes, and grouped similar codes into themes in the NVivo 10 software. Throughout the process, coding was guided by Lerner's 5 C's model in relation to the four contexts of contributions described above. However, themes that emerged inductively were also included as important elements in the analysis. Following the independent coding process, two meetings were organized during which the themes developed were reviewed by the coders and differences were discussed until agreement was reached by all three researchers. For example, one researcher had developed the independent themes 'guilt' and 'pressure' which upon further discussion, were deemed to fit better under the general theme of 'responsibility' rather than stand-alone themes. Furthermore, one researcher grouped contributions to community and contributions to sport together as a single theme. Upon discussion, it was concluded that there were sufficient data to separate these into their own separate themes. Following this process, the names and descriptions of the themes were finalized and rich quotes provided by the participants in the interviews were used to support the researchers' interpretations presented in the report. To improve the credibility of the results, a peer review was conducted, whereby an experienced qualitative researcher – not involved in the coding process – reviewed the final themes and assisted in the write-up process.

### Results

The results are organized in four general themes: (a) definitions of contribution, (b) nature of contributions, (c) motives to contribute, and (d) barriers to contribution. A visual representation of themes and subthemes can be found in Table 1.

### **Definition of Contribution**

Both participants had difficulty formulating their definition of contribution. Rather than providing a concise definition, the participants described types of contributions and how they personally contribute. These initial descriptions differed between the two athletes.



Table 1:  
Major themes and subthemes

Themes	Subthemes
Definitions of contribution	N/A
Nature of contributions	Contributions to the community
	Contributions to sport
	Contributions to self
Motives to contribute	Responsibility
	Personal connections and values
	Personal benefits
Barriers to contribution	Competition and training
	School and work
	Bureaucracy

Participant one described contribution in terms of others contributing to her success:

So I guess, initially I think about the contribution of others to me, such as coaches contributing knowledge and expertise to my program... workouts contributing to the end goal. Also, sponsors contributing to athletes in terms of getting them there. So everything essentially is a contribution into the bank of [me] in terms of athletic expertise, knowledge, funds, whatever.

However, participant two described contribution as community engagement and philanthropy:

I guess I think about contribution to society. It was the first thing that comes to mind. To me, it's just being active in your community. But also, I mean, contribution makes me think of... contributing to charities in a monetary fashion.

**Nature of Contributions**

The second major theme dealt with the types of contributions the athletes made. Within this major theme, there were three subthemes: (a) contributions to the community, (b), contributions to the sport, and (c) contributions to the self. The first subtheme – contributions to the community – was discussed by both athletes and is characterized by a number of different activities. One activity discussed by participant one dealt with using her Olympic experience to inspire others. She provided an example of when she was invited to talk at her former high school and told the students: “You know, I was you, I started in this same high school that you are in and look where I am now. And look what you can do.” Participant one also discussed representing her country and local communities as a community contribution, “I represent myself. I represent my coaches. I represent my country. I represent my community.”



Another contribution that was discussed by participant two was involvement in charity community dinners, which were seen as a way to strengthen connections with the community: “Right now... we’re organizing for example, this dinner at a community center next week. For me, that’s contributing to my community.” (A2) Finally, contributions were also discussed concerning philanthropic donations. Participant two alluded to the small charitable donations she often makes as contributions: “Maybe a small one here or there, something like a dollar rounding up on your grocery bill kind of thing. But nothing, nothing substantial.”

The second subtheme was discussed in detail with both athletes readily providing examples of their contributions to their particular sport. Coaching younger athletes or putting on clinics were deemed to be contributions to the sport because such activities serve to develop the next generation of athletes. Participant one said:

I’ve thought about that too, giving back to the sport that’s given you so much. You can have an active role. You can become part of the board. You can become a clinician, like giving sport clinics when you retire. You can become an athlete’s rep. You can become the coach. Whatever. Lots of options.

Participant two commented on her involvement within her National Sport Organization (NSO) as a contribution to her sport, citing her job within the organization as a contribution in and of itself:

I think I go above and beyond in my job. I could probably do this job and spend a lot less time doing it and a lot less effort and just make it by. I think a lot of people have done that before me. Because I know who is on the other end and I know what they are going through, I think I put a lot more into [it] than others have. So in some ways, that extra effort I put in is giving back to my sport.

The third subtheme that was evident in the data was contributions to the self. The athletes discussed how taking part in activities that are aimed at contributing to others end up having a positive influence on their own development and credentials. Participant one commented on the many beneficial experiences that have resulted from her contributions:

So, not only do you give back to the school, but it’s also a good contribution back to you. Because then you get the volunteer experience and you get the speaking experience and you get to put that on your funding application.

Participant two discussed how contributing to others led to emotional and psychological wellbeing: “It’s more what I get out of it...my own satisfaction, makes me feel good...But I don’t get anything tangible per se...anything that I can put my fingers on.”

## Motives to Contribute

The athletes described their motives for contributing which were organized into three subthemes: (a) responsibility, (b) personal values and connections, and (c) personal benefits. The first subtheme, responsibility, was evidenced by a perceived obligation or moral responsibility to give back to those that supported them in the past. Both athletes commented on how their success as athletes brought a certain level of obligation. This sentiment is evident in the words of participant one as she reflects on her athletic success:

Whether you do poorly at the Olympic Games or great, you still have an obligation to your community and the people that supported you and believed in you. You still have an obligation to share with them and connect with them. Maybe not so much in communities that you don't know, but for sure in your home community.

The second subtheme under motives to contribute was personal values and connections. Athletes discussed how various contributions were made because they benefited someone or an organization that they had personal ties with. For example, participant one discussed how one of her personal values is helping her local communities and her contributions are reflected based on this value: "For me personally, I feel that I really like and want to give back to my home communities and I will travel to do that and give back to them just because I want to." Participant two discussed how she believes she is actively contributing to her sport organization because she is not satisfied with the status quo and strongly values organizational change: "I don't like that mentality and I want to change that mentality and I would rather support a team that kind of understands that rather than 'I'm entitled to' kind of thing".

The third motive for contributing was less altruistic in nature. In addition to giving back to others that had supported them or to improve their sport, the athletes were also clearly motivated to contribute in order to obtain personal benefits. For example, in discussing her community contributions, participant one said:

So, a lot of the motivation to go and speak is that a lot of funding and bursary applications that you apply for within the Canadian sport system, they often have a section on them where they ask you about your volunteer experience... So one of the recent ones I applied for... thirty percent was based on your volunteer and community involvement.

Participant one also discussed the direct monetary benefits that can emanate from contributions in the form of speaking engagements: "There are athletes that have turned it into a career and, once you become a well-known speaker, you can ask for an honorarium." Personal benefits from contributions were not just financial in nature. As expressed by participant two, contributions can be strategic and often benefit both parties involved:

I did get something out of it, I'm not going to lie...it [contribution] gave me access to the Y [YMCA]. So it was a combination of...helping out and also then I could utilize the equipment, the facilities, the gym...it was mutually beneficial.

## Barriers to Contribution

The fourth and final theme concerned barriers to making contributions which were organized in three subthemes: (a) competition and training, (b) school and work, and (c) bureaucracy. Discussed at length by both athletes were competition and training, because both were very important to the athletes and took up the bulk of their time. Participant two commented: “Yeah, it took up a lot of time. It [contribution] was when you weren’t training, you were resting. So, it [training] was pretty much all consuming.” Later, when asked about scheduling time for contributions, participant two added that: “I think it’s just really hard. I mean for me in my life, training took up the majority of my time and energy.” Participant one held a slightly more accommodating view when it came to contributions:

You are selective. You just sort of pick and choose what works with your schedule. And a lot of the time when people are asking you to come and speak, it’s at your availability so they will give you some time [when you aren’t busy].

Other major time constraints the athletes faced were school and work. Participant two discussed how her administrative position in an NSO has allowed her to see how in Canada, Olympic athletes are often pursuing higher education and have to work one or more jobs just to meet their financial obligations. This was shown clearly in this comment: “Just making ends meet and getting to the next competition. Half of what I deal with at work is just people not having enough money to do things.” Participant two discussed how in her own career, time spent working or studying was seen as a major barrier to being involved more in the community: “For the first half of my career, I was always working one job or going to school. So, if I didn’t have to do that, then maybe I could spend my extra time doing something in my community.”

The final barrier to contribution that was discussed had to do with the bureaucracy of the NSOs. Participant two discussed how organizational inefficiency was a factor that negatively affected her contributions when she was an athlete:

Part of it is that our organization was not run in the most efficient fashion for a long time. It became hard to [pause], you know, you have to really want to give back because some times, you know, it’s not easy... it takes even more effort to actually get it done.

This bureaucratic inefficiency extended to even making simple financial contributions:

Even donating money isn’t as simple as ‘let’s just donate money.’ There’s more that goes on and there’s more that you have to do and so if you don’t have the actual desire to do it, you’ll just give up because... sometimes it’s hard to deal with bureaucracy.

## Discussion

Based on Lerner et al.’s (2005) four contexts of contribution, it appears that the Olympic athletes in the current study identified many contributions to the self and the community, with sport emerging

as an important sub-context for contributions occurring within the community. The apparent absence in the participants' responses of contributions to family and civil society may be closely related to the struggles of earning a living and maintaining the intense training load required of Olympic athletes. Further, given that both athletes trained in locations apart from their families, opportunities for family contributions were limited. Additionally, a lack of contributions at the civil society level may be related to critiques noted by Butterworth (2013) that athletes should not be political figures, as well as Kim (2013) who suggested that Olympic athletes should not identify with major corporate strategies.

Participant one's definition of contribution – consisting of external efforts directed towards her success – illustrated her current focus on her training, whereas participant two's definition of contribution reflected an output of energy and resources towards others, more indicative of her retired status. The two participants' perspectives on contribution relate to McCullough et al.'s (2002) conception of gratefulness, where the athletes' responses reflected their views on the benevolence of coaches, community members, and general supporters. The active athlete's perspective on contribution would characterize her as a grateful athlete, someone who recognizes and appreciates the contributions of others that have led to her success. Further, the retired athlete's desire to contribute towards society demonstrates a high pro-social sensitivity to the concern of others, a primary psychological characteristic found in grateful people (McCullough et al., 2002). Such findings indicate that athletes' status (i.e., active or retired) can play an important role in influencing how they conceptualize contributions and how their 'gratefulness' manifests itself in their actual behaviors in society.

In identifying training as a significant barrier to contribution, the two athletes demonstrated how the concept of 'investment' as discussed by Barnes (2012) is necessary to perform at the Olympic Games. Such a commitment to training, as indicated by Koss (2014), may appear to be a self-ish behavior, but one that is necessary for success on the international stage. However, recent initiatives have been developed to make it easier for athletes to combine their contributions with fundraising opportunities. McMillan (2013) noted the case of Play Hard Give Back, a social-profit company that raises funds for charities while helping generate income for athletes who are training. Partnering with similar organizations can prove to be mutually beneficial for charitable organizations and financially constrained athletes, and may curtail some of the time demands that athletes experience during training and competition.

Both of the study's participants demonstrated similarities in terms of their motives for contribution. Consistent with Babiak et al.'s (2012) relating of philanthropic activity to affective 'warm glows' the athletes discussed feelings of satisfaction while contributing out of personal values and beliefs. Similar to Kaufman and Wolff's (2010) advocating that athletes can exercise their citizenship for social change, the retired athlete, once transitioned out of sport, combined her understanding of the sport system and her own personal values as catalysts for organizational reform within her NSO. National Sporting Organization are often saturated with political agendas and the retired athlete's transition into an administrative role within her NSO enabled her to contribute back to the sport by directly influencing sport policy and functioning. Driven by personal desires to see more organizational efficiency than what she experienced during her sporting career, the retired athlete



modeled Butterworth and Kaufman's as well as Wolff's calls for athletes to engage their citizenship in a contributing manner.

The athletes' identification of responsibility, both obligatorily and ethically, is similar to findings within the existing literature as well. Babiak et al. (2012) recognized that many elite athletes are often both directly and indirectly obligated to engage in charitable and community initiatives. For example, the active athlete's community speaking engagements were required to satisfy funding applications, mimicking a branding process of self-promotion. However, unlike professional teams that engage in philanthropic and community strategies in order to protect their brand identity (Walters & Chadwick, 2009), this athlete's activity was motivated specifically to create an athletic identity that would justify sponsorship. Though sentiments of guilt were connected to such ambitions, in line with Sheth and Babiak (2010), the engagement in outreach activities was necessary to sustain the appropriate level of training to perform at the Olympic Games. However, both Lenskyj (2012) and Feezell (2005) suggested that athletes should not be under any moral obligation to act as role models in their communities more than other citizens.

### **Conclusion and Implications**

The current study represented an exploratory study with the purpose of examining the perceptions, motivations, and pressures of contribution experienced by Olympic athletes. Though a plethora of research examining athletes' perceptions, motivations, and pressures for sport participation is available, the current study was one of the firsts to specifically examine Olympic athletes' perceptions, motivations, and pressures regarding contributions. The findings can be used to improve our understanding of Olympian's contributions and provide a base for future research. As this current study is limited in terms of generalizability by its small sample, future studies on contribution would benefit from including a wider range of athletes from different sports, countries, and genders. Understanding the nature of Olympic athletes' contributions has important implications for coaches seeking to assist in the global development of their athletes. It is recommended that coaches be cognizant of their athletes' desire to use their Olympic experience to contribute to others. As such, it may be useful to work with athletes following Olympic competition to plan contribution activities. Based on the 5 C's model (Lerner et al., 2005) this study has shown how athlete contributions are not only beneficial to others (i.e. communities) but also help the athletes themselves (i.e., the self). In the case of athletes retiring from competition following Olympic participation, coaches may play important roles in encouraging and providing opportunities for athletes to take on altruistic positions within their sport – whether at the administrative, advocacy, or coaching level.

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*In this handout image provided by the World Archery Federation, Team USA winning gold at the Archery World Cup 2014 Stage 1 on the banks of the Huang Pu river on April 27, 2014 in Shanghai, China. (Photo by Dean Alberga/World Archery Federation via Getty Images)*



## Vitamin D: Why all the Hype?

### Alicia Kendig, USOC Sport Dietitian

Athletes often come to the USOC sport nutrition department to learn about what food (a.k.a. fuel) they should be putting into their bodies to improve performance. A dietary recall is often incorporated into the initial assessment, and often a dietitian can quickly identify the key nutrients that may be lacking based on their current food choices. However, there is a sneaky essential fat soluble vitamin, Vitamin D, that is not readily available in a lot of foods, making it common for the athlete to have insufficient or deficient intake. And in the elite athlete population, research suggests a performance link to this mysterious nutrient. Is there more to Vitamin D than a relationship to bone health?

Due to its relatively low availability in food, humans rely largely on the endogenous (within the body) production of Vitamin D. This is a natural process, that is initiated at the skin level through exposure to UVB rays. Some individuals require as little as 15 minutes, while others need up to 60 minutes of exposure to synthesize adequate levels of Vitamin D, depending upon pigment of the skin. Darker skinned individuals have more melanin that blocks UVB absorption, and therefore synthesis of Vitamin D. With the increased awareness of skin health and the rise in prevalence of skin cancer, managing this sunlight exposure can be a difficult balance. In addition, sunscreen blocks 98% of UVB rays required to synthesize Vitamin D.

For the elite athlete population, lifestyle factors associated with training can influence Vitamin D levels. Athletes training outdoors are often covered in clothing or sun screen or train during early hours of the day. On the other hand, athletes training indoors spend very few hours exposed to sunlight during the middle of the day. Both of these scenarios increase the risk of having insufficient or deficient Vitamin D levels. For this reason, the USOC Sport Medicine and Nutrition departments have made it a policy to screen and monitor blood values of Vitamin D3 in athletes. Signs and Symptoms of low Vitamin D levels include: low bone mineral density, stress fractures, fatigue, unexplained muscle and joint pain, and frequent illness. All of these symptoms can have a negative impact on athlete performance.

It is recommended that all elite athletes get screened for Vitamin D3 levels, especially if they have one or more of the symptoms listed above. If visiting your own doctor for this blood (serum) test, ask them for information about the “25 hydroxy vitamin D3” test. Because fluctuations in this blood marker are seasonal, it is also recommended to recheck levels at the end of the summer and during the winter months. Depending on the results of these tests, additional sunlight exposure may be recommended or a supplemental form of Vitamin D3 may be suggested. All athletes/patients should work with a licensed medical provider or dietitian before beginning Vitamin D3 supplementation, as toxicities (too much of a nutrient) are possible and can easily occur with mega-doses of this nutrient if not monitored appropriately. When in doubt, enjoy the sun in the summer and speak with a medical provider to learn more about your Vitamin D status.

## **Stress and Burnout in Coaching: Dr. Coach Rose's Seven Answers to, "What Can I do to Change the Things I Cannot Change?"**

**LaNise D. Rosemond, EdD, Tennessee Technological University**

America's fascination with sports has bridged the gap between people of all different types of socioeconomic backgrounds, races, genders, and ages. Individuals from various kinds of lifestyles can connect and share a unique bond over their love of a game. To ensure that our love of sports continues, we spend millions – even billions – of dollars on our favorite sports figures. We show our loyalty and our support through video games, apparel, sneakers, and even flags.

We love watching all types of athletes excel in their sports and we especially enjoy celebrating at the peak of an athlete's win if we know about their struggle to get to the top. It is not unusual for us to focus on certain athletes, especially if they have the ability to capture our imagination and inspire us through their creative athletic talents and personality. Despite our focus on the individual athlete, most Americans overlook the person at the cornerstone of the sport– the person who unites a team and encourages those special individuals. That person is the coach.

This is not to say that Americans are unaware of coaches. We see them on television during sporting events, and we can see their tension, excitement and hopes for their athletes. We take note of their range of emotions and quick-thinking during various plays. We hear their eloquent words during interviews, and we see their encouraging gestures that they freely give to their team players to reassure and boost their spirit. However, these observations are made in passing, as most of our attention is grabbed by the energy and excitement found in the overcrowded stadiums, the mascots, the overzealous alumni, and the proud parents of the athletes. As a result, many do not consider the hard work that comes with the coaching profession. Undoubtedly, this is a very high-stress career, and if an individual lacks a proper balance or stress-relieving outlet, then it can and will lead to an early burnout.

According to Weinberg and Gould (2011), burnout has been defined as an exhaustive psychophysiological response exhibited as a result of frequent, sometimes extreme, and generally ineffective efforts to meet excessive competitive demands. These scholars described several symptoms of burnout: physical and mental exhaustion, lack of caring, lack of desire, loss of interest, depression, and increased anxiety. Additionally, burnout can involve an emotional, psychological, and sometimes physical withdrawal from a previously enjoyable activity in response to excessive stress or dissatisfaction over time (Smith, 1986). Weinberg and Gould (2011) reiterated that finding when individuals reach burnout, they are more likely to withdraw from the stressful environment.

Stress in America's high schools, colleges, and professional sports are at an all-time high. Student athletes labor under the combined demands of academics and morning practices, evening practices, and study hall. On the other hand, coaches face extraordinary pressures from administration, alumni, and the public in regard to winning games. According to Weinberg and Gould (2011),



new and young coaches are experiencing the greatest amount of stress. Stress has become such an epidemic that it is now being identified as a health risk factor. Researchers Weinberg and Gould (2011) noted that coaches and athletes face similar stressors in competitive sports: long hours of practice, great physical and mental energy expenditure, and performance pressures on game day.

Upon receiving my first college job, the most common thing I would hear from people was that they wished that they had my job. People perceived my job as being easy because they thought I threw a ball to my athletes when they were out on the court, and they thought I stood around while watching athletes demonstrate their athletic talent.

People would often make comments indicating jealousy or envy such as, “You get to travel all over the country,” or “You get to exercise with your team since you can practice with your athletes,” and “You get to be in the limelight.” All of these comments can be true at times; however, they come at a great cost. There is no doubt that there are perks to being a coach, but there are an equal amount of negative aspects to my job, too. If I do not handle these aspects properly, the stress build-up can be extreme and unhealthy.

### **My Personal Story that Lead to Stress and Eventually Burnout**

In 1994, I started coaching an intramural basketball team. During that year, I transferred to another university to pursue my degree and basketball career. Because of a National Collegiate Athletic Association rule, I had to sit out a year before I could officially participate in my sport. In 1995, I had a college-ending injury, which led me into the field of coaching. As I sat on the bench watching my team practice and win championship games, I realized that I still wanted to be around basketball. I watched my coach, James Sweat (an NCAA top-100 basketball coach) make plays, develop tape, recruit, travel, talk with parents, and develop his players into great decision makers. I loved that aspect of coaching and developed a greater desire to coach basketball. As a result, after I graduated in 1997, I took my first official paid coaching job with a middle school. As a young coach, I was unaware of the immense amount of pressure that was associated with being a coach. While I eventually went on to coach middle school, high school and college, my middle school coaching experience was very unusual because my role as a coach was different. I was teaching full time as a health, physical education and family life teacher. At that time, my primary focus for coaching was to help adolescent girls in maturing for high school. My hope was that this could eventually lead them to an athletic scholarship. While I was juggling multiple different roles and responsibilities, I was young and full of energy. I was at the start of my professional coaching career and I was beginning to see my dream as a coach start to form. From the beginning, I was very passionate to see it to the finish line. I had some success that led to two out of three track championships and two out of three basketball play-offs. I loved what I was doing and did not experience the stress others may have – because coaching was my escape from the other stresses that came with being a new teacher.



In 2000, I was promoted to head coach of the junior varsity boys' basketball team and an assistant on the lead varsity team. The amazing part about this was that I was asked by the athletic director to coach this team. This was very exciting for me because I was a female coach who was coaching an all-boys' high school team. In honesty, this was my favorite coaching job. I had no problems with the male athletes and they treated me with dignity and respect. As a matter of fact, coaching the junior varsity boys' team earned me the National Basketball Association/Women's National Basketball Association and the National Federation of State High School Association's Coaching Sportsmanship Award. Just this past summer, a few of them reached out, and I had the honor to spend time with their families.

Unfortunately, the onset of stress slowly began while coaching in high school. I started to feel the pressure of winning from the administration and community. However, I was still passionate about my sport and the athletes, and I did not feel that it was time for me to move on to something different. In 2001, a wonderful opportunity came to be as a graduate assistant at a mid-major Division I institution. This is where the stress began to take a toll on me. I remember the long hours of juggling graduate school, teaching several undergraduate hours, 6 a.m. practices and workouts, summer camp planning, studying on the bus trips, taking stressful exams, conducting class presentations, grading papers, and getting little sleep or eating proper balanced meals. This went on for two years, and then I received an opportunity to take on a head-coaching job as an interim coach at a National Intercollegiate Athletic Association Division II college. The stress increased when I became a head coach. I remember the pressure that I felt to perform, recruit the right athletes for my program, work with other coaches and administrators, juggle being a senior women's administrator, and to deal with other job related tasks.

Thankfully, another opportunity presented itself to coach and teach one course at another mid-major institution. I took the job immediately! At first, this opportunity was great, however, stress began to kick in again as the job got more intense. I remember working on three to four scouting reports at one time, getting off the bus at 5:50 a.m. and getting back to the office at 8 a.m. to start my regular work hours. Again, I was getting little sleep and I was constantly either getting a cold or recovering from one. As a matter of fact, I had put on over 60 pounds from the time I originally started coaching. However, in 2005, the sport that I once loved brought on such an overwhelming amount of stress that I burned out, which led me to leave the field of coaching in 2007.

### **Dr. Coach Rose's Seven Answers to "What Can I do to Change the Things I Cannot Change?"**

I shared my story because I want to help coaches, especially younger coaches become aware of the stress associated with the profession. Furthermore, I would like to see young and more seasoned coaches to be more proactive in avoiding the dangerous traps of stress that can lead to burnout in coaching. As coaches at all levels, and especially college coaching, we have to recruit, work long hours, fight to get proper sleep, exercise when we can, hire and supervise workers, be responsible for the young adults we are coaching, and juggle personal life. As a result, I want to share the seven components I have learned and wish I would have done while coaching. I did incorporate several of these items while coaching. I am now able to advise coaches about



coaches about aspects I wish I would have done differently when I was coaching. Several coaches have put these suggestions into practice and are getting better results. Remember, it is not good to just listen to the things we need to change, but it is great to apply the things we can change – even when the job requires the things we cannot change as coaches.

### **1. Recruiting: They are not the only athlete in the world**

It is a fact that if you are at the middle school, high school and/or the college level of coaching, you will have to do some form of recruiting. It is inevitable. Recruiting can be stressful because it usually involves several other programs that all desire to attract the same athletes. Recruiting has its high and lows. There are times when you will feel that you just won a particular athlete to only find out that they decided to transfer to another school district, university, or professional team. When this happens, it is important for the coach to realize one key element: they are not the only athlete in the world. As I am out of coaching now, I remember the times we would receive the call that the student-athlete committed to another university. It seemed as soon as I stopped focusing on the fact we lost that recruit and began to put my focus on other athletes, we would end up signing another recruit who was equally talented.

### **2. Long work hours: Prioritize and work toward maintaining balance**

Dr. John Maxwell stated in one of his leadership trainings, “Take care of yourself more than you take care of others.” As a young coach, I did not hear this quote until 2003 and it was in a sport management graduate course. As a teacher and a coach, I was busy making everyone else better except myself. I spent long hours training, perfecting, and conditioning my athletes instead of working on myself as well. In coaching, the coach has to be careful because he or she may be the first person in the gym and, the last person to leave. The list continues on what he or she will have to do during those long hours. We all know that coaching does come with long days. There are days that you can leave the office early and other days that you have to be there late into the night. This is where the coach has to prioritize and work toward maintaining balance. For instance, the coach knows that in the midst of a season, things are going to be pretty busy and monochrome. Therefore, when the coach has down time, it is important to maximize those moments. This is the time to take a trip to a nice getaway where you cut your cell phone off and spend time alone or with people who will refresh and recharge you. It is important to have a calendar of planned rest times during your season and even throughout your day.

### **3. Lack of sleep: Look at sleep as a win and not a loss**

I have found that most coaches are used to long work hours which can result in difficulty sleeping when there is an opportunity to do so. During this time, it is important to cut your mind off of work and begin to develop a “quiet time.” The coach can use music, reading or watching a fun movie to wind down from the stresses that can cause a lack of sleep. Some coaches have adopted the mindset that if they are resting or sleeping, they are not working. To be honest, in order for the coach to have a more productive day, he or she will need to focus on getting the required seven to eight hours that is necessary for our bodies to properly function. Therefore, it is imperative for the coach to look at sleep as a win and not a loss. Remember, when you are more rested you are likely to make better decisions that can lead to a better outcome!



#### **4. Lack of physical health maintenance: Good health produces a better you**

As mentioned previously, I gained over 60 pounds before I decided to leave the coaching profession. To be honest, with all the stressors that were associated with the job, I found myself handling everything else before I got a handle on my health. I woke up one day and looked in the mirror and finally took a close look at how depressed and overweight I had become. As a result, I began to slowly lose the level of motivation that I had in my earlier years of coaching. In a study by Hoogestraat, Rosemond, and Phillips (2011), motivation was said to be one topic of interest that coaches wish they would have known more about before they started coaching. I was constantly sick with either a cold of some sort or a headache. As a result, during one of my regular check-ups, the doctor informed me that my cholesterol was way too high. He also explained that it was imperative that I lose weight, exercise and de-stress as much as possible. This was quite embarrassing because I used to be the coach that was primarily responsible for the strengthening and conditioning team. I understood what I needed to do, but my focus was on my team and not my own personal health. Toward the end of my coaching career, I began to exercise and eat healthier. As a result, my cholesterol levels went back to normal and I dropped a few pounds, which made me more aware that good health produces a better you!

#### **5. Hire and supervise: Look for trust and a good fit**

I have heard many coaches share that hiring assistant coaches and support staff was one of their greatest challenges. One of the recurring words heard were trust and a good fit. Trust does not happen overnight, and it takes time for most of us to trust individuals. This could have to do with our past, our upbringing and/or the betrayal of a close friend or loved one. Trust is a choice. Do not be scared to hire the wrong fit. Sometimes, you have to be willing to take a risk on certain people until they show you something different. I have found out in coaching, it is important to center yourself around like-minded people in the area of good ethics. This does not mean that you have to think and coach the same it simply means that your psychological core needs to be similar. Weinberg and Gould (2007) define psychological core as your most intimate you, or the real you. A person's psychological core can come from a person's family, religious beliefs, or teachings. When the coach is looking to hire, it is important that they examine the interviewee's psychological core. Examining the psychological core will provide a good indication if you can look for trust, which can lead to a good fit.

#### **6. Caring: Being responsible for those we coach**

Another huge stressor associated with coaching is being responsible for those under your tutelage. When I think back on when I was a head college coach, I remember how stressed and worried I was when I would ruminate in the middle of the night about one of my players or about one of their relatives. I would sometimes worry about how they were conducting themselves out in the public, and I worked very hard at trying to make them responsible in their decision-making with hopes that they would make the correct, healthy choice. I realized that the more I showed my players that I genuinely cared about them, the more they would think before they reacted. I know that as a coach this may not always be true, however, it is important to show your players that you care for them. I truly believe that caring produces better teams, which can lead to less stress and more victories.



## **7. Juggle your personal life: Family or those we love should always come before coaching**

In 2000 – in the middle of head coaching one of my high school teams – my mother passed away. I will never forget the day that the doctor told me not to leave because he was not expecting my mother to live long. In my mind, I never thought my mom would pass away at only 47. I knew that she was not doing well, but I just did not want to believe that that it would be the last time I would see her alive. I was under an immense amount of stress and I had no siblings to lean on for support. As a result, I missed one month of work to finalize all of her affairs. While I was still in hot pursuit of my coaching dream, I had to let my assistant take over the team while I settled matters at home. In addition to the stress of my mother passing, I was also very stressed that my athletic director and high school principal would get tired of waiting for me to return. So, not only was I out of a coaching job, but I was also in a poor position in regard to my teaching positions in health, physical education and drivers education.

I will never forget leaving the hospital and telling my mom that I had to get back to work. She asked me to stay a little longer with her, but all I kept thinking about was all the work I had to do with the team I left behind. I got on the highway to drive back to Virginia, only to arrive at 3:30 a.m. and get a call at 5:24 a.m. that my mom had passed away – I had to get right back into my car and drive eight hours back to Pennsylvania. I learned this the hard way, but family or those we love should always come before coaching. At that time in my life, I was in my late twenties and focusing on my coaching career. I often wish that I would have given my mom just a few more hours, as she requested. I know that I could not change anything about her passing, but I wish that my mind would have been “family first” at that time. You may be married, have children or have other relatives that are very valuable to you. Please take and make time for them – coaching will always be there for you or someone else when you return.

## **Final Thoughts**

It is my desire that you continue to coach the sport you love. My seven points on “What can I do to change the things I cannot change” is designed to assist you in making a mind-altering change concerning coaching as it relates to stress. Remember – stress has a lot to do with how we view a particular situation and not the situation itself.

I wish that I would have known about the dangers of stress and burnout in my earlier years of coaching. If I had information like this before and during my coaching tenure, I would have been more proactive in the way I handled the stressors that eventually led to my burnout. However, I am grateful that I have the opportunity to help those involved or interested in coaching learn from my experiences and lessons. As always, love the sport you coach! Please feel free to contact me if you would like further information.



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SOCHI, RUSSIA - MARCH 15: United States players celebrate after winning gold in the ice sledge hockey gold medal game between the Russian Federation and the United States of America at the Shayba Arena during day eight of the 2014 Paralympic Winter Games on March 15, 2014 in Sochi, Russia. (Photo by Dennis Grombkowski/Getty Images)



## In a Battle Between “Mental Toughness” and Habits, the Smart Coach Bets on Habits

**Sean McCann, Senior Sport Psychologist, United States Olympic Committee**

*“Change might not be fast and it isn’t always easy. But with time and effort, almost any habit can be reshaped.”* - Charles Duhigg, *The Power of Habit: Why We Do What We Do in Life and Business*

### Why Spend Coaching Time on Habits?

In the sport psychology world, there is a big business in measuring and enhancing “mental toughness.” Certainly, having mental toughness or willpower is a critical factor in performance, but the latest research on behavior change suggests that coaches should spend less time focused on motivating athletes to build mental toughness and willpower, and more time helping athletes build great habits.

Would you rather coach an athlete who has the mental toughness to pull an all-nighter before the competition and still perform well, or an athlete who has developed the habits of starting homework early and gets to the competition with a full night’s sleep? As a coach, even if you are very good at giving motivational speeches to enhance motivation and willpower to do hard things, wouldn’t your coaching life be easier if you had athletes who already behaved in a motivated way and habitually did the harder but more effective techniques? The science of human behavior is getting quite clear on two things: first, habits take a while to develop, but once developed can last a lifetime, and second, for even the most mentally tough individuals, willpower is a limited resource that can disappear in just a few minutes.

*“Motivation gets you started, habits keep you going.”* -- Jim Ryun

Developing and changing habits takes more front-end effort and time than a motivational talk to enhance willpower, but once changed, those good habits are the gift that keeps on giving to coaches. Good sport habits, technique habits, game preparation and execution habits can all last an entire career for an athlete.

Habits don’t just last a long time, they also control a surprising amount of all of our lives. As a coach, what would you give to enhance the part of the brain that is responsible for almost half of an athlete’s behavior? In a competitive world where a two percent advantage can make you a Hall of Famer, 40 percent of anything seems an impossible amount, but scientists studying habit formation have estimated that “automatic habits” control 40 percent of everything we do.



Habits control everything from simple motor movements (cross your arms across your chest, then try to switch to the other arm in front, to see how unconscious but habitual a behavior can be), to complex patterns of thinking. For example, we possess uniquely distinctive but unconscious habits for everything from our golf backswing, to perceiving team movements on a field, to the steps we take when composing an email. We like to think we are flexible and in control of our actions, but our brains are built to acquire habits quickly and hold onto these habits, so that our brains are free to do other things. In a sense, the conscious brain outsources 40 percent of our lives to the habit system with little to no conscious control. These habits are critical factors in athletic excellence. As a coach, you can take advantage of this truth of human behavior in one of two ways:

1. you find athletes with great habits formed earlier, or
2. you change bad habits and build great new habits in your athletes.

### How Do Habits Form?

*“The chains of habit are too weak to be felt until they are too strong to be broken.”*

— Samuel Johnson

Any coach interested in understanding habits would enjoy “The Power of Habit,” a recent book by Charles Duhigg, who does a great job of summarizing the science of habit formation in a very enjoyable and readable book. The two basics of habit formation that every coach should understand are cues and reinforcers. Cues are the stimuli that trigger the behaviors that become habits, and reinforcers are the results of the habitual actions that help reward and maintain the behaviors. As a coach, reinforcers are sometimes tricky to figure out since they may have made sense years ago when the athlete developed the habits, but then faded away, leaving only the habit (good or bad).

Cues in sport could be everything from sounds (the whistle that starts a game), sights (an open space between players on a corner kick), a physical feeling (that sharp pain as lactic acid builds at the end of a swim race), or even a perception (“I think the coach is mad at me, he looks angry”). An athlete may have developed a distinctive and unique habitual response to these cues that he or she is completely unaware of. For instance, a swimmer might respond to the cue of lactic acid pain towards the end of the race by thinking “oh no,” and reducing force in her stroke. Another swimmer might feel the same sensation and habitually think “yep, this is what fast feels like!” and actively keep her stroke force and turnover high for the last 30 meters. Both swimmers will be reinforced, the first with reduced pain, and the second with increased sense of control and faster times. Both swimmers could choose to respond like the other, but neither swimmer even realizes that there is a choice in responding to this cue, since these responses have now become unconscious habits. If a coach wants to change a habit, he must invest the time to make their athlete’s unconscious habits conscious, and build new, better habits.



## Where Should a Coach Start in Developing New Habits?

*“A nail is driven out by another nail; habit is overcome by habit.”*

— Desiderius Erasmus Roterodamus

Basketball coaching legend John Wooden famously started developing new habits in his college freshman players by instructing them in the proper way to pull on basketball socks and lace sneakers to avoid blisters. While I endorse Wooden’s idea that no performance-impacting habit is too small to address, I believe most coaches today are so constrained by time and pressure that they must choose their spots to build new habits. I would suggest that one of the most useful ways to impact the habits of athletes is to start at the competition. A critical place to start is to teach your athletes the importance of competition routines and habits, then develop habitual competition routines. If your athletes have unconscious, automatic performance-enhancing habits during competition, a great percentage of performance failures will be eliminated.

## Developing Effective Competition Habits

*“Good habits are worth being fanatical about.”*

— John Irving

Building competitive routines that work consistently is such a simple idea, and such a logical and impactful strategy that I am always surprised when I meet elite athletes who have never invested the time, energy, or thought required to develop consistent effective routines. In the absence of thoughtful, planned and useful routines, athletes instead develop unconscious competitive habits, which may or may not be effective. As Duhigg says in “The Power of Habit”, “The problem is that your brain can’t tell the difference between bad and good habits, and so if you have a bad one, it’s always lurking there, waiting for the right cues and rewards.” As a coach, you have the unique ability to structure your athletes’ competitive behaviors, talk about the importance of effective routines, pair cues with new routines and create enough repetitions for these routines to become career-long habits.

There are a couple of good reasons for coaches to start the process of building effective habits with competition behaviors. First, of course, competitive results are the bottom line in sport, and letting unconscious bad habits interfere with results can mean that years of preparation can be wasted. Secondly, behaviors at competitions can be easier to prepare for since many aspects of competition are consistent across all competitions. Distances, timing, warm-ups, equipment, uniforms and team activities tend to be more consistent at competitions than other venues such as training. What these consistent factors mean is that the cues (the stimuli that become associated with a habit) will also be consistent, and this allows performers to develop effective thoughts, feelings and behaviors in response to the cues.



A fairly simple but overlooked step for coaches is to identify and record any recurring competition behavior patterns in your athletes. Are there things your athletes regularly do in competition that make no sense to you and have an impact on performance? If so, the prime suspect is an unconscious habit in response to some cue for the athletes. If you spend the time to do what a psychologist would call a “behavior analysis” and note how your athletes actually behave during a competition, you will find a surprising variety of unique unconscious habits – some very helpful, and some very harmful. When negative habitual behaviors are identified, the job of the coach is to find a replacement habit for the same cue. It isn’t enough to simply point out to the athlete, “hey, have you noticed that you always start the competition too intensely, and make an error of going too hard and out of control in the first 30 seconds?” You must also provide the athlete with a new replacement behavior for that time period, so that the new behavior can gradually become a new unconscious habit. For instance, you might suggest “With the first whistle to start the match, I want you to take a deep breath and remind yourself to ‘use high energy, but stay in control.’” For some long-held habits, you may need to provide the athlete with reminders about the cue (the opening whistle), and the new behavior (deep breath, specific thought). It is also very helpful to ask the athlete if they did the new behavior, making the new behavior conscious for a while until it becomes a new habit replacing the old habit. If you are managing many athletes and do not always have time to follow up, you can replace the verbal question with a brief form that athletes have to fill out for 30 seconds before the post-event team meeting.

### **Coach New Habits Until You Don’t Have To**

A recent study indicates that it can take up to 60 days to form a habit. Many people give up on behavior change just a little too soon. If you are developing new competition habits in your athletes, you will need to have enough competition simulations or training sessions with the same cues as competition to get in enough repetitions. Although it can be very useful to simply talk about routines and getting athletes talking about their competition routines, maintaining the commitment until it becomes a habit is time very well spent for the busy coach.

But will you take the time to build habits in your athletes? Even if you think it is a good idea, it is easy to stop coaching this way due to time or other pressures. How do you ensure you consciously coach the habits of your athletes? Make it a habit. If you dedicate two to five minutes every practice to the development of specific athlete competition habits for the first two months of a season, you will develop a new coaching habit that could last the rest of your coaching career.



## Helping Coaches Help Kids

### E.J. Crawford, United States Tennis Association

*The new 'Coach Youth Tennis' curriculum builds on the United States Tennis Association's (USTA) youth tennis initiative, working with coaches to provide kids with the tools they need to succeed in – and to enjoy – today's game.*

Coaching kids is no simple task. Challenges include a child's attention span, sportsmanship and developmental differences—even among similar ages—that can account for a wide variety of skill levels and interest levels. Moreover, that very process of development means kids need to be treated with care, leaving coaches to encourage a love of the game while also trying to teach the skills that children can carry with them for a lifetime of play.

In an effort to help guide those tennis coaches who work or who plan to work with kids, the United States Tennis Association, United States Olympic Committee, Professional Tennis Registry and the United States Professional Tennis Association have collaborated to launch a new educational curriculum program, "Coach Youth Tennis," designed to improve the quality and standards of teaching tennis to kids and to enhance the long-term development of children in the sport.

The program—available at [CoachYouthTennis.com](http://CoachYouthTennis.com)—consists of a series of online courses and a hands-on workshop that introduces participants to the fundamentals required for success in teaching tennis to the game's youngest players.

"Elevating the quality and standards of teaching tennis to our youth will have lasting impact on our sport," said USTA Player Development General Manager Patrick McEnroe. "Coach Youth Tennis provides tennis teachers of all levels with the tools necessary to teach the sport to children."

Coach Youth Tennis was a collaborative endeavor involving staff from the aforementioned tennis organizations and the USOC, in conjunction with experts in the fields of medicine, child development and learning, physical education, coaching, youth sports, developmental tennis and high performance tennis – all working together over the span of two years to create courses designed to raise the standard of coaching in the U.S..

The result is a student-centered, comprehensive educational curriculum that establishes a set of standards for tennis teachers and coaches – ensuring that children will be taught the proper essentials of the game. Best of all, it is easily accessible for coaches of all experience levels and is rich with video content and tips, making it interactive and engaging.



“Coach Youth Tennis was created by a best-practice process of gathering coaching experts, player development experts, communication specialists and educators to collaborate around a program that could be utilized by coaches while also having the best interest of the youth player in mind,” said Chris Snyder, USOC director of coaching education. “The Coach Youth Tennis program is an amazing example of programming to drive athlete development not only in the U.S. but in the world.”

Beyond expanding their base of knowledge, those coaches who complete the program can go on to gain professional certification from the PTR and USPTA certification programs. In fact, beginning in 2014, all individuals who want to become certified teaching professionals will need to complete the Coach Youth Tennis curriculum.

“Our stated mission as an association is to elevate the standards of tennis teaching professionals and coaches,” said John Embree, USPTA chief executive officer. “It is not too much to ask professionals who wish to become certified to take seven hours of education prior to certification that addresses our most important initiative, which is to grow our base of players starting with kids 6 to 10 years old.”

Youth tennis has become a critical component of all tennis organizations in the U.S. in recent years, and that emphasis is now starting to yield tangible and encouraging results. A 2012 study on tennis participation in the United States – commissioned by the USTA and the Tennis Industry Association and conducted by the independent Taylor Research Group – found that tennis participation was at its highest levels in three years and that the biggest increase, at 13 percent, was among kids ages 6 to 11. Moreover, separate surveys have demonstrated growth in the number of available youth courts, in ball sales and in those involved in youth tennis competition.

To help foster this growth, the USTA, in conjunction with the International Tennis Federation, has focused recent efforts on the importance of sizing the game right for kids. That means smaller courts, shorter and lighter racquets, and slower-moving and lower-bouncing balls that allow children to rally and experience success the first time out. The result – said Dave Miley, executive director for tennis development for the ITF – has been a notable increase in participation and in enthusiasm.

“More kids are playing tennis around the world,” noted Miley. “By changing the ITF rules of tennis (in 2012) to ensure that kids 10 and under are always playing on smaller courts with slower balls, we have made tennis easier to play and more accessible for kids this age.” He added, “We have adapted the product of tennis to make it more attractive to the customer, and there is no question that [tennis sized right] has been a driving force for increased participation in the United States.”

In essence, youth tennis has changed the dynamics of tennis in the U.S. by making the game more dynamic – more interactive and easier to play. Rare nowadays are scenes of 6-year-olds lugging adult-sized racquets onto 78-foot courts to stand in a single-file line, taking desperate swings at balls bouncing over their heads and then retreating to the back of the line. Teaching and learning tennis is now a hands-on experience, with kids often rallying and playing their first time out – all of which increases the importance of having the proper coaching model to mold young players.

“Their enjoyment when playing tennis is so different now,” said Tracy Lawson, a teaching pro at Ahwatukee Tennis Club in Phoenix, Arizona which has more than tripled its junior participation numbers in the three years after offering expanded youth tennis programming. “When these kids played on the full court with the yellow ball, we had a lot of frustrated kids. Now they can play and they are seeing their improvement. They are moving to the ball and running things down instead of quitting out of frustration.”

“This is no longer the future of U.S. tennis,” she adds. “It is U.S. tennis. It isn’t a difficult transition and the kids love it.”

The embrace of youth tennis and the Coach Youth Tennis curriculum has been felt at all levels of the game. While once regarded as a teaching tool, tennis sized right for age and ability is now treated as real tennis played with real equipment in a way that has captivated children across the country.

“[Tennis sized right] teaches the most important thing of all: the skill of how to hit the ball properly, and developing that all-important muscle memory by doing it over and over and over again,” said renowned coach Rick Macci, who has worked with Grand Slam champions Andy Roddick and Venus Williams. “Whether these kids go on to be just average juniors or play high school tennis, college or even go on to be great pro, they’re going to have better strokes that stay with them for a lifetime, and that’s great for the game of tennis.”

Nick Bollettieri – a 2014 Tennis Hall of Fame inductee and the coach of 10 players who have reached the No. 1 ranking in the world – admitted that he was initially skeptical, but said that the new youth tennis initiative “won over myself along with the entire IMG-Bollettieri staff. It not only provides youngsters with some much-needed daily activities, but it also creates a happier child who has a much better chance to do well in school, gain confidence and say no to alcohol, drugs and violence as a result.”

The growth of any sport is dependent on how it is taught to its young players; the idea being that happy, successful young players will become happy, successful older players, and their level of success and enjoyment in sport will translate to a lifelong love for the game – as players, fans and, perhaps, as future champions. This idea is at the heart of the Coach Youth Tennis curriculum.



“This partnership is part of the USTA’s continuing effort to bring more children into the sport,” said Kurt Kamperman, USTA chief executive of community tennis. “These educational resources will impact tennis teachers and coaches throughout the country with information on how to best deliver the sport to kids as well as on maximizing their business.”

And that business is booming. In total, roughly 14,000 youth tennis courts have been built, restructured or refurbished in the last four years, including 3,761 in 2013 alone, and the number of youth tennis facilities that have registered with the USTA is now above 3,000.

Additionally, the two new offerings under the youth tennis umbrella, Kids’ Tennis Clubs and Tennis Play Days, have developed into smash hits. There are now more than 2,000 Kids’ Tennis Clubs with more than 100,000 participants, all for a program that started in late 2011. Since officially debuting in June 2011, the number of Play Days held annually regularly exceeds 5,000 – reaching more than 150,000 children each year.

In order keep more kids in the game and to attract new players, more than 1,400 free tennis events were held in September 2013 in support of Nickelodeon’s Worldwide Day of Play and National Childhood Obesity Awareness Month, and approximately 1,000 play events were held this past March in coordination with the annually held World Tennis Day.

“[Tennis sized right] is an exciting program that opens the door to myriad possibilities for the USTA and for America,” said Brian Hainline – NCAA chief medical officer and former USTA chief medical officer – in his book “Positioning Youth Tennis for Success.” “It is not only an ideal solution to help kids become physically active in a healthy and safe manner, but is also a wonderful opportunity to provide a multitude of pathways for the developing child.”

To meet those opportunities, the USTA has dedicated capital to ensure that there are facilities and programs that offer youth tennis across the country. To that end, the association has identified a number of “target markets,” delivering resources to those selected cities and establishing qualified instructors and advocates to help grow youth tennis from the grassroots level. Today, the number of local target markets has grown to more than 40 across the country.

The USTA has also worked with industry partners and retailers to increase the number of youth tennis racquets and balls that are available in stores throughout the U.S., with unit sales for youth tennis balls growing from just over two million in 2010 to more than five million in 2013. In addition, the website YouthTennis.com has been introduced to provide information on how to find the right equipment as well as to register those tennis providers who utilize tennis sized right for age and ability – providing one place for parents and kids to search when they want to get started in the game.

“It has made a significant impact on our community,” said Mike Woody – Midland Community Tennis Center executive director in Midland, Mich., on adopting tennis. “It has increased our programming and the number of new people coming to our facility. That has meant more money, better business and more kids playing tennis.”





The rise in popularity and acceptance of youth tennis has been felt beyond the tennis world. In recent years, youth tennis has teamed with First Lady Michelle Obama's "Let's Move!" initiative, and it has been featured at the White House Easter Egg Roll in addition to Nickelodeon's Worldwide Day of Play. The initiative has also served as one of the driving forces behind World Tennis Day.

"World Tennis Day is a celebration of our sport and a great platform to bring attention to the importance of getting kids active and ensuring a positive first experience in the sport," said Dave Haggerty, USTA president. "These efforts are part of USTA's longstanding commitment to increase access to the sport. If we reach children when they are young enough, they can learn to love physical activity and tennis for life."

Of course, the real proof of success isn't in the statistics or metrics. It's on the courts, where proper coaching and instruction allows children to learn and play the game with boundless enthusiasm, and in the stands, where parents see their kids develop and share their love for tennis.

It is these kinds of small steps that build a movement. And with the tools and resources provided by Coach Youth Tennis and a growing pool of eager players of all ages, there is no ceiling to how tennis can grow.



ROME, ITALY - MAY 14: Madison Keys of the USA in action against Simona Halep of Romania during day 4 of the Internazionali BNL d'Italia 2014 on May 14, 2014 in Rome, Italy. (Photo by Michael Regan/Getty Images)

## Psychophysiology and Performance

### Lindsay Thornton, Senior Sport Psychophysiologicalist, United States Olympic Committee

How do we know when athletes have appropriate self-regulation skills - including mental skills - but more than using mental strategies to improve physical performance? As athletes advance in their sport, we have a general idea of physical and technical/tactical skill development trajectories, as well as strength and conditioning milestones for being on track. Meeting milestones doesn't guarantee that an athlete will succeed, however it gives those who monitor the pipeline an idea of what they might expect in the next quad or beyond. We seem to know when athletes have sufficient self-regulation skills, describing them as 'good under pressure' or 'clutch performers,' and we know when their skills are not adequate or not employed appropriately, resulting in 'choking' or a 'deer in headlights' response.

Psychophysiology is a branch of psychology that centers upon the physiological bases of psychological processes, or in lay terms, what happens in the body and brain when we experience emotions and thoughts. The work in psychophysiology is guided by the psychophysiological principal, which states:

*"Every change in the physiological state is accompanied by an appropriate change in the mental and emotional state, conscious or unconscious, and conversely, every change in the mental emotional state, conscious or unconscious, is accompanied by an appropriate change in the physiological state"*

Psychophysiology offers a way to measure and teach self-regulation skills, and for the last year the USOC has invested in developing a training space for athletes to learn to enhance their skills through the use of feedback. The field of psychophysiology has been around for decades, but in the past technology was too bulky and expensive to be brought to the training field. After publicity around AC Milan's MindRoom and the use of psychophysiology training to reduce injury rates and improve performance, the concept caught on with other groups. Chelsea Football Club started training their development leagues, the US Army began offering training to soldiers and their families, the Vancouver Canucks developed a lab for their hockey players, Duke University created a teaching lab for surgeons, and Olympic Committees started offering training to athletes (this brief history is not comprehensive). The Canadians, Aussies, Norwegians, French, Koreans, and Chinese are all using psychophysiology, sometimes called biofeedback or neurofeedback, to quantify and teach self-regulation skills to their athletes. Last year, with the help of a grant from Citi, the USOC started offering training in Colorado Springs and Chula Vista, and this year a new training space will open within the new Ted Stevens Sport Services Center in Colorado Springs.

When I introduce the psychophysiological principle to athletes, they typically nod in agreement. When there is a change in physiology, this change is accompanied by a change in the way the



brain is working or the emotions experienced, whether you are consciously aware of it or not, and vice versa, thoughts and emotions, whether you are aware of it or not, change physiology. We experience the effects of the psychophysiological principle daily: we wonder about the outcome of a competition, if it will be good enough, if we will qualify, and so on, and immediately the heart rate increases and the palms sweat slightly, the muscles might tense and if we are in motion, have an influence on the biomechanical chain. Alternatively, when we adopt a confident posture, with our shoulders back and chest out, as we enter competition with the goal of creating a more positively toned mood state, we have different physiological processes in the brain and body, including perhaps a more optimal level of brain activation, where productive thoughts follow and we send a certain message to our opponents.

With technology, we can measure this interaction between the mind and body, with the goal of teaching athletes to more effectively regulate the two. The purpose of training is to help create awareness of internal processes that one does not typically exert conscious control over, and to provide feedback in a manner that an individual can learn to self-regulate or gain more refined control. For example, after breaking a rib, an athlete learns to tense the intercostals at rest to avoid painful movement. Breathing becomes more shallow than usual. Over time the rib heals, but the athlete might continue to maintain the excess muscle tension and shallow breathing. These patterns are inefficient and at rest can contribute to sympathetic (or the fight or flight response) activation. The athlete is often not aware of the change, but can easily modify his state by being shown his respiration pattern - from a stretch sensor on a respiration belt - and muscle activity - by measuring the surface level electrical output from the muscles. Feedback can be provided to the athlete in the form of respiration biofeedback and muscle biofeedback. Brain biofeedback, also called neurofeedback, feeds back the electrical activity of the brain that is associated with certain mental states, for example activity that is associated with an open and aware state, and activity that is associated with an over thinking or trying-too-hard state. When an athlete can see the objective measure of her mental state, she can begin to work through regulation strategies to refine her control over getting in or out of this state. Focusing, for example, is something that athletes practice with the assistance of neurofeedback. Information about the intensity and duration of the focused state is fed back to the athlete as they go through mental rehearsals. We carefully monitor athletes to guide their training in a way that best matches their sport demands.

When sport psychologists do research to better understand the psychological characteristics of highly successful athletes (for example Williams and Krane, 2001) the athletes report that they have the ability to self-regulate their arousal level, they have better concentration skills, an 'in control-but-not-forcing-it' attitude, and they use thought control strategies, and arousal management in order to get their mind ready to compete. In theory, athletes who have developed appropriate awareness and self-regulation strategies of arousal levels can come closer to replicating the states that lead to their best performance, compared to those athletes who do not have awareness or self-regulation strategies. It is often assumed that athletes know how to regulate their arousal, whereby they can move upwards on the arousal curve and get pumped up just as easily as they can move downwards and relax. Athletes may not systematically be taught relaxation skills, but we expect them to effectively manage their arousal levels: rest during time between heats, rest on an uncomfortable

airplane, fall asleep the night before a competition, and sometimes what is more difficult - fall asleep the night after a competition. With measurements of muscle, heart rate, respiration, and even finger temperature, athletes can have real time data on how effectively they are relaxing in a biofeedback training session. They can slow their breathing rate down to exert more control over their heart rate, this activity affects sympathetic and parasympathetic activation in the autonomic nervous system and can shift the body into a recovery state. As muscles relax, blood flow to the periphery improves, and finger temperature raises, again facilitating a recovery state.

In the past two decades, a number of studies have been conducted in sport identifying differences in psychophysiological patterns between experts and novices, and between individuals' better and worse performances. A simplification of the findings suggests that:

1. the same amount of work is accomplished by experts, but with less cortical/brain activation or effort than novices;
2. there is a reduction of activity in the left hemisphere of the brain during superior performances (interpreted as perhaps less thinking, less self-talk) and
3. performance is better if the athlete learns to become more "automatic" rather than remaining too cognitive.

Changes in brain activation can be measured with a sensor on the athlete's head, and when the athlete is given this information, he can begin to connect it to what the state feels like to him. He can practice entering and exiting, or replicating that state over and over again, just as he does his physical skills. Given that athletes want consistent, optimal performance under competitive circumstances, a practical intervention targets the creation of a stable psychophysiological state prior to task execution, which presumably can be learned and replicated for optimal performance. For team sports or sports where the athlete competes directly against his opponent, learning to enter the state where he can be most receptive to appropriate cues, to broaden and narrow attention, and make effective decisions would be helpful. Athletes from all sports can gain practice at 'resetting' their mind after a play ends or when recovering from a mistake. They can see if their self-talk strategies have the desired effect on their brain, or if they are creating excessive mental chatter. Athletes can do mental reps without wear and tear on their bodies. They can keep their mental timing fresh while their body recovers from an injury with objective data from imagery sessions. Biofeedback/neurofeedback training interventions are designed to teach athletes to transfer the practice of self-regulation from the training lab to practice. Simulated competitive demands are gradually introduced in training with the goal for athletes to be able to rely on their honed self-regulation skills during competitive pressure.

Psychophysiology is a tool that can be used in sport psychology to create opportunities for the athlete to practice self-regulation skills in real time, and have an objective measure of effort. The advance of technology has pushed psychophysiology to the 21st century and will give athletes, and their coaches and sport psychologists, a way to 'peer under the hood' and perhaps have a better understanding of how to effectively develop self-regulation skills to enhance performance and recovery. Stay tuned to the next OC for more on how psychophysiology training is designed to help improve athlete performance in high pressure competitions.





LONDON, ENGLAND - JULY 30: (L-R) U.S. Olympian Abby Johnston, Coach Drew Johansen and U.S. Olympian Kelci Bryant pose with their medals during their visit to the USA House at the Royal College of Art on July 30, 2012 in London, England. (Photo by Joe Scarnici/Getty Images for USOC)

The following is a transcript from the 2013 National Coaching Conference presentation by Olympian Abby Johnston and her coach Drew Johansen, moderated by Mounir Zok, USOC Sport Technologist.

**Mounir:** Talk to us about London

**Abby:** Making the Olympic team was the biggest highlight and London was icing on the cake. My teammate (Kelci Bryant) and I had to do the perfect dive and I remember the tense moments, but then there was overwhelming joy when I saw my name on the top of the scoreboard. London was incredible and it was an honor to represent our country. The whole experience during the games were intense moments, but then I recognized diving was something I had done for so long that I was able to get on the platform and perform. Being on the podium was something I had dreamed of for a long time. It was a surreal, out-of-body-type of experience, especially when I saw the flag rise.

**Mounir:** (to Drew) How did you deal with your athletes and how did you see yourself contributing during that event?

Drew: The hardest challenge was to be normal. I tried not to let my nerves or the moment allow me to act out of character. One thing we used to help Abby feel like the experience was normal was I got a huge picture of the pool drain that she looked at during the Olympic Trials in Washington. That was one of Abby's most recent top performances and I wanted her to remember what state of mind she was in when she saw that drain.

Mounir: How would you describe the pathway that led to becoming a top US diving coach?

Drew: What ultimately led to my success was staying true to who I am, my philosophies as a teacher in diving, and to mentor athletes through success and failure. Abby and I have been together for ten years and we drew strength from each other at the Games since it was the first Games for both of us.

Mounir: (to Abby) How do you manage to continue for so many years in a sport that requires endless energy and concentration?

Abby: I began as a gymnast and then a friend took me to her diving practice. When I first started, I had to correct some quirks, but the gymnast background provided me with an advantage. However, one day I decided to quit diving, but it was my competitive edge that brought me back to the sport.

Mounir: How did you become a diving coach?

Drew: I knew I wanted to be a coach since I was fifteen and when diving became my primary sport I realized that was what I would coach. My first coaching job was at Florida Atlantic when I was twenty so I was able to get quick experience working with athletes and planning seasons.

Mounir: (to Drew) Who was your mentor and made a difference in where you are today?

Drew: In the sport of diving, Vince Panzano, whom I was fortunate to spend time with at Ohio State, was there through my first Olympic Games. I was able to mentor under Xu Yiming, (Head Coach of Chinese Diving 1984-2000) and communicate with him throughout my career. My personal influences are my family, especially my mother, and the coaches I had in my younger years.

Mounir: (to Abby) Who are the people that contributed to where you are today?

Abby: Drew and I have built a relationship since I was thirteen. We went from him telling me what to do as a diver to a more reciprocal relationship. It has blossomed through my collegiate career. My family support was a huge help. My mom would hang out with me the night before meets and my dad provided comic relief. I also had support from USOC and Duke resources.

Mounir: (to Abby and Drew ) How impactful is the contribution from USOC resources on your performance? Drew, how was the interaction between the USOC and Duke resources that surrounded Abby?



Abby: There was a good blend between the two and everyone accepted both staffs. Jenn (Gibson), my nutritionist from the USOC, was always willing and accepting. Also being able to talk to Karen (Cogan), my sport psychologist from the USOC, about events unrelated to diving contributed to keeping a balance in my life. Having the flexibility to individualize what worked for us allowed me to be successful.

Drew: The services and manner in which they came were wonderful. We were able to tailor specific plans for each of my athletes. The USOC resources were the difference maker for each individual athlete.

Mounir: (to Abby) Illustrate what a typical day looked like for you over the past four years.

Abby: Looking back it was intense. Athletics were the main focus and then I had to fit in my academic goals. It was a stressful schedule going from practice to school then back to practice again. It is nice now having that pressure off and be a “somewhat” normal college student.

Mounir: Did it ever occur to you that this was getting over your head and you needed to make a real choice as to how you were going to move forward?

Abby: Many times were overwhelming and I would go to Drew and my parents when I was under a lot of stress. I questioned if it was worth the sacrifice for such a huge gamble to get to the Games. There were definitely times I wanted to quit, but my support team pushed me through it. It was crucial to have a balance so I did not lose my sanity, but there were moments that were out of balance.

Mounir: How important is it to have a balance not only as a technical coach, but also developing human relationships to push athletes to a place they had not even dreamed?

Drew: There is one word that sums it up, “Olympism”, which is the endeavor to blend sport, culture, and education. The knowledge of the sport is the same at the elite level, but it comes down to the other aspects in order to achieve balance. The challenge comes in knowing the whole individual and working to strike that blend. I have to think of that when driving the athlete because it is what must be done to maintain the balance. At the Games Abby, had done her dive over one hundred times, but had to be able to do it that one time and was able to because of her balance.

Mounir: (to Abby) What goes through your head when you get onto the springboard at the Olympic Games?

Abby: I dive my best when I am in the zone. At the Games, I was unaware of everything going on. I remained calm and looked at my partner, Kelci, and then we were ready to dive. I kept my routine and thought process the same like it was any other meet.

Mounir: How do you start picking one ritual?

Abby: Nerves begin to take over and every athlete begins to develop a ritual. It snowballs from meet to meet.

Mounir: Drew, do you have rituals of your own?

Drew: I have my seat that I pick out where Abby can see me when she comes up for air. During the competition I am always thinking one dive ahead so I know what to tell Abby about her next dive instead of the one she just performed. Recently I have changed part of my ritual and do not watch the event closely, which allows me to stay calm.

Abby: He was good at covering up his nerves for all of us.

Mounir: (to Abby) What is your relationship with Kelci? What is it you two needed to have together to insure getting a medal?

Abby: I was intimidated by her before she was my partner because she is an intense competitor. We had been mixing the top five divers together two years before the Games, but I finally said I wanted to stop and find a permanent partner. Once we decided to be partners it took our relationship to the next level. We began trusting each other and opening up and that was big for our success. We had found random similarities that brought us together and became close friends. There are few people who can relate to intense emotions so having her was an enormous help.

Mounir: How much time do you spend training together performing the same dive? What do you do when you are not together?

Abby: We would travel once a month and train together for four or five days. We adjusted to each other, but naturally we had similar style and technique. Both of us knew that we would be fine training together only once in a while.

Mounir: (to Drew) How important is it for coaches of synchronized teams to have a good relationship and understanding?

Drew: It is crucial. Team USA London was different and successful because we bonded as a whole team. My wife (Jenny Keim Johansen 1996, 2000), who had been to Olympic Games before, gave me insight to what the Olympic experience was and I used that to create an environment among the coaches and synchro teams. The coaches had strong relationships and communicated what the other synchro partner was practicing in order to ensure the synchro component was all together. After that it comes down to the quality of the dive and that is what brought us to the podium.

Mounir: What technology did you use that was crucial to your work? Where do you see it developing in your sport?



Drew: Video has become easy to manage, capture, and share and that is the most important. We created folders to share with other coaches and also sent phone videos to keep the synchro part together. Video has always been paramount to become a better coach and use as a teaching tool. In the future the ease of capturing and sharing video is going to improve. Some new concepts in place for divers training apart are measures of speed, rotation, and tempo.

Mounir: Performance analysts have been emerging in many sports. Do you see their expertise needed in diving?

Drew: Absolutely, and on many different levels. Diving is about fractions of seconds and that needs to be analyzed to help Abby improve the small changes. It is important to get information that can be used in an instantaneous manner to show the perfect dive we are trying to accomplish. These experts and technology can capture it more precisely than current video and then use it to show the differences in the fractions of the seconds.

Mounir: How do you think fellow coaches would react to having a big involvement of technologies in the training environment? What challenges will you and other coaches be facing?

Drew: Any technology can become cumbersome. We have to remember our methodology as a coach on how to explain and teach the sport. The ease of use of these technologies will become a requirement in order better our sport. However, the ease of use and affordability will be the biggest challenge.

Mounir: Abby, what is next for you?

Abby: I took the MCAT and am applying to medical school. Currently my diving career is on hold because of my shoulder surgery. I am in limbo and unsure if I will do medical school, diving, or both. As for now, I am spending time with my family figuring out my next move.

Mounir: Drew, going into your new position at Indiana University, what are the biggest challenges you are going to be facing?

Drew: I am fortunate that I got the position. The challenge will be to learn the culture of Indiana and blend it with my method of the sport. Another will be maintaining the level of excellence Indiana has in place. It is going to be intimidating, but I am excited for the challenge.

*(Mounir thanks Abby and Drew and opens up the floor for questions)*

Question: Drew, was it hard to shift coaching styles from when Abby was young and as she grew?

Drew: We grew together and so did my evolution as a coach. As I evolved and we moved into the collegiate sphere it was a natural progression. I gained new information along the way that streamlined my coaching and gave Abby the flexibility for school and practice.

Question: (to Abby) Can you elaborate more on the chemistry needed to gain a successful partner?

Abby: Trust and respect describe it the best. Kelci had a competitive mindset and our goals were similar. We each had a different philosophy on training and we accepted one another's. Those two together made us a good team and this only happened when we exclusively paired together. The sense of team and our bond is what helped get us to the podium.

Drew: The mixing and matching process is when Abby discovered Kelci was the perfect match. It was a difficult process, but it hardened both of them. The competition itself to get to the Games was great preparation.

Abby: It was similar to a matchmaking process, but trust and respect made us the better competitive team.

Question: (to Drew) How do you give an athlete visual perception feedback? How does Abby receive the feedback?

Drew: Each athlete is different. Abby would search videos of the best divers and study their dives. She brought it into the practice environment and had the video running and compare her dive with the skill of the other world class diver.

Abby: It was a dynamic collaboration. I would pick the best model and Drew would analyze the dive and give corrections.

Drew: It is about seeking out the language. You build a different language with each athlete depending on the method of teaching you use.

Question: Abby, how would you describe Drew's coaching style and share some examples?

Abby: He is focused on technique and used video a lot. He was incredible about making each athlete outline goals and then helped them come up with a plan. At thirteen he asked me if I wanted to go to the Olympics. I said yes, than he would not ask me again until the next year. He focused on the short term, but always considered my long term Olympic goal. He didn't play favorites, but valued and focused on each individual and their goal.

Question: (to Abby and Drew) How did you transition to your reciprocal relationship?

Abby: It happened organically. It was never forced just a natural progression.

Drew: At the younger age you teach discipline and skill, but as you move up they have to be pushing themselves and you keep drilling the foundation. Everyday had to be one hundred percent not matter the workout. The key is to gauge where the hundred percent is that day and not to exceed or under achieve it. I had to learn how to manage Abby's back issues in order to get her best at the trails and Games and that is where the reciprocal relationship grew.



Question: (to Drew and Abby) What has been the impact of synchronized diving into a previously individual sport? Abby, has it helped your individual diving and mental changes you had to make?

Drew: Synchro is still evolving as an international sport and it has driven the sport of diving to higher levels. It has put emphasis on the quality of dive and allowed us to try higher difficulty of dives. When divers take those risks it opens new doors. Synchronized diving has forced us as a country to become a team, which is helping Team USA.

Abby: It elevates the levels of dives and forces other girls to want to learn the dives in order to be partners with the best. This has made Team USA strong competitors.

*(Abby and Drew thank the audience)*



LONDON, ENGLAND - JULY 29: Kelci Bryant (Top) and Abigail Johnston of the United States compete in the Women's Synchronised 3m Springboard final on Day 2 of the London 2012 Olympic Games at the Aquatics Centre at Aquatics Centre on July 29, 2012 in London, England. (Photo by Clive Rose/Getty Images)

On the cover: Women's Elite Wheelchairs winner Tatyana McFadden (C) of United States poses with second placed Manuela Schar of Switzerland (L) and third placed Wakako Tsuchida (R) of Japan following the Virgin Money London Marathon on April 13, 2014 in London, England.

Cover photo by: Tom Dulat  
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