The value of aesthetic judgements in athletic performance

John Toner and Barbara Montero

Abstract: A considerable volume of research has explored spectators' attraction to the aesthetic aspects of sport. However, considerably less attention has been devoted to an evaluation of the aesthetic dimension of sport from the performer's perspective. We hypothesize that such evaluation can benefit athletic skill, and in the current paper substantiate and elucidate some of the types of aesthetic experiences athletes may undergo and consider their potential use in sports. We see this work as propaedeutic to future empirical work investigating the role of aesthetic self-evaluation in athletic performance.

Keywords: Aesthetics, bodily awareness, expertise, consciousness.

That Rodger Federer and other great athletes move in aesthetically valuable ways, is as plain as day to the spectator. What is not apparent from the spectator's point of view, however, is whether athletes such as Federer have aesthetic experiences of their own movements. Do elite athletes' movements feel graceful to the athletes themselves? And can athletes' judgements regarding the aesthetic qualities of their own movements ever be conducive to optimal athletic performance? Although some philosophers of sport have touched on such topics, there has yet to be an extensive investigation into the role of such judgements in athletic skill. We think that there ought to be and the present paper presents some first steps in doing so, steps that, we hope, will be propaedeutic to future theoretical and empirical work investigating the role of aesthetic self-evaluation in athletic performance.

In the following sections, we draw, in part, on phenomenological evidence and in part on a wide range of empirical evidence to support the view that experts retain a keen and acute bodily awareness as they practice and perform and that such awareness facilitates the type of aesthetic judgements we see as an important feature of embodied athletic skills. We start by explaining how it might be beneficial for athletes to focus on aesthetic properties of their movement and then proceed to outline prior research into aesthetics by philosophers of sport. Next, we conceptualise aesthetic experience in sport by arguing that attending to aesthetic qualities of their movement elicits similar feelings in athletes to those they might experience when perceiving art. We then devote considerable attention to elucidating a range of aesthetic qualities that athletes might attend to, and make judgements about, during skill execution. In doing so, we will extend our previous work on the importance of mindful bodily awareness in skilled action (see Toner,

Montero, and Moran, 2016) – by arguing that one relevant type of mindful bodily awareness for athletes is an awareness of the aesthetic qualities of their own movements. We hypothesize that athletes sometimes focus on the aesthetic properties of their actions—for example, on the grace or beauty of their bodily movements— and that such a focus can be beneficial to performance. In other words, we hypothesize that, for athletes, focusing on such things as the beauty of their own movements not only offers them aesthetical pleasure, and as such is intrinsically valuable, but also proves beneficial to performance, and as such is instrumentally valuable.

For certain sports where the goal is in part to create aesthetically pleasing movement, we can take for granted that the athlete's aesthetic self-evaluation is relevant to performance outcome. For example, a figure-skater may attend to the angle of her arm to ensure that she is creating an aesthetically pleasing, gently sloping curve. This focus presumably helps skaters to determine whether their actions are producing their intended aesthetic effect in judges as well as to inform ongoing aesthetic decisions (e.g., the languid aspect of this movement might be best complemented by something stronger next; Montero, 2006). Some question whether it is possible for figure-skaters, dancers and others who aim to create movements that are judged by others to be aesthetically valuable to experience the aesthetic qualities of their own movement (McFee, 1992). However, we assume, following Montero (2006), that performing artists, figureskaters and others who are engaged in explicit aesthetic pursuits can be aware of and evaluate their movements in terms of the beauty, grace, elegance and so forth of their own movements. Our concern here, however, is with the further question of whether aesthetic judgements may be useful in a wide variety of sports that *do not* have an explicit aesthetic component. A batter's ultimate goal, of course, is not merely to create an aesthetically pleasing swing. Baseball would look a lot more like ballet if that were the case. Nonetheless, we hypothesize that some of the proprioceptive information that baseball players and other athletes process has what seems best explained as an aesthetic component: the shoulder movements, for example, that a baseball player might be aware of when hitting a home run may be experienced as beautifully powerful or the arm swing as making the shape of a graceful curve.

If athletes experience their own movements aesthetically, interesting questions arise: might it be that one way an athlete may judge the effectiveness of her actions is by judging whether they embody their desired aesthetic properties? Correlatively, can a judgement that a swing has a graceful swoop to it, or that a throw exhibits a powerful streamlined beauty, for example, be conducive to achieving optimal performance? Athletes, we are assuming, focus on aesthetic properties of movements (their gracefulness, beauty, for example) when one of the goals is to produce an aesthetically pleasing form, such as in a gymnastics floor routine. But do they sometimes focus on aesthetic properties of movements when aesthetically pleasing form is not an explicit dimension of success? The hypothesis we hope to take some preliminary steps towards substantiating is that even when it does not matter in and of itself how athletes look when they make their wining moves, they still may aim for graceful, beautiful, elegant, or other such aesthetically pleasing moves. We argue that doing so might very well be one useful means for athletes to produce their desired effects. In other words, aesthetically pleasing form might matter instrumentally; it might matter since aiming at it might contribute to optimal performance. We limit ourselves to a discussion of what might be termed 'positive aesthetic experiences' whilst acknowledging that 'negative experiences' may also be of value to the athlete. For example, arguably, there could be an aesthetic dimension to the feeling of muscle exhaustion and arguably an awareness of this dimension is of use to the long-distance runner (Kupfer, 1995). However, we focus predominantly on aesthetic experiences that are associated with a positive affect, such as the experience of beauty.

Prior research into aesthetics by philosophers of sport

Although there has been little work on the question of whether athletes themselves are aware of the aesthetic properties of their own movements, some philosophers of sport have investigated the question of whether it is appropriate for spectators at a sporting event to adopt what has been referred to as an "aesthetic attitude," that is, to pay attention to the grace and elegance of an athlete's movements. On the one side, Best (1974) has argued that an aesthetic attitude is not appropriate when observing sport since sporting activities are defined by whether an individual/team has won or lost. Thus, the fact that a certain movement looks beautiful to observers could only be a by-product of achieving ends that demand skillful means. Other philosophers of sport – like Elcombe (2012), for example - argue that sport is at its core aesthetic since, as Elcombe sees it, it is in recognizing its beauty that spectators find meaning; in his words, "art as sport's ideal embodied metaphor widens the lens and deepens the significance [of sports]' (p. 214). Thus, there has been some interest in the idea that sport, at least from the spectator's point of view is rightly evaluated in aesthetic terms.

Although Elcombe addresses sport in the most general sense, other theorists have been keen to differentiate between 'aesthetic sports' (e.g., gymnastics, diving, figure skating; activities in which the aim cannot be specified in isolation from esthetic concepts such as grace) and 'purposive sports' (baseball, track and field; sports in which the aesthetic dimension is relatively unimportant as there are a huge variety of means by which one can achieve an end/one's goal). Not all see this dichotomy as mutually exclusive. Yeomans and Holt (2015), for example, noted that sports such as boxing can have elements that are purely *purposive* (i.e., when a knockout occurs) and elements that are purely *aesthetic* (i.e., when neither fighter has been knocked out and the judges must award points based on an assessment of the quality of a boxer's performance; for example, cleaner punches, better defense). Kupfer (1995) argues that fixating on the purposive nature of sport results in an activity losing meaning for the participant. He proposes that "aesthetic expectations are satisfied when scoring and victory complete excellent play" (Kupfer, 1995, p. 396) and this allows the joining of the useful (purpose-achieving) and the aesthetic (aesthetic execution of the play).

Aesthetic Experience

We argue that skilled performers sometimes evaluate their performance – in both training and competitive situations – by judging whether their movement possesses certain aesthetic qualities. But what is an aesthetic quality? This question is the subject of much debate (Beardsley, 1970; Goldman 1990; Sibley, 1965), and we cannot hope to identify what should be the correct application of this term. However, we can specify our central (though not exclusive) focus, which is that in paying attention to the aesthetic qualities of their own movements, athletes are focusing on something analogous to the type of qualities one might find in art (beauty, grace, power, precision etc.) and that the athlete's experience in such situations is analogous to the type of experience one might have in perceiving art: a type of pleasure that is valuable in and of itself. Restricting the concept of the aesthetic in this way undoubtedly makes our task more difficult in certain respects: There is a rich body of philosophical work on how we may take aesthetic pleasure in a wide range of activities, everything from washing dishes to walking to work (Kupfer 1983; Shusterman, 2012). And we think it is likely that the aesthetic pleasure of the highly skilled athlete could be elucidated by adopting tools and concepts from this body of work.

To some extent, this has already been done. Research by Maivorsdotter and Quennerstedt (2012) explores how people 'body' the world aesthetically as part of their participation in

sport and their finding that participants' 'meaning making' (i.e., how they make sense of their involvement) was partly determined by whether they had satisfying/non-satisfying aesthetic experiences of an activity. Aesthetic events, which they understood as transactions attached with emotional quality, they thought, stood out for participants from the constant flow of ordinary experience. Maivorsdotter and Wickman (2011) propose that although many of our everyday experiences are unlikely to be savoured in this immediate way, they act as "paths where aesthetic judgements are used to communicate whether and in what ways different courses of action lead to fulfillment (or not)" (p. 617). Whilst our focus is primarily on the evocative dimension of performance, we acknowledge that everyday training routines involve a certain degree of mundanity including the struggles or displeasures that we invariably encounter as we seek to extend our embodied capacities (see Hockey, 2013). Furthermore, Shusterman's work (2008, 2012) on the body-centred discipline of "somaesthetics" has emphasized the body's complex and crucial role in aesthetic experience. This inter-disciplinary practice aims to heighten our first-person awareness of our bodies in order to identify the habitual patterns that might be compromising the efficient execution of our desired movements so that we can learn to move "more successfully and with greater ease and grace" (2008, p. 166).

However, we choose to focus more narrowly on the aesthetic experience that is characteristic of the intrinsic enjoyment we have of art for three reasons. First, we take it as relatively uncontroversial that the concept of the aesthetic applies to our experience of art and thus in employing a narrow concept of the aesthetic, we should be able to sidestep to a degree the question of whether the type of experience we are hypothesizing is both employed by and is of use to athletes is, veritably, an aesthetic experience. Second, we think that there are significant similarities between the highly skilled athletes' and the highly skilled dancers' awareness of the aesthetic qualities of their own movements and as the literature on dance that we rely on (Montero 2006, 2016) employs a narrow concept of the aesthetic, it is natural to employ the same concept. Finally, and perhaps most importantly, as we see this work as preliminary to future empirical work on aesthetic awareness in sport, we hope to be relying on a concept of the aesthetic that can be readily conveyed to study participants and we are predicting that most athletes will be able to grasp the concept of the aesthetic when it is described as the kind of pleasurable experience you might have when looking at a great painting or watching a great ballet. Thus, our narrowing of the concept of the aesthetic, though it does make our current task more exacting, will, we hope, make future empirical work easier. (That said, we would also be happy to see further empirical work exploring athletes' aesthetic awareness, where this awareness is conceived of more broadly. At these early stages of investigation, the best path forward may be to let a thousand flowers bloom.)

We propose that *aesthetic judgements* (judgements about the aesthetic qualities of actions) are an extremely common feature of highly-skilled performers' everyday training and performance regimes. In exploring athletes' use of aesthetic judgement, we shall assume that proprioception can give rise to aesthetic experience. We acknowledge that this idea runs counter to the traditional view about aesthetic experience, according to which one cannot have an aesthetic experience of one's own body as perceived through one of the "lower senses" (any sense other than sight or hearing). This traditional view is brought out in Prall's (1929) assertion that "experience is genuinely and characteristically aesthetic only as it occurs in transactions with external objects of sense" (p. 28, 56; Hegel 1835/1975; Santayana 1896/1955). In the current paper, however, (following Korsmeyer 1999, Shusterman 2012, Montero 2016, and Smith 2015) we reject the idea that only vision and hearing lead to aesthetic experience. Indeed, we see our argument that all sports are at their core aesthetic as fodder for criticisms of the traditional view.

Bodily immersion and aesthetic judgement

One way in which aesthetic experience is facilitated is by what has been referred to as "bodily immersion" (Montero, 2016), which is the experience of being aware of, or as it is sometimes described by performers "in contact with," your entire body. Bodily immersion may not suffice for an aesthetic experience; there could be times in which one is fully aware of one's body without being aware of anything aesthetically valuable. Yet, following (Montero, 2016), we maintain that it can help enable aesthetic experience.

Physical training appears to facilitate such awareness. For example, after extended training, dancers are thought to develop a heightened awareness of their bodily movements via proprioception (Ramsay & Riddoch, 2001). In dance, where bodily movements may have aesthetic qualities (grace, power, precision and so forth), it has been argued that this type of bodily awareness is a means by which dancers can be aware of the aesthetic qualities of their bodily movements (Montero, 2016). Elite athletes are similarly thought to have (either because it has been developed or because it is innate) enhanced proprioceptive acuity, which, we would like to submit, allows for a form of bodily immersion that similarly provides a conduit to the aesthetic experience of the aesthetically valuable movements of their own bodies. Bodily awareness is also important not only for learning new skills but also for "identifying, analyzing, and rectifying our problematic bodily habits" (Shusterman, 2008, p. 13).

To be sure, athletes often focus on external factors—getting the ball in the hoop, for example. And we make no claim as to whether aesthetic experience occurs in these contexts, such as, the experience of seeing the arc of the ball as beautiful and whether athletes aim, to some to degree, to create such beauty (though we leave open these possibilities). Our present claim concerns the athletes' awareness of and judgements about aesthetic qualities of their bodily motions. And preliminary to this is the claim that athletes are in fact aware of and immersed in their own bodily movements.

There are numerous descriptions of bodily immersion in sport. For example, an elite trampolinist in Hauw and Durand's (2007) study sought to avoid injury (as a result of poor execution) by using kinaesthetic feedback to survey body position and the tautness and flexibility of the trampoline bed. Similarly, Nyberg (2015) found that elite freeskiers monitored their rotational activity during the in-flight phase of a jump so as to ascertain "whether they will be able to perform the trick the way it was intended without adjustments or whether they will need to make adjustments during the flight phase" (p. 115). In these cases, immersion is characterised by an attendance to certain cues, or kinesthetic sensations (see Ilundáin-Agurruza, 2015, for a similar argument relating to the role of 'kinesthetic attunement') during on-line movement control.

Yet are these *aesthetic* experiences? We posit that sometimes athletes are aware of the beauty, grace, and precision of their own movements and that these are aesthetic experiences because they involve an experience of an aesthetic quality. Occasionally, these qualities may be the very same qualities observers are aware of. As we pointed out, Federer's movements are often singled out as being aesthetically valuable by sports fans and the media. He seems to perfectly capture the quality of grace as understood by Herbert Spencer (1907) as movements "in which an economy of effort has been achieved" (p. 383). And, we would like to suggest that Federer, himself, when immersed in his bodily movements, may also be aware of his grace, elegance, and economy of effort. That said, it may be that, as with dance, what the spectator sees as aesthetically valuable does not overlap entirely with what is perceived as aesthetically valuable from the athlete's point of view. Not only may the athlete find faults that the spectator does not notice and that may

detract from the aesthetic value of the movement—a return in tennis may look effortlessly beautiful to a spectator but be experienced by the tennis player making the return as gruelingly difficult—but the athlete, because she has developed such a heightened awareness of her own movement, may be privy to certain valuable aesthetic properties that the spectator misses. That same tennis player, at another time, might be aware of the beautiful action of her arm powerfully moving through space, which is nonetheless occurring so quickly that the audience does not register it.

Some support for the view that skilled athletes have an awareness of aesthetic qualities during on-line action comes from Coelho, Kreft and Lacerda's (2014) phenomenological exploration of Taekwondo athletes' experiences engaged in combat. Athletes in this study emphasized the importance of performing movements in a manner which could give rise to beauty and pleasure. To do so, they sought to increase the difficulty and complexity of their attacking moves as this had the capacity to bring "great joy, it's almost a feeling of fullness... so if it's in the end of the combat it's something that endures, it's very good" (p. 85). Experiencing beauty through bodily action could only arise if they were attempting a challenging technique: "it has to be a movement that almost nobody can make, this makes it special....the mondollyo (kicks involving bodily rotations) can even lead to KO [knockout] if it is made right, and this is a beautiful movement" (p. 84). It is common practice for skilled performers to introduce obstacles during the course of their practice/training activities in an attempt to extend their current movement capacities. Nguyen (2017) argues that rock climbers often set such obstacles for aesthetic reasons. He discusses his own experience of overcoming one particularly tricky problem which required a gradual, delicate and extremely considered approach. When completed in the right manner it "feels unbelievably good – it feels like you're a thing made of pure precision, a scalpel of delicate movement, easing your way up the rock" (p. 10). Clearly, bodily immersion in skilled action can give rise to aesthetic experiences.

What, however, might be the benefit of this type of bodily immersion? Being present and focusing on what one is doing in contrast to letting one's mind wander is widely thought to be conducive to optimal performance/experience (Randall et al. 2014). Moreover, aesthetic pleasure from skilled bodily engagement, we would like to suggest, could be especially advantageous since it is likely to motivate focused attention on one's actions. This might be particularly useful during training where repetition might lead to boredom and a subsequent loss of focus. The desire to enjoy aesthetically pleasing objects, is sometimes even defined as an insatiable desire; in Bernard Bosanquet's words, "the aesthetic want is not a perishable want, which ceases in proportion as it is gratified" (1915, p. 4). Training, then, could be more readily prolonged if one never has one's fill of aesthetically satisfying experiences. A deep and powerful bodily immersion in a task/activity also characterizes the phenomenon known as 'flow'. To illustrate, Jackman et al. (2019) found that national hunt jockeys experienced altered physical perceptions during flow. These perceptions included distinct kinaesthetic feelings, lightness of touch and perceptions of balance.

The flow state is seen to represent a peak experience in which performers have a powerful sense of control over what they are doing. Not all flow involves bodily movement. A poet may experience flow when her command of the language is high and the challenge is great but not too great to make the task very difficult. However, we posit that bodily actions performed during flow are experienced as especially enjoyable when they emanate from an awareness of aesthetic properties of movement. Sometimes the body is rendered absent in accounts of flow (Dreyfus & Kelly, 2011). However, we propose that the feeling of 'absorption' typically reported

by performers experiencing this phenomenon does not mean that the body generally becomes inconspicuous or invisible. Although words may sometimes fail to retrospectively describe the bodily experience of flow, we posit that bodily self-awareness does not vanish during the flow-experience itself.

Conceptualizing flow as a state characterized by bodily awareness allows us to consider how it may lend itself to an aesthetic experience. Importantly, for both performing artists and athletes, the type of bodily immersion that facilitates awareness of the aesthetic components of one's own movements is important because one can derive a great deal of joy from executing complex skills with grace and precision; if one happened to be 'absent' during the experience this would not be possible. Coelho, Kreft and Lacerda (2014) found that Taekwondo athletes' not only concentrated on trying to successfully land complex and difficult kicks but that they sought to meet specific aesthetic criteria whilst doing so. For example, one of the athletes revealed that "with a good control of the distance, we are able to perform these more beautiful movements that are, normally, more difficult, more spectacular to perform, and, in this sense, we are much more able and, definitely, this contributes to my pleasant experiences" (p. 88). In addition, aesthetic judgements ensure that we remain present during this state and this enriches our experience by adding texture to it' (Colombetti, 2014, p. 130). And, as we've suggested, because aesthetic experience is particularly engaging and pleasurable, it may do this better than other experiences.

"Flying along"

According to Hockey's (2013) autophenomenographic data (i.e., findings that emerge from the detailing of one's lived experience of a phenomena), runners seem to be aware of numerous aesthetic qualities of their movements. As he explains,

When you have a really good run there is always plenty of push in it. There is always lots of power in the legs and you feel as if you are flying along, so it kind of builds on itself in a controlled way and you hit the rhythm and stay in it. When you are running like that the power inside gives you confidence, which gives you sort of more power to drive it forward" (Hockey, 2013 p. 135).

Consider the judgement that the runner feels as if he is "flying along." How should we understand this? Imagine a dance critic writing in a review that claims, "the dancers seemed to be flying along across the stage." You would want to see that performance; it must be beautiful (acknowledging of course that the critic might be favourably disposed to that type of dance as, indeed, might the person who is reading the critic)! In other words, you would understand the critic to be identifying an aesthetically relevant property of the dancer's movements. And, arguably, the dancers themselves could experience this as well; they could feel as if they were flying. But if the dancer's experience of flying, or, rather, seeming as if to fly, is aesthetically valuable, then there seems little reason to think that the athlete's experience is not aesthetically valuable as well. The point is that with running, as with dance, feeling as if you are flying along

¹ Is this an aesthetically relevant quality of the dancers' movements or is it a quality of the choreography? It could be either, though in most cases, presumably, it is both: a dancer will only look to be flying if the choreography suggests flying, but the choreography will only suggest flying if the dancer performs it in a way that makes it look as if she is flying. In either case, however, the attribution would seem to be aesthetically relevant.

² Perhaps not all experiences of "flying along" are aesthetically relevant. Perhaps if you were to be pushed out of an airplane, then you might feel as if you were flying along as you plummeted towards death. Yet there might not be anything aesthetically valuable in that experience.. But let's put such unpleasant thoughts aside.

seems to be an experience of an aesthetic quality. It seems to be an experience similarly relevant to, if not an instance of, the experience of beauty, and as such, it seems to be an experience that is valuable in and of itself.

For an experience to count as valuable in and of itself does not mean that it can't also be practically useful. When Michelangelo observed his work on the Sistine chapel, he may have experienced it as beautiful. This was aesthetically pleasurable in and of itself. But it also may have been practically useful: working on the painting until he had achieved the desired experience could have ensured that he'd be given further commissions. And the runner's experience of seeming-to-be-flying, arguably, also serves a purpose, as it can indicate whether a run is going well, or, indeed, whether it is going well enough so that one can afford, at crucial junctures, to push beyond any remnant of pleasure. As noted above, many theorists have argued that not all successful athletic movements are aesthetically pleasing to the athlete or spectator and nor have they any need to be. Indeed, supporters of this view might point to the numerous examples of highly successful performers who possess unorthodox techniques and yet who seem perfectly capable of 'winning ugly'. However, in outlining how certain aesthetic qualities serve a purpose internal to the game, Kupfer (1995) argued that "while many who play well lack in grace, their good performance is not achieved because of their awkwardness. It is rather because they have compensated for the lack of grace and manage to "get the job done" (p. 394). Closing out a tightly contested basketball game with a graceful jump and throw merely "discloses the function inherent in grace" (p. 394).

Power

Another quality that runners may be aware of and which is brought out by Hockey's data, is an awareness of power. Hockey mentions "power in the legs" and claims that "there is plenty of push" and that "the power inside gives you confidence." Is the awareness of such power an aesthetic experience? It would seem so. Again, when a dance critic comments that a dancer moved powerfully, this would seem to be aesthetically relevant. Alister McCauly writes in a review of the Alvin Ailey dance company, "[t]he texture of their dancing is powerful and juicy, brilliant in speed and marvellous in slowness." Their power is part of the artistry that one pays money to see and it is something the dancer can experience from a first-person perspective as well.³ And when dancers do, they are having an aesthetic experience. Similarly, we would like to suggest that the athlete's experience of power is also aesthetic.

Perhaps one might say that the two situations are significantly different. In the case of the dancer, but not in the athlete, creating the power is a conscious aim: the dancer aims at creating powerful arm gestures while the athlete aims at reaching the finish line and that any experience of power is simply an unintended by-product of this aim. But we do not think that this objection hits the mark. First off, even assuming that athletes do not aim at creating powerful experiences or aim to achieve a sense of flying-through-the-air, it is not clear what this shows. The objector seems to think that this would show that the experience of these qualities (power and seeming-flying) could not be aesthetic experiences. But why? When you go to an art gallery, you haven't aimed at creating experiences that have various aesthetic qualities. Rather, unless you are the artist observing your own work, you have aesthetic experiences of objects that you in no way aimed to create. Thus, it seems that one's aim is not at issue: even if the athletes did not aim

³ As with the example of seeming-flying, the power perceived from the dancer's point of view might not always line up with the power perceived from the audience's point of view. For example, sometimes one might feel very powerful as one creates a movement that is intended to look weak.

to create movements that feel powerful, their experience of power can count as an aesthetic experience.

Beyond this, we would like to suggest that sometimes athletes do aim to create such experiences. Perhaps thinking of creating a powerful swing, or stroke, or push off can be useful. For example, aiming for an aesthetically satisfying experience of power may be one way in which athletes focus on cue words. Athletes sometimes use cue-words to focus thought on important components of their skills. For example, a swimmer might think: hips. And this simple word succinctly captures a great deal of what the swimmer wants to do with her hips while swimming. A cue word, such as hips, does not specifically direct one's attention to creating aesthetic qualities in one's movement. But a cue word such as power could; it could direct one's attention to creating powerful movements. And this can be useful if powerful movements, in the context at issue, are those that work best. In this way, the aesthetic experience of power could be conducive to optimal performance.

Rhythm

The third feature of Hockey's quote that we would like to focus on concerns rhythm. Hockey tells us that in a good run: "you hit the rhythm and stay in it." And we would like to suggest that, at least at times, in being aware of the rhythm of your movement, you are aware of certain aesthetic features of the rhythm. Until recently, the topic of the aesthetics of rhythm had been largely ignored in analytic philosophy, or as Judge (2016), puts this point, Philosophers have no rhythm. However, as recent literature suggests, the idea that rhythms can have aesthetically valuable qualities is uncontroversial. If anything has aesthetic value, music does. And, arguably, for many pieces of music part of their aesthetic value depends on their rhythms: Bach's Well-Tempered Clavier, Stravinsky's Rite of Spring, Scott Joplin' Maple Leaf Rag are all aesthetically pleasing in part because of their captivating, surprising, or complex rhythms.

Perhaps just as uncontroversial is that bodies can move rhythmically. Take Kupfer's (1995, p. 403) analysis of the importance rhythm plays in the athlete's experience of movement:

Isolated with and within his body in its environment, the performer is free to appreciate the rhythms he makes with it. The runner, for instance, can appreciate from the "inside" the pattern his arm, leg, and breath movement creates. For him, shifting, breathing, and muscular exertion are viscerally felt and heard, whereas spectators can only infer this experience from what they see.

Rhythm in bodily movement has been defined as the "temporal pattern apparent in a movement or set of movements and whose constituent parts are relatively stable" (MacPherson, Collins, & Obhi, 2009, p. S48) It can occur when bodily movements match the rhythm of music or create counterpoints to it. And it can also occur without the accompaniment of music. In fact, according to proponents of the Dalcroze Method (a form of music education that trains students to become attuned to the rhythm of music and to express what they hear in movement; Jaques-Dalcroze, 1967), the experience of moving rhythmically is more fundamental then our experience of auditory rhythm and, thus, should be taught to music students priori to, or at least in conjunction with, their attempts to learn to play an instrument rhythmically (Greenhead & Habron, 2015).

What, however, is the nature of athletes' awareness of the rhythm and can it be considered an awareness of an aesthetic quality of their movements? An awareness of rhythm is believed to

play a crucial role in both the acquisition and maintenance of complex motor skills. For example, athletes engaged in sports that involve running sometimes, during training, work on the rhythm of their breathing where they consciously focus on, say breathing in for three counts, out for two. But it is not clear that such awareness constitutes an awareness of any aesthetic properties. For example, one takes aesthetic pleasure in the beautifully complex rhythm of Javense Gamelan music. But could something as simple as the rhythm of breathing be aesthetically valuable for an athlete? We think it may be if one accepts that a simple, yet deliberate rhythm, such as the rhythm of hip-hop music, can be aesthetically valuable. Just as a drummer might find aesthetic pleasure when focusing on keeping a simple steady beat, we think that an athlete, too, might find aesthetic pleasure in the rhythm of breathing. And although there is invariably an automatic element to breathing, breathing is also something athletes work on and do deliberately. Indeed, many athletes devote considerable time to learning how to breathe in a manner that facilitates performance. After winning the third Olympic gold of her career at the 2016 Rio Olympics, the British cyclist Laura Trott revealed that breathing techniques helped her to think only "about what you're doing in that very moment and not allowing your mind to run away with worries about past events and those in the future (Tweedy, 2016)". There is also empirical evidence (see Xiao Ma et al. 2017) to suggest that diaphragmatic breathing can improve sustained attention, affect and reduce cortisol levels (a purportedly objective measure of physiological stress) with healthy adults.

We hypothesize that, in addition to being aware of the rhythm of their breath, athletes are aware of the aesthetic properties of the rhythm of other aspects of their movements—such as a golfer's swing or a swimmer's stroke—which can be rightly categorized as aesthetic experiences during tournaments. Again, in looking at the rhythm of swimming, one finds a simple rhythm. And again, one might wonder how the simple "one, two, one two" rhythm could be aesthetically valuable. But like the deliberate steady rhythm of breathing or of a drum beat, we think it is possible to be aesthetically aware of such a simple rhythm. Beyond this, however, we think that there is a way in which the rhythm of swimming is more complex than this since it involves a complicated interplay between all muscle groups. Thus, the type of aesthetic value at stake may be similar to that of a highly coordinated symphony. For some pieces of music, the rhythm of each musical line for the individual players might not be that dazzling but when they play together the rhythm is stunning. The athlete's body, we posit, is the symphony and, moving their arms, legs, head, hips, hands, feet and so forth in temporal synchrony as they perform complex tasks provides aesthetic pleasure.

There is some empirical evidence supporting this view. Researchers have suggested that rhythmic entrainment, or the process by which attention becomes coupled with a rhythmic stimulus, elicits affective mechanisms (McGuinness & Overy, 2011; Trost, Labbe, Grandjean, 2017). Our claim is that affect is, at times, aesthetic. Such coupling can also occur between bodies and unfold through movement. He and Ravn (2017) found that haptic sensations play an important role in developing elite sport dancers "shared intentionality" whereby moving together forms a practical way of understanding each other. These feelings of connection or entrainment proves crucial in "maintaining reciprocal engagement, but also in actively (re-) working and (re-)shaping their movements" (p.22).

We further suggest that, because the awareness of the aesthetic properties of the rhythm of their movement is pleasant, such awareness may be beneficial since it may compel athletes to maintain the rhythmicity of their movement and to develop an awareness of when they have 'lost' their rhythm. Indeed, an absence of rhythm (i.e., the presence of temporal irregularities in

movement patterns) has been proposed to characterize inefficient or sub-optimum movement performance (MacPherson et al. 2009). Karageorghis et al. (2013) found that swimmers swam faster in two experimental trials (where participants listened to motivational and oudeterous music at 130 bpm) compared to a no-music control condition and claimed that these results may be attributable to 'rhythmic entrainment' whereby the music had a metronomic effect and slightly increased the participants' stroke rate. Qualitative findings would appear to support this hypothesis as a number of the swimmers revealed that music was used as a rhythmical stimulus. This finding is in line with those from studies in ballet (e.g., Côté-Laurence, 2000) and tennis (e.g., Söğüt, Kirazci, & Korkusuz, 2012) which revealed that the processing and control of rhythmical elements of movement has a significant impact on learning and performance. Rhythmical cues may exert this effect by priming the activation of brain structures involved in movement execution. Together, this body of evidence reveals that remaining aware of one's rhythm not only has an aesthetically valuable quality but that it enhances performance proficiency.

"Feeling right"

It could be that the aesthetic qualities that athletes are aware of, outstrip those that they cannot readily describe. And we would like to suggest that sometimes athletes' claims to the effect that a certain movement "feels right" are indicative of such a situation. Ravn (2010) used this term to describe how ballet dancers evaluated whether they were felt 'placed and aligned' in their body as they performed complex moves. Similarly, Ravn and Christensen (2014) found that an elite golfer placed important emphasis on 'listening to her body' and ensuring that her movement felt right and that this was an important means of enhancing her skill during training. We argue that "feeling right" represents a general aesthetic evaluation that is commonly used by highly-skilled performers during both practice and competitive performance. It feels right, we would like to suggest, because it hits the aesthetic sweet spot. What exactly this is might not be easy to quantify because the years of training have enabled skilled athletes to chunk vast amounts of information about their skills into higher level concepts; "smooth," or "streamlined," or "like a torpedo" are aesthetic concepts that might capture a decade of information about how to perform a skill. And sometimes, though not always, the details fade away.

There appears to be a considerable volume of empirical evidence indicating that skilled performers make these types of aesthetic judgments. For example, Aggerholm and Larsen (2017) conducted a phenomenological analysis of parkour (i.e., the physical discipline of training to move over and through any terrain using only the abilities of the body) practitioners' bodily experience of practicing and performing acrobatic tricks. Their findings revealed that the manner in which movements were performed was of crucial importance to these performers. That is, if they were faced with the challenge of jumping over the gap between two roofs and landing on the edge of the target roof one way in which they would ensure their success was by focusing on an aesthetically valuable quality of the landing. For example, the participants spoke about the need to perform the movement 'cleanly' – in other words, with the level of control and ease they were striving for. Importantly, while there is a functional component to this trick 'making it clean' constitutes a subjective and bodily sense of performing the task just right.

Similarly, Hockey (2013) revealed that an important aesthetic dimension of distance running was seeing and hearing 'The Going'. Runners develop a kinaesthetic awareness of their posture and often take a fleeting glance at its reflection in house windows or shop fronts as they move past. This process involves comparing the relationship between an internal image (forged after thousands of training miles), bodily sensations and the reflected image. We would like to

hypothesize that with highly skilled runners, such judgements are sometimes, indeed, we think often, informed in part by their aesthetic experience of their posture. In other words, when the posture is judged as satisfactory, when it's judged as "feeling right," it is in part because the posture is judged as, for example, regal, or balanced or streamlined. And if an athlete notices that such desired aesthetic qualities are lacking, the athlete will take measures to embody them. Aesthetic judgements about movement "feeling right" are of particular importance when performers find themselves having to practice repetitive activities in an effort to refine or alter deeply embedded movement patterns. The training routines of any elite performer inevitably include a certain amount of repetition (e.g., as one seeks to refine a specific aspect of skill) and while these activities are vital for skill advancement they are likely to become stultifying on occasions. Making aesthetic judgments about our movement proficiency may allow us to remain interested in the performance of these relatively mundane activities. More specifically, maintaining such awareness not only brings meaning to the experience but keeps the act alive and prevents us from performing these tasks in a mechanical and unthinking manner (Dewey, 1934).

Furthermore, in seeking to improve their skill, proficient performers actively look for challenges which will create disequilibrium or put a 'wrench in the works'. As such, judgements about whether movements have the desired aesthetic qualities may serve to invigorate the performer and encourage them to test the boundaries of their performance. Although some authors have argued that performers should avoid tweaking or experimenting with their technique during practice (as this will disrupt the execution of proceduralised skills; see Masters & Maxwell, 2008) we believe this approach may inspire performers to identify affordances or opportunities for change - a prerequisite for continuous improvement in any skilled activity (see author, 2014). Aesthetic pleasure may also be gained by working through a problem - of feeling that one has improved one's technique or form and that one is capable of performing a complex skill with an increasing degree of fluency. According to Dewey, it is out of this process of adaptation and re-adaptation that an aesthetic consciousness can be formed. Moments of aesthetic joy or fulfillment are, in Dewey's words, brought about when we "punctuate experience with rhythmically enjoyed intervals". These rhythmical intervals involve periodic injections of vitality or "constant variation" and this seems to characterize the process of continuous improvement amongst athletes.

In a similar vein, Montero, Toner, and Moran (2019) argue that aesthetic judgements/ experience can be in themselves pleasurable and interesting, and, as such, are conducive to longer practice sessions. Moreover, not only might they motivate continued training, but, in line with Anders Ericsson's theory of deliberate practice (Ericsson, Krampe, & Tesch-Romer, 1993), according to which excessive proceduralisation (i.e., the enemy of aesthetic experience) leads to aborted improvement, continuing to make aesthetic judgements may jumpstart an athlete, dancer or other highly skilled individual's technical or artistic development.

Conclusion

One of the goals of the current paper was to explore whether athletes have aesthetic experiences of their skills and, if they do, whether such experiences can be beneficial to the practice and performance of their skills. We have presented some evidence suggesting that athletes do experience some of their movements as aesthetically valuable and have argued that such judgements can facilitate athletic excellence (e.g., by allowing performers to identify sub-optimal features of performance or to identify when they are moving in a desirable manner). Our analysis

has focused largely on the aesthetic experience of individual-sport performers but we recognise that there is likely to be a haptic dimension to aesthetic experience (a reciprocity of movement; see He & Ravn, 2017) and that researchers should explore the role of the aesthetic in team sport. We also recommend that researchers explore aesthetic experiences of a negative valence (e.g., ugliness, graceless etc) and how these might contribute to the performer's experience.

We argued that performers are accustomed to evaluating their movement proficiency on the basis of an evaluation of the aesthetic properties of their movement. We proposed that these judgements may serve a transformative function and hold the capacity to lift us above the humdrum and routine. The phenomenological evidence presented in the current paper suggests that an exploration of aesthetic experience is important because it indicates that athletes do not necessarily consider their movement in terms of some external function or purpose it may serve and one should not assume that they evaluate its success purely in terms of whether it achieved some extrinsic end. Instead, we have argued that athletes sometimes evaluate it by determining whether it has a certain desired aesthetic quality, whether it has power, or a feeling of flying, beauty, or elegance. We realize that addressing the aesthetic quality of athletic practice from the athlete's point of view presents some challenges, as it is not readily amenable to the type of objective external measurements that one would like to ground one's theory in. However, given that, as we have argued, aesthetic evaluation can be a beneficial part of athletic skill, we think it would be worthwhile to develop new measures to test our view. And we hope that this work inspires future theoretical and empirical research investigating athletes' aesthetic experiences of actions as they seek to refine and improve their embodied capacities.

References

Aggerholm, K., & Højbjerre Larsen, S. (2017). Parkour as acrobatics: an existential phenomenological study of movement in parkour. *Qualitative Research in Sport, Exercise and Health*, *9*, 69-86.

Beardsley, M. (1970). The Aesthetic Point of View. Metaphilosophy, 1, 39-58.

Best, D. (1974). The aesthetic in sport. The British Journal of Aesthetics, 14, 197-213.

Bosanquet, B. (1915). Three lectures on aesthetic (London: Macmillan and Co.).

Coelho, R. C., Kreft, L., & Lacerda, T. (2014). The Aesthetic Experience of the Combat athletes in Taekwondo. FairPlay, *Revista de Filosofia*, *Ética y Derecho del Deporte*, 2, 81-104.

Colombetti, G. (2014). The feeling body: Affective science meets the enactive mind. Cambridge, MA: MIT Press.

Côté-Laurence, P. (2000). The role of rhythm in ballet training. *Research in Dance Education*, 1, 173-191.

Dewey, J. (1934). Art as experience. Rahway, NJ: The Barnes Foundation Press.

Dreyfus, H., & Kelly, S. D. (2011). *All things shining: Reading the Western classics to find meaning in a secular age.* New York: Simon and Schuster.

Elcombe, T. L. (2012). Sport, aesthetic experience, and art as the ideal embodied metaphor. *Journal of the Philosophy of Sport*, 39, 201-217.

Ericsson, K. A., Krampe, R. T., & Tesch-Römer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review, 100*, 363-406.

Goldman, A. H. (1990). Aesthetic qualities and aesthetic value. The Journal of Philosophy, 87, 23-37.

Greenhead, K., & Habron, J. (2015). The touch of sound: Dalcroze Eurhythmics as a somatic practice. *Journal of Dance & Somatic Practices*, *7*, 93-112.

Hauw, D., & Durand, M. (2007). Situated analysis of elite trampolinists' problems in competition using retrospective interviews. *Journal of Sports Sciences*, *25*, 173-183.

He, J., & Ravn, S. (2018). Sharing the dance–on the reciprocity of movement in the case of elite sports dancers. *Phenomenology and the cognitive sciences*, *17*, 99-116.

Hegel, G. (1835/1975). Aesthetics: Lectures on Fine Art, 2 vols., trans. T. M. Knox. Oxford: Clarendon Press.

Hockey, J. (2013). Knowing the 'going': the sensory evaluation of distance running. *Qualitative Research in Sport, Exercise and Health*, 5, 127-141.

Ilundáin-Agurruza, J. (2015). From clumsy failure to skillful fluency: A phenomenological analysis of and Eastern solution to sport's choking effect. *Phenomenology and the Cognitive Sciences*, 14, 397–421. http://dx.doi.org/10.1007/s11097-014-9408-5

Jackman, P. C., Fitzpatrick, G., Lane, A., & Swann, C. (2019). Exploring bodily sensations experienced during flow states in professional national hunt jockeys: a connecting analysis. *Qualitative Research in Sport, Exercise and Health*, 11, 92-105.

Jaques-Dalcroze, E. (1967). Rhythm, Music & Education. London & Whitstable: The Riverside Press Ltd.

Judge, J. (2016). Why do philosophers have no rhythm? The Philosophers' Magazine, 72, 65-66.

Karageorghis, C. I., Hutchinson, J. C., Jones, L., Farmer, H. L., Ayhan, M. S., Wilson, R. C., Rance, J., Hepworth, C. J., Bailey, S. G. (2013). Psychological, psychophysical, and ergogenic effects of music in swimming. *Psychology of Sport and Exercise*, *14*, 560-568.

Korsmeyer, C. (1999). *Making Sense of Taste: Food and Philosophy*. Ithaca, NY: Cornell University Press.

Kupfer, J. (1995). Sport – the body electric. In W.J. Morgan and K.V. Meier (Eds), *Philosophic inquiry in sport* (pp. 390–406). Champaign, IL: Human Kinetics.

Kupfer, Joseph, 1983, Experience as Art: Aesthetics in Everyday Life, Albany: SUNY Press, 1983.

MacPherson, A. C., Collins, D., & Obhi, S. S. (2009). The importance of temporal structure and rhythm for the optimum performance of motor skills: A new focus for practitioners of sport psychology. *Journal of Applied Sport Psychology*, 21(S1), S48-S61.

Maivorsdotter, N., & Wickman, P. O. (2011). Skating in a life context: examining the significance of aesthetic experience in sport using practical epistemology analysis. *Sport, Education and Society, 16*, 613-628.

Maivorsdotter, N., & Quennerstedt, M. (2012). The act of running: a practical epistemology analysis of aesthetic experience in sport. *Qualitative Research in Sport, Exercise and Health*, 4, 362-381.

Masters, R., & Maxwell, J. (2008). The theory of reinvestment. *International Review of Sport and Exercise Psychology, 1*, 160-183.

McFee, G. (1992). Understanding Dance. New York: Routledge.

McGuiness, A., & Overy, K. (2011). Music, consciousness and the brain. In D. Clarke, E. F. Clarke (Eds), *Music and consciousness: Philosophical, psychological, and cultural perspectives* (pp. 245-271). New York: Oxford University Press.

Nyberg, G. (2015). Developing a 'somatic velocimeter': the practical knowledge of free skiers. *Qualitative Research in Sport, Exercise and Health*, *7*, 488-503.

Nguyen, C. T. (2017). The aesthetics of rock climbing. *The Philosophers' magazine*, 78, 37-43.

Prall, D. (1929). Aesthetic Judgement. New York: Crowell.

Randall, J. G., Oswald, F. L., & Beier, M. E. (2014). Mind-wandering, cognition, and performance: A theory-driven meta-analysis of attention regulation. *Psychological Bulletin*, *140*, 1411.

Ramsay, J., & Riddoch, J. (2001). Position-matching in the upper limb: professional ballet dancers perform with outstanding accuracy. *Clinical Rehabilitation*, *15*, 324-330. doi. org/10.1191/026921501666288152

Ravn, S. (2010). Sensing weight in movement. *Journal of Dance & Somatic Practices*, 2, 21-34.

Ravn, S., & Christensen, M. K. (2014). Listening to the body? How phenomenological insights can be used to explore a golfer's experience of the physicality of her body. *Qualitative Research in Sport, Exercise and Health*, 6, 462-477.

Santayana, G. (1896/1955). The Sense of Beauty. New York: Dover Publications.

Shusterman, R. (1997). The end of aesthetic experience. *The Journal of Aesthetics and Art Criticism*, 55, 29–41.

Shusterman, R. (2008). *Body Consciousness: A Philosophy of Mindfulness and Somaesthetics*. Cambridge: Cambridge University Press.

Shusterman, R. (2012), *Thinking through the Body: Essays in Somaesthetics*. Cambridge: Cambridge University Press.

Sibley, F. (1965). Aesthetic and Nonaesthetic. The Philosophical Review, 74, 135-159.

Smith, B. (2015). The Chemical Senses. In M. Matthen (Ed.), *The Oxford Handbook of Philosophy of Perception* (pp. 314-351). Oxford: Oxford University Press.

Söğüt, M., Kirazci, S., & Korkusuz, F. (2012). The effects of rhythm training on tennis performance. *Journal of Human Kinetics*, *33*, 123-132.

Spencer, H. (1907). "Gracefulness", in *Essays: Scientific, Political, and Speculative, Vol. II*, (New York: D Appleton and Co.): 381-386. Retrieved from Google Books.

Trost, W., Labbé, C., & Grandjean, D. (2017). Rhythmic entrainment as a musical affect induction mechanism. *Neuropsychologia*, *96*, 96-110.

Tweedy, J. (2016). Meditating their way to medals! Did a mindfulness app help Team GB win their most successful haul ever? Retrieved from https://www.dailymail.co.uk/femail/article-3777911/ Meditating-way-medals-Did-mindfulness-app-help-Team-GB-win-successful-haul-ever.html

Ma, X., Yue, Z. Q., Gong, Z. Q., Zhang, H., Duan, N. Y., Shi, Y. T., Wei, G. X., & Li, Y. F. (2017). The effect of diaphragmatic breathing on attention, negative affect and stress in healthy adults. *Frontiers in Psychology*, *8*, 874.

Yeomans, M., & Holt, J. (2015). Purposive/Aesthetic Sport: A Note on Boxing. *FairPlay, Revista de Filosofia, Ética y Derecho del Deporte, 3*, 87-95.