Chasing Giants: An Ethnography of Developments in Speed Skating

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Abstract

In this ethnography I examine the many developments of speed skating, from the history of the sport, to the construction of the Olympic Oval and the development of young athletes seeking to make the Canadian national team. I also survey the development of sport studies, situating my research within almost a century of scholarship on play, games and sport. I account for these developments with an overarching interest in continuity and change, considering the processes and events that deliver particular historical moments, and the ways in which the past becomes a resource for the future. Throughout, I explore relationships between people, practices, ideas, material objects and formal organizations. In so doing, I draw on classical oppositions within social theory and the study of sport, such as structure and agency, or ritual and record. These contradictions serve as productive tensions, enabling and enriching one another, and framing the specific transformations of times, spaces and bodies that I document. Lastly, I conclude by offering some commentary on sport as it relates to play, routine practice and modernity, arguing that for those who chase giants, both their work and their world remains unfinished.
This thesis is original, unpublished, independent work by the author, Sarah Elizabeth Jacobs.

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List of Abbreviations in Sport and Speed Skating

ACD    Advanced Coaching Diploma
BMI    Body Mass Index
CASSA  Canadian Amateur Speed Skating Association; now SSC
CODA   Calgary Olympic Development Association
CSI    Canadian Sport Institute
CS4L   Canadian Sport for Life
DPS    Distance Per Stride
FIMS   *Fédération Internationale de Medicine Sportive*
FINA   *Fédération Internationale de Natation*
IAAF   World Athletics (previously known as the International Amateur Athletic Federation and International Association of Athletics Federations)
IF     International Federation
IOC    International Olympic Committee
ISU    International Skating Union
ISUA   International Skating Union of America
IST    Integrated Support Team
KNSB   *Koninklijke Nederlandsche Schaatsenrijders Bond*
LTAD   Long Term Athlete Development Plan
NOC    National Olympic Committee
NSA    National Skating Association; now British Ice Skating
NSO    National Sport Organization
PB     Personal Best
SFL    Super Fucking Low
SSC    Speed Skating Canada
To feel one’s self carried off with the swiftness of the arrow and the graceful undulations of the bird in mid-air on a smooth, resplendent, sonorous, and perfidious surface; to give one’s self, by a simple movement of the body, and, so to speak, nought but one’s will for a rudder, all the motions of a bark on the deep or of an eagle soaring in the blue heavens, was for me and would yet be, if I did not respect my own age, such an intoxication of the senses, and produced such a voluptuous dizziness in the brain, that I cannot think of it without emotion.

Alphonse de Lamartine, reflecting on skating in his youth, (Les Confidences: Confidential Disclosures, 1949, pg. 72-3)

A General Accounting

As a master’s student, I received a great piece of advice, “write your conclusion first.” That guidance served me well then. If only this dissertation had wielding to such assembly. Instead I found myself writing and rewriting arriving at a conclusion (and a title), only near the end of the process. Writing is a form of analysis, which in this case proved invaluable, as I attempted to condense months of research into a single document. Invariably some things remain left out. As is often enough the case with ethnographic fieldwork, some experiences are hard – near impossible – to put into words. And some things should remain where they were found, out of respect to those who kindly welcomed me to hang around and ask questions for so long. But none of those things would alter the core of this text. In the analysis presented here, I arrive at a tracing of the developments within speed skating that plays with notions of time and space. This is not where this research started out, but contentedly, where it ended up.

Going in Circles (or is it Ovals?)

My memories of past fieldwork in a dialysis ward are filled with the sounds, sights and smells of near-death. Of bodies reclining in submission, as dialysis machines whir, exchanging poisoned
blood for clean. Of people waiting for donor kidneys, hopeful for life and fearful of death and grateful for the technological advances that may save them. Of calling to arrange an interview only to learn that I wasn’t talking to a participant’s wife, but to his widow. Medical anthropology offers many poignant research projects that challenge our understandings of the bounds and limits of humanness. But such research demands an emotional labour that I didn’t feel I could give this time.¹ As I considered applying to a PhD program, I knew I wanted a topic less immediately sad. In many ways, high-performance sport presents a flip side to medical anthropology’s study of the body, science and technology. Rather than efforts directed at returning ill bodies to health, techno-scientific interventions within sport render healthy bodies more productive, more capable, more remarkable.²

I originally conceived of this project as a study of doping in sport. I had read numerous analyses that considered doping as deviance or as inherent within sport’s moral code (e.g. Beamish and Ritchie 2006; Butryn 2002; Hoberman 2005; Lentillon-Kaestner 2015; Loland 2002; McNamee 2008; Miah 2004; Waddington and Smith 2009).³ Well, it couldn’t be both, could it? With no ethnographic study on the matter, a good case could be made for a comprehensive and sensitive study of performance enhancement writ large – the permitted and illicit. After some more thought, this developed into a study of permitted performance enhancement; I assumed that studying one side of the coin would necessarily reveal the other. Refinement of this idea led me to a literature focused on training bodies, developing and

¹ As I thought about coming home to my young son after a day in the hospital, I decided I needed a project better suited to my familial duties.
² Both medicine and sport work to perfect bodies (Lo 2012). Enhancement interventions exist within both fields, aiming to make bodies more. But the worth of enhancement within medicine is debated (Hogle 2005). No one in high-performance sport doubts that getting better is, well, better. The only debates are about the legitimacy of the methods employed for achieving enhancement.
³ And some suggest that the rules have become so complex, that inadvertent rule infractions occur (see Hon and Bottenburg 2017).
displaying expertise, and learning craft. Doping began to look only superficially sexy – scandals often have rather dull underpinnings. But a consideration of developing athletes opened me to a rich literature on skill, cunning, science, mind, body, and technology.

I eyed speed skating, mostly for convenience. I knew one of the best facilities in the world, the Olympic Oval, was located on the University of Calgary campus enabling a local study that would include men and women. I also knew that speed skaters were pretty amazing athletes, even by the standards of high-performance sport. Regardless of the distance skated, it takes strength and endurance to succeed. I knew these things because I have an aunt who competed at two Olympic Games as a speed skater (she won a silver medal) and who is still involved in Olympic sport. I thought she may be able to serve as a vouchsafe and facilitate introductions. She would have. But as it turns out she needn’t. I was welcomed by staff and athletes at the Olympic Oval.

Research Methods

This is an ethnographic study relying on fieldwork in the form of participant-observation and documentary analysis. As outlined by Malinowski (2002) a century ago – and refined numerous times since – participant-observation involves prolonged immersion amongst a social group, talking with people, carefully observing what they do, making notes, and asking questions. For a while, fieldwork was an anthropological dark art, with few directives offered to students other than to go somewhere and write about the people you encounter. However, the last several decades have seen copious publications on anthropological research methods, the writing of ethnographies, and numerous thoughtful explorations of power and objectivity/subjectivity in the
These works document ways in which ethnographic research is unavoidably intimate, treading between research and relationship. I am grateful to those who allowed me into to their lives. And I miss hanging out with them.

The complementary other half of this project involved analysing documents, including the official documents of sport bureaucracies as well as journalistic and other accounts. MacAloon (2006, pg. 1082) terms this “fieldwork in the archives.” Accordingly, this project draws on two mutually informative sources of information: the people involved in speed skating (both past and present); and documentary accounts of the sport (both officially sanctioned, and other). Each offers a type of evidence about social relationships, and the circulation of discourses, practices, and technologies. But before getting to that, there was the matter of getting into the field.

False Starts

At its best, ethnographic research is skillfully moored, but wonderfully unstructured and unpredictable. Often the project as planned is dependent upon anticipated events and relationships that will be built in the future. I had settled where my research should take place but was unsure who to approach about getting clearance to do so. As it turns out, research ethics approval was contingent upon written permission from the Oval and WinSport (another training center for Calgary’s winter sport athletes), obliging me to figure out access earlier than I
expected. I decided I would start at the top and I wrote an email to the Oval’s Director. It went unanswered. So I tried again, a little lower down the hierarchy, and emailed a manager of one of the high-performance programs. That too was unreturned. I was beginning to think I had only two options: show up in person and try to introduce myself (which I worried was too assertive) or ask my aunt to help facilitate things (which I worried was too dependent). I decided I would attempt one more email. Instead of aiming for the top, I emailed an administrator and asked for direction: “who should I approach about conducting a research project?” That email was quickly answered and pointed me to Sean, Manager Business Development, Innovation and Technology. I never would have guessed, but Sean’s job, in addition to all the other things in his title, is to coordinate research projects. We met and discussed my plans. Sean told me that the Oval benefits from research and is supportive of studies in general. Like so much ethnographic research, I think my proposal was perceived as a bit trivial but mostly innocuous, and he, along with a counterpart at WinSport provided written permission for the research to proceed. As it turns out, I spent 17 months conducting fieldwork at the Oval and only a few days at WinSport.

I entered the field with a project titled “Moral Fiber and Muscle Fiber: The Social Production of Speed Skaters.” As I write in Chapter 6, there are specific reasons for liking the moral fiber/muscle fiber frame. But it was too clever by half for written consent forms. I received questions such as, “are you making sure we behave?” I had to work to ameliorate concerns over my suspect status as a spy. And I had to assure people that I was not casting moral judgements. The consent forms likewise explained my interest is studying performance-enhancement only to receive replies such as “you’re looking for doping?” Only trainers and academics in sport science immediately understood the fine distinction I was trying to make.
The project I presented to Sean proposed following the national speed skating team. I had especially hoped to take advantage of the upcoming PyeongChang Winter Olympics in 2018. This proved unfeasible – in the lead up to the Olympics the stakes were too high to have an ethnographer around. Once again, the plan had to be modified. After all, permission and access are not synonymous. Some coaches and athletes were less comfortable with the prospect of me hanging around; others were excited by the project. I ended up focusing on athletes in the development stream, just below the national team, and primarily followed three training groups. At first, I assumed that I would have to cast aside my interest in the Olympics. But I found this group of young athletes were animated, even haunted, by dreams of making the national team and competing at an Olympic Games. To be clear, competing at an Olympic Games matters to national team members too. But in their case, it emerges as a quadrennial concern, with World Cup and other competitive events consuming their focus in the intervening years. The difference, I suppose, is that the athletes trying to make the national team, are aspiring to, rather than planning, an Olympic berth. Plans must accord with the orderly unfolding of events; dreams are unencumbered by such structures.

*Participant-Observation*

Participant-observation involves observing people in their daily lives and participating in their day-to-day activities. Participation can orient the researcher to another way of being in the world: to the rhythms, bodily demands and spatial configurations that govern others’ lives. Most ethnographic research into sport emphasizes participation, whether it’s autoethnographic, apprentice-based, or a variant thereof (e.g. Allen-Collinson et al. 2016; Butryn 2009; Carter 2018; Downey 2005; Sparkes 2002; Young and Atkinson 2012). This, however, is not the
direction my project took. As an outsider to the sport, I expected it would be impossible to sincerely participate, and positioned myself more as an observer (although once inserted in the field, ethnographers are all participating to some degree). In fact, I never skated the Oval’s ice during this study (though I had skated on it years ago at a public skating event). The ice would not feel to me the way it feels to the athletes who have spent decades developing astute assessments of its qualities. And after one training session in which a skater collided with a coach, flipping the coach up into the air, I felt confident I had made a wise choice. There was no need for me to be a possible obstacle as skaters passed at 50km/hr.

Instead, the forms my participation took were generally aimed at building rapport and making myself less useless as I hung around. I offered car rides, brought homemade baked goods, and helped to move equipment around. I also did yoga with the athletes, joined them in parts of their warm-up and attempted some of their training in the weight room. I was no doubt comparatively clumsy (except for the yoga – it turns out most speed skaters are not very flexible). When I did join in, I never doubted that my experiences were somewhat incomparable to theirs for myriad reasons, not least of which because my motivations would always be the research project culminating in this document, while they were working hard to establish sport careers.

Most of my time was devoted to following daily training, carrying a notebook and pen. Training routines generally enabled me to briefly chat with participants and then, as they carried on with their work, scribble my notes (interval training in which rest periods of 2-5 minutes are

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4 Even as Wacquant acknowledges that his position as a Frenchman situates him outside of black and white America, he assumes his body provides a visceral knowledge comparable to that of the men he boxes with. But if *habitus* (Bourdieu 1977) is to be taken seriously as an accumulated lifetime of structuring structures, this position is problematic.
common greatly facilitated this). Phrasing and metaphors that caught my attention were recorded verbatim. I also observed several competitions hosted at the Oval, speed skating at the Canada Games in Red Deer, AB and the World Allround Championships in Amsterdam. I watched television coverage of major competitions including PyeongChang 2018. In addition to observing training and competitions, and the numerous casual conversations that regularly took place, I conducted 52 semi-structured interviews with athletes, coaches, trainers and administrators. Here I again opted for handwritten notes over audio recordings. A couple of times while writing notes, an interviewee said, “don’t write that!” and I didn’t, and we laughed and carried on.

Fieldwork in the Archives

Participant-observation was supplemented with document analysis. Latour (1999) asserts that documents are often mistakenly taken to be self-contextualizing and self-analyzing. But, of course, content finds its meaning in context. Documents are created to accomplish something (even if that something is simply to show that work is underway, such as a memo announcing that a committee was formed). However, documents can sometimes have unintended or unexpected consequences. Just as documents can work to coordinate and control action, they can, at other times, upset the conventional order of things (Sharma and Gupta 2006). Documents can be employed in “the construction of subjects, objects, and socialities” (Hull 2012, pg. 253). As I focused, in particular, on the documents produced by sport organizations, I was reminded of Harper’s (1998) “ethnography of documents” at the International Monetary Fund, which explores how documents are essential to organizational structure, yet derive this essentialness not as vehicles of information but as “tools in the construction of fixed and shared meaning” (Harper
I would say that is not so much that the documents I reviewed fix meaning, but rather that they tether concepts together, creating frameworks, even archetypes, that can be subjected to practical tests. The examples I explore in this text are numerous and include the “indoor oval,” “athlete–hero,” and “fair play.”

**Considering Theories**

I read widely in preparation for fieldwork, as is customary before embarking on an ethnographic research project. This literature review included works in sports studies and social studies of science, the body and craft. Such preliminary reading helps to situate a study as part of a larger and longer academic conversation. It also helps to generate “foreshadowed problems” (Malinowski 2002, pg. 7). And often proves vital for guiding fieldwork and organizing early analysis. This was certainly the case here. Fieldwork was coterminous with analysis, facilitated by an iterative process of comparison – comparing within my dataset and comparing to the broader literature. Ethnographers pore over their notes working to identify themes, metaphors and models, as well as processes of production and circulation.

This approach led me to adopt a variety of theories as they served to illuminate aspects of this research, and to use data to generate or revise theories too. Drawing upon a diverse set of theories was always going to be necessary: “sport ‘travels’ across boundaries” (Besnier and Brownell 2012, pg. 454). My objective (hopefully achieved) was to utilize concepts to support, not supplant, the richness of ethnographic data; the “thick description” (Geertz 1973) of social life that is possible through empathetic fieldwork. However, as Boyer (2005) notes, in drawing on ethnographic material to develop a theory of corporeality, there is:
a certain incommensurability between labours of theoretical abstraction and labours of ethnographic recognition. (Boyer 2005, pg. 262)

In part, this incommensurability stems from the generalities of theory and the contextual detail provided by ethnographic writing. Although I have striven for a dialogue between theory and ethnography, there are also places in the text in which I let ethnographic description stand alone.

One final point about theory. Apart from the ideas drawn from the literature I reviewed, I encountered another set of theories in the field: models for athlete development, coaching and training the body (some of which were also academic models, just from different fields). I found myself amongst reflexive individuals, thoughtfully considering their practices and evaluating their training programs and processes. They offered their own explanations for timing, training, teamwork and many other aspects of their work. Alter (1992, pg. 6) similarly encountered this in his study of Indian wrestlers, in which he noted that:

Wrestlers reflect on what they do and why they do it in an overtly self-conscious way. They do not simply take it for granted. This fact allowed me to build my interpretation on an already well-defined pattern of self-awareness, inquiry, personal critique, and objective analysis, thus reducing the distance between their voices and mine.

In the sections of text in which I work toward abstraction, I remain close to my participants’ accounts, often utilizing and building upon emic terms and models.

*Masking Participants*

Speed skaters form a relatively small community, making participant anonymity a difficult undertaking in any circumstance. But this challenge was made more complicated because concealing the place where this research occurred would be impractical. The Oval is
where the long track national team trains and where most development athletes end up too. Anyone would guess at this locale (especially as a University of Calgary PhD project). For these reasons, when drafting the written consent form, I opted to offer participants the choice to use their real names. All but two decided to select this option. So I could have written this up with mostly real names attributed to the things I recorded. However, ethical obligations to participants do not come down to boxes checked on forms. As I worked through analysis and finalized this document, I decided it best to address identity in a different way. Chalk it up to one final, unanticipated direction this research took.

It is fair to state that this project includes instances of studying up, sideways and down (Hannerz 2015). Many members of the “integrated support team” at the Oval hold MScs or PhDs. National team stars (present and former) and many Oval employees are adept at media interviews. But most of the keen young athletes I worked with had neither security in their position, nor experience curating their words for public consumption. I would not want an unguarded or off-hand remark to negatively effect their futures in some way. In consideration of all of this, I settled on a compromise. Many Oval staff and other professionals who participated in this study are referred to using their real names. There are only so many coaches, program directors and “ice meisters” in the end – any attempt at anonymity would have been facile. The same goes for well-known athletes, whose stories would easily reveal their identities regardless of any attempts made by me to the contrary. As Scheper-Hughes (2001, pg. 128) points out, an identity, poorly masked, “fools few and protects no one – save, perhaps, the anthropologist’s own skin.”

I did, however, elect to conceal the identities of the development stream athletes, not with pseudonyms, but with no real identity at all. They are simply “skaters,” sometimes gendered,
and that is all. There were other possible choices I could have made, of course. Some ethnographers create fictive personae from an amalgamation of real participants. I could have done this. I could have created ideal-type characters (cf. Cassell 1991). In the end, I am comfortable that my compromise enables the honesty of their experiences to come across the page, with little risk to them. And I must point out, it is not that I have a reason to fear that some of the things told to me might lead to censure, but that I simply don’t know. And neither do they. And why would I risk them in any way?

**Overarching Ideas: Continuity and Change**

I took a very unstructured approach to early fieldwork, truly just hanging out with an interest in learning all that I could.⁵ I soon found myself dealing with topics I hadn’t anticipated. The structuring of time. The weight of traditions. The entangled meaning and materiality of the building we were gathered in. It seemed insipid – and more importantly, inaccurate – to singularly focus on how expertise is developed and shared within the bureaucratic structuring of sport. Athletes were donning Viking brand skates and talking to me about outdoor races and frostbite on their toes. Here I was in a world-class, climate-controlled facility, presented with testaments to the sport’s lore and past. To account for expertise, for wind-tunnel testing and measures of blood chemistry, yes, I needed to call on the anthropology of science and craft, but I also needed to consider history, myth and ritual.

Continuity and change – somewhat surprisingly – became an overarching problematique that I address from various positions. Inundated with the amount of data I had collected and the

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⁵ Who I followed was largely determined by both Speed Skating Canada and the Olympic Oval.
numerous ways in which it intersected, I opted to structure this text in a rather conventional way. Following this introductory chapter, I review the literature, cover the history of speed skating, describe the research setting, examine models of athlete development and consider the making of athletes’ bodies. Enduring across these subsections – but emphasized to a greater or lesser extent – are considerations of time, space, the body and the sociality of things. In regard to each of these topics, I attempt to account for what stays the same, and how and why change occurs.

Time’s Arrow

Speed skating is a timed sport. And time moves through the sport in complicated ways. On one level, the title, Chasing Giants, refers to the ways in which aspiring Olympians seek to make history and hope to themselves become one of the greats in their sport. It is also a nod to Norse mythology and Thor’s servant, Thialfi⁶, who, donning skates (possibly, the translation is debatable) races a giant. It is a nod to Greek mythology too, in which the Giants battle with the Olympic gods. Although the verb, “chasing,” emphasizes the present (and continuous) pursuit, it likewise serves to emphasize the ways in which the sport is oriented to going forward, to chasing the future. All the same, the giants being chased are past greats. Athletes chase giants, looking to the future, while carrying the weight of the past.

I have written a narrative that traces from the earliest archeological evidence for skating to various developments in the sport of speed skating, including the building of the Olympic Oval and the making of the young athletes I followed (chased!) around. My writing is at times frenetic, and I hurriedly cover a vast topical terrain. In this narrative, I also insert detailed

⁶ Throughout this text, I use Thialfi which seems to be the standard transliteration to English. The speed skating oval in Heerenveen is spelled Thialf.
ethnographic vignettes, punctuated moments that parallel the punctuated moments in the
development of the sport (such as occur in the training cycle or in the inaugural convening of the
International Skating Union). Written in the present tense, these extended ethnographic
descriptions emphasize how events – from the mundane to extraordinary – are enmeshed in
temporal logics, moments that precede or come after, that may be of different qualities or worth.
In this way, I employ “the ethnographic present” to emphasize my capturing of an instant. In
doing so, I recognise anthropological debates about ethnographic writing. As Hastrup (1990, pg.
57) argues in her defense of the ethnographic present:

> Although historically located and subjectively constructed, ethnography always leads to
> an implicational truth that is not outlived when the ethnographer leaves the field. On the
> contrary, since it is a narrative or written truth it transcends the historical moment and
> must, therefore, be constructed in the ethnographic present. When this is realized we are
> free to invest the ethnographic present in many possible futures.

Furthermore, the temporal structure deployed – by the text and by the sport – is progressive but
somewhat circular. As one crop of Olympians retires, another cohort aspires. The enduring
anthropological problem of continuity and change is here granted more harried emphasis.

One way of approaching temporal order is found in the *Annales* school, and in particular
in Fernand Braudel’s (1980) timescales. Braudel (1980) divides time into three durations: short-
term events (*événement* – days, weeks, months), medium-length conjunctures (*conjoncture* –
years, decades, even major portions of centuries), and long-term structures (*longue durée* –
lasting centuries, perhaps even millennia). The *longue durée* includes those relics and
frameworks that have proven resistant to change, what we would generally think of as structures
(lasting material culture, may be included here too, I suppose). These three timescales may also
be thought of as episodic, cyclical and enduring.\textsuperscript{7} Braudel offers a scaffold to guide analysis, emphasizing how timescales beyond the individual lifespan shape our lives; how events that are happening now might differ from those that have been happening regularly or those that have been happening persistently. The *longue durée* appeals to me. As Bloch (1977, pg. 278-79) pragmatically points out, “the long conversation which the anthropologist observes has begun long before he came and indeed it begun long before any of the people the anthropologist meets have been born.” As an anthropologist trained after the historic turn (as lead by, among others, Eleanor Leacock (1981), Sidney Mintz (1986) and Eric Wolf (1982)), history was always necessary. In this research, it also became inescapable.

But emphasizing history and considering timescales doesn’t get much at individual experiences of/in time. Is time dragging or speeding past? Does it feel eternal or novel? Neither does it get at time as social practice, to the tempo and timing of action and response (Giddens 1991; Bourdieu 1977). For this, I had to think through time as a sociocultural process, through the qualities of temporality and acts of temporalization. Temporality is:

\begin{quote}
A symbolic process continually being produced in everyday practices. People are ‘in’ a sociocultural time of multiple dimensions (sequencing, timing, past-present-future relations, etc.) that they are forming in their “projects.” In any given instance, particular temporal dimensions may be foci of attention or only tacitly known. Either way, these dimensions are lived or apprehended concretely via the various meaningful connectivities among persons, objects, and space continually being made in and through the everyday world. (Munn 1992, pg. 116)
\end{quote}

I needed also to consider the flow of time, enfolding “the subject in a cocoon of implicitly accepted truths about the world, because it unites the past, the actuality and the becoming of the world in a seamless texture of interconnected experiences, a flux which carries the subject along

\textsuperscript{7} Braudel (1980, pg. 195) also proposes a fourth scale, “*la très longue durée,*” the eternal truths of humanity (whatever those might be!).
with it” (Gell 1992, pg. 289). Lastly, I examine the making of time and its transformations (following Munn 1983). Just as my study participants wrestle with time, I wrestle with timescales, time as social practice, and time as experience. I consider a prehistorical *deep history* (Shryock and Smail 2011) of the sport, as well as the planning, realization and experiences of training, the trajectory of athlete development programs, and the making of facilities such as the Olympic Oval.

*The Oval as Space (and/or Place)*

Ethnographers have often assumed the importance of place, even when not explicitly theorizing space and/or place. Ethnographic research is “sited,” arguably all the more so when it follows a multi-sited approach to trace relations between people, ideas or things (Gupta and Ferguson 1997). Ethnographers go somewhere, with some people, for some period of time. Likewise, ethnographies typically include descriptions of the landscape or the material conditions of life, and this backdrop to social drama, is often put to some explanatory purpose as well (the layout of the village, the high mountains, close quarters or open sewer helping to explain why life goes on as it does). In selecting the Oval as my primary fieldwork destination, I was (temporally) inhabiting a monument – a concrete mnemonic to the 1988 Winter Olympic Games – that is also put to the ongoing work of producing a speed skating national team. Accordingly, I had to think through “a lived world that is not only the arena of action, but is actually constructed by action” (Munn 1983, pg.8). In this way, distinctions between space and place are unsuitable; a duality of space as objective (Newtonian and absolute) and place as
metaphoric (and qualitative) insufficient. Rather, I am dealing with space as generated through intention and accident, and the recruitment of materials – of bodies and concrete and ice and steel – variously yielding and exerting themselves in ongoing projects.

**Body Matters**

Marcel Mauss (1973) begins his famous essay, *Techniques of the Body*, with a discussion of stylistic and pedagogical changes to swimming in fin de siècle France and England. Since Mauss, numerous other scholars have considered how social groups make bodies in particular ways. Through most of this intellectual history, the body was imagined as receptive to either decorating (Turner 2012) or discourse (Foucault 1978) or social structures (as patterns of practice (Bourdieu 1977)). In each of these theories, biology provides a universal substrate for cultural elaboration. More recent works have challenged this ontological assumption. AnneMarie Mol (2002) considers the many different enactments of atherosclerosis within a single Dutch hospital, proposing an ontology that is generated through multiple situated practices. This is not about different perspectives of a given body, but the active differential making of a medical object.

In a related, but distinctive approach, Margaret Lock has proposed and, over several decades, refined the concept of a biology inseparable from sociality (1993; 2001; 2018). The concept of *local biologies* first appeared in her research into menopause and ageing in Japan, the US and Canada, in which she made the following argument.

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8 The way geographers write about the subject, it seems place and space had become an intractable problem before Lefebvre (see Merrifield 1993), but for my purposes, spaces – as objective, physical spaces – are always also places imbued with meaning and redolent with politics.
Thinking of the body as active, as something that asserts or presents itself, opens the way to conceptualizing a relation between self and body not simply as the culturally selected interpretation and representation of stimuli, but as an active engagement that takes place in the very sinews, nerves and bones of our bodies. (Lock 1993, pg. 372)

Intriguingly, her argument preceded the epigenetic revolution that assumes the complex and continual making of bodies through contingent biological and social processes. Drawing on recent epigenetic research, Niewöhner and Lock (2018, pg. 688) propose situated biologies as, “an ethnographic research agenda aimed at studying the processes through which local biologies are produced and known.” This call for ethnographic detail stems from an appeal to check ontological philosophizing with comprehensive description. I quote here at length because they so thoroughly identify critical problems and questions.

Oftentimes, practices are now readily analysed as producing a plurality of ontologies (e.g. Woolgar and Lezaun, 2013) without insisting on demonstrating ‘ontographically’ the nature, limits, and overlaps of such new ontologies (cf. Lynch, 2013). If we were to assume that each practice produces its own body, we would evade the problem that two bodies that have lived through different practices may indeed remain similar. We would thus evade the question of how the material body may remain stable across changing practices. We would also evade the question of how the material body may contribute to continuity in phenomena that the social sciences tend to consider social or intersubjective. An ontologically plural body, contrary to a multiple body, cannot 'kick back' any longer. Hence, it ultimately cannot address the question how continuity and difference arise across material-semiotic practices. Or in other words: To what degree and how exactly does a body-in-action become particularised – that is local – and how can this process be investigated? (Niewöhner and Lock 2018, pg. 688)

I offer no definitive answer to this question, but my research proposes one possible avenue of inquiry. The matter of “mutable environments and permeable human bodies” (Lock 2018, pg. 449) is, more-or-less, the bodily question this ethnography dances with. The notion of an alterable biology – of a bodily contingency framed by socio-technological interventions – accords well with the theories held by the administrators, athletes, trainers and coaches I worked with.
Thinking Through Things: Technology, Technique and Technê

There seems to be a renewed interest in studying things in sociocultural anthropology, or at least a new emphasis on the production, consumption and movement of objects (e.g. Henare, Holbraad and Wastell 2007; Miller and Woodward 2016; Woodward 2007). Recently, this avenue of research has been spurred and stimulated by works that radically rethink just what things are and how they come to matter. For instance, Karen Barad’s (2006) posthumanism proposes that reality is constituted (or perhaps better, accomplished) through intra-actions, dynamic and relational processes between understandings and objects. Some are applying these ideas in ethnographic research (e.g. Schadler 2019). But utilizing ethnography to buttress metaphysical arguments, moves anthropologists a long way from Malinowski’s (2002) “native’s point of view.” Further, Bruno Latour, who arguably delivered anthropologists to this moment, entertains several clever philosophical positions, but when he writes in regard to his own creation, “alas, the historical name is ‘actor-network-theory’, a name that is so awkward, so confusing, so meaningless that it deserves to be kept” (Latour 1999, pg. 9), it seems appropriate to ask: is he just having us on? While I enjoy contemplating the questions posed by these authors, my approach to studying things is more modest. In this regard, I suggest that the most ethnographically suitable approach is offered by Arjun Appadurai, who hedges his theoretical (and ontological) bets:

Even if our own approach to things is conditioned necessarily by the view that things have no meaning apart from those that human transactions, attributions and motivations endow them with, the anthropological problem is that this formal truth does not illuminate the concrete, historical circulation of things. For that we have to follow the things themselves, for their meanings are inscribed in their forms, their uses, their trajectories. It is only through the analysis of these trajectories that we can interpret the human transactions and calculations that enliven things. Thus, even though from a theoretical point of view human actors encode things with significance, from a
methodological point of view it is the things-in-motion that illuminate their human and social context. (Appadurai 1986, pg. 5; italics in original)

Here is a concrete directive: follow the things-in-motion. I’m chasing again.

The things in speed skating are relatively few. There is ice and skates and a timepiece. More aerodynamic clothing first appeared in the 1960s and has in recent years undergone continual revision. And that’s pretty much it. I follow the development and refinement of these objects – and the technological innovations that gave rise to indoor ovals, hinged blades and dimpled racing suits. I home in at the level of making and doing, after all technique and technology share the same Greek root for craft, technê. It is in their usage that these things are enlivened. It is in the familiarity (the comfort and intimacy) of their use that people build attachments and revise meanings. In this manner, I consider how things become bodily extensions – how skaters feel the ice through their blades. And how things move within the political economy of speed skating – as racing suits made by Nike or a clap skate manufactured by Viking – are contested, adopted or rejected. In all of these cases, employing new things makes for new possibilities. There is continuity in the simplicity of this sport – a body balanced on blades, gliding on the ice – and changes too, subtle and revolutionary.

A Piece of Ethnographic Writing

Ethnography is both method (we do ethnography) and the document resulting from such research (we write ethnography9). And though ethnography has been taken up widely in other academic disciplines, it remains a distinctive hallmark of anthropology. It has also, in recent decades been

9 Increasingly, anthropologists may produce other end products such as photography, films, diaries and websites.
challenged, dismissed, revised and championed. Ethnographers have confronted questions of power, representation, truth, and transformation. At its core, this is a debate based in the varied experiences of fieldwork – the give-and-take of curiosity, creativity, rapport and empathy – and how to serve these experiences justly. How to represent the lives of others, and our own involvement in their worlds. In writing this, I make claims and choices. Some are already evident. I’ll let most of the others reveal themselves to you as you read on. But as a matter of orientation, I cover two matters here briefly.

A Note on Style

As is apparent, I am writing in a fairly casual manner. Just as I attempt to capture tempo and timing in narrative, I have tried to mirror the disarmingly casual manner of high-performance athletes and coaches. Their tights or sweatpants and tousled hair; their easy movements and relaxed deportment; the constant laughter; it is sometimes hard to accept that they are taking things seriously. Oh, but they are! This is the mundanity of excellence (Chambliss 1989). They are in earnest. They are working hard and improving themselves. It is only surificial nonchalance. This text is likewise (apparently) off-the-cuff. I have embraced a playfulness in my writing. I have had fun. But not at the expense of accurate explication. Like those I studied, I do this sincerely. Excellence and jest on a razor’s edge.

Notes on Terms and Statistics

One final series of notes relates to the use of terms and statistics in this document. Olympic Games are often referred to by their host city and year (e.g. Calgary 1988 or
PyeongChang 2018) as is the common shorthand. Skater refers to speed skater (could there be any other true skater?). And long track speed skating is never referred to as such, unless it is necessary to do so for purposes of clarity. You can assume that speed skating refers to long track. In contrast, short track will always be distinguished as “short track” or “short track speed skating.” This is in accordance with how those in the sport refer to these activities. Long track is simply the default. The reasons why will become clear. Finally, I refer to both men’s and women’s events, but in speed skating, women’s race distances carry the label “ladies,” and I use that term when, for instance, referring to “the ladies’ 500 m race.”

All records and official race times – unless otherwise noted – were retrieved from the International Skating Union’s website (isu.org). The founding dates and other matters of history relating to sport organizations such as Speed Skating Canada or the International Olympic Committee are, unless otherwise cited, taken from their respective websites. This choice may not meet the standards of rigorous historical research, but it is apt here. There is remarkable self-chronicling in sport. Granted, this is inherent in keeping a record. But in addition to keeping official times and greatest achievements, these institutions also protect and preserve their own mythologies.

**Concluding an Opening**

Persistently, my anthropological curiosity has been directed towards science and the body. I landed on sport as a case through which to investigate these interests. But I could not have anticipated the direction all my chasing would eventually lead me. High-performance sport is techno-scientific – wonderfully so. It is bodily – at times brutally so. And it is infused with
magic too. Athletes rely on the rigour of laboratory testing and a lucky pair of underwear.

Perhaps all of contemporary life is similar. Latour (1993, pg. 11) argues “we have never been modern.” I however wonder if he mistakes what modernity is all about. In speed skating, science and superstition, nature and culture, are not inconsistencies, but comfortably coexisting resources for developing athletes.
The first instance of sports occurred three hundred thousand years ago. A group of incredibly advanced Homo sapiens was days away from discovering electricity, inventing history’s most complex language, and perfecting a political system light-years ahead of democracy.

Then Edgar threw a rock.

Cara Michelle Smith, “A Brief History of Sport” (The New Yorker, March 12, 2020)

Face, Field and Framework

It is common for books and articles within sports studies to begin with a comment about sport’s prior neglected status, followed by an acknowledgement of a burgeoning scholarship, which has led to a proliferation of journals dedicated to the topic as well as numerous university-level sports studies programs. In sum, these authors argue that sport studies is moving from the margins to the mainstream.\(^1\) While sport does receive much more scholarly attention today than in the past, is this not congruent with the proliferation of research on any number of subjects in the last two decades (illicit drugs, pets, hobbies, etc.)? Perhaps this fact reflects more on the academic industry than the intrinsic value of studying a topic. Alas, that is not quite the claim I wish to make.

I placed Smith’s quote from The New Yorker at the top of this page because it’s funny. And, intentionally or not, it reminds us that humans have played games for perhaps all of our species’ history. But it also suggests that throwing a ball (or a rock) is a wasteful diversion, preventing us from accomplishing far more important things. Yet, sport studies research illuminates myriad ways in which that is not the case. Sport is compelling. It connects the intimate dreams and labours of individuals to a larger community of spectators within a global

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\(^1\) As Malcolm (2014) astutely points out, many histories of the sociology of sport, and I would add, sport studies, are professional (and therefore also political) projects working to establish the subdiscipline’s legitimacy.
political economy of organizations and events. Bodies are on display, symbolic of virtues, of
nations, but also very much the product of particular projects that develop and monitor athletes.
There is competition and struggle, scandal and trespass. In sport, performance, ritual, the
rationality of modernity, and the opportunities and inequities of globalization coalesce. Few
other topics offer this. My research – the product of a time and place – inherits a history of
scholarship and debates within sport studies. Here, I review some of the major works in this
interdisciplinary field, situating my own analysis within this genealogy.

The Janus Face of Sport

In 1945, as sport returned to post-war Europe, a Soviet football club was invited to play a series
of matches in the UK. The events were later reflected on by George Orwell in what has become
a famous and scathing essay on nationalism and sport. Orwell (correctly) traces the current
fervour over sport to 19th century Great Britain and asserts that, while games were enjoyed in
other times, contemporary sport is corrupted by greed, brutality, and fierce competition. He
wrote:

Serious sport has nothing to do with fair play. It is bound up with hatred, jealousy,
boastfulness, disregard of all rules and sadistic pleasure in witnessing violence: in other
words, it is war minus the shooting. (George Orwell, “The Sporting Spirit,” Tribune,
December 14, 1945)

Fifty-five years later, Nelson Mandela gave the keynote speech at the inaugural Laureus World
Sports Awards. There Mandela argued that sport can overcome disagreement and difference,
uniting people, especially youth, in common cause. According to Mandela, sport generates
goodwill and peace. As he said:
Sport has the power to change the world. It has the power to inspire. It has the power to unite people in a way that little else does. It speaks to youth in a language they understand. Sport can create hope where once there was only despair. (Nelson Mandela, May 25, 2000, Monaco, France)

This vision of sport was subsequently endorsed via the creation of the United Nations Office on Sport for Development and Peace. The disparate assessments of Orwell and Mandela are known as “sport as war (minus the shooting)” and “sport for development and peace.” But these two tropes – sport as social problem and panacea – could hardly be more different.

Donnelly (2011, pg. 65) points to this as capturing “the Janus face of sport,” concluding that these are not paradoxical; sport can be either, depending not on the activity itself, but on the social context in which it is played out. He’s far from the only scholar studying sport who is drawn to the Roman god. Taylor, Locke and Darcy (2009, pg. 864) use Janus to understand “the changing face of soccer” and diversity in Australia. They point out that in addition to being two-faced (i.e., not what one appears), Janus symbolizes transitions, and looks into the past with one face and the future with the other. In their analysis, Janus serves as a rich metaphor for changing fandom and affiliations among teams that were once strongly associated with particular ethnic groups. Lastly, Dunning and Waddington (2003), situate sport within two-poles, puritanical and epicurean, and refer to the “Januform character of sport” (Dunning and Waddington 2003, pg. 356). They use Janus to capture unresolvable tensions in sport, especially as related to alcohol and drug use. In each of these works, Janus, the god positioned over doorways, references social boundary mechanisms (Tilly 2005). But in doing so, he is invoked to different ends. For Donnelly (2011) and Taylor, Locke and Darcy (2009), Janus suggests a certain malleability, an opportunity to be inclusive or divisive, while for Dunning and Waddington (2003) Janus represents a blurred border maintained by inherent contradictions.
The face of sport is an intriguing starting place. Appearances matter. Sport is, among other things, a spectacle. It is a drama of struggle and triumph, despair and hope, not to mention, winners and losers. And athletes can become faces for various groups and causes, from Wheaties boxes, to their home nations, to scandalous front-page stories. But faces and appearances will only get us so far. Yes, there are ambiguities and inconsistencies in sport (many of which are precisely why sport is compelling for participants, spectators and researchers). Yet, if we want to traverse the territory, and not simply mark the borders and boundaries, we need to situate sport within a wider spectrum of activities and consider the particular conditions that sustain contemporary sport.

Surveying the Field

Around the world, and likely for most of human history, people have engaged in games of physical skill\(^2\) that variously combine elements of theatricality, competition, ritual, and politics. While many games are seemingly competitive contests, pitting two players or teams against one another, the outcome may actually be settled by other means. For instance, in Afghanistan, the horseback game of *buzkashi* – a more raucous relative of polo, in which riders battle over possession of a goat carcass – is decided not when a team succeeds in carrying the dead goat across the goal, but when a debate between *khans* is concluded (Azoy 2003). Similarly, Leach (1975) observed that in the Trobriand version of cricket, the home team always wins the match. Further, games are played for a variety of reasons. For instance, Mesoamerican ballcourts hosted games for two millennia. At times, these games were integral to cosmology (Schele and Feidel

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\(^2\) The HRAF file on “games and sport” suggests that games are universally engaged in, but drawing on a typology produced by Roberts, Arth, and Bush (1959), divides gaming practices into games of strategy, games of chance, and games of physical skill (Chick 2015). In this typology, sport belongs to the last category.
1991), linked with ritual and human sacrifice (Koontz 2008), and used for settling disputes between rulers (Taladoire and Colsenet 1991). The naumachia (staged naval battles) of Imperial Rome combined rousing performances in amphitheatres, with affirmations of Rome’s greatness, and the tidy execution of condemned prisoners (Coleman 1993). In short, notwithstanding the cross-cultural universality of games (and in particular, games of physical skill), the specifics vary widely.

Sport-proper is narrower than this. Sansone (1988, pg. 3) begins his essay on sport by reviewing select linguistic evidence:

The Ukrainian word for sport is spórt. If you wish to read an account of yesterday’s soccer match in an Athenian newspaper, you will look for the pages headed Spór…There is a Gaelic word spòrs, a Turkish word spor, a Rumanian word spórt, and a Japanese word supōtsu.

Accordingly, although sport’s origins may stretch far into the past, and though sport may share commonalities with other games, what we recognize as sport today, first coalesced in 18th and 19th century Great Britain, and then spread to other European nations, and journeyed around the world (Guttmann 1994; Mangan 1986). It is competitive (mostly) and involves physical skill (loosely defined; for instance, some might categorize billiards and video gaming as sport). At its highest level – so-called high-performance or elite sport – what defines it more than anything else is (perhaps) the maintenance of records within a structure of bureaucratic governance (Guttmann 2004). As sport gained prominence and power, eventually giving rise to transnational megaevents such as the modern Olympic Games or FIFA World Cup, many activities have either elected or been compelled to anachronistically align their activities under

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3 Even if playing a pick-up game of basketball in the park, players play in cognizance of and (mostly) in deferral to the rules and standards of the sport as codified by national and transnational sport organizations.
the banner of sport (e.g. Taekwondo is but one example of this (Moenig 2015)). Research within sport studies – more or less reflectively – mirrors this history.

Accordingly, the field splits into two broad approaches. The first tends to focus on sport’s similarity with other activities, across time and place. Comparing widely, these scholars consider sport a subset of games and/or a form of physical culture. The second approach recognizes contemporary sport’s strangeness and peculiarity. To these scholars, sport is an exceptional activity that must be understood by focusing on historical patterns: on the conditions of sport’s development and the conditions that sustain it. These scholars identify a break with the past, situating sport within modern rationality and capitalism. To a large extent, this difference also reveals a contrast between categorical analysis (i.e. defining what sport is) and relational analysis (i.e. describing what sport does in social life). However, I consider these approaches complementary. Fuelled by the “ethnological imagination” (Kurasawa 2004), I find wide cross-cultural comparison instructive and stimulating, while the impressive diversity of games and contests also serves as a reminder to be circumspect about the claims that can be made when considering the particular case of any one sport.

In addition to these two streams, research may be further subdivided along a continuum. On one end, games and sport are situated as objects worthy of study in their own right – sport as a social institution on par with other traditional topical areas such as economics, religion, politics or kinship. On the other end, games and sport are treated as social microcosm – they are but a vehicle for the expression of ideals, values, politics and so on. As such, sport can become a lens

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4 I would add that Weber’s (2013) rationality includes processes of bureaucratization, economic (mean-ends) and charisma. Although charisma in sport is at times discussed, especially when comparing sport to religion, it is seldom granted importance vis-à-vis Weberian rationalization. Two notable exceptions include Mullan (1995) and Møller (2017).
through which to explore social forces such as gender (e.g. Birrell and Cole 1994; Dunning 1986; Hall 1996; Hargreaves 1986; 1994), class (e.g. Bairner 2007; Coakley 1998; Dunning 1999; Gruneau 1983), race (e.g. Eitzen 2003; Frey 2004; Ross 2004; and controversially, Hoberman 1997) or all three (Foley 1990). In this case, sport or games are another, among many, means of reproducing the same broader social structures.

At times, the distinction between these two approaches is merely one of emphasis and reflects scales of analysis. For instance, sport-as-institution scholars can explore how sport reproduces social inequalities. Bourdieu’s (1978) framework is a good example of this. It may also reflect disciplinary orientations and types of evidence. For instance, drawing on historical research methods, some works treat physical activities as empty vessels to be filled with significance (e.g. MacAlloon’s (2008b) study of the Olympics supposes that all Olympic events and participants take up the symbolic order equally). Whereas those engaged in participant-observation tend to emphasize the specifics of training and forms of bodily discipline in generating meanings or ideology (e.g. Alter (1992)). As such, scholars more interested in practice or agency tend to find the activities themselves instructive. This is closer to my own approach, convinced as I am that assuming the low crouch of a speed skater, and skating in a line, nose to tailbone, with rivalrous teammates generates structures at least as much as it is determined by them.5

Here I have roughly outlined the present state of a field called sports studies. In the following sections, I build on this survey, taking a closer look at select major works, reviewing a history of ideas on play, games and sport, and simultaneously, providing a brief history of sport.

5 Speed skaters previously involved in other high-performance sports all pointed out to me how different speed skating is from these other activities (including hockey, figure skating, rowing and tennis). The difference they acknowledge matters to me.
Lastly, I return to thinking about Janus positioned over a threshold. At various points in this research project, boundaries have preoccupied me (and confounded me too). I started out thinking that rules (and their infractions) would be an illuminating study. But as things progressed and I spent more time at the Oval, I became less certain that boundaries would suffice. In the final section of this chapter, I layout the framework that I draw on in this ethnography.

The Serious Work of Play and Games

Jean de Gribaldy was a professional cyclist and directeur sportif (a position akin to a team manager in road racing). Apart from his many successes in sport, he is quoted as saying, “cycling isn’t a game, it’s a sport. Tough, hard and unpitying, and it requires great sacrifices. One plays football, or tennis, or hockey. One doesn’t play at cycling.”6 I like this quote a lot. And not only because cycling, as it turns out, is very important to speed skaters. When Gribaldy dismisses other sports as mere games, he draws on the distinctions that I explore as I consider ideas about play, games and sport. Are they so different? So oppositional? Of course, Gribaldy is emphasizing the hard work and suffering demanded of cycling champions. But does that not all start with the fun and thrill of a child learning to ride a bicycle? Gribaldy trivializes play. In the following sections, I review several scholars who argue that play and games are in fact quite serious endeavours.

6 “Le cyclisme, ce n’est pas un jeu. C’est un sport dur, terrible, impitoyable qui exige de très gros sacrifices. On joue au football, au tennis, au hockey mais on ne joue pas au cyclisme.”
Defining Play: Homo Ludens

In 1938, historian and cultural theorist, Johan Huizinga, published *Homo Ludens: Proeve eener bepaling van het spel-element der cultuur* (published in translation as, *Homo Ludens: A Study of the Play-Element in Culture*). Huizinga was not the first thinker to consider the significance of play in human life, but he was the first to attempt a precise definition of play (Anchor 1978). According to Huizinga (1949, pg. 132), play:

Is an activity which proceeds within certain limits of time and space, in a visible order, according to rules freely accepted, and outside the sphere of necessity or material utility. The play-mood is one of rapture and enthusiasm, and is sacred or festive in accordance with the occasion. A feeling of exaltation and tension accompanies the action, mirth and relaxation follow.

More importantly, as his book’s title heralds, Huizinga’s aim was to “view culture sub specie ludi” (Huizinga 1949, pg.11). As he rightly notes, play is found in many species, although in other animals, play is often assumed to be in the service of survival (e.g. play wrestling as practice for fighting). Huizinga does not equate human play with animal forms, but he does use this link to suggest that play is elemental, that it precedes uniquely human culture. And that language, law, war, religion, art, and philosophy – culture, as he defines it7 – is forged in and maintained through play. However, his is not a functionalist argument. We don’t play to meet societal needs. We play because we must play. We are not *homo sapiens* or *homo faber*, but *homo ludens*. Not thinkers or makers, but players. Accordingly, though play is apparently non-serious, it is far from trivial.

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7 His definition of culture emphasizes intellectual and artistic accomplishment. As he states, “more and more the sad conclusion forces itself upon us that the play-element in culture has been on the wane ever since the 18th century, when it was in full flower. Civilization today is no longer played, and even where it still seems to play it is false play – I had almost said, it plays false, so that it becomes increasingly difficult to tell where play ends and non-play begins” (Huizinga 1949, pg. 212).
Huizinga’s argument progresses along two fronts. The first is an appeal to consider the vital position of play within society, to explore the multiple ways in which play permeates and generates cultural forms. The second, borne in his bold argument about play, leads him to make claims that flatten distinctions. For instance, Huizinga distinguishes between unstructured play (ludus) and competitive play (agon), but for great sections of his text (admittedly, I’m reading a translation), he freely exchanges the terms, play, games and sport. And he frequently homogenizes all forms of play as something interchangeable. For instance:

The child plays in complete – we can well say, in sacred – earnest. But it plays and knows that it plays. The sportsman, too, plays with all the fervour of a man enraptured, but he still knows that he is playing. (Huizinga 1949, pg. 18)

Or that:

Formally speaking, there is no distinction whatever between marking out a space for a sacred purpose and marking it out for purposes of sheer play. The turf, the tennis-court, the chessboard and pavement-hopscotch cannot formally be distinguished from the temple or the magic circle. (Huizinga 1949, pg. 26)

Huizinga’s ideas are stimulating, but slippery. Yes, humans are playful. But it is not analytically useful to reduce the eucharist, the Tour de France and a game of hopscotch to the same essential thing, even if all share some playful commonality. Rather, it seems preferably to consider the ways in which a single activity can move from ludus to serius and back again. Challenging a friend to race across a field may begin in playful boasting, transform into earnest racing, and end in laughter. It also seems necessary to distinguish play from fun. As Gribaldy points out, top-level athletes may not play at cycling, but that doesn’t mean they aren’t enjoying themselves.

Moreover, if play is best understood as some necessary (but insufficient) generative activity (shared with our non-human ancestors), then it is just as useful to discuss play and law (as Huizinga insists) as it is to discuss play and sport. But it is not within legal analysis or
political science that Huizinga is quoted most; it is within sport studies. This is doubly odd since Huizinga himself argues that modern sport taints play. In his final chapter, Huizinga builds a critique of what he sees as a perversion of the play instinct in “contemporary civilization”:

In modern social life sport occupies a place alongside and apart from the cultural process. The great competitions in archaic cultures had always formed part of the sacred festivals and were indispensable as health and happiness-bringing activities. This ritual tie has now been completely severed; sport has become profane, “un holy” in every way and has no organic connection whatever with the structure of society, least of all when prescribed by the government. (Huizinga 1949, pgs. 197-98)

Huizinga was the first, most ambitious theorist to consider the role of play, games and sport within society. Importantly, he links play and games to festivals and ritual, and distinguishes sport as profane. This distinction is variously challenged and reproduced in subsequent sport studies scholarship.

Games and the Sacred

Sociologist Robert Caillois’s *Man Play and Games* (originally published in 1958, in translation in 1961) agreed with Huizinga’s central thesis: society is forged through the generative possibilities of play and games. And, like Huizinga, Caillois distinguishes between unstructured and structured play, although he emphasises that play occurs on a spectrum from *paidia* and *ludus* (from unstructured to structured by rules, respectively). He further refines Huizinga’s definition of play, by proposing six defining characteristics. First, it is free and pursued for pleasure. Second, it requires rules agreed to in advance. Often these rules differ from the rules governing everyday life. Third, it occurs in a circumscribed time and place. This might be a football pitch or race route or the sacred akharas that form the training place for Indian wrestling. Fourth, there is a fiction to the activity. This is not to say that the outcome of
an event cannot have very real consequences, but simply that play creates a world apart from everyday life and provide a venue for exploration. Players can imagine or – for a brief period – even enact social identities and relationships not possible under ordinary circumstances. Fifth, it is unproductive (in Marxist terms). And sixth and finally, the outcome is uncertain.

Caillois further asserts that play gives rise to four categories of games: agon (competition), alea (chance), mimicry, and ilinx (perceptual disorientation, i.e. thrills). He argues that sport derives from both agon and alea. And, although Huizinga (1949, pg. 48) rejected gambling as “sterile, adding nothing to life or the mind of play,” Caillois emphasizes that games of chance are a uniquely human form of play. Lastly, he asserts that Huizinga was mistaken where ritual and the sacred are concerned. To Caillois, play and the sacred cannot be collapsed, but are instead, foils to one another. As he writes elsewhere:

Confronted by the sacred, [the worshipper] is defenseless and completely at its mercy. In play, the opposite is the case. All is human, invented by man the creator. For this reason, play rests, relaxes, distracts, and causes the dangers, cares, and travails of life to be forgotten. The sacred, on the contrary, is the domain of internal tension, from which it is precisely profane existence that relaxes, rests, and distracts. The situation is reversed. (Caillois 1960, pg. 158)

Are Games and Sport Ritual?

Drawing on Caillois’s concepts, Victor Turner (1974; 1982) directed his own theories about ritual to games and sport, considering these activities social dramas. Turner (1983, pg. 104) argues that:

The way people play perhaps is more profoundly revealing of a culture than how they work, giving access to their ‘heart values.’ I use this term instead of key values for reasons that will become clear, for the heart has its values, as well as its reasons.

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8 It seems to me that many sports actually draw from all four categories.
In an effort to distinguish between ritual in pre-industrial societies, and sport and entertainment in industrialized societies, Turner differentiates between liminal and liminoid (ritual-like) cultural performances. For Turner, this distinction is important, because, as he saw it, liminality is only possible in small-scale societies, in which there is consensus around belief, intention, and action. Nonetheless, he insists that, just like ritual, play is capable of reinforcing social normativity and contesting it, sometimes simultaneously accomplishing both (Turner 1982).

A student of Turner’s, John MacAloon (1984), argues that a more complex framework is needed to understand ritual in relation to sport. He proposes four cross-culturally common performance genres – ritual, game, festival, spectacle – suggesting that these operate according to autonomous and competing logics. MacAloon’s scholarship focuses on the modern Olympics. He argues that an Olympic Games represents all four performance genres, although it is primarily a spectacle. The event itself, follows the chronology of rites of passage, with the opening and closing ceremonies bracketing a liminal phase (MacAloon 1984). He further explores the communitas arising out of a Games and argues that the Games provide a venue for the expressive celebration of diversity and interconnection. Recently, MacAloon (2019) has focused on the medal ceremony as a ritual that, while seemingly nationalistic, accomplishes something else. As he writes:

National symbols may be positionally uppermost in the victory ceremony, but flags don’t rise and an anthem doesn’t float down on the champions until after transnational authority has yoked their individual and national bodies with the Olympic medals that transform them into special kinds of human bodies – that is, incorporate them into a

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9 Turner (1988) emphasizes that ritual is transformative, while sport ratifies the social order rather than reshapes it. Mary and Max Gluckman (1977) likewise conclude that sport is not ritual proper, although both games and ritual are social dramas. And Lévi-Strauss (1962, pg. 21) writes, “games thus appear to have a disjunctive effect: they end in the establishment of a difference between individual players or teams where originally there was no indication of inequality. And at the end of the game they are distinguished into winners and losers. Ritual, on the other hand, is the exact inverse; it conjoins.”
status that will thereafter transcend their nationalities and personalities… If the victory ceremony has proved highly resistant to change, it is in the end because of the ritual work it still has to do. (MacAloon 2019, pg.10)

While MacAloon considers the symbolism of the Olympic project, George Gmelch (1971) writes of the superstitions and rites that constitute baseball magic. Gmelch, an anthropologist and former AA ballplayer, suggests that just like Trobriander’s fishing outside of the lagoon, baseball players use magic to exercise control over the uncertainty of their endeavour. He considers this in relation to taboos and fetishes. For instance, some pitchers won’t shave the day they are scheduled to play. If their team wins, they will continue to let their facial hair grow. But most taboos, he points out, actually arise from the opposite correlation: an activity that precedes a bad game will be avoided in future. Likewise, charms and fetishes are typically adopted after a successful game. He relays the story of a pitcher who borrowed a pair of shoes from a teammate, pitched a no-hitter, and subsequently purchased the lucky shoes and kept them as a fetish. Fun as these analogies are, it seems that the ease with which concepts from the anthropology of religion can be applied to sport is not so much because of a grand cosmology or coherent system of belief, but, just as Gmelch points to, a shared need to manage uncertainty. The athletes I know will likewise avoid this, adopt that, and uphold such and such routine only so long as it proves successful. If this is ritual, it stretches the definition of syncretism.¹⁰

¹⁰ Occasionally, in transcendent moments, athletes (of all levels of participation) and perhaps spectators too, might experience the sacred through sport. Schmitt and Leonard (1986) suggest that athletes can be immortalized through sport. Prebish (1993) considers sport a religious experience, the meeting of the sacred and profane. This is a bit hyperbolic. I think that Mellor and Shilling’s (1997, pg. 1) framework for a “somatic experience of the sacred” – though not directed to sport – is a more promising starting place for analyzing sport along these lines.
Susan Birrell (1981) argues that many sports appear to have ritual predecessors and that although sport may be secularized, it maintains ritual form.\textsuperscript{11} She further argues that studies of sport would benefit from a model that incorporates Durkheimian ritual (emphasizing personal gratification and the needs of the community), Goffman’s contention that everyday interactions are ceremonial, and Weber’s notion of charisma.\textsuperscript{12} Drawing on theses three scholars she proposes that sport is a crucible of character and that athletes can, in certain situations, be heroic. She writes, “the athlete is an exemplary figure who embodies the moral values of the community” (Birrell 1981, pg. 373). She notes that athletes who fail to show character (by boasting, whining, cheating) are treated with scorn.

Finally, consider the most ambitious theoretical argument put forth to connect sport to ritual, David Sansone’s (1988, pg. xiv), definition of sport as “the ritual sacrifice of physical energy.” This is a claim Sansone supports with a discussion of Greek athletics. His is a thesis about the fundamental nature of all sport, as a human universal, across time and place. It is intriguing to consider sport as sacrifice. Many athletes and coaches (including Gribaldy) freely discuss the sacrifices demanded if one wants to be the best. But sport is (or at least has become) a catchall category. It might include bodily training such as martial arts or solitary jogging; a race between friends (or rivals); community youth hockey, Stanley Cup finals and some neighbourhood families playing a pickup game of street hockey. There is clearly no one way in which these activities relate to religion, ritual, magic or play. Nonetheless, as Carter (2012, pg. 155) points out:

\begin{quote}
Anthropologists were right to explore the similarities and differences between religion and sport – either can act as a transcendental practice, temporarily transforming its
\end{quote}

\textsuperscript{11} Brownell (1993) similarly argues that sport is essentially ritual although, following Foucault (1978), she contends that power operates differently in pre-modern ritual and modern sport.

\textsuperscript{12} Goodger (1985; 1986) also uses Durkheimian concepts to understand sport’s sacredness.
practitioners. These early theories are important, yet exactly what the relationships between religion and sport are remains to be answered.

*Play and the Making of Society*

Back to Huizinga for a moment. He grants play a generative capacity – it is through play that culture and society emerge. In this vein, lies both Clifford Geertz’s analysis of a Balinese cockfight and Arjun Appadurai’s study of Indian cricket, although these works approach games from opposite sides of the micro-interpretative and macro-structural spectrum. Geertz (1973) directs his method of “thick description” to cockfighting, carefully recounting several aspects of the event and then concluding that the cockfight is not just about all the things readily available to the naïve observer – the betting, the competition, and violence. What is being played out is something perhaps less obvious, but more lasting: “in the cockfight, then, the Balinese forms and discovers his temperament and his society’s temper at the same time” (Geertz 1973, pg. 451). It is in gambling that the moral order is forged and revealed.

According to Appadurai (1996), political rule was challenged through the sport of cricket. In arguing that cricket was integral to contesting colonial rule in India, he describes a decades-long process of integrating the sport into Indian society after which:

As Indians from various linguistic regions in India see and hear cricket narratives of television and radio, they do so not as neophytes struggling to grasp an English form but as culturally literate viewers for whom cricket has been deeply vernacularized (Appadurai 1996: 105).

In addition, as the players and audience make cricket their own, “a complex set of experiential and pedogeological loops is set up through which the reception of cricket becomes a critical instrument of subjectivity and agency” (Appadurai 1996, pg. 105). In sum, as Indian cricket
gains an independence – an indigenous style and confidence – the game enables wider projects of sovereignty.¹³

Some commonalities and distinctions are emerging here, though there remains a good deal of incommensurability, since sport, games and play are often used inconsistently. Let me make my position explicit. What makes sport such a fertile avenue of inquiry is the way it moves through frames of reference. It can be about economics, politics, magic, play and so on. It brings us together (it can make society) and sets us apart (well, it’s making society again, I suppose). Sport has been cobbled together from bits of this and that – from festivals and traditional games and military training and leisure activities – and in doing so has also invented new challenges. As analysts we are able to find numerous analogues from other aspects of life and draw on well-developed concepts to explain sport. But when we do so, we should be careful to consider how sport is and isn’t like this other thing. How medal ceremonies are like rituals and how they are not; how community sport is similar to and different from high-performance sport; let alone how buzkashi relates to synchronized swimming or hockey. Finally, before sport can be fully understood, we need to consider the athlete’s body. If, after all, sports are games of physical skill (Chick 2015), how are these bodily skills developed, displayed and evaluated?

**The Athlete’s Physio-Moral Body**

A separate group of scholars considers the bodily politics of physical exercise. The majority of these works focus on 18th and 19th century Europe, during which time related but distinctive

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¹³ In a similar analysis of sport and statehood, Stevenson and Alaug (2000) argue that a series of state-organized football matches served as a vehicle for nationalist sentiment, helping to forge a new national identity prior to the formal reunification of Yemen.
health and exercise practices emerged, what the sports studies literature refers to as physical cultures.\textsuperscript{14} Most of these works are by historians who focus on the circulation and contestation of ideals, against the backdrop of large-scale social change, from industrialization to war and revolutions.\textsuperscript{15} In brief, new knowledge of the body, borne in an emerging medical science, combined with these novel forms of political, economic and social organization, to propagate new understandings and ways of using the body. In this section, I consider the history of these distinctive and sometimes rival physical cultures. I also consider three more recent anthropological cases that likewise consider exercise is relation to the moral and political order, only these works approach the body and ideology from the other direction, focusing on how bodily practice can contest and create ideology.

\textit{Gymnastic Cultures: Educating the Body/ Education about the Body}

Born in 1759, Johann Christoph Friedrich GutsMuths, often just referred to as GutsMuths or the “grandfather of gymnastics” outlined his theories of education in publications such as \textit{Gymnastik für die Jugend} (Gymnastics for Youth, 1793) and \textit{Spiele zur Übung und Erholung des Körpers} (Games for Training and Reviving the Body, 1796). According to Pfister (2003, pg. 64):

\begin{quote}
As other educational theorists of the time, GutsMuths shared Rousseau’s view that reason (the intellect) can only be developed through the senses (i.e. only through action and perception) and that therefore the education of the body, the training of the senses and physical activities were indispensable elements of education – at least for boys…
\end{quote}

\textsuperscript{14} There was a \textit{Physical Culture} bodybuilding magazine founded in the US in 1899 by Bernarr Macfadden (Adams 2009). As such, it is an emic term. But its use academically is quite confounding because it can refer to historical or present-day German gymnastics or Chinese martial arts. It is often a catchall for any exercise that is not sport. But sometimes it refers to sport too! (e.g. Allen-Collinson et al. 2016). Brown (2019) nicely reviews some of these different uses.

\textsuperscript{15} Though not crediting Geertz (1973), these works seem to employ ideology in his sense.
Following utilitarian principles, GutsMuths and his colleagues regarded physical exercises as a means of physical training whose aim was to form character and intellect. GutsMuths ideas were influential in Sweden and Denmark, where they were taken up by local champions, modified and incorporated into “natural education” practices (Bonde 2015; Ottosson 2010). His ideas were also further developed within Germany by the “father of gymnastics” or “Turnvater,” Friedrich Ludwig Jahn.

Jahn saw gymnastics as a means to strengthen bodies as well as morale, but most importantly, as necessary to revive the health of the nation (Pfister 2003). In the turnplatz or open-air gymnasiuems that he established (first in 1811), he was training a military-ready populace. Jahn wanted a united Germany (a constitutional monarchy), free of French occupiers, and he considered training the body, not as an individual undertaking, but as part of a larger project of citizenship and nascent nationalism (Eisenberg 1996). Jahn’s slogan was “frisch, fromm, fröhlich, frei” (“fresh, pious, cheerful, free”) (Krüger 2018, pg. 9). And though he was briefly jailed for his politics, Turnen was eventually integrated into the curriculum at boy’s schools throughout the country. Jahn’s jingoism is associated with the later völkisch movement, and he was posthumously vaunted as a hero by the National Socialists (Kohn 1949).

Although Turnen was evidently a nationalistic enterprise, it inspired a variant in Slavic Europe (Sokol), spread to France, and was imported to the US by German immigrants known as “Turners,” where it gained prominence, establishing gymnasiuems across the country. With each migration, the insignia and symbols associated with the German movement were reinterpreted to suit local purposes (Hofmann 2009). American Turners are active today, with dozens of locations, mostly in the northeast and Midwest (their values, practices and locations are detailed here: https://www.americanturners.org)
Meanwhile, in Sweden, Per Henrik Ling, is credited as the “father of Swedish gymnastics” (Ottosson 2010). Ling was inspired by the Viking Age and (like GutsMuths) Ancient Greece. According to Ottosson (2010, pg. 1900):

If Ling idolized the old Geats and Swedes because the heat of warfare and the unruly forces of nature had hardened them, the ancient Greeks were admired for their physical culture. It was viewed as the explanation as to why their civilization had become the greatest of all time. Heroes, warriors, philosophers and statesmen had trained their minds and bodies into perfection at the gymnasium (Latin, gymnasium).

On the surface, Ling’s ambitions seem to differ little from his counterparts in Germany: he wanted to train healthy bodies that would invigorate the health of the nation. But Ling’s doctrine was distinctive. His model of education was based in four interrelated branches: pedagogy (learning movements), military training (mostly fencing), medical knowledge and practice (especially a form of physiotherapy) and aesthetics. Only the first three were incorporated into the curriculum at the Royal Central Institute of Gymnastics (RCIG), which he headed from 1813-39 (Lundvall 2015).

In addition to exercises carried out on one’s own, and the use of various apparatuses, he also designed exercises with partners who would either support positions or movements or provide resistance (Bonde 2015). Ling expressed scorn for sporting contests and what he considered the spectacle of Turnen, suggesting that these activities could lead to overtraining and harm (Ottosson 2010). In contrast, he considered his gymnastics as healthful and curative. But it was perhaps Ling’s emphasis on an emerging medical science that distinguished his form of gymnastics most of all. The RCIG, the school Ling founded, continues today as the Swedish School of Sport and Health Sciences (Lundvall 2015). Ottosson (2010) credits Ling’s gymnastics, grounded in understandings of anatomy, with creating the field of kinesiology. He is also credited as a forerunner of physiotherapy (Karling 1954.)
Muscular Christianity

While gymnastics gained popularity in continental Europe, another physical culture, this one borne in Victorian Britain, found its inspiration not so much in ancient Greece, but in Jesus at the temple, physically casting out the money lenders and in Paul’s use of athletic metaphors when describing faith. These scriptural passages were touted as the basis for a doctrine of moral hygiene known as Muscular Christianity, in which certain games and sports provide a means of staving off a physical and moral weakness and effeminacy (MacAlloon 2006; Putney 2001). Muscular Christianity was never formalized as a singular movement (like Turnen), or housed in a central institution (like Ling’s RCIG), rather it was diffuse, taken up by many proponents, but always to the end of cultivating an appropriate form of masculinity that united spiritual and bodily vigour.

Two authors are credited with popularizing its foundational philosophies, Charles Kingsley and Thomas Hughes, both of whom wrote allegorical novels in which the heroes are courageous, athletic, charitable, and sociable, qualities they develop through adventure, exercise and participation in team games such as rugby. Accordingly, though Muscular Christianity has taken various forms, the common thread is that games (and later, more record-oriented sport) are venues for developing the moral character and physical capacities needed of men. The model of masculinity offered might charitably be called chivalrous, though it was often chauvinistic.

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16 Though Rousseau’s philosophy was influential here as well (Rosen 1994, pg. 20).
17 At times, muscular Christianity mixed with Calvinism: success in sport was a sign of god’s favour (Kuzmics 1993; Overman 2011).
18 Charles Kingsley wrote Westward Ho! (1855). Thomas Hughes wrote several, the first being, Tom Brown’s School Days (1857).
19 Putney (2001) argues that Muscular Christianity arose in response to fears about the growing role of women in the church. But MacAlloon (2006) suggests that motives and attitudes toward women were more complex than this.
These ideas were applied in English public schools and to various imperial and missionary enterprises as well (Mangan 1986). Consequently, a complex chain of production and circulation emerged, in which schools such as Eton, through a games-based pedagogy fashioned suitable colonial administrators who likewise employed games as part of a colonial project aimed at rendering their subjects more governable (Mangan 1986). The tenets of Muscular Christianity found their way into other institutions as well, all emphasising the educational imperative of physical exercise. Although the YMCA was not founded as such – it originally sought to combine ministry with recreation – it evolved, especially in the US to embrace games and sport as essential for well-rounded development (Garnham 2001; McLeod 2012). As did the Boy Scouts (Kidd 2013).

And while these organizations no longer emphasize faith, the ethos of Muscular Christianity is still endorsed by adherents in the US and UK through new forms of ministry (Ladd and Mathison 1999). Further, Kidd (2013, pg. 405) argues that:

It was middle-class reformers and socialists as well as upper-class conservatives who took the ideals romanticized by [Thomas Hughes in] *Tom Brown’s Schooldays* and ran with them in municipal playgrounds, the amateur sport movement, the Young Men's Christian Associations (YMCA's), church sports associations and university sport clubs. With the disappearance of the socialist sports tradition in the 1950s, the followers of Hughes and the tradition of “sport for good” have become the most progressive voice in the pan-Canadian debates about the purpose of sport and the nature and extent of state funding, championing educational sport and sport for development and peace.

This link from Muscular Christianity to Mandela seems a bit stretched. After all, *Turnen*, Trobriand cricket and Balinese cockfighting are “for good,” too, are they not? Nonetheless, the

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20 And more than a century before Mandela, Coubertin (2000) connected sport to peace.
grand arc that Kidd presents does trace many ways in which sport has been employed in the service of moral betterment in the English-speaking world.

And here it seems best to pause and consider what these ideas suggest about sport and society. Though describing different times, places and physical cultures, the common thread in the preceding historical analyses is that culture and politics are inscribed onto bodies. To a large extent, the details of the exercises or games engaged in become irrelevant. So, for instance, gymnastics needed to be collective, not competitive. And British schoolboys needed to play on a team to learn to work together, win with decency and lose with equanimity. Beyond that, what exactly they were doing with their bodies doesn’t really matter. The three anthropological cases to which I now turn, begin with, and insist upon, the importance of bodies-in-action, generating or contesting a larger social context.

Somatic Nationalism

Joseph Alter’s (1992) ethnographic account of wrestlers in northern India provides an inversion to the previous works on physical cultures. And it does so while providing a remarkable analogue to Turnen, since Indian wrestling likewise involves collective training and exercise programs related to nationalistic projects.\(^{21}\) And, as they work on their bodies, the wrestlers’ mission is the moral reform of the nation. Yet Alter asserts that Indian wrestling is not ideology written on a passive body, but instead, an activity that forms the basis of a somatic ideology. This is in part because wrestling is neither leisure pursuit, nor competitive contest, so much as it is a way of life. He goes on to explore wrestling competitions (dangal) and argues

\(^{21}\) Alter (2007, pg. 1156) does just such a comparison and points to how “similar configurations of sport and gymnastics articulate different modernities.”
that unlike Geertz’s (1973) Balinese cockfight, Indian wrestling matches undermine the dominant ideology of the society, namely, that of the caste system “by positing the individual as a social fact” (Alter 1992, pg.197).

Alter explores the ways in which wrestlers co-opt the self-discipline of the sannyasi (a world-renouncing ascetic) but orient their bodies to the world. In so doing, the wrestler’s body becomes emblematic of a “somatic utopia” (Alter 2002, pg. 226). Consequently, while wrestlers carefully manage their corporeality, driven by concerns about purity and pollution not completely dissimilar from those held by the general Indian population, their way of life encodes an individual identity and an egalitarian ethic. Through wrestling, the athlete becomes a “a self-conscious paragon of physio-moral health…This somatic ideology is translated into a nationalist discourse” (Alter 1992, pg. 317). As such, it is wrestling that enables a particular form of Hindu nationalism (as opposed to nationalist ideas necessitating a form of physical training).

Building the Body

Working in China, Susan Brownell (1995) an American collegiate athlete, trained with fellow athletes at Beijing University, eventually competing (and winning) in heptathlon at the PRC National Games. Brownell develops the concept of “body culture” (Brownell 1995, pg. 10) which encompasses “daily practices of health, hygiene, fitness, beauty, dress and decoration, as well as gestures, manners, postures, ways of speaking, eating and so on.” Body culture builds on habitus and practice (from Mauss (1973) and Bourdieu (1977)) and micro-techniques of discipline (Foucault 1977), to insist on a body that is the sum of social experience and societal inscription. With this concept, Brownell examines how, through sporting events, complex
displays of bodies and nations are performed through a symbolically rich mix of actualities and aspirations. She also explores diverse motivations for participating in sport, including the upward mobility sport affords to peasant women, as well as the opportunity to partake in the “iron rice bowl” of the state – that is to secure more and better food (Brownell 1995, pg. 255). Success in sport here, as is the case in the Dominican Republic (Klein 1991) or a ghetto in Coney Island (Frey 1990) or Chicago (Wacquant 2004), promises a means to economic security.

She notes that a Chinese athlete’s greatest preoccupations are reproduction and nutrition, mirroring a Chinese citizen’s two dependencies, the family and the state. And in this regard, she argues that:

The boundaries between the body, the family and the state are more fluid than in the west. The body is not a sealed vessel situated at the center of these social axes, and the person who possesses that body does not do so completely. (Brownell 1995, pg. 261)

Whether the western body is as bounded or autonomous as Brownell assumes, the contrasts she provides between Chinese sport and “the west” offer challenges to notions of sport as quintessentially modern, and to the individual, competitive quest of athletes. In her analysis, sport is neither strictly western nor coopted by Chinese “traditions.” And despite the state’s active interest in developing athletes, bodies don’t always conform to the state’s agenda. Sport in the PRC is not “capitalism at play” (Collins 2013, pg. 13), neither is it akin to gymnastic culture in Germany. It expands and contracts to be, in moments, more or less than either.

*Sport as Craft*

Loïc Wacquant’s (2004) study of boxing was conceived as a research project to develop Bourdieu’s (1977) theory of practice and concept of habitus. As he describes it:
To become a boxer is to appropriate through progressive impregnation a set of corporeal mechanisms and mental schemata so intimately imbricated that they erase the distinction between the physical and spiritual, between what pertains to athletic abilities and what belongs to moral capacities and will. The boxer is a live gearing of the body and the mind that erases, explodes the opposition between action and representation, and in so doing transcends in actu the antimony between the individual and the collective. (Wacquant 2004, pg. 17)

Like Alter, Wacquant directs his attention to practices, although he doesn’t entirely privilege practice. Instead Wacquant maintains that practices are inseparable from “moral capacities and will.” As Wacquant further elaborates these ideas, we come to understand that the movements preformed by a skillful boxer appear and feel natural, when they are far from self-evident. Instinct and reflex are trained into the body. Yet, Wacquant also states it is only after a move has been assimilated into the body “that it becomes in turn fully intelligible to the intellect” (Wacquant 2004, pg. 69).

Wacquant (2004) refers to himself as an apprentice and considers boxing a craft (he later more fully develops his methodology as “carnal sociology” (Wacquant 2005; 2015)). And this nod to apprenticeship does get at the gradual inculcation of abilities through repetitive work. Certainly, no amount of reading or didactic instruction makes someone an athlete (although speed skaters are well-informed about a number of complex matters of physiology). Athletes become athletes by doing. Athletes were practicing long before practice was in vogue in social theory. So yes, there is something craft-like about sport training, although in this analogy, I’m not certain who counts as a master. A coach, for instance, seems inaccurate.22 For one, it is not uncommon for coaches to train athletes to greater successes than they themselves had. Moreover, athletes train to become better athletes, not to become capable coaches. If not

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22 Contemporary coaching is supposed to be supportive and caring (Cassidy, Jones and Potrac 2004; Hardman, Jones and Jones 2010)). This differs a great deal from the typical master–apprentice relationship (Sennett 2008).
coaches, perhaps the master is a fellow athlete. A training structure that brings athletes of disparate skill levels together in one physical setting is intentionally employed in numerous athlete development programs, including the gym Wacquant trained at and at the Oval, where the national team shares ice time with lower-ranked skaters. In this way, perhaps it is more successful athletes who become the masters emulated. Or perhaps for athletes, chasing new records and seeking to be better than those who came before them, it is like Hemingway said of writers, in that they are all “apprentices in a craft where no one ever becomes a master.”

The Genesis of Sport

Finally, a group of scholars focus their work on the social conditions that gave rise to contemporary sport, distinguishing sport-proper from games, and other forms of leisure and exercise. Although diverse, these works coalesce around three major foci, each with a distinctive historical departure. Norbert Elias and his student and collaborator, Eric Dunning, argue that sport emerged as part of a broader “civilizing process” beginning in medieval Europe. Another group of analyses depart a few centuries later, suggesting that sport is the result of leisure coming under capitalism. And then there are those who begin in the 19th century, linking sport with the rationality of modernity. To these scholars, standardized events, carefully measured performances and records-kept distinguish sport from traditional games.

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23 The anthropological literature on apprenticeship is characterized by hardship, humiliation, marginality, little obvious teaching, and stealing the master’s secrets (e.g. Herzfeld 2000; Kondo 1990; McNaughton 1988; Simpson 2006). This does not align well with what coaching is meant to be, but may be what mentorship amounts to amongst athletes competing for the same Olympic berths.
Sport and the Civilizing Process

First, the theoretical underpinnings of Elias’s (1978; 1982) civilizing process. The two major components of this theory are that: 1) figurations constitute the object of sociology; and 2) European society underwent a civilizing process (his theory is also called figurational sociology). Figurations are interdependent associations or networks of individuals, families, states and so on.24 Elias is clearly inspired by Durkheim’s functionalism; the individual and social groups are dependent and inseparable, though within these figurations, both cooperation and conflict are evident. Now to the civilizing part. Elias did not mean this as a value-judgement, but rather he deploys the term, first in an emic sense, referring to the refinement of manners, politics and modes of knowledge Europeans ascribed to being civilized, and then uses civilised conceptually, as a process of psychological, social, and political transformation. His argument is complex, tracing through centuries of history, particularly in England and France, from the late medieval period to the 20th century. But the general thrust of the civilizing process is that increasing prohibitions on violence, and its eventual near monopolization by the state, are concurrent with a tendency for individuals to increasingly govern themselves.25

Elias contrasts the violence of earlier games – in which harm, mutilation or even death might occur – to the controlled physicality of modern sport. He further develops these ideas with one of his students from the University of Leicester, Eric Dunning. Together, they argue that sport, and other forms of leisure, meet a need for pleasurable excitement, and provide a controlled outlet for acceptable forms and levels of violence (Elias and Dunning 1986). Mennell (1990) has elaborated on this theory by proposing a countervailing decivilizing process. And

24 Much like actor-network theory (Latour 2005), this is as much a methodological stance as a theory.
25 His argument bears broad similarities with Foucault’s (1991) notion of governmentality.
Maguire (1999) layered Elias’s (1986) notion of “sportization” (a development process parallel to the civilizing process) with Robertson’s (1992) five-phases of globalization to generate a model of discrete periods of sport’s development and spread.

Elias, Dunning and their colleagues established “the Leicester School,” an approach to the study of sport, and in particular the study of rugby, football and hooliganism, based in figurational sociology. Once your work is known as a “school”, you’ve clearly been influential. And you likely have some critics too. The thing is, while folk football was perhaps more violent than the modern game, the former is still played in parts of Scotland (see Fournier (2011)). How can this be accounted for? Are the Orkney Islands still civilizing? Further, there are numerous sports that don’t seem to fit this model. Racing sports such as speed skating for one. And there are other, more pedantic, challenges, such as how to compare levels of violence within the historical record. The athletes at the Oval, with chronic hip, back or shin problems, have harmed their bodies. Is this violence? Like many ambitious and broad theories, the civilizing process – when applied to a specific case – often ends up dogmatic or teleological, with evidence made to fit into appropriate boxes.

*Follow the Money: Sport as Competition and Commodification*

One of the major critics of the Leicester School, Tony Collins, also studies the history of rugby and football. But he places sports’ origins in capitalism. According to Collins (2013), around the 1700s, the leisure activities and games popular in Britain saw two marked changes. He points to three games in particular – cricket, horse racing and boxing – that began to

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26 While I focus on Collins, others have offered similar arguments (e.g. Budd 2001; Lavalette 2013; Smart 2007).
emphasize rules which in turn enabled these pastimes to generate revenue. Collins suggests that this wasn’t because the British were more athletic, or more passionate about games than their continental neighbours, but because mercantile and industrialized Brits wanted in their pastimes what they wanted in commerce, “to compete, to win, to profit” (Collins 2013, pg. 4). Games came under the expansive logic of capitalism and began to serve as a metaphor for life in general.

Of course, to be commercially viable sport needed codified rules (how can you know which horse or athlete or team to back, if you don’t know the nature of the match?). And it would help if you could inform yourself about past performances. Consequently, the first periodicals to cater to the sporting gentleman surfaced, in which were published relevant statistics and records. Horse racing was the first to create standard racecourses and establish a governing body, the Jockey Club (founded in 1751 or 1752). Collins argues that this historical progression of events clearly demonstrates that commercialization led to standardization and not the reverse. He further argues that:

Sport was not merely co-terminous with the expansion of capitalism, but an integral part of that expansion, not only in economic organization, but also in ideological meaning. At the level of everyday discourse and seemingly empirical “common sense” – what might be termed “deep politics” – modern sport was capitalism at play. (Collins 2013, pg. 13)

Collins’s arguments are stimulating, though contemporaneous and causal can be tricky to suss out. Nevertheless, whether sport originated in capitalism, or was swept along with it, there’s no doubt that contemporary sport operates within a complex global political economy. From megaevents (Giulianotti 2011), to the precarity of American collegiate athletes (Gilbert 2011),

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27 I'm reminded of how Weber (2003) turned Marx's argument on its head, proposing that ethos and ideology gave rise to a new economic order and not the reverse.
2016), to “the brawn drain” (Bale 1991) – the recruitment of athletes from other (often poorer) nations to build a competitive roster – the logic and practices of capitalism are apparent in contemporary sport. At the highest levels of competition (and even in Canadian, community organized youth soccer with its Timbits jerseys) commercialization and commodification are apparent. However, Collins’s (2013, pg. 13) argument that sport is “capitalism at play” is challenged by the ways in which sport has been taken up under socialism (e.g. Mertin 2009). Further, although Collins examines the history of socialist sport, the ontological implications of his thesis go unchecked. For him, sport is ideologically useful to (both sides of) class struggle and to socialist movements (Collins 2013, pg. 97-9).

Sport and Rationality

Numerous sports studies scholars contend that sport is novel because of the way it concerns itself with abstraction; it is measured and recorded, and the record kept matters. One of the first of these arguments remains the most influential: American Studies scholar, Allen Guttmann’s ambitious book, From Ritual to Record: The Nature of Modern Sports (first in 1978; a new edition in 2004). Guttmann compares modern sport to older games, especially those of ancient Greece and Rome. He contends that sport marks a distinctive break from the past and, drawing on a Weberian framework, provides seven criteria for defining sport: 1) secularism; 2) equality; 3) bureaucratization; 4) specialization; 5) rationalization; 6) quantification; and 7) record-keeping. On their own, each of the points is open to dispute. And indeed, many scholars have challenged parts of Guttmann’s thesis (e.g. Carter and Krüger 1990). Some Greek athletes specialized (Young 1984; 2004), and records were kept of Roman chariot races (Ramba 1990). But, as a defining whole, Guttmann’s list is pretty convincing. While football (soccer) may be
played according to different styles, for instance, the standardization of the game means that football can be readily identified as such in Brazil or England or the US. Sport’s bureaucratization and rationalization provide a lingua franca, rendering differences in style as no more than dialects.

Sébastien Darbon (2014), clearly inspired by Guttmann’s ideas, but also certain that Guttmann has some details wrong, distinguishes between the “jeux athlétiques” of the past with our present “système sportif.” Darbon arrives at a set of five interdependent criteria that he argues reinforce one another over time, sustaining the system. This system is constituted by: 1) precise rules, universally applied; 2) institutions created to arbitrate the rules; 3) equality of competition; 4) the creation of dedicated sporting spaces (which he deems the most revolutionary innovation); and 5) the function of time and duration within sports. Darbon’s historical account of the development of sport marks two transitions. Just as Collins asserts, a first transformation takes place in 18th century England. He contends that increased affluence under capitalism creates possibilities (especially for gambling), but also necessitates the establishment of common rules.

The second transformation takes place (as Guttmann contends) in 19th century Britain, when national bodies are established for a number of sports (such as rugby, athletics and skating). The first transformation sets the stage. But it is after the second transformation that the story of sport is really played out. There is a shift to greater physicality (from cricket to rugby, for instance) alongside an inversion of sport’s ruling class (sport is no longer the pleasurable

28 Soldani (2017) proposes three categories relating to time: sports in which time determines the winner (a race); sports in which time sets the duration (a hockey game); and sports in which time is not a determining factor (cricket, tennis, shot put, etc.) but in which the event still creates its own temporal order and experience.

29 This is not what one would expect if sport is part of the civilizing process.
hobby of the aristocracy; athletes and spectators are drawn from the lower class\(^{30}\)). Darbon’s emphasis on a system – and insistence that to be a sport, it must be sustained within this network – is certainly well-suited to the analysis of an Olympic sport sanctioned by the International Olympic Committee (IOC), as well as an international federation (IF) and national sport organizations (NSOs). And his emphasis on the spaces devoted to sport, and the tyranny of time as a unit of measure (either for the standard duration of a game, or as an arbiter of the competition) captures two critical characteristics of speed skating. Most importantly, Darbon’s analysis moves us away from a taxonomic definition of sport (it must have this, that, and the other thing to be sport-proper), to considering the interconnected processes that make sport possible.

A Very Condensed History of the Modern Olympic Games

In brief, by the mid-19\(^{th}\) century, several related gymnastic cultures were in place in Europe. These were exercise programs in service of the body politic. As they were not competitive sporting practice, the aim was collective improvement, not individual success.\(^{31}\) Concurrently, however, competitive sport was also being heralded as a means for fostering desirable social and personal traits. This took two main forms. There was the sportsman, who found in sport a crucible for the capitalistic self (Collins 2013; McLeod 2012), and the Muscular

\(^{30}\) The disruptive successes of professional athletes contributed to the shift. As Collins (2013, pg. 28) points out, “of the twenty-two annual Gentlemen versus Players [cricket] matches played between 1819 and 1840, the Gentleman came out on top on just six occasions, whereas the professional Players won fourteen times.” As lower-class professionals came to succeed in sport, the upper- and middle-classes began to espouse the necessity of amateurism to maintain the spirit of sport.

\(^{31}\) Girginov and Sandanski (2004) argue that the collectivist orientation of Eastern Europe is important for understanding how the Eastern European model of sport is distinguished from individualist sport as developed in Britain.
Christian, who saw sport’s potential for social reform (Kidd 2013). In short order, gymnastic culture on the continent was superseded by sport, a change that led the Head of the Institute for Physical Exercise (Berlin) to lob an insult toward the British, submitting it is no surprise that sport developed in “the land without music” (Coakley and Dunning 2000, pg. 250).

The global spread of sport is commonly explained in terms of ideals, hegemony or imperialism. Indeed, there are examples of sport as employed by colonial regimes (as in Mangan 1986). However, this analysis glosses over other, less nefarious, cohesive or directed, forms of dispersion. For instance, Pfister (2003) discusses how select German educators, and champions of English sports such as football and athletics, introduced these activities in Germany, challenging Turnen orthodoxies about the body and training. Sandblad (1988) likewise, identifies Swedish gymnasts who were sympathetic to sport. In this way, sport spread just the way that so much other culture change happens. An individual (or perhaps small group), perhaps an enterprising entrepreneur, tries something out and may convince others in the good of this new endeavour. To me, Barth’s (1963) emphasis on entrepreneurs as vectors of change, rallying supporters and working (in his jargon through transactions) to generate shared values (and profits), is a rather compelling framework for understanding the spread of sport and the formation of the modern Olympic Games, even if, at times, this is more of an entrepreneurial spirit than a strictly economic event (it is, sometimes, both). In short, yes, sport often travels

32 Figurational sociologists might simply contend that sport’s ascendance, as a means of channeling violence, was inevitable as part of a civilizing process.
33 Sandblad (1988) also points to the close collaboration between Swede, Viktor Balck, and Pierre de Coubertin in shaping the modern Olympics, a process he terms Olympia och Valhalla.
34 Pfister (2003) uses the term confrontations to describe this, but events often appear less hostile than that word would suggest.
via imperial routes, but it does so because actors find value in employing sport and can persuade others of its worth.\textsuperscript{35}

When Pierre de Coubertin, founder of the modern Olympics, visited England and witnessed rugby as education, he wanted the same for French boys (MacAloon 2008b). In British sport, he saw how athletes could be the new knights of the roundtable, with codes of honor and fair play enacting a revived chivalry. This orientation to sport – as well as the ancient Greek preoccupation with youth, beauty and heroes – formed the inspiration for his vision for the modern Olympics:

The Olympic idea is the concept of a strong physical culture based in part on the spirit of chivalry – which you here [in England] so pleasantly call “fair play,” and in part on the aesthetic idea of the cult of what is beautiful and graceful. (Coubertin 2000, pg. 588)

Coubertin’s revival of the Olympic games is underwritten by a philosophy, Olympism, that emphasizes sport in the service of culture and education. The modern Olympiad includes numerous now familiar symbols such as the flag with its five interconnected rings (designed by Coubertin) and the flame (first lit in Amsterdam 1928). Coubertin asserted that competing was more important than winning, giving rise to the Olympic maxim: “the most important thing in the Olympic Games is not winning but taking part; the essential thing in life is not conquering but fighting well.” Nevertheless, the Olympic motto – \textit{citius, altius, fortius} – emphasizes that “taking part” is also about achieving excellence.

The Games are organized through a hierarchical structure with the IOC overseeing National Olympic Committees (NOCs), of which there are currently 204. National Olympic

\textsuperscript{35} I use \textit{find value} in an ambiguous way. Sometimes sport presents itself as an inevitable choice. But even so, actors take it up, not structures.
Committees are commissioned to promote and protect the Olympic Movement in their respective countries. And there are IFs such as the International Skating Union (ISU). These IFs provide transnational sport governance and operate autonomously of the Olympics but are subordinate to the IOC in matters relating to the Games. The first modern Olympics, held in Athens in 1894, had only one national team, Hungary. The rest of the competitors – all men – were mostly upper crust types drawn from local athletic clubs. In the next few decades, local clubs came under the purview of NSOs, which linked up with IFs, and the IOC. In this way, sport’s spread could be seen as the delicate weaving of an elaborate web. Then again, as so-called traditional games and activities moved to the margins, the ascendence of modern sport could be equated with an avalanche’s thunderous alteration of the landscape.

Of course, sport is much more than the Olympics (and more than high-performance sport). I am focused on a relatively small cohort (the same way that sommeliers form a small subset of wine drinkers). The Olympics, however, are inescapable for speed skaters training at the Olympic Oval. From the building’s unimaginative name, to various artworks and commemorative installations, to the goals of so many who train there – the Oval is enmeshed in the broader history and ongoing projects of the Olympics. Beyond that, speed skating is a quintessential Olympic sport. It has been a part of things since the first winter Games in 1924.\footnote{To be precise, the Chamonix Games began as “International Winter Sports Week” and were later recognized as the “first” Winter Olympic Games.} Many of us spectators will watch some of the events during an Olympics, though few of us follow the sport otherwise. And Canada’s success in Olympic speed skating, though far less than some other countries, is still considerable: Canada has more medals in speed skating than in any other sport (summer or winter).
Frameworks and Boundary Work

I now return to the debates within sports studies, and the general divide between arguments for continuity or rupture. The fundamental question here is whether sport is a continuation of other human universals (emerging out of play, ritual, or other forms of training the body and physical contests), or whether sport is something novel. In a way, this is no different than asking if air-travel is a continuation of bipedalism. Your answer to that question would depend a great deal on your starting suppositions. And anyway, sport is a complex, unwieldy phenomenon. My purpose has not been to arrive at a definitive answer – certainly not for all sport – but to first understand how, through a succession of theories, sports studies has developed, and second, to glean ideas that are useful to understanding speed skating at the Oval. Comparing sport-proper (as outlined by Guttmann, Darbon, or Collins, for instance) with games, rituals and festivals in other societies suggests at the very least what speed skating is not. As one retired skater told me, “what we do is pointless.” I’m certain that isn’t the case. I’m also certain, that unlike those gathered around the Maypole or Ndembu milk tree, there is a less obvious, singular purpose to the activity.

There is enough coherence within modern sport to recognize it as such (it’s clearly not performance art), yet it remains diffuse enough to leave us questioning its boundaries (are video gamers athletes?). In this history, then, it is easy to see the appeal of Janus. Nineteenth century sport was vaunted by both capitalists and Christian socialists. Sport is fun and playful, employed to cultivate and display moral excellence, and put to the serious business of nation and empire. Sport pits individuals and groups against one another, but this competition often brings them together, at the very least providing the shared status of competitor and the respect that engenders. The first question I received from speed skaters was whether I was one too. My
answer helped them gauge just how expert I was, but more than that, it was a question about belonging. And this again brings up boundaries. Where was I situated? Had I crossed the threshold? Janus again? Perhaps.

Classificatory Regimes

There are two sorts of boundary work that I explore throughout this text. One is the historical tracing of a sport, as it is established, legitimized, and expanded, setting what is inside and outside its domain. The other is a matter of academic boundary work. How do we understand this phenomenon? And of course, once it is ritual or capitalism or any such category, a host of related concepts (e.g. fetishes or hegemony) can be employed, and explanatory narratives offered. And it’s not that these concepts can’t be illuminating. But that relying on one alone is often limiting. To grasp sport is to struggle with its messiness. And, I think, to embrace this, in our theoretical frameworks.

To borrow from Latour (1993), sport inhabits the middle kingdom. It is impossible to classify it as purely play or ritual, records, or economics, because it has no pure history. Sport is a cobbled together sort of thing. The Olympics, especially, illustrate this, marrying a nostalgia for antiquity with the high ideals of progress (could anything be more modernist?). Successive iterations have added and subtracted bits and pieces, blended them together and moved them around. Neither is sport hybrid, nor recombinant, for all the stability that would suggest. Carter (2002, pg. 418), drawing on Appadurai’s (1996) concept of scapes, proposes that we consider sportscapes as:

The flow of people, practices, capital, and institutions that constitute the fluid, irregular movements of sport across the globe and within localities. The various flows we see are
not coeval, convergent, or spatially consistent but instead, exist in relations of disjuncture. 37

Flow and flux are useful, I think (though barricades and locks are apparent in sport too). Not only because this gets at a complex interplay, but because it moves us from faces, surfaces, and images, to travelling the territory – to motion, feeling and change.

This ethnography considers the sport of speed skating by following the people, practices, ideas, material objects and formal organizations that form interactive, often interdependent, and shifting relationalities. What I attempt to capture then, in a sport based in movements and moments on the ice, are these other sorts of movements and moments, both mundane and momentous. How people come to be participants in the sport, to build remarkable bodies and inhabit institutions. How time is played around with. How the past gets called into the present. How the present is cast to the future. This then is a study of the spatial and temporal configurations of this social world, captured for an instant. I approach this objective over four chapters, each of which emphasizes one of history, space, time and the body. These distinctions serve me as I move my analytic lens from the development of speed skating, the construction and use of the Olympic Oval, to time and potential in the athlete development program, and finally to the individual and collective bodies of athletes. But these analytic frames were not selected because they alone can explain sport. These frames simply – and necessarily – provide observational structure. Without the riverbank, you couldn’t watch the water flow.

37 Sportscapes is also used by geographers but, as in landscape, to denote the spaces specifically designed for sport (Bale 2000).
Then the King asked what that young man could do, who accompanied Thor. Thialfe answered, that, in running upon skates, he would dispute the prize with any of the courtiers. The King owned that the talent he spoke of was a very fine one; but that he must exert himself if he would come off conqueror.

Translation of the Norse Edda, quoted from Longfellow (1816, pg. 33)

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**From Bones to Blades**

In this chapter, I draw on archaeological, archival and ethnographic evidence to create an interlaced history of speed skating. Like most histories, I focus on crucial periods or episodes that mark changes, and – where possible – on the people who animate these moments. My aim is not an exhaustive account, but to document an arc of events. I mostly present a linear procession of novel ideas and innovations, a convention of writing historical accounts that, in part, reflects the temporality of narrative structure (Munn 1992). Relying on this approach to history, speed skating emerges as a sport in 19th century England, coterminous with modernity and distinct from its past. But it is not just these changes over time that I wish to document. I also extend the longue durée, approaching a deep history (Shryock and Smail 2011), an embodied history that seeks commonalities and bridges the continuity of play, games and sport. As Mauss (1973), in his discussion of techniques of the body, tell us:

What emerges very clearly from them is the fact that we are everywhere faced with physio-psycho-sociological assemblages of series of actions. These actions are more or less habitual and more or less ancient in the life of the individual and the history of the society.

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1 This may in fact be a mistranslation – perhaps better rendered as skis than skates (see Fowler 1897, pg. 27) – but Thialfi’s place in skating lore continues to the present.
It is these assemblages of actions, “more or less ancient” for the individual and society, that intrigue me. Accordingly, the history presented here is as much about how skating transformed into an Olympic racing sport as it is about how history is carried into the present.

**The Development of Skates: Artifacts and Artifice**

The oldest known bone skates were found in Finland and date to the Bronze Age (Luik 2000). And there is ample archeological evidence of bone skates up until the medieval period wherever Germanic languages are spoken (MacGregor 1975). These skates are most commonly fashioned from the metatarsals of cattle or horses (Brown 1959), with holes bored to accept leather straps for affixing the skates. According to Thurber (2020), the bones may have been greased with animal fat. Thurber further suggests that, as skis appear to predate skates, skates may have emerged as a ski variant best suited to ice. Indeed, early skating was likely akin to skiing, with skaters utilizing a pole to propel themselves. A woodcut in Olaus Magnus’s *Historia* depicts skaters and skiers chasing after hounds in a hunt; one skater is propelling himself with the pole to the side of his body, the other with the pole between his legs. Wolf (2004) argues that early skiing is mostly linked to long-distance travel and winter hunting, while skates are often referred to in relation to contests and games. For instance, in a boasting contest described in the *Heimskringla*, King Sigurd says to his brother, King Eystein “I was so good at skating, that I did not know anyone who could vie with me” (Sturluson 1964, pg. 703).

Bone remained the gliding material of choice until iron blades were introduced (possibly in the 13th century (Goubitz 2000)). This innovation rendered a pole unnecessary, as edged

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2 But rather amazingly, bone skates continued to be used for centuries alongside metal skates. For instance, Fowler (1897) writes of skating on bones in his youth. Nineteenth century usage is also noted by Balfour (1898).
blades enable skaters to push off with their lower limbs (Formenti and Minetti 2007). Early iron skates featured blades mounted to wooden platforms that were tied around a skater’s feet (boots and blades weren’t yoked into a single unit until the 19th century) (Brown 1959). Iron skates were further refined, first as double-edge iron blades and eventually into lighter steel blades (Brown 1959). Many innovations in skate design are traced to the Netherlands, where networks of canals were created to drain low-lying lands. According to Heathcote (1892b, pg.8):

> Communication between important centres of commerce is maintained chiefly by canals, and when these become closed to navigation by ice, the frozen surface offered a ready and rapid means of locomotion. Dutch men and women habitually made use of these ice highways.

Metal blades enabled new styles of skating including the so-called “Dutch roll” (zwieren or schoonrijden), which was common in the western provinces of the Netherlands (Brown 1959). The Dutch roll is still practiced by enthusiasts today, while dressed in folk costume (you can find videos from a quick search on YouTube).

Based on a research project that matched retired short track speed skaters with skate prototypes marking five major design transitions from bone skates to contemporary blades, Formenti and Minetti (2007) argue that skating emerged as a means to reduce energy expenditures during winter travel, as each refinement in skate design allows travel with reduced metabolic costs. Their explanation may seem obvious to biologists concerned with thermodynamics, but if Huizinga is to be taken seriously, it must be maintained that people were also just having fun. In fact, Fitzstephen’s “Description of London,” published in 1180, mentions skaters, using bone skates assisted by poles, playing on a frozen marsh. What he describes is clearly an amusement. Thurber (2020) likewise insists that the fun of skating is

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3 The first double-edged metal blade appears to have been developed in the Netherlands (Brown 1959).
emphasized in both medieval and modern artworks and written accounts of bone skates. Thus, while improved materials and design do allow people to skate with greater ease, skates have been employed to many ends, including to procure a livelihood, in play and in battle. In 1572, near the beginning of what became an eighty year war, Hollanders flooded fields in Amsterdam and donned skates to fight off the Spanish (apparently, the astounded Spanish, in turn, captured a pair of skates and set to manufacture thousands of skates and train their soldiers on them) (Brown 1959; Motley 1858).

As such, it is debatable whether innovations in skate design were primarily fuelled by a need for more efficient travel from a metabolic perspective. Refined design led to greater speed. Greater speed may enhance your success hunting, or surprise adversaries in war. Greater speed also allows for greater fun. Rather than focus on thermodynamics, the archeological evidence relating to the evolution of skate designs (which makes no mention of motive) can just as well be explained in the service of leisure and games – competitive and otherwise – and as a means to enhance the pleasure of exploring and refining movements. Changing skate designs were likely driven by multiple and complex rationalities, and, like so many inventions, a bit of luck and happenstance.

The Development of Regional Races and Games

Nordic peoples are the assumed originators of skating. And today, no nation claims the sport of speed skating quite like the Netherlands (Koolhaas 2000). However, the history of speed skating must also include Great Britain. Bone skates may have been introduced to Britain by any one of the island’s northern conquerors (Normans, Danes and Anglo-Saxons). Or perhaps they were
independently invented on the isle. Likewise, iron blades appeared in Britain – by one means or another – by at least the 17th century. James II, the exiled Stuart who spent time in the Netherlands, may have brought skating to England upon his return. But prior to this, Dutch engineers were employed to drain the marshy lands in Cambridgeshire (located in the Fenlands of England), suggesting another possible route for iron skates to spread to England. Lastly, Porter (1969) relays a story commonly told in Fenland alehouses in the 19th century about a French monk cast out of Ely Cathedral who was nursed to health by locals and taught them about pattens, though she doubts the accuracy of this story as a historical account for the movement of iron-bladed wooden skates into the Fens. Porter insists that skates likely came to England via Holland.

By whatever means skates came to be in Britain, skating grew in popularity and eventually developed into two distinct sports localized in Scotland and the Fenlands, respectively. And, once again, skating seems tied more to amusement than travel or livelihood. Samuel Pepys remarks in his diary entry dated September 1, 1662, that he visited a park, “where I first in my life, it being a great frost, did see people sliding with their skates, which is a very pretty art.” The world’s first skating club was founded in Edinburgh, the exact date somewhat in doubt, but probably in 1742 or 1744. Members of the Edinburgh Skating Club skated on Duddingston Loch. The club promoted novel and elegant skating figures and was instrumental in the development of figure skating (Bird 1979; Brokaw 1910). In the Fenlands of East Anglia – a marshy, coastal plain of England, that like the Netherlands affords numerous frozen

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4 Skating with speed or with grace – speed skating and figure skating, respectively – come to fall under the purview of the ISU. But team sports on ice – bandy, and its relative, ice hockey – oddly do not.
waterways in wintertime – people skated to travel, for pleasure, and in competition with one another.\(^5\)

**Fen Skating**

In early 1763, two races in the Fens are recorded in newspapers. The first, in Wisbech, paired a local against a Danish sailor, the Dane triumphing in both races (reported in the “Country News” section of the *Derby Mercury*, Friday, January 25, 1763). In the second, locals John Lamb and George Fawn competed over a course of 15 miles between Wisbech and Whittlesey (reported in *The British Magazine*, February 4, 1763). The race took 46 minutes to complete and Lamb was the victor (though the betting odds were 10:6 in Fawn’s favour). These races attracted large crowds. And prizes went to the victors, which was common in British racing events until “the amateur principle was ‘invented’” (Eisenberg 2011, pg. 197).

Over time, a particular style of race developed in the Fens (as described by Bloom 1958). Straight courses of about ½ mile in length were set out with barrels placed at either end. Skaters would race to the ends, turn around the barrels, and repeat, skating races of either 1½ or 2 miles. Some races were timed, but this was not used to determine the winner (although it did establish a comparative record for greatness). Races were organized by heats (called a “Welsh main”\(^6\) (Heathcote 1892a, pg. 258), and, through a process of elimination, two finalists would eventually face off. Winners received substantial prizes of money as well as goods such as a leg of lamb or

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\(^5\) Norway has produced some of the world’s best speed skaters for one and a half centuries. And a fixed-blade speed skate is known as a Norwegian skate. According to an encyclopedia entry by Neville Tebbutt (1898), the Norwegians were restricted to skating on fjords and lakes, and heavy snow would limit their access to these surfaces. In contrast, both the Fens and Friesland (province in The Netherlands) offered the right environmental conditions for good skating through much of the winter.

\(^6\) A term disturbingly borrowed from cockfighting, in which the last bird standing is the winner.
side of pork (Bird 1979). There were women’s races too, although the men’s events were more lucrative (Bird 1979). Races were festive occasions that drew large crowds of spectators, as a local newspaper documents:

A brass band of music from Chatteris was placed on the bridge, and played the most lively tunes: at the starting of a race, 'Cheer boys, cheer', and at the winning, 'See the conquering hero comes'. The number of persons present was stated at from five to eight thousand, and some said ten thousand. Punctually at the time appointed, half-past one, the racing commenced. The bold Fen-men soon appeared, whose iron frames, lion sinews, elasticity of action and body, astonished all beholders. They were a fine specimen of the bold peasantry of England. (Cambridge Chronical and Journal, February 17, 1855)

Two dynastic families dominated Fen skating in the 19th century, the Smarts and the Sees. As Bloom (1958) describes, William “Turkey” Smart was known for a distinctive bent-over style, swinging his elbows side-to-side, a form that gave rise his nickname. His main opponent was his brother-in law, William “Gutta Percha” See. Their rivalry was carried on in the next generation by Gutta Percha’s son, George “Young Gutty” See, and George “Fish” Smart, eldest son of Turkey’s cousin (Tebbutt 1892). Fen skaters were successful in several early international competitions, including James Smart (younger brother of Fish), who became Great Britain’s only world champion speed skater (Tebbutt 1892).

Dutch Styles

Meanwhile, in the provinces of the Netherlands (particularly Friesland and North and South Holland), skating developed along another trajectory. No doubt, canal building created

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7 The Fens other skating passion, bandy (similar to hockey), belonged to the Tebbutt and Goodman families, although Neville Goodman also wrote about skating races (Goodman 1882).
8 See’s nickname refers to the material used on the soles of boots. The moniker celebrated his toughness.
9 George is referred to as “Fish” or “Flying Fish”, nicknames that reference his prowess as a swimmer. He was renowned as a remarkable athlete and hunter (Tebbutt 1892).
those “ice highways” so well-suited to travel by skate. And many Dutch masters depict scenes in which the ice is crowded with skaters. But Marnix Koolhaas, former coach and speed skating historian, argues that skating was about much more than travel. He contends that as Calvinism spread and Catholic festivals such as carnival were cancelled, skating was an activity that allowed play and freedom from social strictures (Koolhaas 2011). He points out that under *verzuiling* (pillarization) – a sort of vertical segregation of society found in the Netherlands and Belgium – the citizenry is categorized into separate religio-political pillars. Many aspects of private and public life, from the newspapers subscribed to, schools attended, union membership, and sports clubs were determined by a person’s pillar (either Protestant, Catholic, or social-democratic). But Koolhaas maintains that skating was never subjected to such categorization: a poor protestant boy could ask a wealthy Catholic girl to skate with him. All were equal on the ice. He suggests that this is the source of the Dutch passion for skating.

His is a compelling argument. Nonetheless, skating wasn’t all Turnerian anti-structure. Two types of formalized, competitive events developed. The most famous of these races, known as the *Elfstedentocht*, is an 11 cities tour through the province of Friesland. At almost 200 km in length, the tour purportedly dates to at least 1759, although the first officially organized event was held in 1909 (Visser and Petersen 2009). As it is dependent on sufficient ice along many natural waterways, it is a recurrent, but irregular event. In the past, cold weather had – on average – allowed the expedition to be held every four years. With warming winters in the last century, the most recent events were in 1987 and 1997, and the odds of the event continuing are diminishing (Visser and Petersen 2009). The contemporary *Elfstedentocht* is offered as both a

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10 This year the weather looks promising, but the race remains uncertain. It may not be held due to the Covid-19 pandemic.
competitive race and a leisure tour. The 1997 *Elfstedentocht* had 16,000 participants. According to Visser and Petersen (2009, pg. 43), “a winner of the ‘Elfstedentocht’ becomes a hero whose name is remembered for generations.”

At the opposite end of the spectrum from this 200km odyssey, another style of Dutch race emerged called *kortebaanschaatsen*, literally, short track skating (not to be confused with short track speed skating). This race is a brief sprint in a straight lane (160m for men and 140m for women). A print by Jacob Ernst Marcus depicts a women’s race, held in Leeuwarden in 1805. Two women, with flowing skirts and bare forearms race to the finish (this print is in the collection held by the *Atlas van Stolk*, in Rotterdam). As in Britain, prizes of goods and money were proffered to the winners (Couwenhoven 2014). In the mid-nineteenth century there was also an element of charity to some Dutch races. Individuals and organizations supported the poor by organizing events known as “bacon and beans races” (Dutch: “*spek en bonen*”12) (Couwenhoven 2014). All entrants were given parts of a pig (the winner receiving the largest portion). Like the *Elfstedentocht*, *kortebaanschaatsen* continues to this day. In fact, a variant termed, *supersprint* (super sprint), designed for indoor rinks, was created in 1990.

*Colonials Skating in Canada*

According to Thurber (2020), archeological evidence of skating amongst the indigenous peoples of North America is sparse, save for three bone skates attributed to the Dorset People

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11 Although there is a long history of women’s races in the Fens and Friesland, international speed skating emerged as a predominately male sport. The ISU (still the *Internationale Eislauft Vereinigung*) didn’t keep ladies’ records until 1929. And ladies’ events were not an official Olympic sport until 1960.

12 There is a Dutch idiom, “*voor spek en bonen,*” which is often used to express participation without care about the outcome or an event in which the outcome is trivial. Since all entrants in “beans and bacon races” received something, winning was not that important.
(dating from 500 to 1000 BCE). Canada’s skating history (as far as we know it) is mostly a colonial one. According to Howell and Howell (1969, pg. 123), during Pierre Dugua de Mons’s expedition to Acadia, the young men “went skating on the ponds.” It is not clear what types of skates may have been used. And a couple centuries pass before Canada's first skating race is claimed to have taken place. Though this race forms a founding myth and is repeated in many sources, it seems there is no historical record of this event. Nevertheless, as the story goes, in 1854, three British army officers raced along the St. Lawrence River, from Montréal to Québec City. Regardless of the veracity of this claim (and a race nearly 300km in length is something to doubt) skating was clearly popular in the country, championed by European settlers. Early local clubs include those established in Winnipeg, Toronto, Montréal, and Saint John. In fact, Saint John was, in the late 19th and early 20th centuries, a hub for speed skating and as many as 20,000 spectators are reported to have gathered to watch races (Hurdis 1980). The city hosted international championships and was home to successful skaters such as Charles Gorman, once called “the fastest man in the world” (Hurdis 1980; Wise and Fisher 1974).

**Skating’s Various Moves**

From the medieval period through the 19th century, skating served many purposes. It was fun, it was an efficient means to travel and hunt, and it was even incorporated into military strategy. Originating in northern Europe, skating spread through contact and trade, conquest, and colonial infrastructures, even arriving at unlikely locales such as India (Heathcote 1892b). The popularity of skating in Europe was no doubt helped along by the Little Ice Age (spanning the early 14th to mid-19th centuries), during which time cooler weather generated more frozen waterways amenable to the pursuit. Changing climatic conditions are remarked on by Fen
skaters in the late 19th century, who lament the shorter and less varied skating season witnessed in their lifetimes (Heathcote 1892a).

New technologies emerged to meet these challenges. London’s “Glaciarium” opened in 1844, with an “ice” created from lard, salts and copper sulphate and a painted backdrop of Lake Lucerne (Wright 1992). The thrill of artificial ice was countered by the understandably off-putting smell (the Glaciarium opened in July) and the venue was closed in 1848. However, a few decades later, the first mechanically-cooled rink (opened at the Chelsea Gentleman’s Club) ushered in real ice, regardless of the weather (Culley and Pascoe 2009). Indoor ice was adopted by figure skaters, hockey players and all sorts of leisure patrons. Speed skaters, nonetheless, would not move indoors for another century.

The Path to Standardization and Bureaucratization (1863-1967)

The period spanning 1863-1967 is a formative time for speed skating, as international competitions are held, and several NSOs are established and eventually linked up in an international apparatus. Local race styles are eventually made to conform or give way to a world-wide standard. There is careful time keeping and records are kept. Previously, avid skaters – in northern Europe, Britain, Canada, and the US – competed in races that were largely local affairs, with regionally unique formats and equipment. Competitors were neither amateurs (they skated for money) or the professional athletes of today (in the Fens, for instance, they were mostly agricultural labourers). All of this was about to change. Steam-power simplified and accelerated travel, effectively connecting myriad local skating traditions (the early inklings of Harvey’s (1989) time–space compression). Skaters from the Fens could (fairly easily) travel to
Norway or the Netherlands, or even New York, which indeed they did. The first international race was held in 1863 in Oslo (then known as Kristiania), Norway (Tebbutt 1892).

These connections created exchange. They generated esteem (Fish Smart named one of his sons, Harold Hagen Smart, in honour of Norwegian contemporary and champion, Harald Hagan). And they produced disorder. The Dutch had their sprints, Fen skaters preferred two-miles, the Americans were sprinting and competing in 100-mile races (and leaping over hurdles), and the Norwegians skated just about anything, including sprints, miles, 8500 m and greater distances (a 10-mile race was held in Kristiania (reported in the Field, March 24, 1888, pg. 421)). If international meets were going to continue, some standardization was needed. But this accounts for only part of the transformation underway. A class divide had also emerged. Unsurprisingly, competing for prizes appealed mostly to those who needed to commodify their bodies. Middle and upper-class skating aficionados distinguished themselves by eschewing monetary gain. A case was made for the probity of amateurism (sociological explanations for this are varied; see Llewellyn and Gleaves 2016; Gruneau 2006; or Holt 1992 for three related but distinct interpretations). Professionals would still be allowed to compete, only separately.

National Sport Organizations

The Brits were the first to establish a NSO for skating, citing the Jockey Club as an exemplar, suggesting the requirement for a skating equivalent to meet parallel needs (Tebbutt 1892). This hints at the considerable gambling and prize money involved in skating races at the

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13 The “Nordic mile” used in Sweden and Norway, though Roman in origin (just as with the Brits) measures close to 10 km.
time. The National Skating Association (NSA)\footnote{Today, this organization is known as British Ice Skating.} was founded in Cambridge in 1879 and hosted Britain’s first amateur races in 1880. Professional races continued as well, but when Fish Smart won the professional championship, his prize was paid in instalments “to keep himself temperate” (Bird 1979, pg. 47). The Dutch followed close behind, and the Koninklijke Nederlandse Schaatsen Bond (KNSB) (Royal Dutch Skating Federation) was founded in 1882.

The Americans created their NSO in 1884, however by that time, amateurism had already been firmly established in the US. An Amateur Championship of America was inaugurated in 1879 (over distances of 10 and 20 miles) (Tebbutt 1892). One of the best US skaters of the era, Joe Donoghue, was an amateur opposed to having even travel expenses covered (reported in the New York Times, February 4, 1894, pg. 21). In 1883, international races were held in the US to determine a world amateur title. Norwegian, Axel Paulson (after whom the axel jump in figure skating is named) won the title, which he held until 1890 (Tebbutt 1892). Canada’s first NSO was the Amateur Skating Association of Canada, which was founded in 1887.\footnote{Originally, this association oversaw both figure and speed skating. It was later replaced by the Canadian Amateur Speed Skating Association, which was replaced in the 21st century by Speed Skating Canada (SSC).} National championship races held in Montréal in 1888 included distances of 220 yards, \( \frac{1}{4} \) mile, \( \frac{1}{2} \) mile, 1 mile, 5 miles, and – unbelievably – 220 yards over hurdles (reported in the New York Times, February 1, 1888, p.8).

**International Competitions**

Tebbutt (1892) documents the events leading up to what he considers to be the first competition to determine the world’s best speed skater, held at Leeuwarden in 1885. The course
was neither the 160-meter kortebaanschaatsen nor the 1½-2-mile barrel turn preferred by the Fenskaters. Instead, it was a compromise, a horseshoe of a half mile in, a turn, and a half mile out. Axel Paulsen arrived in Friesland to compete but balked at the tight turn and didn’t race. As a result, only Dutch and English skaters contested the title. The Dutch won all the races and Tebbutt reports that they came to appreciate the 1-mile distance as an excellent test. Incidentally, today’s skaters consider the 1500 m (approximately 1 mile) the most punishing distance to race since it equates to sprinting for almost 2 minutes.

While European skaters were competing throughout the continent, some travel across the Atlantic occurred as well. A rivalry was established between professional Harald Hagen and proud amateur, Joe Donoghue (reported in the New York Times, February 15, 1893, pg. 3). Donoghue travelled to races throughout Europe and Hagen came to compete in the US too. Donoghue and his brother were trained by their father, who was previously an American champion (Tebbutt 1892). For reasons not entirely clear (save perhaps for American puritanism), amateurism was extolled in the US. Elsewhere, the distinction between amateur and professional was increasingly recognized, although generally, the professionals were seen to be the best athletes. Referring to the 1886-87 season, Tebbutt (1892, pg. 279) writes: “the four great champions of their respective countries were George See, England; Arie van den Berg, Holland; Harald Hagen, Norway; and Hugh McCormick, Canada: all professionals.”

In 1889, the Dutch organized the first (unofficial) world championship with male skaters covering three distances: ½ mile, 1 mile and 2 miles. Twenty-two entrants from four nations competed (US, Netherlands, UK and Russia) (Tebbutt 1892). In order to be declared champion,

\[\text{16 In 1890, McCormick and Paulsen competed in a set of races in Wisconsin to determine the World Professional Speed Skating Champion. McCormick won two of the three races and was given the title, which he lost the following year in a set of races against Hagen in Kristiana (Flood 1985).}\]
a skater needed to win all three distances. As this didn’t happen, no one was victorious. Still, a certain momentum was being built. Nations, under the auspices of NSOs, were nominating their best skaters to compete against the best from other countries. The format of the races would be debated until a compromise could be reached (often conceding to the preference of the host nation). Wouldn’t it be simpler if an international body oversaw these competitions? If the rules agreed to could be known far in advance?

*The Founding of the International Skating Union*

In July of 1892, representatives from several NSOs, alongside clubs from Stockholm and Budapest, attended a meeting in Scheveningen, the Netherlands, to found the *Internationale Eislauf Vereinigung* (now known as the International Skating Union (ISU), and headquartered in Lausanne, Switzerland). That racing season, the ISU promoted the first official speed skating world championship, an allround event hosted in Amsterdam (held in January 1893). The competition drew skaters from four nations: Sweden, Norway the German Empire, and of course, the locals. The ISU remains the international body sanctioning the sports of figure skating, synchronized skating and speed skating, and has maintained world records in speed skating since 1893.\(^\text{17}\)

With this inaugural event, standards were finally achieved. The adoption of a 400-meter oval track was more similar to the Dutch style courses described by Tebbutt (1892, pg. 289), with wide curves at the end, as opposed the tight barrel turns popular in the Fens. This oval shape is also akin to the racetrack used by athletics. Four metric distances — 500 m, 1,500 m, 17 Many nations have separate NSOs for these sports.
5,000 m and 10,000 m were settled upon.\textsuperscript{18} These distances remain known as the “big four” or “big combination” and are still used to determine men’s allround titles, including the world and European champion. Using what is called the \textit{sammenlagt} or \textit{samalog} system, times are converted to points and the skater with the lowest point score prevails. Similarly, these same distances are used to calculate the \textit{adelskalender} (a measure of a skater’s career-best performances).\textsuperscript{19} Canadian, Cindy Klassen, who retired in 2015, remains at the top of the women’s adelskalender, while Patrick Roest, of the Netherlands, at just 24 years old, currently tops the men’s rankings. Table 3.1 provides the adelskalender tabulation for Klassen. Note that the time raced (given in minutes in all events but the 500 m) is changed to seconds which are then expressed per 500 m of distance.

\begin{table}[h]
\centering
\caption{Cindy Klassen’s Adelskalender Calculation}
\begin{tabular}{|c|c|c|c|c|}
\hline
Distance & Race Time & Seconds & Denominator & Points \\
\hline
500 m & 37.51 & 37.51 & 1 & 37.510 \\
1500 m & 1:51.79 & 111.79 & 3 & 37.263 \\
3000 m & 3:53.34 & 233.34 & 6 & 38.890 \\
5000 m & 6:48.97 & 408.97 & 10 & 40.897 \\
\hline
\textbf{Total} & & & & 154.560 \\
\hline
\end{tabular}
\end{table}

For a few years, the ISU sanctioned both professional and amateur competitions, holding its last professional world championship in 1894, which was won by Harald Hagen. From then on, the ISU focused exclusively on amateur events. Two other notable events date to 1894.

\textsuperscript{18} The first official allround championship for women was held in 1936.
\textsuperscript{19} Outside of skating, \textit{adelskalender} refers to a directory of the nobility (to peerage). The term came into speed skating via Norway and has been adopted as a word in English usage too.
First, the NSA moved its headquarters from Cambridge to London. Some criticized the move, arguing that the NSA was promoting international races at the expense of local tradition (Bird 1979). Second, the Amateur Skating Association of Canada joined the ISU (the first non-European nation to join). Three years later, Montréal hosted the ISU World Speed Skating Allround Championship. As it has since 1893, the event used the big combination.\(^\text{20}\) That year also, accidentally, included a 4,200 m race: the 5,000 m had been calculated incorrectly and had to be re-skated (Hurdis 1980). Winnipegger, Jack McCullough, won all but the 500 m (placing second in that distance) and took the title.

In addition to races, equipment became more standardized. Until this time, nearly every skating region had uniquely designed skates. The Fen skate was distinctive from that used in Norway and from that used in Friesland, and in Holland (Tebbutt 1898). Harald Hagen created the first skate that soldered a steel runner to a steel tube and mounted this to a specially made leather boot (Gijsen 2020).\(^\text{21}\) It was composed of a long, very narrow runner (approximately 1 mm wide, which is similar to contemporary speed skates) and made of harder steel than any other models at the time. Hagen’s success on this type of skate prompted other athletes to switch over to his skates or to imitate the design principles with their own creations.

Not all were pleased with the move to standardization. A group supportive of Fen skating founded their own organization in Lincolnshire (Slater and Bunch 2000). Fen skating continues today (weather permitting), with trophies from the late 19\(^\text{th}\) century still in circulation. And although the Amateur Skating Association of Canada had joined the ISU, a rival governing

\(^{20}\) Prior to the inception of the ISU, there were world championship allround events held from 1889-1891, skated over ½ mile, 1-mile and 2-mile distances (Tebbutt 1892).

\(^{21}\) Hagen is still a premier name in speed skating. Some of the best short track tubes are made by Hagen Techniek and Hagen Techniek is one of the collaborators who make EvoSkates.
body was formed in the US and Canada, the International Skating Union of America (ISUA) (reported in the *New York Times*, February 3, 1907, pg. 10). The ISUA eventually folded, but in the intervening years, it recognized its own world championships for men and women. The races were mass start and over imperial distances set on smaller courses. Consequently, as long track speed skating matured in Europe, Canadian and American speed skaters developed their own variant of the sport. Instead of racing against the clock, they raced one another in a pack. And with more snow to clear than their European counterparts, they chose to prepare smaller rinks. These traditions would eventually develop into short track speed skating.

*Speed Skating Goes to the Olympics*

Men’s speed skating first appeared at the 1924 Winter Olympics in Chamonix, featuring the distances of the big combination. Medals for each distance as well as an allround title were awarded. Eight medals went to Finland, seven to Norway and one to the US (if you noticed that this tally doesn’t add up to a multiple of three, this is because the 500 m bronze was deemed a tie). This was the first and last Olympics to award an allround title. Women’s speed skating appeared as a demonstration sport at Lake Placid 1932 but was not an official event until 1960. While the Olympics have focused on single-distance titles, cumulative scores over multiple distances still determine world and European champions. For several decades, two variants of speed skating were practiced in Canada and the US, one that conformed to European standards, and short track. The ISU finally declared short track speed skating an official sport in 1967, although another decade passed before truly international competitions were held. Short track appeared as a demonstration sport in Calgary 1988, and has been an official sport since Albertville 1992.
In the century between that first international race in Kristiana and the inclusion of short track by the ISU, speed skating underwent various revisions. And amateurism, heralded as virtuous by the middle and upper classes (sport was then an avocation, not a vocation (Guttmann 2004)) was promoted by NSOs and finally canonized by anglophile, Pierre de Coubertin, in the founding of the modern Olympics (a rule that was not changed until 1988). Lastly, speed skating’s epicentre in Europe created a natural fraternity between Canadian and American skaters, allies from across the Atlantic, who charged a unique path. This solidarity continues to the present day. As I sat in the stands at a World Cup event in Calgary, I was told, “we always cheer loudest for the Canadians, but next for the Americans. We used to travel to Europe together. Train together. We remember that.”

Speed Skating Today

Reading through 19th century newspaper coverage, I find the most striking details about speed skating races relate to the festivities – the music and gaiety – and the estimated crowd sizes (sometimes over 10,000 spectators are reported). In upcoming sections, I consider contemporary fandom, exploring speed skating from the perspective of the stands. But first, I use the following sections to describe the basics of the sport today, including its formats, rules and equipment (it’s hard to follow a sport without understanding the rules). Long track and short track are both forms of speed skating, derived from European and North American styles of racing on skates,

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22 At the 1932 Lake Placid Olympics, speed skating events were held with a mass start. This caused European nations to boycott the events.
and both come under the auspices of the ISU, but they differ not only in the size of the track, but in terms of technique, strategy and equipment.

Many athletes in Canada and the US begin in short track, because there are few ovals to train on. The reverse is almost unheard of – in Europe, it is more common to simply and always be a long track speed skater (a speed skater proper!). Furthermore, the sports have an intersecting history, but not a united identity. One day while I was observing a long track team, the coach I was standing next to glanced over at the short track athletes on the adjacent ice and remarked, “I really don’t know what they’re doing over there. I mean look at them. They’re cooked. And now it’s time to cook ‘em some more.” He was referring to the intensity of their interval training. Accordingly, there are not just differences in racing formats, but differences in how athletes are developed, from techniques for conditioning maximal aerobic power to their disposition toward the sport.

Contemporary Racing and Rules: Long Track

Paired races remain the most common format in long track, in which case the fastest time amongst all the entrants wins the race (winning the pair is irrelevant). Team pursuit (athletes skate as a team of three, similar to track cycling) and mass start have been introduced, mostly in the hope that these races will improve viewership. Whatever the format, races generally occur on a 400-meter oval track and skaters move in a counter-clockwise direction.\(^\text{23}\) In paired races, skaters are assigned either the inside or outside lane via a random draw.\(^\text{24}\) The inside skater

\(^{23}\) The ISU regulations do allow for a 333.33 m track. This is the same size as a cycling velodrome. But all major competitions occur on 400 m ice.

\(^{24}\) In the sprint combination (in which the distance is skated twice) lane position is drawn for the first race and reversed for the second.
wears a white armband and the outside skater, a red. I was taught, “think apple – red on the outside, white on the inside – and you’ll never forget.” Indeed, I haven’t. Competitors change lanes every lap and in the case of a neck and neck approach to the crossing zone, the right-of-way is afforded to the skater changing from outside to inside.

There has been a lot of debate about lane advantage, particularly in the sprint distances. The reasons why one lane may be advantageous over another are multiple. One thing to consider is that the radius of the turn in the inside lane is tighter and accordingly it is more difficult to carry top speed in that lane. This makes more of a difference in shorter distances since there are fewer turns overall and skaters enter the first turn before achieving top speed. Historically, there was a statistically significant advantage to the inside lane for men in the 500 m, but since the introduction of the clap skate, that difference has disappeared (see Kamst, Kuper and Sierksma 2010\textsuperscript{25}). There remains a slight inside lane advantage in the ladies’ 1000 m (and a statistically insignificant advantage for the men) (Kuper et al. 2012). When racing the sprint combination, skaters are assigned alternate lane positions for their first and second races at the same distance, which is meant to ameliorate any advantage owed to lane position.

Races are monitored by various officials. The referee oversees the draw for racing pairs, determines when to resurface the ice, and observes the races for infractions such as lane violations and impeding a competitor. There are separate judges that monitor the corners and the straights. The timers provide a manual backup to the electronic timing system. There is a lap recorder or lap scorer, who indicates the number of remaining laps to the competitors, including ringing a bell for the final lap of the distance. There are track stewards, who surveil the ice and

\textsuperscript{25} Fascinatingly, these authors (pg., 4) claim that according to “folklore knowledge in the stands...[women] are less prone to technical accidents” and this analysis supports that women do not have an outside lane disadvantage.
maintain the lane markers. The starter, as the moniker suggests, ensures a fair start. Each pair of skaters approaches the starting line on the command, “go to the start.” Once there, they must stand still at their respective dots on the ice. On “ready” they assume their starting positions, which they must hold, motionlessly, before the starter fires the gun. The only rules regarding starting position are that: 1) the full length of both blades must be in contact with the ice; and 2) the center of the skater’s body must be over the starting dot. Most skaters position their front foot facing forward and their back foot at almost 90° to this, their same-side arm brought above their foot, bent at the elbow. Canadian sprinter, Junio Gilmore, adopts an unorthodox three-point stance, known as a down start, with his front hand touching the ice. This is the common starting position in inline skating.

At PyeongChang 2018, a mass start event was held, the first Olympic occurrence since 1932. In the mass start, skaters compete in a heat (or heats) and the top ranked finishers move onto the final. Up to 24 athletes may begin on the start line together. For both men and women, this race covers 16 laps, although for most of the time, especially in the heats, the competitors are gliding at a relatively easy pace. No passing is allowed in the first lap. The 4th, 8th and 12th laps are sprint laps, during which the skaters jockey for position. In these laps, those who cross in the first three positions are awarded points (5, 3 and 1, respectively). At the end of the race, those who cross in the top three positions automatically qualify for the next heat. Those finishing from fourth place on, are ranked according to points earned during the sprint laps and overall finishing time. In the final race, the top three finishing positions are simply the podium positions. Yes, it is a bit convoluted. And although reinstating the mass start was intended to bring a more crowd-pleasing event into long track, I doubt it has had the desired effect. During

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26 This is a recent revision. Formerly, skaters placed the toe of their front blade on the ice.
the PyeongChang coverage that I watched, one television commentator lost track of the laps and
didn’t realize the women’s semi-final race was over. What excitement!

Contemporary Long Track Equipment

Speed skates are comprised of a boot and blade (blades consist of a tube and runner). Long track boots may be made of leather, though it is increasingly common to find boots with a molded fiberglass bottom. The tube, which attaches the runner to the boot, may be aluminum or steel (steel being preferred by top athletes). Runners are the part of the skate that contacts the ice. These are steel and may be made of a single metal or bimetal or from powder metal, which is a metal created by compressing and heating a fine powder. Powder metal is harder than traditional steel, but also more fragile. Preferred high-performance runners are bimetal. A visible line lies horizontally along the runner. The harder steel at the bottom can hold a shaper edge, while the softer steel at the top reduces the brittleness of the runner. Runners have very little rocker or curve, and the edges are sharpened to a 90° angle. They are typically 40-45 cm long and just over 1 mm wide. The major innovation to know about in contemporary long track skates is the clap skate (sometimes spelled clapskate or klapskate), which first appeared in World Cup speed skating in the 1997-98 season. The tube on a clap skate contains a hinge mechanism that allows the runner to detach at the heel as the skater completes each stride. This extends the runner’s contact with the ice and increases power generation; in other words, it makes skaters

27 Though, recently, bimetal runners made from powder metal have appeared which might offer the best compromise of strength and hardness.
faster. The most popular blades with long track athletes at the Oval are the Viking Sapphire (bimetal), costing approximately $1800 a pair.

Apart from skates, the other technological leap in equipment – which arose at around the same time – relates to suits. Snug-fitting woolens had clothed speed skaters until the 1960s, when skaters began to wear suits made of nylon and Lycra, a modest improvement. Somewhat eclipsed by the controversy of the clap skate (see Chapter 6), Dutch skaters at Nagano 1998 also wore skinsuits with rubberized material sewn in a zig-zag pattern in strategic locations to create a jet stream. This was the dawn of a new era. At Salt Lake 2002, all of the gold medallists were wearing Nike’s “SWIFTskin” racing suit. Nike had been collaborating with US and Dutch teams for nearly a decade, working to design a suit that reduced drag and friction. The 2002 suit utilized different fabrics in different places, maximizing aerodynamics, including a fabric developed by 3M, strategically placed between the thighs and in the underarms to reduce friction. The shins, arms and parts of the hood, which bear the most wind, used a pitted fabric called Dimplex (Dimplex is also used in track and field and by jockeys). Analogous to how the dimples on a golf ball permit longer drives by maintaining smooth air flow behind the ball, Dimplex offers less drag than Lycra.

While athletes have arguably always been looking for an advantage (even ancient Olympians consumed substances to improve their performances (Hunt 2010)), seeking marginal improvements in equipment became a national arms race. Nations set to work creating ever-better suits, invented in high-tech labs and subjected to wind-tunnel tests (since the SWIFTskin suit, gains have diminished; see Brownlie and Kyle 2012). Proprietary innovations in design

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Like the clap skate, the altered suits were objected to by some, but the ISU didn’t rule against them.
have become secrets to be unveiled at Olympic Games. At Sochi 2014, the US team wore “Mach 39” suits produced by Under Armour in collaboration with Lockheed Martin (had you thought “arms race” was hyperbole?). The suits took the blame for a poor showing in which US skaters (including medal favorites such as Shani Davis) were left off the podium. The Canadian team wore the “Aero-Suit,” to modest success in 2014. A revised version of the Aero Suit, with 1.5 mm ceramic dots on the arms, was worn at PyeongChang 2018. At that games, the Dutch wore a variation of the suits that brought them success in 2014, but with a new, rougher fabric. The Norwegians, South Koreans and Germans all wore suits a similar shade of blue, which set off a half-serious debate about the fastest colour (South Korea typically wears blue, but Germany and Norway do not) (Keh 2017).

The fanciest suits are reserved for national team members. Most other athletes use high-tech, but less expensive variants. Standard sizes and fully custom suits are available. Many athletes I followed wore “Frankenstein suits.” These semi-custom suits are stitched together from prefabricated sections, so that athletes can order torso, arm and leg pieces that best fit their bodies. Sometimes the suits arrive with parts sewn on the wrong way. Skaters also wear specialty glasses to prevent their eyes from watering. Racing skinsuits are designed to be so snug that standing upright in them is uncomfortable. Fortunately, they are zipped on the front. When athletes finish a race, as they straighten their bodies, they unzip their skinsuit several inches, lower their hoods, and remove their googles. Special equipment is required in mass start races. Athletes need helmets and shin guards. They also need suits, gloves, neck and ankle protection made from a cut-resistant material. Lastly, they must use runners rounded off to a 1

29 A Canadian coach was fired for showing a suit to a coach from a rival nation.
cm radius at the toe and heel. These modifications are all intended to mitigate injuries when collisions inevitably occur.

Contemporary Rules and Equipment: Short Track

Short track speed skating takes place on a rink measuring 30 m by 60 m on which a 111.12-meter oval track is marked out. Like long track, there are separate men’s and women’s events. The sport is akin to running events in athletics. Races are all mass start and for each distance, athletes progress through heats of four to eight skaters to arrive at the final event. The top two finishers in a race progress to the next round. For most of the sport’s history, short track titles moved back and forth between Canada and the US. Recently, however, China and South Korea have emerged as countries to beat, with South Korea claiming a quarter of the short track medals at PyeongChang 2018.

In Olympic and World Cup competition, men and women compete in 500 m, 1,000 m and 1,500 m distances, while there is a 3,000 m relay event for women and a 5,000 m relay for men (each team in the relay has four skaters). Although time does not determine winners, record times are maintained. A world championship competition takes place towards the end of the racing season. In addition to the aforementioned distances, it includes an individual 3,000 m for both men and women. Eligibility to skate the 3,000 m is determined by points earned in races over the previous distances. The world championship title is awarded to the skater with the highest points total at the end of the competition.

Similar to long track, race positions are drawn by lot and the chief official is the referee, who oversees the assignment of competitors to heats, determines when to resurface the ice, and
monitors the races. There are also assistant referees (there is a lot to observe when eight bodies are speeding along in close contact). Referees can disqualify athletes for infractions and can also advance athletes to the next round if knocked down by a skater committing a passing foul. There is a starter, lap recorder, timer and track steward(s), all with analogous roles to their counterparts in long track.

Because of the smaller course, short track is all about cornering. Skates are designed to reflect this. The runners are a little shorter (35-45 cm) and are fixed. Further, the rocker is rounder and the tube is offset to the left of the boot. This allows skaters to lean lower without hitting the ice with the side of their boot. Lastly, the blades have a slight, reverse-C curvature from toe to heel. Aluminum tubes are preferred as they are easier to work into this shape than steel. Short track boots are more rigid than in long track and are almost all made of a mouldable carbon fiber shell. Boots are also cut higher to provide additional support around the ankle. In terms of cost, boots average a bit more than long track ones, and can range from a couple hundred dollars for off-the-rack, to thousands for custom made ones. Mapelz Gold (bimetal) are the most popular blades with short track athletes at the Oval and cost approximately $1400 a pair. Every skater wears safety gear which includes a helmet, neck protector, cut-resistant gloves, knee pads and shin guards. The skinsuits look similar to those used in long track, but the fabric must be comprised of a cut-proof material, often Kevlar.

**Technique and Strategy**

The famous skaters of the 19th century, such as Joe Donoghue, and Turkey and James Smart had individually distinctive techniques. Donoghue kept his arms behind his back; Turkey
bent very low; James assumed a more upright position. Variations exist between today’s top speed skaters too, although the differences are mostly imperceptible to a novice observer, belonging more to idiosyncrasies of style rather than alterations of technique. The biomechanics of movement have been carefully tested and athletes and coaches attempt to adhere to these accepted principles. Accordingly, all contemporary speed skating is characterized by a low crouch position, which reduces wind resistance, and also allows longer lateral stride lengths, increasing the amount of time that the blade is in contact with the ice. In speed skating, forward velocity is mostly – and counterintuitively – generated by moving sideways.

Each stride begins with feet parallel and under the skater’s body. The knees are bent at nearly 90°and the back should be bent at least 45°. A slightly forward pelvic tilt (tucking in the buttocks) engages the gluteal muscles. The push starts on the outside edge of the blade and ends both far to the side and behind the body, on the inside edge (each stride tracks a curve\(^{30}\)) at which point the push leg should be fully extended. The push leg then assumes what is termed “recovery position,” bending 90°at the knee and returning under the skater’s body. During each stride, the skater’s weight is carried by the glide leg. In the corner, skaters lean in (perhaps more accurately fall in; in short track, skaters must resist almost 3 Gs of force), crossing the right leg over the left, and keeping pressure on the outside edge of the left skate and the inside edge of the right skate. At various points, skaters will swing their arms forward and side-to-side, both generating momentum and preventing their bodies from twisting. Both arms swing at the start of the race. In the corners, only the right (outside) arm swings; the left hand rests on the small of the back. Down the straights, skaters might likewise swing just the outside arm, or hold both

\(^{30}\) Although “push to the side” is a common coaching cue, especially for young skaters, I was told that cue reveals that a coach doesn’t really understand technique. The correct motion isn’t purely side-to-side, but a sweeping side and back. It produces a curve on the ice.
behind their backs (in the longer distances this is common as it conserves energy). Swinging their arms can help with balance and rhythm.

In terms of perfecting technique, short track is the most demanding specialty, then sprint and lastly the distance events. Late converts to speed skating are not expected to excel in short track as it takes many years to learn. When using a fixed-blade, good technique is very quiet, amounting to the whispery hiss of steel across ice. With the clap skate, each stride is punctuated by a sound akin to the snapping of a rubber band. I was told that mastering technique is like achieving a perfect golf swing while simultaneously running 800 metres. It is about maintaining precision and accuracy, as the body becomes exhausted.

Although speed skaters can exceed 60 km/hr (in competition; Olympic champion, Kjeld Nuis reached 93 km/hr skating behind a wind shield), it’s difficult to perceive that from the stands. Unlike track and field races, in which arms and legs are pumping furiously, a speed skating sprint looks methodical, utilizing physics to maximize glide. Well-executed strides create a purposive rhythm, not a frantic one. In fact, one of the idioms of good technique is that “you have to slow down to go fast.” Speed comes from properly executed strides and stride length more than from stride frequency (though both length and frequency matter). Turkey Smart had a famously long stride, estimated at 11-16 meters (Bloom 1958). Today’s high-performance skater generally has a stride about half that, which is still quite long.

In short track, the 500-meter distance is a true sprint: the goal is to get to the front and stay there. But in the longer distances, short track athletes employ more complex tactics. Some may attempt to lead from the gun and tire their competitors. Others may try to stay near the top of the pack, planning a finishing sprint. Passing is common. As are accidents. And on the whole, races are unpredictable. Favoured athletes might fall or be passed in the final moments
by a competitor. As such, short track is characterized by “thrills and spills.” In contrast, the strategy in long track is generally to set and maintain a particular lap time. This will be settled upon in advance by the coach and athlete, in consideration of factors such as ice conditions, past performances and where the athlete is within the training cycle. Long track coaches stand in a designated area of the ice (at the top of the backstretch) to communicate with their skaters during the race. One of the key pieces of equipment for this purpose is a lapboard which displays split times. Coaches also communicate with hand signals (usually signalling to the skater to lower their body or maintain a particular rhythm) and by calling out cues and encouragements (such as “all the way,” or “shoulders”).

**Allround Champions**

To determine the World Allround Champion, races are typically held over two days. The first day involves two distances (500 m and 5000 m for the men and 500 m and 3000 m for the women). On the second day, skaters begin with the 1500 m. Race times in the preceding three distances are converted into points (using the samalog system) and the top eight placed skaters of each gender move onto the final distance (5000 m for women; 10000 m for men). Success in these combinations generally favours skaters who excel in middle and long distances.

Dutchman, Sven Kramer, who took gold in the 5000 m at Vancouver 2010, Sochi 2014 and PyeongChang 2018, also holds a record nine world allround titles. Similarly, Martina Sáblíková, of the Czech Republic, a multiple Olympic medallist in the 3000 m and 5000 m, has eight world allround medals since 2009 (five of these are gold). And Canadian Cindy Klassen, who excelled in the middle distances, and skated to Olympic gold in the 1500 m, won the
allround title in 2003 and 2006. Although the big combination has been used since 1893, and the
distances constituting the sprint combination have been unchanged since its inauguration in
1970, the deciding distances for women’s allround events (European and world championships)
have gone through several iterations, as outlined in Table 2.  

<table>
<thead>
<tr>
<th>Event</th>
<th>Distance 1</th>
<th>Distance 2</th>
<th>Distance 3</th>
<th>Distance 4</th>
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<tbody>
<tr>
<td>Sprint Combination</td>
<td>500 m</td>
<td>1000 m</td>
<td>500 m</td>
<td>1000 m</td>
</tr>
<tr>
<td>(men and women since 1970)</td>
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<tr>
<td>Big Combination</td>
<td>500 m</td>
<td>1500 m</td>
<td>5000 m</td>
<td>10000 m</td>
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<tr>
<td>(men’s allround since 1893)</td>
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</tr>
<tr>
<td>Old Combination</td>
<td>500 m</td>
<td>1000 m</td>
<td>3000 m</td>
<td>5000 m</td>
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<tr>
<td>(women’s allround 1936-55)</td>
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<tr>
<td>Mini Combination</td>
<td>500 m</td>
<td>1000 m</td>
<td>1500 m</td>
<td>3000 m</td>
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<tr>
<td>(women’s allround 1956-82)</td>
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<td></td>
</tr>
<tr>
<td>Small Combination</td>
<td>500 m</td>
<td>1500 m</td>
<td>3000 m</td>
<td>5000 m</td>
</tr>
<tr>
<td>(women’s allround since 1983)</td>
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While young Canadian skaters begin as allrounders, most start to specialize in two or
three related distances in their late teens or early twenties (in some other nations, skaters simply
consider themselves “allrounders,” but I’ve never encountered a Canadian that identifies that
way). This in part reflects a desire to achieve success at Olympic distances (there is no allround
title at the Olympics), as well as the different physiological demands imposed by a 500 m and
10000 m race. Which makes an allround competition special. Competing in such divergent
distances is a holdover from the earliest days of organized speed skating championships, and

31 There is a quasi-official “big combination” for women, which includes the same distances as the men.
from a skater’s early competitive experiences. It is also an inspiring test of athleticism and determination.\textsuperscript{32}

\textit{Dutch Dominance}

At the ISU’s inaugural World Allround Speed Skating Championships, Dutch skater Jaap Eden took gold (which he claimed again in 1895 and 1896\textsuperscript{33}). Despite these victories, and the clear influence of the Dutch in the creation of speed skating, they were not, at first, the dominate nation in the sport – the Norwegians had that honor. Yet in time, speed skating came to be thought of as a quintessentially Dutch sport, and their record in international competition is staggering. Of the 191 Olympic medals awarded in speed skating, 121 have gone to Dutch skaters (even though they did not win an Olympic competition until 1968). In comparison, the Netherlands has won only nine medals in all other Winter Olympic sports combined. The reasons for their success in speed skating are numerous. Yes, there is a national tradition of skating for sport, travel, and leisure. But it is certainly not all due to that, as NBC anchor Katie Couric learned when, in covering PyeongChang 2018, she suggested that the Dutch team’s success was related to skating the canals. Dutch media responded with offense at the antediluvian and provincial depiction of their country and an apology was issued.

Some Canadian coaches told me the Dutch success has to do with the Netherland’s other national pastime, cycling (for more on this, see Ebert (2004)). The bicycle plays a surprisingly central role in speed skating and athletes spend hundreds, even thousands, of hours cycling each

\textsuperscript{32} World Allrounds are no longer an annual event, to the dismay of many.

\textsuperscript{33} Eden was also a world champion cyclist, winning events in 1984 and 1895. Canadian, Clara Hughes, won championships in cycling and speed skating. As did American, Eric Heiden. I was told that these sports require similar tactics and mentality. And both lead to suffering. Those who can suffer most, win.
year. As a speed skater, it is more shameful to not know how to change a bicycle tire than to not know how to sharpen your blades. Canadian coaches assume that a childhood spent riding from place to place prepares young athletes for the training ahead. Sport prospecting tends to apply this sort of logic. It is, for instance, why distance runners are sought from high altitude villages: they have been engaging in the right sorts of movement (in hypoxic environments) since childhood. But to emphasize cycling over canals differs little from Couric’s characterization. Instead, I suggest that the Dutch are good at speed skating for the same reasons that Canadians are good at hockey or Cubans are good at baseball (see Carter 2008): there is a national passion for the sport, supported by a local infrastructure that is linked up to a global system. It is this Dutch passion for speed skating to which I now turn.

Fandom at the 2018 World Allround Championships, Amsterdam

The 2018 world allrounds were held in the Netherlands. But this event wasn’t hosted in Friesland, home to the nation’s indoor oval. Instead, the selected locale was Amsterdam, chosen to commemorate the 125th anniversary of the first ISU world allrounds, which the city also hosted. As a further commemorative touch, the races were held at Olympic Stadium (Dutch: Olympisch Stadion), built for the 1928 Olympic Games. The stadium currently hosts track and field events but was temporarily outfitted as a speed skating oval. The championship took place March 9-11, in a stadium decorated by planters dressed with yellow tulips and stands decorated by fans dressed in orange. The blue and green mascot for KPN, a Dutch telecommunications company and speed skating sponsor, was also present. I believe the mascot

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34 A women’s championship was instituted in 1936.
is ungendered. It appears that its head is styled after a retro television set and there are two garment buttons on its chest. I’m not sure what the buttons are about. Olympic Stadium seats almost 23,000 and the stands were pretty full, especially by Sunday. The cheaper seats at the ends of the track were sold out. Tickets for seats along the straightaway, and under the protective cover of a roof, ran €70 a piece. But those fans were the lucky ones, because it rained – a lot.

Day 1

The races begin at 7:30 p.m. and the evening of March 9 is dark, cold and wet, but the crowd is lively, and people are dancing to the pop music playing though speakers. There are some children, but few young adults. Most appear to be between the ages of 30-60 years old. Track stewards are using squeegees to clear water where they can. The event begins with representatives from governing bodies giving speeches to sanctify the races (they do so in English). The national anthem of the Netherlands is played by a live band. Then the whistle blows and athletes are called to the start. This race is supposed to be the ladies’ 500 m. But a pair of men are approaching the line dressed in blue skinsuits with orange pullovers and knitted caps in the design of the Dutch flag. They are announced first in English and then in Dutch. It’s Hein Vergeer (world allround champ in 1985 and 1986) and Leo Visser (winner of the world allround in 1989). They assume the start position and when the gun fires, they shuffle forward. The crowd laughs and whistles. The skaters are clearly having fun with this too. Broad smiles are on their faces. The race takes about twice as long as it would have in their primes and they

35 In comparison, Calgary’s Olympic Oval seats 3900.
cross the finish neck and neck. Then they glide for a lap, waving to their fans. The crowd reaction is a mix of levity and appreciation. These two are bonus superstars to honour.

Next, the women’s event officially begins. Canadian, Ivanie Blondin, is warmly cheered as she readies to race. She is coming off of a disappointing showing at PyeongChang 2018, in which she was a medal hopeful but never placed higher than sixth. Blondin is paired with Miho Takagi of Japan, who won gold, silver and bronze medals at the recent Olympics. However, neither of these women specialize in this distance. Blondin has the inside lane, but at the split, Takagi is 0.8 seconds ahead, a lead she nearly triples by the finish line. As it turns out, Takagi’s time will be enough for first place. Blondin finishes 12th. The fans cheer warmly, their mood surprisingly not dampened.

Perhaps the best match for the crowd, however, is Norway’s Ida Njåtun against the Netherland’s Antoinette de Jong. While orange is, without doubt, the most predominate colour on display, there is a sizable Norwegian contingent in the stands too. Many are wearing hats printed with Norwegian flags and with Viking horns pointing out of the sides – horns that are stuffed and soft and comical, not fierce. One man has moose antlers attached to his shoulders as well as a pair of Norwegian flags jutting out from wooden posts. I am thankful to not be seated within poking distance. At the split, De Jong has a solid lead and sits in second place. By the finish, their times are closer, but De Jong still wins. The crowd cheers, rings bells and whistles. After all of the pairs have skated, the audience is delighted by some unusual entertainment. A man seated at a piano is placed on top of an ice resurfacing machine (emblazoned with KPN and

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36 The moose is “king of the forest.” As I Canadian, I only just learnt this. But as I know understand, in Norway, moose is king. Canada and Norway even had a (friendly) disagreement about which country displays the world’s largest moose statue (Cecco 2019)
ISU logos) and driven around the rink.\textsuperscript{37} A woman stands next to him holding an umbrella. He
begins with a Dutch song, clearly well-loved, as the fans clap and sing along. I’ve never seen
anything like this – the crowd enthusiasm at a speed skating race, nor this method for delivering
live entertainment at the rink. I’m a bit bewildered.

The evening finishes with the ladies’ 3000 m. Ireen Wüst approaches the start and the
crowd erupts. She won her first Olympic gold medal in this distance at Turin 2006, when she
was just 20 years old. In addition to numerous other medals, she took gold in this distance in
Sochi 2014 and silver just a month ago at PyeongChang 2018. Oh, and she’s won the world
allround title six times. The race is close at the first split, but the skater she’s paired with can’t
keep her pace and begins to fade by the 1000 m mark. Wüst is posting the best times of the night
and the crowd is ecstatic. I find the longer distances rather dull (some Dutch fans claim to enjoy
counting the laps), but I must admit, it is pretty electric in the stands. I’m drawn in and rooting
for Wüst to pull off something spectacular. At the bell lap, the noise of the crowd is deafening.
Her coach cups his hands around his mouth and yells something to her as she passes. She turns
her head left as she makes the final corner. Her brow is furrowed. Her skating form has slipped
a bit, but she has only meters left to go. She finishes more than five seconds ahead. With both
hands raised, she tours the rink as fans cheer, boisterous, but not rowdy. Considering the ice
conditions, her performance does seem spectacular (even though it is more than twenty seconds
off of world record time). The next pair pits Blondin against de Jong. Neither can compare with
Wüst tonight. De Jong ends up in fifth place; Blondin in tenth; Takagi takes second.

\textsuperscript{37} This machine is not resurfacing the ice; another will do that.
Day 2

At Saturday’s start it is 14°C and humid, but it is not yet raining. The first race is the men’s 500 m. The crowd remains enthused and cheers on each pair. When Sven Kramer enters the warm-up lane, applause grows into a roar as a wave of recognition passes over the crowd. People get on their feet before he even races. Kramer isn’t expected to win this distance (that honor goes to fellow countryman, Patrick Roest), but that’s hardly the point. He’s a champion, a hero and a celebrity. It’s hard to fully capture the reaction. The sport’s most constant fans – speed skating connoisseurs – are acknowledging a great.38 They’re sharing in this collective experience. It’s exuberant and feels momentous. But it’s not teenagers frenzied by a pop star or the Catholic faithful in the presence of the pope. Comparisons to religious or cult-like zealously would be an exaggeration. There was no swooning. Just merriment and pleasure, accompanied by a sense of being there for history-in-the-making. Kramer finishes the race in sixth. The fans cheer on. The 500 m concludes, as all the distances do, with a flower ceremony for the top three finishers. There is a good deal of pomp as drummers play while the athletes gather. Then we are told the flowers will be presented by, “the 1961 Master of the World, Henk van der Griff.” Yes, “Master of the World,” aka world allround champion.

The next distance is the ladies’ 1500 m. The 1500 m, effectively a sprint over a long distance, is arguably speed skating’s most punishing race. Sure, the 10000 m is a monster, a dozen-plus minutes holding the painful prostration of a speed skater, while lactate accumulates in muscles. But there’s also something meditative about the longer distances (at least, I’ve been told). There’s time to welcome the pain, ease into it and dwell there. The 1500 m, over in just a

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38 At a World Cup event in Calgary some Dutch fans complained to me about the small turnout in the stands and mentioned that it was also like this in other North American venues. They couldn’t understand why skaters had to leave Europe to compete only to be met with half-filled arenas.
couple of minutes, demands the exertion of a sprint, and tests just how long someone can
maintain that effort. After the first group of pairs compete, races are paused to resurface the ice.
We are entertained again by the piano man riding atop an ice resurfacing machine. It’s raining
now, but that hasn’t thinned the crowd.

The final pair is Miho Takagi against Ireen Wüst. Again, there’s an astonishingly loud
reaction when Wüst takes to the ice and waves to her fans. But Takagi, whose blistering first
place finish in the previous day’s 500 m, and strong performance in the 3000 m, is the current
points leader. The starter, employing the universal cadence of this sport, calls the athletes to
“go– to– the– start.” They approach the line, wave to the crowd, wriggle and make final
adjustments to their skinsuits, and lower their goggles. The ice is wet and, to me, looks
dangerous, the sheen of the water making it appear even more slippery. This coating of water
does exactly the opposite – it makes the ice “grippier.” Takagi skates aggressively from the start.
Her legs seem to be moving faster. I think that perhaps she takes one more stride than Wüst on
the straightaway, so coming out of the next corner, I decide to count. No, they take the same
number of strides. I consider that perhaps her movement is just more explosive. Her knees are
more deeply bent. Takagi is ever so slightly ahead at every split, and though smaller than Wüst,
she looks more formidable. The crowd is cheering loudly as they enter their final lap. It’s a
close race, but Takagi prevails by 0.07 seconds, pumping her right fist in the air as she
straightens her body. The fans are cheering loudly. Most of it, I think, is for Wüst. But a good
portion of it is surely an appreciation for world-class speed skating. As we wait for the flower
ceremony, Neil Diamond’s “Sweet Caroline” is playing and the audience is eating it up, singing
along to the chorus and swaying in the stands.
Saturday’s final race is the men’s 5000 m. Night has fallen and the rain is pouring. I think about where these races could have been held, in a state-of-the-art, climate-controlled arena, just 125 km away. Fans are in plastic ponchos, but still ringing their bells, hooting and whistling, clapping ardently for the competitors. The final pairing pits Norway’s Sverre Lunde Pedersen against Dutch emigre to Canada, Ted-Jan Bloemen. The skaters approach the start. Bloemen is wearing that Aero Suit; Pedersen is in the fastest colour, blue. Bloemen is better at this distance, but Pedersen has looked sharp this weekend. They start slowly. Water splashes up with each stride. The track conditions are worsening. Bloemen looks trepidatious. Yet Pedersen has eased into the ice. His body is low, his movement purposeful and fluid. And his position in the rankings keeps improving with each split: at his first split he’s in 15th, but at the halfway mark he’s in third. The crowd is feeling this, the momentum building. Some have started to chant. Pedersen is making this look too easy (and Bloemen has fallen far behind). At the final lap, he’s climbed to second position. His coach is swinging his arms and yelling encouragements. Pedersen crosses the finish in first and the crowd erupts, even though this means that Kramer will move to second. Pedersen’s coach is skating along the boards waving his arms up and down, encouraging the fans to cheer; they happily indulge his request.

The piano man is back. Singing in English, he moves through a medley of classic rock, including John Denver’s “Take me Home, Country Roads,” “Twist and Shout,” and Meatloaf’s “Paradise by The Dashboard Light.” The last one leaves me squeamish. People are dancing in the stands (perhaps to keep warm). A number of former champions are in the crowd, including Eric Heiden. I wonder how many former competitive speed skaters are in attendance. And how

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39When Bloemen’s contract with a Dutch professional skating team was not renewed, he decided to immigrate to Canada to pursue his skating career. Bloemen’s father was born in New Brunswick and Ted-Jan is a dual citizen of Canada and the Netherlands. Bloemen won gold and silver medals at PyeongChang 2018.
many would attend a less historic event. The majority of those here are knowledgeable about the sport. Enough to leave me to conclude that if they weren’t ever skaters themselves, they are likely life-long fans. They cheer at the right moments and recognize when something special is afoot. In this way, the spectators become an integral part of the performance.

The final event of the day is the ladies’ 5000 m. In the first pair, Sáblíková takes a commanding lead, and the crowd whistles and cheers. But it’s the last pair that comes to matter: Wüst versus Takagi. From the start, Wüst has the lead. Their skates cut a trail into the water, leaving behind snaking lines on the ice. And in the end, Wüst wins the race, but not by a wide enough margin. Takagi’s point score is lower, and she is crowned the champion, the Master of the World. The lights are dimmed, and the stadium is beautifully lit in blue and orange. Queen’s “We Will Rock You” plays over the speakers, followed by a song sung in English and Dutch, which I don’t recognize, though everyone seems to know the lyrics. After the flower ceremony, there’s a live musical act (not the piano man) and, finally, the medal ceremony. The medals are awarded by the first referee and by the vice-mayor of Amsterdam. When the formalities are finished, Takagi, adorned in her Master of the World sash, and with a Japanese flag, carried cape-like on her shoulders, parades around the rink to generous cheering.

Day 3

Sunday: the final day. It is also the earliest start (1:30 p.m.). The rain has cleared and the sun might just show up. The men have two races: the 1500 m, and, for the top eight finishers, the 10000 m. Pedersen wins the 1500 m, Roest comes in second and Kramer in fifth, setting the stage for a showdown in the 10000 m. After the 1500m, the entertainment continues with more
live music, and some feting of special guests. The sun breaks through the cloud as the 10000 m begins. In the first pair, Swede, Nils van der Poel, falls right as he is crossing the finish line. He crashes through the foam bumpers surrounding the track, skidding onto the concrete beyond. When he gets back on his feet, he skates a lap to a standing ovation. His fall, in such an unusual place, reminds me that the ice conditions are poor. The third pair pits Roest against fellow countryman, Marcel Bosker. They skate neck and neck until the final few laps. People are on their feet, clapping, jumping up and down. I know there are still almost two minutes left. I can sit for now. Roest wins the pair, with a time that puts him in second for the distance, behind Van der Poel, but in first place overall.

The final pair is Kramer versus Pedersen. The crowd cheers loudly for Pedersen; louder still for Kramer. As the race begins the crowd is still cheering. On these ice conditions, the 10000 m will take almost 14 minutes, quite awhile to maintain that intensity, for the crowd and the athletes. Just as he was in the 5000 m, Pedersen looks powerful, but languid on the treacherous ice. Each of his laps is nearly one second faster than anyone else’s, leaving him, 3200 m into the race, with a split time over seven seconds in front of the pack. Kramer is skating well too, posting the second fastest times of the day, but Pedersen’s lead might be insurmountable. At 5200 m, Pedersen is eight and a half seconds ahead. The Norwegian fans are looking around the stands with expressions that read, is this really happening? Pedersen looks assertive, but relaxed. Determined. Kramer’s mouth is open, his lips curled, he sticks his tongue out a bit (to be fair, this is Kramer’s face in most races.) At 5600 m Kramer slows considerably, his lap time a full second slower than the previous one. We all know this race is Pedersen’s now. The allround title too. The fans are behind him, hooting and clapping, ringing bells and blowing whistles.
Nine minutes in; nine laps left to go. And then Pedersen inexplicably falls in the corner (on the replay it shows that the blade of his left skate catches his right skate). The crowd groans. He’s quickly back on his feet. His goggles have fallen off, but he can’t retrieve them now, he’s resuming the race. He skates with his hands on his knees for half a lap, struggling to find the rhythm he needs to put the pain at bay. But then he settles, somewhat. He’s managing faster laps than Kramer, and in spite of the fall is only about five seconds behind him. With fours laps to go, Pedersen has further narrowed the gap. Two laps to go, and Pedersen has pulled ahead of Kramer. The fans are leaning forward. Those who are still sitting, are on the edge of their seats. The rest stand, tilting, just so, toward the ice. This is the only 10000 m race that has enthralled me. I’m caught up in it (how could I not be?). Pedersen clenches his teeth now. He’s in the final lap. And as the points and times now stand, it won’t make a difference what Kramer does here. The title is between Roest and Pedersen.

At the finish, Pedersen does not quite have the time he needs, moving to second place by mere fractions of a point.\(^{40}\) Dejected, he places his hands on his knees and lowers his head. I notice, for the first time, some blood stains on his elbows. Pedersen’s coach, Edel Høiseth, is crying. I suspect Pedersen is crying too, but his face is turned to the ice. He proceeds rinkside and sits on a bench with Høiseth, who hugs him. Then he returns to the ice to grand applause from the crowd. He skates a lap, and the spectators raise their hands high to clap, or give him a thumbs-up. He is not Master of the World, officially anyway. But all here bore witness to his greatness and his struggle. It will be remembered as something remarkable. A performance worthy of a commemorative event.

\(^{40}\) Roest wins with a score of 154.547; Pedersen is in second with 154.941. Boesker takes third. Kramer finishes fourth.
To the Marrow: The Sport of Speed Skating

It’s conventional for historical narratives to offer defining moments – markers to signify important shifts. Skating quickly, testing what speed might be achieved, and racing against others, is certainly older than speed skating proper. So when does it become a sport? Was it when men and women competed for prizes – for money, sides of bacon or fur tippets? Did races need to be timed? Or was it the founding of the ISU and the standardization of the 400-meter track and associated race distances? According to Guttmann (2004), Darbon (2014) and Collins (2013), that would probably be the moment. When local styles of skating and formats for races were superseded, but not entirely replaced, by an international governing body. Certainly, by the close of the 19th century, speed skating had developed into a sport recognizable to us today. But perhaps searching for a defining moment is the wrong approach altogether.

The transformation from method of travel and form of leisure to sport does not perfectly fit any of the dominant theories within sport studies. Certainly not the notion of a civilizing process (Elias and Dunning 1986). Neither does it fit with Collins (2013) analysis of British sport (focused mainly on rugby and football), as he suggests that industrialization and the toils of factory labour prevented people from enjoying traditional festivals, games and leisure (eventually shaping leisure into a kind of work too). This may hold true in urban settings, but in Friesland and the Fens, it was agricultural labourers who developed a winter pastime of skating races. And anyway, insisting on a singular process seems altogether too orderly for a history that reads as a mix of pleasure, pain, ingenuity, fun and chance. Combing through old newspaper articles and early books about skating, the activity presents as a combination of Caillois’s (1961)
categories of alea, agon, mimicry and ilinx.\textsuperscript{41} I sense the mix of fun and struggle, and the thrill of experimentation and mastery that continues to stimulate skaters today. The desire to get faster and to mess about with equipment and their bodies; the ice and cold presented as challenges to be conquered.

Rather than committing to a defining moment, I suggest something else. This chapter began with skates made from bone. As I was finishing up my fieldwork, I spoke with a speed skater who competed in the 1960s and early 70s. She recalled the cold Winnipeg winters on ice and the hot summers of dryland training. “I can still feel the pain,” she told me. “You can still remember it?” I ask. “I feel it,” she corrects me, “in my bones.” There is something in speed skating that eludes objective measures. Something that drives people to skate the \textit{Elfstedentocht} or perhaps obliged three army officers to race along the St. Lawrence. It could be called imagination, but that only captures part of it. It is passion too. You see it – feel it – with athletes, coaches and fans. I am compelled by the idea that it resides in the bones. That it goes to the marrow.\textsuperscript{42}

It is undeniable that the sport today differs from that race between John Lamb and George Fawn.\textsuperscript{43} And Darbon (2014) seems correct to argue against filiation, because that presents a comparability that misreads the past. His position is that sport is novel, it transforms

\textsuperscript{41} Other than horseback riding, few pre-20\textsuperscript{th} century activities afforded opportunities for the thrill of speed.
\textsuperscript{42} Ludwina, born in Schiedam, Holland, is the patron saint of ice skaters. After she fell while skating and broke a rib, she never recovered and spent the rest of her life in religious contemplation (she fasted and purportedly “shed bone” which gave off a sweet odor). Bone and marrow are also the reasons why Thialfi becomes Thor’s servant. Thialfi was a poor peasant whose family was visited by Thor. Thor offered to furnish them with food and killed their goats. After the meal, Thialfi was instructed to place the bones inside the hides. But before doing so, he broke one of the leg bones to eat the marrow. In the morning, Thor swung his hammer over the skins and resurrected the goats. But one was lame. Furious, Thor took Thialfi and his sister as servants. It would be a stretch to suppose that these myths have much to do with contemporary speed skating. But they are cool stories.
\textsuperscript{43} Haraway (2015, pg. 159) contends that, “the constant question when considering systemic phenomena has to be, when do changes in degree become changes in kind?” Here I choose not to commit myself to a systematic taxonomy. Speed skating today is, in some ways, like skating of the past, yet it differs in important ways too.
games into something else. There is no doubt that 21st century speed skating differs from 13th century skating on Dutch canals or even the races of Turkey Smart. But the history of speed skating is not just the development of specifications, progressive improvements and careful records kept. It is not just the sport as recognized by the ISU. Speed skaters find fun in dreary winter days. And in the creation of absurd challenges. Sometimes skaters conquer the landscape, and sometimes they lose out. The *Elfstedentocht* of 1963 is known as “the hell of ’63” (*de hel van ’63*) an ironic sobriquet since it was brutally cold. Of the more than 10,000 entrants, only 136 completed the race (Visser and Petersen 2009).

Consider the determination and liberty of the men and women who ingeniously turned frozen waterways into a form of amusement and venue for contests – expressing an ethos of the sport, more than the logic of perfect measures. To this day, speed skating resists perfect conformity to standards. In North America, the popularity of the mass start has never waned. World champions and Olympic champions are measured by different criteria. And although the big combination has been in use for over a century, contemporary Canadian skaters talk with pride about competing in 50 km long outdoor races, bragging about the pain and accompanying frostbite. Yes, speed skating eventually comes under the rationality of modernity. It checks all the items on Guttmann’s (2004) list. It is maintained through bureaucratic apparatuses. But it is sustained through something else.

At the end of the season, the Olympic Oval hosts a last major competition, the Oval Finale. Until recently, it was traditional for skaters to attempt 100 laps (40 km). One of Canada’s most successful sprinters told me about how he attempted those 100 laps every year, but never finished all of them. Of course he didn’t! He had primed his body for explosive bursts of speed. But he tried the 40 km all the same. There’s no rational argument for this. No
physiological case to be made for subjecting his body to such a test. From early skaters, to the founding of the ISU, to the present day, speed skating has developed in divergent ways, like branches forming from a tree trunk. The sport relies on science and rationality: the pursuit of ever-improving performance demands compartmentalizing the body into manipulatable parts. And it demands grit, determination, and suffering: this is whole-bodied devotion. Such are the sport’s quirks, that athletes readily admit, “we’re crazy!” Speed skating is an exercise for the soul as much as for the body. It is more than records, it is embodied, in the broadest sense of that word – symbolic, sensual, and material – to one’s innermost being, to the marrow. And that, as much as the numbers, captures what it is to speed skate. The past is not commensurate with the present – I am neither suggesting a false equivalence between experiences, nor a perfect processual accounting of events – but a connection exists, nonetheless, borne is heavy thigh muscles, frozen toes, and an accompanying sense of fun and pride.
The spirit of Calgary will become part of the new Olympic spirit and the next Games will benefit from that ... The living legacy of the Calgary Winter Games will grow from the feeling of true friendship that thousands of workers and Olympic athletes contributed to a world that hungers for harmony. At the end of the day they knew that their dream had come true.

Frank King, It’s How you Play the Game (1991, pg. 327)

“The Fastest Ice in the World”: Olympic Imaginaries at Play

“Sean Chu’s a moron!”

It’s a Tuesday morning in the fall of 2018. I’m standing rinkside, observing some short track skaters. A group of trainers and coaches has formed near me, casually gossiping about athletes and sport and then the topic that was on the minds of a lot of Calgarians at the time, a potential Olympic bid. While I was mostly focused on the ice, this last comment has caught my attention. City councillor, Sean Chu¹, a fiscal conservative (and otherwise conservative) and outspoken critic of the bid, is getting a tongue-lashing.

“That’s an understatement!” someone agrees.

“That guy just doesn’t get it” another adds. “This is a legacy. It would be a chance for another legacy.”

The “this” in that statement is the Oval, built for the 1988 Olympic Games. And while it was obvious to those chatting away that the city should pursue hosting another Olympics, the good of that idea never resonated widely enough with the electorate: when put to a plebiscite, citizens voted against moving forward with the bid.

¹ Chu is councillor for Ward 4, a district adjacent to the Oval.
Calgary 1988 was pivotal to the development of the Olympics-as-legacy. Tomlinson (2014), reviewing IOC minutes, concludes that Frank King, chairman of the Calgary 1988 organizing committee, was the first person to use legacy at an IOC meeting. King did so on the eve of Los Angeles 1984, and in the context of the Soviet boycott.\(^2\) He spoke of legacy in terms of financial probity, discussing Calgary’s venues as fully paid for. This differs quite a bit from his description of a “living legacy” just seven years later (and quoted above) using terms such as “Olympic spirit” and “true friendship.” In this chapter I explore how the 1988 bid, and in particular the Olympic Oval, came to be, the various ways in which the Oval legacy plays out, and why those gathered around the ice that morning put their faith in another Games, in the good of renewing the legacy. I further suggest that it is no mistake that people talked with me about the Oval as both a legacy and an institution. They meant institution colloquially, but it is just as well an institution, anthropologically. Finally, I propose that the concept of imaginaries is useful in understanding the Oval-as-institution; in understanding how broadly shared visions of the future emerge from and inform objects, representations and practices.

**Institutional Legacies**

Although Calgary’s bid for the 2026 Olympics was withdrawn after being put to a referendum, initial support for the event was built around the idea that hosting another Games would serve as a catalyst to renew the legacies of 1988. Legacy, in the sense of drawing on an Ancient Greek past, has always been a part of the modern Olympiad (why else would the first modern games be held in Athens?). More recently, legacy has been employed to other ends. For instance, in the

\(^2\) Given this context, it is not surprising that Calgary’s slogan was “come together.”
lead up to the last winter Olympics hosted in Canada, Vancouver 2010, “Legacy Now” emerged as a call to create widespread benefits before, during and after the Games. Undeniably, Olympic Games draw on both a sense of legacy as something inherited, and as a promise to create lasting (hopefully positive) impacts for host cities.\(^3\)

In an insightful critique of “legacy talk” around the Olympics, MacAloon (2008a) reminds us that the IOC has two official languages, English and French. He points out that while legacy might translate into héritage, the two terms are used differently in IOC discourse. An industry (inhibited by marketing and management types) has been built around legacy (for Olympics and other major sporting events), but not around héritage (the positions for which would presumably be filled by museum curators). In short, legacy discourse has been commandeered by the corporate world and become a business itself, with experts selling their legacy-building services. He notes that:

Francophone IOC officials are clearly underestimating the ways in which legacy discourse in anglophone contexts can actually undermine respect for, actual learning about, and cultivation of the overall and hard-won Olympic heritage, the inherited cultural capital that distinguishes Olympic from other international sport and is the general source of value that makes anyone want to bid for the Olympics in the first place. (MacAloon 2008a, pg. 2067-8)

Furthermore, he points out that there’s a “magic” to legacy discourse when it serves to marshal support for host cities. MacAloon reminds us to consider how and why legacy planning has become de rigueur for Olympic bids and to recognize the chameleonic and sometimes enchanting uses of legacy talk. But it is also important to examine how legacy is more than talk, or stodgy documents in Lausanne. I want to move from MacAloon’s interest in discourse to a

\(^3\) Calgary’s decades-long use of facilities that were built for an Olympic Games (and left with endowment funds) serves as an exemplar, but also a bit of an anomaly. For many host cities, the legacy of an Olympics includes debt and disused venues (just look to Athens 2004, Torino 2006 or Beijing 2008).
broader exploration of legacy that encompasses not only what people promise and plan, but also considers just what happens after building a space dedicated to sport. In this way, legacy is not just received, but continuously built. Made and remade. People and their creativity are harnessed in an effort to sustain legacies.

Theoretical Considerations

In this analysis, I am guided by several contributions to the sociality of material objects, place and space, from phenomenologically informed concepts, to ideas from the anthropology of science and material culture studies. As a starting point, I am drawn to Henri Lefebvre’s (1991) spatial tripartite – an iterative relationship between the conceived, perceived and lived – between representations of space (such as architectural drawings), space as experienced through images and symbols (such as the Oval’s trademarked slogan: “The Fastest Ice in the World”) and spatial practices (such as skating to the left). While I don’t adopt Lefebvre’s Marxist critique of modernity, in the following sections, I examine the Oval as conceived, perceived and lived. I consider how flows of people, ideas and capital that are part of the broader Olympic movement might be held down, locally.

Realizing Olympic Dreams

The Calgary Olympic Development Association (CODA)⁴ was formed in 1955 by members of the Calgary Booster Club. CODA first organized a bid to host an Olympic Winter Games in

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⁴ CODA is now WinSport.
1964 and again in ’68, neither of which were successful. But the dream of bringing an Olympic Games to Calgary persisted. In 1978, Frank King (then CODA Chairman) approached Roger Jackson, who had previously been the director of Sport Canada and had just been appointed Dean of Kinesiology at the University of Calgary, to assist with the city’s next bid. It was Jackson who championed a covered speed skating oval as part of a broader expansion of the University’s kinesiology complex. Although other locales were considered – including Canada Olympic Park – Jackson’s vision to place the speed skating facility on campus eventually won out. In 1981, Calgary made a successful bid to host the 1988 Winter Olympic Games. IOC delegates were apparently impressed by a splashy animated slide show, although a much larger budget than the other bid cities was surely also a factor (the budget was $450 mil).

Jackson, an Olympic gold medallist in rowing, may seem an unlikely advocate for speed skating (of course, any athlete may support sport in general). But as a kinesiologist, he understood the advantages of connecting athletic endeavours with scientific enterprise. Locating the Oval on campus benefitted the kinesiology faculty (currently ranked among the best in the world), creating an expanded laboratory of sorts. And there have been benefits for the Oval as well, as research into training, coaching and equipment has enabled the Oval to be on the leading edge of the sport, introducing new skates, or perfecting movements on the ice. Nonetheless, in this mix of academics, coaches and trainers, frictions around theory and practice may sometimes arise, alongside arrogance, insecurity and obstinacy when it comes to credentials. While everyone at the Oval is very supportive of research (even my hypothesis-lacking project), the know-how produced on the ice is – by those in the sport – acknowledged to be different,

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5 And CODA made a bid based in Banff in 1972.
6 The budget for Beijing 2022 is $3.9 bil.
superior, and at times incommensurable, with the laboratory. But just now I am moving this story a little too far ahead. Back to the planning stages.

Although Jackson was keen to build an indoor oval, concerns about the feasibility of such a project were raised on two fronts. First, there were apprehensions specific to speed skating. Should an outdoor sport be moved inside? And would this require that future Olympic host cities likewise invest in an indoor oval? How would building such a facility in western Canada affect a predominantly European sport? And how would the sport change within Canada? It is telling that the 1988 speed skating team featured mostly francophone names, while in 2018 half of the long track skaters were drawn from west of Ontario. But none of these concerns was as significant a challenge as the cost differential between a standard outdoor oval (estimated at $5 million) and an indoor oval (which cost nearly $40 million). In 1984, the federal government agreed to cover the cost of building an indoor oval.\(^7\) Announced by Otto Jelinek, Minister of State for Fitness and Amateur Sport (and Olympic figure skater), the news meant that Jackson’s vision would be realized.\(^8\) It also meant that in future, yes, most top-level speed skating would be indoors. Albertville 1992 was the last Olympics to host outdoor speed skating events.

From the start, the Oval was imagined as a facility that would be equally dedicated to high-performance sport, academic research, and the public. It was also planned as a multi-sport building, switching to artificial turf in the summer, thereby enabling football and lacrosse. The turf was only installed once before being deemed impractical. However, the running track and weight room are still used by varsity athletes, while the Olympic size hockey rink is rented to figure skaters and hockey teams and regular public skating allows access to the Oval’s long-track

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\(^7\) The provincial government was to fund building the University-owned kinesiology complex.

\(^8\) While under construction the Oval was nicknamed “Jackson’s Hole.” It was later called “the Raj Mahal.”
ice. This multi-purpose use is not without challenges. For instance, track athletes leaping into sand pits can distribute contaminants onto the ice.

As construction of Calgary’s oval was underway, two other indoor ovals were in the works, one in Berlin, contained within a large Olympic training complex built in the former East Germany, and the other in the Dutch city of Heerenveen. The Berlin oval, located near the Stasi Museum, opened on November 17, 1986. One day later, the Dutch oval opened. Heereveen’s oval is named Thialf in honour of Thor’s servant, who valiantly races a Giant on skates and loses (all three events). It will become apparent why this seemingly odd choice of name is actually very fitting for a speed skating oval. But for the moment, just consider how indoor ovals changed speed skating. Indoor ice controls for vagaries in the weather that can affect pairs within a single race distance – such as changing winds or the onset of rain – but also makes it possible to control for contaminants in the ice and to manage temperature and humidity.

Unsurprisingly, during the 1986-1987 season, numerous records were set in both Berlin and Heereveen. But those records didn’t last. The Oval opened on September 27, 1987 and a few months later hosted a World Cup event during which six world records were set.

**Chronicling Legacy: From Calgary 1988 Onwards**

In February 1988, Calgary hosted the XV modern Olympiad. I was 6 years old, entertained by the festivities, but oblivious to the significance and magnitude of the event. There was spectacle and heavy-handed symbolism even before the opening of the Games, with an 18,000 km torch relay – the first to criss-cross a host nation – including a stretch completed by dogsled.9 I ran a...

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9 There was also some controversy. Protests by indigenous groups stood in contrast to the “good cowboy.” The white cowboy hat is symbolic of the city.
length of that relay. I still have the red and white jacket decorated with the Olympic rings. My only real memories of the experience are visceral – I recall breathing in cold air and struggling with the weight of the torch (it was 1.62kg). As it turns out, Calgary’s torches are highly collectible (I, sadly, don’t have one). One recently sold at auction for nearly $46,000 (Jarvie 2016). Yes, the Olympics encompass much more than symbols and spectacle.

It was – as all Olympics seem to be – an event filled with characters and firsts that make for great media. At Calgary 1988, the Jamaican bobsleigh team made its debut. There was Eddie “the Eagle” (Michael Edwards), the inexperienced ski jumper who finished in last place, prompting changes to the sport’s qualification standards. He made a delightful contrast to the unprecedented success of ski jumper Mat Nykänen, the so-called “flying Finn,” who claimed three gold medals. But most importantly for this analysis, dramatic events transpired at the Oval.

_Drama on the Ice_

Everyone knew the ice would be fast. Records were expected.¹⁰ In women’s events, the East Germans were viewed as the ones to beat. Canadian hopes in the sprints were pinned on Gaétan Boucher, who had won double gold and a bronze at Sarajevo 1984. He had also won a silver (1500 m) at the Oval’s inaugural competition, a World Cup event held a few months previous. But coming into the Olympics, he was plagued by an ankle injury and was struggling. American Dan Jansen was expected to medal in the 500 m and 1000 m. He had, just a week earlier, competed in West Allis, Wisconsin (his hometown) at the World Sprint Championships.

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¹⁰ As it happens, new Olympic records were set in every speed skating distance, as were new world records in the men’s 500 m, 1500 m and 10000 m, and the women’s 500 m, 1000 m, 3000 m and 5000 m (a new Olympic distance for women).
That weekend, windchills at times dropped the temperature to forty below zero (where the distinction between Celsius and Fahrenheit vanishes). In CBS television coverage of the event, Jansen described the conditions as such: “it’s hard to get any feel for the ice. It’s so hard and it breaks away when you push. And with the wind this strong, your timing gets thrown off.” Despite these conditions, and more personal concerns (his sister was ill with leukemia and her health was deteriorating), he prevailed and won the championship.

You may recall what happened to Jansen at these games. Certainly, all speed skaters do. And sports journalists. Jansen himself has been subjected to hours of interviews to recount a few moments. I recap the event here with a slightly different aim. Yes, I want to capture the drama of sport. But I also want to consider the Oval as an institution that chronicles such dramas as part of its official history.11 On the morning of the men’s 500 m race, Jansen was awoken with a phone call from Wisconsin. His brother was on the line with his sister, Jane, who, dying from cancer, was too weak to speak. Jansen spoke to her and asked if he should still race. She nodded in affirmation. A few hours later Jansen received a message that Jane had died. Knowing her wishes, he took to the ice that evening in a race he had been expected to win. By now, all in the crowd were informed of his circumstances, a private loss made part of the Olympic phenomenon. Jansen had the inside lane, paired with Yasushi Kuroiwa of Japan. The starter called, “RED…eee,” and Jansen false started. They go to the start again. This one is clean and the first 100 meters look fine. But as he enters the corner, Jansen falls, slides from the inside lane into Kuroiwa and then into the foam pads, from which he remarkably rebounds and lands on his feet.

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11 This chronicling was also evident in 19th century England, as skaters from the Fens wrote about their sports, Fen skating and bandy.
He lifts his arms and glances up, as if to ask why. His hands then land on his head and he pulls at his hair. He shakes his head in disbelief.

The commentators that day determined that he tripped on his skates, but replay reveals that his skates never touched, he simply lost his edge. Jansen has reconstructed the event in numerous interviews. He says he couldn’t feel, couldn’t grip the ice. He subsequently raced the 1000 m too; dedicated that race to Jane. Thousands seated in the stands, and millions watching at home hoped for Jansen to succeed. With 200 meters to go, he fell again. Jansen’s tragedy became a major story of the games, and he recognizes that his story is not his own. In his memoir he writes, “from that moment forward I was unofficially ordained Dan Jansen, The Guy Who Fell on the Day His Sister Died.” (Jansen and McCallum 1994, pg. 117). Could he have chosen more appropriate phrasing? And how is one ordained in sport? As Caillios (2000) points out, we are god-like in our creation of games and in witnessing the struggles and triumphs that unfold. Athletes then, are holy men (and women!). Such religious analogies are readily used by anthropologists and sports journalists to capture the uncertainty and mystery of sporting experiences. But another similarity between sport and religion is in the creation of a gospel.

Like the media, that every four years wrote about Jansen’s plight, I too, am taking this story from Jansen and considering how it became part of the Oval’s orthodoxy. How Jansen, more than thirty years later, serves as a shorthand for the worst sort of tragedy and catastrophe. Because his performances in 1988 are linked to this building and form a part of it. I come at this thinking about the larger issues I further explore in this chapter – about sanctioned stories,

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12 Intriguingly, Jansen describes how he felt before his last Olympic race, six year later in Lillehammer, similarly, yet he won that race.

13 Jansen would eventually triumph at an Olympics (winning gold at Lillehammer 1994). And before then, he would set world records in Calgary (the 500 m in 1992, 1993 and 1994).
routine practices and unexpected moments. Material culture, in general, solidifies the symbolic, while generating new objects for symbolization (for us to experience and reflect upon) (Richardson 2003). One of the major projects of the Oval-as-institution is how it provides material references to our ideations. It does this in its “Hall of Champions,” in its media releases, and in numerous other ways. The Oval’s official history, written as a book to commemorate its 25th anniversary, includes Jansen’s story (see Lacroix, Richmond and Stewart 2013). However, it is not just that the written record is captured and catalogued. These moments, in which the truth, pain and triumph of sport are revealed, also live as oral tradition. Whoever I spoke with mentioned Jansen along with Jeremy Wotherspoon and Catriona Le May Doan as they recounted the Oval’s legacy. These athletes condense (in Turner’s (1967) sense) moments of loss and greatness belonging to this place. There are some unofficial histories too, of course. These appear periodically in the following sections.

**The Oval Program**

Shortly after the games, a long track high-performance development program was initiated.\(^{14}\) This program has undergone several organizational iterations over the years. It is currently known as The Oval Elite Pathway Program, commonly referred to as just “the Oval Program” or “Oval Pathway,” and it assigns athletes to training cohorts based on abilities benchmarked to standards (predominately times skated, though other factors are considered as well). At present, the Oval Program categorizes athletes into five stages. Stage 4 and 5 skaters are national team members (Stage 5 being the highest ranked skaters). Stage 3 skaters generally compete

\(^{14}\) The Oval also offers training in short track, though the country’s top short track athletes train in Quebec.
nationally (representing their respective provinces), though some also compete at World Juniors (representing Canada). Stage 2 skaters may still be high-school aged. Many Stage 2 skaters attend a local sports school that provides scheduling flexibility so they can train.\textsuperscript{15}

As I was beginning fieldwork, the Oval Program had just collapsed a neo-senior stream (this was for older skaters who were not progressing quickly along the development path) and created an all-female group of Stage 3 skaters. The following year, a male Stage 3 sprint group was created, which subsequently turned co-ed when the all-female group was disbanded. I spent the bulk of my time with athletes, coaches, and trainers in Stage 3. For almost all of these skaters, making the national team and going to an Olympic Games were stated goals. Only a few considered that they might be approaching the end of their skating careers. Those athletes were typically about to finish or embark on professional degrees (engineering, medicine) and clearly had set other ambitious objectives for themselves. The majority, however, were chasing Olympic dreams.

Teenagers move to Calgary from Brandon, Manitoba, or Fort. St. John, BC and after years of training at the same local speed skating club, they arrive at “The Fastest Ice in the World.” Prior to coming to the Oval, their coaching may have been excellent or mediocre. Even if they had previously received strong technical coaching, they will begin training with greater intensity and commitment once joining the development program.\textsuperscript{16} And they are expected to develop “elite habits,” a catchall for personal care such as nutrition, rest and recovery, but also

\textsuperscript{15} While I was conducting fieldwork, the future of this school was in doubt. Unfortunately, attending a conventional high school would present numerous scheduling challenges for these athletes.

\textsuperscript{16} At the club level, skaters might work out five or six days a week. They would seldom have “two-a-days,” that is, two workouts in a day. The schedule in Stage 3 involves two workouts on Monday, Tuesday, Thursday, and Friday, and an ice session on Saturday. Sunday is always a rest day (unless a competition changes things), and Wednesdays are mostly rest days too.
positive social relationships and time management. In other words, the Oval is a space of active enculturation, in which certain types of bodies, habits, dispositions, and relationships are made. Although extraordinary moments such as Dan Jansen’s twin falls are carefully chronicled, the ordinary day-to-day flow of people through these spaces forms no small part of the legacy of this place.

An Ordinary Day

It’s 8:32 a.m. on a Monday in September as I approach the main entrance to the Oval. I pass the cauldron, lit during any Olympic Games, and “The Spire” a red sculpture standing an extravagant 19.88m high. This work is a progression of intersecting bent tubular steel rods supposed to depict the progression of human movement. But everyone here calls it “the paperclip.” I’m moving with a mass of mostly students and some athletes (and of course, some student-athletes). I have been researching at the Oval for over a year now and this morning seems like many others, the routines and rhythms of this crowd now my own. It is cool, breezy and sunny. Adults are mostly walking with leisurely purpose, some in small groups, the odd one hustling. This contrasts with the summer campers who squealed and ran around as I wove between them to access the doors only a few weeks ago.

Above the entrance, in a simple font, reads “Olympic Oval Anneau Olympique.” While the signage indicates you have arrived at the Oval, the north entrance opens to an atrium that bridges the Oval and Kinesiology Building B. In front of you, a staircase leads to a second floor with access to spectator seating for the Oval and for the Jack Simpson Gymnasium in the kinesiology building. I walk past these stairs, to the right. There is a torch from the 1988 relay
encased in glass. The walls are decorated with images of Canadian athletes, not all speed skaters. The Canadian Sport Institute (CSI) has office space here and these are their installations. Further still is the Oval’s main reception desk and the turnstiles where I’ll scan my identification card and walk into a corridor bound by glass walls. This hall leads to office space (on the right), to a meeting room and VIP viewing space (on the left) and straight ahead to stairs that will carry me down to ice level. The staircase is wide and open, floating in space. As I descend, a strength trainer is coming up. We pass and say good morning. Halfway down, the stairs come to a landing that overlooks the ice. The stairs then turn 180° and the second run delivers me at ice level across from the skate shop. I know the shop is open because the shutters are up, but I can’t see anyone in there. Most likely he or they are working at a machine in the back.

I head for the running track, near the rows of stationary bicycles that the skaters use before and after their ice time. I had hoped to be here a little earlier to observe skaters warming up. I haven’t missed them entirely, although I’ll only catch the tail end of things. The track is busy, almost exclusively with speed skaters, though I suspect that one young woman, a lone runner, is a varsity athlete. I don’t recognize her and her physique is just not what you expect of a skater. Many national team members are gathered around the foam bumpers (the crash pads) that encircle the ice. They use these pads like a ballet barre, swinging a leg up and resting it there as they stretch, often holding positions for much longer than makes sense. They are chatting too. The pads are a good place to keep up with the latest gossip. I am certain that the time given to stretching serves loquacious purposes at least as much as physiological ones.

The group I’m looking for is using the slide boards. A slide board is roughly 2 m long x 0.8 m wide and rests on the ground. It can be made from any number of slippery materials. The
ones here look to be made from plywood sheets with a plastic veneer. There are padded blocks at the two short ends. The skaters wear special socks or slide board booties that enable them to easily glide. They assume their skating position, parallel to the padded blocks, and push off, sliding side to side in a simulated skate. A coach comes up behind a skater and guides her recovery leg into the path he determines it should take. Her hips are twisting somewhat. He verbally corrects this. Yes, that’s it. Keep that feeling, he tells her, and moves on to observe another athlete. The skaters are taking turns on the boards. Of those who are waiting, a few are engaged in a conversation about the weekend. Two others are keeping to themselves, as usual.

The skaters spend about 10 minutes practicing and perfecting movements. And that’s it. Warm-up is over and it’s time to change. They should be on the ice by 9 a.m. Athletes head to the change rooms. I head back towards the stairs. I’m going down another level. This flight is narrow. The stairwell leads to a corridor that runs the width of the Oval. There are pipes running overhead and chain link fencing secures one area. The first time I traversed these stairs I was surprised. I remain disappointed. How could this be the path that athletes and coaches – visitors from around the world – travel to the ice? Beyond appearances, the absurdity of this design means that at busy times, such as the transition between ice sessions, this narrow pass is navigated by means of careful timing, knowing glances and gestures. You cannot pass on the stairs. And I was told that the one rule to bear in mind is that “hockey players have the right of way.” This was a comment on the bulk of their padding and equipment bags, shared with me in jest but with a slight sharpness. After all, this space was built for speed skaters.

17 I was told that the original plans for the Oval included stairs that would arch over the ice, reminiscent of Dutch canals, but the cost proved prohibitive and those stairs were nixed. I could never confirm the veracity of this claim and others were certain that this dingy stairwell was always the intended route. This seems plausible since bridges over the ice could obstruct spectators’ views.
I walk several meters through the tunnel – through the bowels of the Oval – and then turn right to ascend via another narrow stairway back to ice level, this time on the inside of the track, where there is ice access for the speed skaters, as well as access to the hockey and short track rinks. As I surface, I taste the cold air. Looking up, I spy the banners that hang from the ceiling above. These were, I believe, produced for the Hall of Champions and moved here to make space for new installations. They include Jeremy Wotherspoon, Clara Hughes, and Christine Nesbitt. It is quiet now, but soon music will play on the sound system. The music is selected by one man working in operations; the skaters sometimes bemoan his choices. “You’ll hear ‘Patio Lanterns’ and ‘Copperhead Road’ multiple times a day,” one skater tells me laughing. It is an unpredictable mix that might include Tracy Chapman or Kim Mitchell, or something more contemporary, such as the Arkells or Young the Giant (always some sort of mainstream rock).

I’m the first to arrive at the benches where athletes will soon sit and put on their skates. I look to the short track rink; it’s readied for the morning’s training. A large garbage can sits on the ice, purposed as a water reservoir. Pails (from Home Depot) are set beside it. These pails will be dunked into the garbage can and the contents periodically poured in the corners of the track. The water repairs small divots and cracks. It also adds some “grippiness” to the ice in the corner. The long track ice is resurfaced, at minimum, after each training session. However, at certain times of the year, the ice is also resurfaced at the midway point.

Skaters and coaches begin to arrive. The short track athletes head to their huddling area between the short track and hockey rinks. The long track athletes sit on the benches that run alongside the main ice from the tunnel access point to the first corner, and put on their skates.
Most don’t wear socks. The national team is in matching skinsuits. Stage 3 athletes wear what they own. Some of their suits have worn away in places or have small tears on the shins (usually acquired from skating behind a teammate). Many are in provincial team or Oval Program suits. A couple of athletes even wear the second-hand suits of other national teams, which they picked up for cheap. As they ready themselves, they talk about the usual things: past performances and times achieved – theirs and others – and athletic feats on and off the ice.

“Did you see him on the bike”
“The guy’s an animal”
“Remember Fort St. John?”
“That was crazy!”

These conversations easily shift from admiration, to inside jokes and gentle ribbing. And while I know of some tensions between athletes; know that not everyone gets along; I also know that most everyone here enjoys this routine. The ways in which these chats create cohesion (and some exclusion), and help build collective identity, make them – functionally – like the gossip at the foam pads. However, at the pads, talk is relaxed, as stretched out as their bodies. On the bench, things are more spirited. There are more verbal jabs. More laughter. The banter matching the intensity, matching their excitement and anticipation at arriving at the ice. The affability disarms me at times. It is fun here and I enjoy it. And I wonder if this can really count as fieldwork.

Skaters move onto the ice, onto the innermost lane, the warm-up lane. For all their grace when skating, their transitions on and off the ice always look inelegant. They wobble, shuffle like penguins, and set their water bottles down on the ice, near the edge. Some carry on with

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18 This is to better feel the ice.
their conversations from the bench, upright and gliding easily in small cohorts. Others get immediately into a low crouch and begin “skating Tai Chi,” slowly practicing the movements of a perfect stride. Coaches unload backpacks filled with stopwatches, video cameras and clipboards. Training programs have been designed well in advance and shared with athletes in electronic form. But some coaches also write the day’s program out and rest it rinkside. The program is written in speed skating shorthand. There’s “4x 500/500 DPS,” meaning four intervals with a focus on distance per stride (i.e. long strides). Or “2x 1 lap SFL,” a directive to skate super fucking low. Again and again I’m told, “it’s a really technical sport.” This is meant to refer to proper technique. But I notice there are also transponders worn around skaters’ ankles that track times and velocity, and heart rate monitors around their chests. And the coaches, holding multiple stopwatches, some with a video camera hanging around their necks, are entangled in data.

Then training groups gather around their coaches. There are three coaches working with different groups of Stage 3 athletes, and the national team is training too, with three coaches of its own. The long track coaches are all men. Some of the coaches always wear skates and some never do. And then there is the third type, who dons them occasionally, as that day’s goals necessitate. Each coach has a recognized space that he works from. One coach stays outside the ice, leaning on the foam bumpers near the end of the straightaway. Another occupies a space a little further up the track, but on the ice, in his skates. The other coaches are spaced along the straightaway of the inside track.

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19 Women have coached here before, just not many. Ingrid Paul was head coach of the national team from 1992-98. And Xuili Wang coached with the national team for over a decade, but she left for a job with her home country, China, before my fieldwork began.
Teams sub-divide into training groups that will perform the same lap times. The planned groups are dependent on abilities and are initially dictated by the coach, but skaters might suggest revisions to the plan. In fact, there are frequent on-ice negotiations of the training program. Skaters ask if they can drop laps, go slower, go faster, skate with another group. These requests are often attributed to injury or illness. Something to the effect of, “I just don’t have it today,” or, “I’m not 100% right now.” At least that will be the stated reason. Coaches sometimes attribute the request to commitment, or a lack thereof. One skater asks if she can join a different group. The reasons are personal, more than anything. The coach knows this and grants the request. In fact, he always grants the request. But skaters who show up every day and do the program as devised are viewed more favorably. Such athletes demonstrate that they are truly committed, that they have what it takes.

Packs of skaters are moving on the ice. In groups of four to eight, they form trains, skating close behind one another, alternating the leader. These trains sway in s-shaped curves, like a dragon at a Chinese New Year’s parade. This formation enables the athletes in the back – in the draft – to have it easier. They are also teaching one another. Accomplishing the instructed lap times involves collective negotiations of pace. A leader might be called to slow down; might be touched on the back to speed up. After a distance, the leader drops to the inside and falls to the back of the pack. A new leader might pass on the outside. There are several of these trains moving at once. Coaches are yelling out numbers as groups pass.

“Four, six”

“Five, oh”

“Three, seven. Slow down!”
The two numbers refer to the ones and tenths places, respectively. Accordingly, 34.62 seconds on the stopwatch is called out as “four, six.” If the program specified thirty-five second laps, this is good enough (though it could be even better). But if a time of thirty-six seconds was specified, they’re going too fast. Athletes are supposed to recognize their coach’s voice (over the din of other calls) and make adjustments to their skating as necessitated by cues and times they hear as they speed pass.

*Quotidian Variations*

After skating the desired number of laps at the specified time(s), skaters straighten their bodies and move to the warm-up lane. They will glide a lap or two, sometimes chatting in small groups of two or three. They might bend at the waist and scoop up their water bottle before hand. Then they might come to the big foam bench at the top of the front stretch and fall backwards onto it, spreading their bodies in soft arcs across its top, as if annulling the discomfort of their skating crouch. They typically have a couple of minutes between skating intervals. The teams mingle at this bench, and Stage 3 and national team skaters engage in conversations. Some of these athletes are siblings. Some are current or former lovers. Others grew up in the same town or city and trained at the same club before moving to Calgary. Whereas training groups are stratified by ability and (mostly) gender, the foam bench divides and integrates according to different logics. At the bench, proximity (or distance) and gab (or silence) orders

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20 Some women and men skate together and most teams are integrated (though there was an all male and all female group when I conducted fieldwork). I suspect that men and women training together is advantageous for two reasons. First, as they are not direct competitors, they can sincerely and completely support and cheer for one another. Second, the women claim that they like feeling pushed to go even faster by the men.
skaters into groups that reflect relationships off the ice. Then they resume their training with another set of laps.

The beginning of all morning sessions feels pretty much the same: the trains of skaters whizzing past as I stand near the edge of the ice, their energy contained, controlled by their orderly movement as a whole. But at the halfway point, things begin to vary. Some skaters are on their own or in pairs. They are skating faster too, passing others. Restraint has given way to more rowdy energy. But it is still coordinated, as though the skaters form a superorganism on the ice. Their awareness of others makes direct collisions, thankfully, extremely rare. Falls, however, do occur with some regularity, about once a week. These are usually minor, and skaters resume training straightaway. The last 15-20 minutes of ice time has yet another rhythm. Even more athletes are skating on their own. Others might be practicing starts, which are marked by orange pylons at the halfway point of the backstretch. A nasty crash several years ago means that this is the only place starts are allowed during training sessions. Starters are captured by time-delayed video replay that captures front, back and side views. Athletes can start, skate the first corner and then easily glide the rest of the way around the ice and return in time to view the video.

The prime morning ice time – 9 a.m. until 10:15 a.m. – is followed by a training session for some visiting Chinese teams. Afterwards, the ice is usually quiet until late afternoon. For the Stage 3 athletes, most afternoons involve either a bike ride or weight training. Bike rides are designated as OYO (on your own), which simply means, it’s up to you to complete. Athletes

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21 Brianne Tutt was struck from behind while practicing a start. She was flipped into the air, fracturing her skull and cervical vertebrae among other injuries.
22 Stage 2 athletes used to train at 7 a.m. to accommodate high school hours. Their ice time was moved to late afternoon to everyone’s liking.
will often arrange to bike in small groups of friends. Weight training occurs in the Oval weight room under the supervision of a strength trainer and possibly the coach too. But some athletes also complete this on their own at a later time because of scheduling conflicts with their university courses. A few of the athletes really love weight training, but most are indifferent to it as an exercise. For them, it is a means to other ends, although they enjoy the sociability it affords. As they work through the designated circuits, there are lots of opportunities to talk, to laugh at small mistakes as they attempt new moves, to make plans for that evening. This weight room – unlike the one in kinesiology that some call the “bungle gym” – is reserved for real athletes. And in spite of the laughter, serious work is underway. Sometimes the long track skaters do an afternoon session on the short track ice. This might replace a weight session, though it can also be tacked on as an additional training session, in which case the weight program will be somewhat truncated. They might skate to the right (training the “dark side”) or perform drills not amenable to the shared big track.

Occasionally, I would come by the Oval in the early afternoon and sit in the stands and write. It was generally very quiet then. Athletes from the varsity track or football team might be training, but only ever occupying a small space. They never took over the running track the way that several teams of speed skaters did almost every morning. Figure skaters also came in the afternoon and practiced on the hockey ice. Their music would be playing on the speakers, but sometimes the lights would be shut off, as if they were a forgotten postscript to the day’s training. Evenings often offer public skating on the long track ice. Recreational hockey leagues rent the other ice too. By this time, Oval athletes and coaches have generally left the building.
Peer Mentorship

One of the (intended) consequences of a centralized training centre housing a development program is that a large cohort of athletes are brought together. This facilitates peer mentorship in two ways. First, the Stage 3 skaters look up to and emulate those in Stages 4 and 5. Beyond mimicry or skating apprenticeship, they may seek counsel in various forms. This might mean asking for opinions about equipment purchases or race-day prep, or tips on how to best insert one’s hair into a skinsuit’s cap. These were anticipated outcomes of building the Oval and creating the Oval Program. On the whole, it benefits athletes and endorses sport’s hierarchical social structure. This is peer mentorship as intended. Helpful tips and tricks passed down from more experienced athletes.

But the second way in which this mentorship manifests can subvert order and status. Stage 3 athletes might inquire about drills and programming. Assuming that the distinctions and directives of development are sound, Stage 3 athletes should probably be doing different things than national team members. Moreover, any doubts or concerns about training would properly be directed to one’s coach, and then (if not satisfied) the program director. However, athletes do, at times, bypass this hierarchy, looking instead to those holding the positions they one day hope to have. Whether the guidance received is good advice, is a complex evaluation. Because if the answer to any question posed by a Stage 3 athlete is not answered with an affirmative, yes, don’t worry, you’re on the right track, a host of disruptions can ensue. At one point, some national team members decided to advocate for Stage 3s, which led to censure and resentment, and a closing in of the ranks. What happened in this particular situation was an attempt to formalize an informal arrangement. But the national team has no standing sponsoring the cause of Stage 3 athletes.
“It’s an Iconic Building”: The Semiotics of Space

The Oval was designed by Graham McCourt Architects (now GEC Architecture). I spent the better part of a day reading up on its design and construction, combing through structural engineering articles and assessments of geometries, volume and light. The consensus is that it’s an elegant and ambitious building (see Allsopp 1988). It is rather beautiful. Light floods its corridors and it is populated with artworks, including those built into the space such as the large stained-glass windows designed to mimic the marks that skates make on the ice (the “Pagoglyphs” by artist Brian Baxter) and the patterned linoleum floor leading to the upper viewing deck (“The Heroic Entrance” by artist Barbara Astman). The building’s most distinctive feature is not readily perceived when approaching the main entrance. Rather, the Oval’s dramatic roof, a web of intersecting concrete arches, is best captured in aerial photos that emphasize its folding, faceted design. The ceiling’s diamond pattern can also be appreciated within the stands, where the space soars to 20 meters high (see Fig. 4.1–4.8 for images of the Oval and some of its artworks; permissions found in the Appendix).

Figure 4.1. Architectural Model of the Olympic Oval (from the University of Calgary Archives and Special Collections)
Figure 4.2. Artist’s Rendering of the Interior (artist, Rene Thibault, used with permission)

Figure 4.3. Exterior Under Construction (photo credit, Jim Peacock, from the University of Calgary Archives and Special Collections)
Figure 4.4. View from the Stands (note the seating added near the short track ice. Image credit: GEC Architecture, used with permission)

Figure 4.5. Le Patineur de Vitesse (created in Honour of Gaétan Boucher. Artist: Germain Bergeron. Image credit: GEC Architecture, used with permission)
Figure 4.6. Upper Hall Looking from Kinesiology Toward the Oval (the Pagoglyphs are just visible on either side. Image credit: GEC Architecture, used with permission)

Figure 4.7. Running Track with Offices Above (Image credit: GEC Architecture, used with permission)
I’m told, “it’s an iconic building. Calgary set a standard to which all subsequent ovals are compared.” I’m not surprised. The flat ceiling at Heerenveen’s Thialf feels oppressive in comparison. Berlin’s indoor oval fits with the surrounding utilitarian Soviet architecture – its

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23 The ceiling height is just over 16m.
interior features massive posts (which can obstruct views) and a ceiling cluttered with webbed trusses. The Vikingskipet (Viking ship) in Hamar, Norway, built for Lillehammer 1994, is stunning from the exterior. It’s designed to look like an upturned Viking ship, and the building arches gently into the surrounding landscape. However, its interior is more reminiscent of an air hangar. Calvary’s rival for speed, the Utah Olympic Oval (in Kearns, Utah), lacks the design élan found in either Calgary or Lillehammer, but as Mitt Romney has boasted, it cost only $30 million. And more current world records have been set at the Utah Olympic Oval.

What this all means is that Calgary’s Oval is as much a monument as a training center. In 2011, the Oval was recognized as a historic resource by the city. In 2020 it was named as one of three ISU Centres of Excellence in speed skating (the others are the Utah Olympic Oval and Thialf). Athletes all talked with me about coming to the Oval for the first time; about the personal significance of being here because of the building’s history, what the Oval has meant for speed skating (in Canada and beyond) and the many records and accomplishments tied to this place. Like Wimbledon or Wrigley Field, when you come to the Olympic Oval you enter a significant space, it’s a cathedral of sport (Dyreson and Trumpbour 2009) for one of the lesser-known cults. Your experience is helped along by both subtle and over the top symbolism. There is the Hall of Champions. And the Oval’s trademarked slogan, “The Fastest Ice in the World,” lest you forget it. Numerous calendrical traditions are maintained, including a Christmas charity drive and the Oval Finale, the last competition of the year. These shrines and traditions create

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24 I hold out judgement of the “Ice Ribbon” oval, under construction for Beijing 2022, the exterior of which, adorned with 22 ribbons of light, is sure to rival the Vikingskipet in sheer cool factor.
25 The ceilings are 3 m lower than in Calgary too.
26 Held since 1991, the Oval Finale differs from most other competitions. All ISU registered senior and junior skaters can enter (there are no limits on the number of competitors per country) and pairs are based on personal best times, making most of the races quite close and exciting. In addition, a Finale tradition includes writing poems on slips of paper and leaving these on the desks of Oval staff.
continuity, a sense of lineage within this space. Initiates are made to know that they too are now a part of this legacy.

The athletes who come here to train, or the international competitors who visit, understand that this place, and this ice, have produced greatness. Touching these surfaces, connects them to that past, and creates pathways for their futures. As one told me:

“You know all these people have done it, right here. They’ve worked hard. Accomplished their dreams. And you can too. This is the place to do it.”

Sure, this has a lot to do with super fast ice. But it’s more than that. There are top-quality coaches. Numerous innovations in the sport have been borne here. And there’s a swagger that comes with being at the Oval – not dissimilar from any other elite institution.

Psychologists use the term space-identity, referring to how “the subjective sense of self is defined and expressed not simply by one’s relationship to other people, but also by one’s relationships to the various physical settings that define and structure day-to-day life” (Proshansky, Fabian and Kaminoff 1983, pg. 58). It would be facile to consider how people build identities within these walls without considering the physical setting itself, and how this setting and their movements through it, contribute to an active construction of self. How the space orders interactions and generates experiences. How the panoptic design of the office space overlooking the activities of the ice creates clandestine command above, and a feeling of exposure below (one coach would sometimes go into the media box adjacent to the office space and surreptitiously watch his athletes ready for ice-time). How the numerous windows bridge the indoors and out so suitably for this sport. How, like in a grand cathedral, the high ceilings create a sense of awe. But at the Oval that awe is perhaps directed to our god-like capacities as
realized through high-performance sport, directed to athletes’ revelations of new horizons of humanness.

I began this discussion with a snippet from a longer conversation about the Oval. I was told that it is iconic. It is the standard other ovals are compared to. This led me to propose a semiotics of space, considering the signs and referents within a built environment, considering space that is not simply read as text, but embodied in-text. As athletes come here to train and compete, they are not merely reading the Oval, but, in moving through its halls, incorporating this space into themselves. Lasting identities and statuses are built here. And, in a Peircean sense, the indexical distance between the Hall of Champions and the neophyte just might be closed. If the young skater becomes a champion, the likeness can likewise become iconic. The people at the Oval – athletes, coaches, administrators, technicians – are aware that they are a continuation of this iconic legacy. The Oval churns out champions. This fact defines day-to-day life. But afterwards, at the end of a celebrated sojourn at the Oval, what does this space mean? For some, it is still be lovingly remembered. Yet, one Olympian described it with a pensive sadness:

It’s strange coming here now. It’s almost uncomfortable, really. Before, all my hopes and dreams were tied to this place. My future lay ahead of me. I had a purpose here. But the Oval doesn’t hold anything for me anymore. It’s just a place where my past happened.

**Peopling Institutions**

When we discuss institutions anthropologically we are generally referring to rules and roles, to organizing principles for stable and reproducible social relationships – most commonly economic, political, religious and familial. Dealing in this more structural space, individuals
become officeholders. Practice theorists such as Bourdieu (1977) and Giddens (1991) have proposed means for bridging individual agency and institutional reproduction. And whether one prefers the details of habitus and field, or the duality of structure really amounts to theoretical inclination more than substantive differences about the operation of society. So let me set these ideas aside for a moment. What I focus on in regard to the Oval are the ways in which individuals are drawn together by its particular organizational form, come to occupy shared spaces, and generate change. In this way, Oval-as-institution is how legacy is received and made. This is not some clever disclosure; it is pretty self-evident. And it’s why centralized training sites are favoured in high-performance sport (in Canada this is often more difficult to achieve than in less sprawling countries).

Here I present three cases that illustrate bridges between role–relational and embodied aspects of institutions. The first example focuses on athletes training together, the second on the making of ice. In both of these instances, abilities – particularly, sensory refinements – are generated in social learning environments. The formal structures of the institution, a collective working towards a goal, and individual biographies coalesce in these moments, creating skills that while broadly transferable are also characteristic of this place. In the third case, I focus on how professional careers are built at the Oval – the associated roles, titles, and credentials that denote statuses, alongside forms of affect, intuition and performance that serve to accomplish expertise – and some of the strategies individuals deploy to affirm and contest the formal hierarchy. In all three cases, I explore the incarnate intersubjectivity of institutional roles. As Frank (2013, pg.35) asks, “how does our shared corporeality affect who we are, not only to each other, but for each other?” To him, it is a dyadic body (always considered in interaction with others) that makes us, us. Here, the dyadic body is considered in relation to institutional roles.
Training Together

The first time I watched an ice session I was amazed by the speed, fluidity and coordination of the groups of skaters moving together on the ice. I was also confused. Is this not an individual sport? Are there not just two skaters on the ice during a race, each in a dedicated lane? Why should athletes bother learning to skate with others like this? It seemed like a completely separate skillset, and I wondered if it was necessitated by a need to reduce costs, or if it simply made things simpler for coaches. I was informed that these trains allow skaters to get more laps in as they benefit from skating in a draft. Okay, but isn’t skating hard on their bodies anyway? Why not get that extra work on the bike? My foolish questions were shot down with an all too obvious answer. “It’s called training specificity!”

More exercise via laps on the ice is, then, a good reason for this. But there are other things going on. As a unit, skaters move with a particular tempo, not dictated by the leader (because the leader alternates) but by attending to one another. And this creates opportunities for mimesis.27 Sure, there are other mimetic moments in training. Coaches often position and move their bodies to illustrate correct technique. And skaters watch others (live and recorded) as well as video of themselves. Similarly, a coach may tell one athlete to skate behind another, because that athlete does something really well, such as corner entry. Skating behind will allow one athlete to literally follow in the steps of the other, to learn the best movements and moments, learn just when to drift right and then lean into the left. But skating in a pack is not so much

27 I considered that training like this may create positive peer-pressure, may encourage skaters to work harder. But that doesn’t seem to be the case, as athletes asked to skate with others or left training sessions for a variety of reasons before completing the program.
about observing and doing, with the time-lag that suggests. In fact, mimesis, though I think still the best word, is rendered as reflex. There is little time for reflection, just reaction.

Skaters glide close together, facing the buttocks of the athlete in front. These are the carefully coordinated proxemics of training (Hall 1969). And in these trains, in their shared spatiality and temporal congruence, skaters are developing “feel.” What exactly feel is, is difficult for coaches and athletes to articulate, though they can know it, when things are going correctly. Coaches, observing skaters, say things like, “can you feel that?” or, “that’s it, keep that feeling.” Skaters likewise attempt to imitate great performances they have witnessed, translating (it would seem) visual data to their own proprioception (sense of movement and body position). And just as feel is gained, it can also be lost. Sometimes simply by being off the ice for a few days. Feel can refer to specific parts of skating or the comprehensive whole. Accordingly, you can lose your feel for skating altogether, or for starts or corners, for your hips or shoulders. Athletes speak mostly about losing their feel for the ice, or not being able to feel the ice (even when they are standing on it). While I was provided with no precise definition of feel (other than it is sensed), athletes and coaches have a model for understanding how feel is inculcated through the creation of neural pathways. This model states that repeated motor actions generate novel physical connections within the nervous system. These are presumably durable (which is why bad habits are hard to overcome, though this does not explain why good habits are hard to keep).

Some ethnographers studying sport have embraced this explanatory framework, calling for a neuroanthropology that posits the central nervous system as the fundamental basis for culture (e.g. Lende and Downey 2012). Beyond the methodological challenges such theories present to ethnography (ethnographers can’t be certain that neural pathways are forming), and
the ways in which these sorts of theories move culture from the extrasomatic to subcutaneous coding, what I am most concerned with is a different sort of irreconcilability. Why, then, is it that skaters consider the correct feel so precarious? Why, even after years or decades of repeating movements, can feel easily slip away? If feel could be reduced to connections atomistically built within the nervous system, this would not be expected.

But what if culture is not built upon a biological scaffold? What if we are always both cultural and biological? What we are dealing with then are not layers, but a sort of interstitial becoming. We are dealing in situated biologies (Niewöhner and Lock 2018). We are likewise dealing in a body that, as Munn (1996, pg. 451), elaborating on Lefebvre’s (1991) notion of a spatial field, writes, “is a corporeal-sensual field of significant distances stretching out from the body in a particular stance or action at a given locale or as it moves through locales.” Our bodies incorporate spatial experiences, and this corporeal-sensual field moves with us. Only one detail remains to be added. Why does it matter that athletes train in groups?

Csordas (2003), building on the phenomenology of Merleau-Ponty (1962) and Bourdieu’s (1977) practice theory, proposes a concept to bridge perceptual consciousness, on the one hand, and collective practice, on the other. He argues that instead of considering “perception as a bodily process,” we adopt the concept of “somatic modes of attention” (Csordas 2003, pg. 137). These include the intersubjective ways in which we attend to and with our bodies and the bodies of others. Csordas fleshes out his theory using ethnographic data from Catholic Charismatic healers, although he astutely mentions sport and athletes as obvious cases in which somatic modes of attention might apply. The development of feel, especially as it is incorporated through training in such close proximity to one another, seems just such a case.
I propose that feel, then, is a sensory education – learning to sense as others do – acquired as part of “culturally elaborated ways of attending to and with one’s body” (Csordas 2003, pg. 138). Training as a team, even in an individual sport, makes a more or less standard sensory education possible.28 As Csordas points out, there’s an indeterminacy inherent in this. He contends that indeterminacy is existential. Feel, as understood through somatic modes of attention, becomes irreducible to biology, even as very real neural connections are formed. That is, though I grant that these connections exist (and are generated through sporting practice), they are not, alone, definitive of feel. It seems more accurate to suggest that feel is an emergent property. And that this phenomenological, intersubjective account does more to explain variations in feel over an athlete’s career than a theory that assumes the primacy of building blocks within the nervous system.29 Further, a phenomenological framework that includes a corporeal-sensual spatial field, provides a theoretical underpinning to the intuitive notion that our bodies become accustomed to (and sometimes comfortable within) particular spaces. In other words, it goes along way toward explaining why some athletes like competing at certain venues more than others.

*Brothers of the Wind: The Look, Feel and Sound of Fast Ice*

It’s December and I’m following a team of skaters through the tunnel under the ice. We descend the narrow stairs, but instead of making a right turn, we walk straight until we arrive where the Zambonis are kept and delivery trucks dock. We’re (well, they’re) here to collect kits

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28 And I suppose that feel can be developed individually too (in fact athletes skate tempos for this reason), but that skating together generates a shared sense of the environment.

29 In Chapter 5 I return to the matter of skating together, specifically exploring how athletes develop a feel for time.
fitted out with essential items for homeless Calgarians (socks, toothpaste, and so on). They are each to take a few of these care packages to hand out over the next couple of weeks while out on bike rides. The Oval has done this for years. It’s a nice sort of tradition and these athletes are all happy to participate, some even suggesting that they know who they will give kits to, as they routinely pass particular people in need. As the skaters load their backpacks, I spy a room off to the side, with a large conference table (several men are sitting around this), a couple of vending machines, and a large graphics installation along the back wall reading, “Brothers of the Wind.”

There is a bronze relief in the atrium entitled “Brothers of the Wind,” by artist R. Tait McKenzie that was completed in 1925 and acquired when the Oval was first built (as part of a $400,000 budget for artwork). The frieze features eight naked male speedskaters racing on a lake surrounded by trees. The Oval offers several awards based off of this work, including a Brothers of the Wind ring, which is given to skaters that set world records at ISU sanctioned events. Jewelry also rewards years of service working at the Oval (10 years gets you a Brothers of the Wind tie clip or pendant necklace). Seeing the work commemorated in the space off the loading docks surprised me a bit. Though it is fitting that the brotherhood would be honoured down here. There is something guild-like about crafting the ice. And about the lack of women working as technicians.

Each spring the ice is removed from the Oval, commencing an approximately two-month long “ice-out” period. Original plans called for artificial turf to be installed during this time, which happened for a season only. The original design also made it unlikely that the space could be used for large trade shows (as there is limited access for vehicles), a choice intentionally made in order to maintain the building as a dedicated speed skating facility after the Olympics. From April until the beginning of June, while routine maintenance takes place, and athletes travel
home to visit friends and family, the Oval hosts science fairs or Taekwondo tournaments. But soon, the task of recreating blisteringly fast ice begins again. Compressors cool salt brine that runs through pipes under the concrete slab. This slab is cooled to about -7°C before deionized water is sprayed over top (using agricultural equipment) and allowed to freeze in thin layers. This creates an initial ice bond to the slab, afterwards various lines and logos are painted onto the surface. Lastly, several hoses are opened up to flood the ice. The final desired thickness is close to 2.5 cm.

The temperature of the ice may be adjusted up or down to accommodate the ice preferences for various long track race distances. The fastest ice, ice best-suited to sprinters, is not too hard and a little grippy. Distance skaters want something with more glide, so a little cooler. However, if the ice is too cold, it can crack as blades push off. Although I asked for temperature specifics, anything beyond generalities remained a guarded secret. While the ice needs to be somewhere between -9°C and -2°C, the ideal ambient temperature above the ice is closer to 10°C, which is easier to achieve at some newer ovals than at Calgary. But Calgary has several environmental conditions in its favour. For instance, high elevation (1048 m) – leading to lower air resistance – low humidity, and Chinook winds (which further lower humidity and barometric pressure) all contribute to faster ice.

While the Oval was under construction, some in the Dutch media fretted that a “hockey guy” was going to mess things up. That hockey guy is named Mark and still works at the Oval. Mark trained as a heavy-mechanic but found himself unemployed during the 1982-83 recession. Deionized water creates a purer ice with less friction. Keeping the ice pure and clean are major preoccupations. No one is to walk on the ice, as even a clean shoe can leave a footprint perceptible through a skater’s blade. However, when repairs are required, ice technicians do run on the ice in their work boots, and patch and spray (with a special fire extinguisher) to rapidly refreeze the surface.
that devastated Alberta’s petroleum industry. Left without work in his trade, he took a job at the newly built Saddledome, home to the city’s NHL hockey team, where he first learned the principles behind making artificial ice. Four years later, he arrived at the Oval. Mark describes his early days as a steep learning curve – learning both the characteristics and quirks of the building and the preferences of the coaches and athletes. Three decades on, Mark is the Oval’s Manager of Operations, and a recipient of the Order of the University of Calgary. Mark has also been involved in creating speed skating ice for eight Olympic Games. He has gained a worldwide reputation and the nickname “icemeister.”

Beyond this, he is a craftsman who doesn’t need a stopwatch to gauge the quality of his work. He can see and hear fast ice:

“There’s a clarity and a gleam to the ice that lets you know it’s going to be fast. If the ice isn’t right, you’ll hear skaters pushing ice and you’ll see the snow coming off. I’m listening for a quiet hiss and looking for a very fine puff of snow, if anything at all.”

I’m impressed. To my eyes, the ice just looks cold and hard. I would actually be tempted to call it cloudy, because of its milky colour, but that appearance is created by a coat of white paint applied over the thin bottom layer of ice (this is for the benefit of television cameras). Mark shrugs off his heightened senses. It’s not impressive to him. Others, he informs me, are even more perceptive:

“There was a coach here, Jack Walters, he could put his blade to the ice and tell me the temperature within zero point three degrees. He had that sort of accuracy.”

I feel like this is an exaggeration, but does that matter? As Mark tells me this, his respect for Walters is evident. As is his warmth for their collaboration. And though I’ve made this account all about Mark (he is the icemeister), there are several ice technicians at the Oval who have worked together to figure this out. They have learned from one another.
This is a *community of practice* (Lave and Wenger 1991; Wenger 1998): a collectivity learning and improving upon their work through their interactions with one another. It involves an inseparable know-that and know-how. And as Wacquant (2004, pg.17) writes in relation to boxers, they:

> Appropriate through progressive impregnation a set of corporeal mechanisms and mental schemata so intimately imbricated that they erase the distinction between the physical and spiritual…and in so doing transcends *in actu* the antimony between the individual and the collective.

The ice technicians discuss what they do in terms of art, craft and skill as much as science (and is the practice of science not a craft too? In the affirmative, see Collins and Evans (2002) and Myers (2015)). Even driving the Zamboni machines, which seems mechanical and systematic, is discussed as an artform and the finished product the hallmark of an individual artisan. I’m told you can tell who resurfaced the ice just by the feel of it. Perhaps you can. Unfortunately, I couldn’t.

In addition to learning from one another, they learn from the building. Yes, the building is discussed as a teacher. Mark has had several such teachers. He has been called on to assist with almost every oval built for an Olympics since Calgary (the exception is Lillehammer). He stresses that each build presents different challenges. In PyeongChang, for instance, the oval is at sea level and moist air enters the main doors as a fine mist. Building an oval involves consideration of these factors, but never total mitigation of them. Systems are created to manage temperature, humidity, and most critically, the purity of the ice. But not in a formulaic sense.

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31 Community of practice is related to apprenticeship, in that it highlights the irreplaceable value of practical learning within a cohort. But the arrangement of work demands that those who are more experienced support the learning of others. This support and concern for trainees differs from apprenticeship in most contexts (for example, see Herzfeld 2000, Kondo 1990, or McNaughton 1988).
Technicians need to be responsive. The building isn’t static; it changes throughout the day, as bodies fill the stands, as pairs and races are completed, as sunlight enters the windows, or the barometric pressure alters. And the ice (ideally) needs to change to accommodate the needs of particular races. Going from a 500 m to 5000 m race in the same day means trying to create cooler ice in a tight time frame. Lastly, the building changes throughout its lifetime. The Oval, with its ageing mechanical system, cannot run they way it once did. In my discussions with technicians, I was presented with a model of actants, intermediaries and mediators (Latour 2005), that without the Latourian language, landed me in much the same spot. A model of people not just molding materials to their needs, but of yielding to the materials too. This model widens the general approach to skill and practical learning. It would not be enough to consider just the community of practice. Embodied learning incorporates the built environment, the material worked, and the product wrought.

Building Careers in Sport

As one former national team member explained to me, “being an athlete is your job.” And at the level of the national team, it is possible – though the funding is modest – to devote yourself entirely to sport. For development team athletes, the situation differs. Though many will train nearly as much as national team members, many also work part-time jobs and most attend university. This is why Stage 3 is considered purgatory. No one wants to linger there. It is wholly demanding and without the rewards (intrinsic and instrumental) of the national team. Stage 3 athletes are closest to the former amateur ideal of Olympism. Amateurism, like so many ideals in sport, was never perfectly adhered to in practice (Turrini 2010). And as amateurism gave way to contemporary high-performance sport, athletes, coaches and others forged careers.
These careers, congruent with contemporary life more broadly, are influenced by processes of professionalization. Recent decades have seen the divvying-up of sport into precise sub-specialities, such as strength and conditioning, or nutrition. As Abbott (1988, pg. xii) notes, the professions are “how modern societies institutionalize expertise”.

All of which made it quite unsurprising\(^{32}\) when, on a Thursday afternoon in the weight room, a strength and conditioning coach told me:

“You’ve got to talk to Doc Smith. He figured a lot of this stuff out. How to train smarter, peak better.”

Doc Smith is Dr. David Smith, a sport physiologist and professor emeritus of the University of Calgary, who has consulted athletes at ten Olympic games. Smith is one of numerous academics whose work with the Oval brought innovations in training and equipment. Another is Dr. Joan Vickers, whose research on visual fields helped determine the optimal gaze for skaters during a race. These people are told to me by name, with appropriate honorifics, or honorable diminutives. That, of course, is fitting of their professional status.

But PhDs are far from the only professionals at the Oval. A growing number of formal credentials are possible, paralleling wider trends in society in which many fields allied to the original professions of the law, medicine or the clergy have embraced professionalization (Freidson 1970; 2001; Timmons 2011). And how, in divvying up ways of knowing and performing work, they engage with what Boyer (2005, pg. 244) terms “jurisdictional economies of expertise.” For instance, through the National Coaching Certification Program (NCCP), coaches can earn step-wise accreditation from community-level FUNdamentals to the Advanced

\(^{32}\) Unsurprising because I had read up on professionalization. So I was expecting that I would be directed to someone with a PhD, even though we were standing in the weight room, watching things actually happen (watching how muscle fiber is made).
Coaching Diploma (ACD), which is reserved for coaches who have been coaching athletes at the “Train to Train” level for at least three years. These certifications create a professional ladder and hierarchy within coaching. To apply, coaches must submit a portfolio. The ACD program includes online and in-person training, as well as partnership with a mentor coach.

While I doubt anyone would be hired to coach at the Oval today without some formal training, being a professional encapsulates more than this. As Marcel, a former coach and then director of the high-performance program at the Oval, told me:

“I coached the team in Nagano. But I wasn’t a professional then [though some of his athletes were medallists]. Back then, it was just me and a strength coach, there wasn’t a team of experts around me. We didn’t know what we know now, about physiology, psychology and so on. There was a lot of learning, sharing, building a program to become professional. It wasn’t until Vancouver [2010], then I was a professional coach.”

Professional then, is not only about being credentialed, but about where and how and who you work with. Professionals work in sophisticated organizations alongside a team of fellow professionals. At the Oval, these experts form what is termed the IST (integrated support team), individuals with various certifications, including graduate degrees (some with academic appointments). There is a complex division of labour here, although the choice of the word “support” within IST tells you something about the order of things.³³

And while coaches may now consider themselves professionals, and an IST is in place, athletes evaluate expertise according to different criteria. Mike, one of Canada’s most successful sprinters, recently joined the coaching staff and was assigned to a group of Stage 3 sprint specialists. Mike competed at two Olympics and was World Sprint Champion. In addition to

³³ Oval staff including coaches are employees of the University of Calgary. Members of the IST may be employed by CSI, the University, WinSport or be individual contractors.
this, he’s a walking encyclopedia of the sport and highly analytic (I learned a tremendous amount about skating while listening to him). But it’s his competitive pedigree that the athletes he’s coaching care most about. According to one athlete:

“I feel lucky to be here, training with him. You know that Mike has done it. And you know that everything he tells you is based on his experience of what it takes. So you just trust him and want to learn from him.”

What Mike has, in the Weberian sense, is prestige. All the athletes I spoke with initially evaluated their coaches according to either the coach’s past athletic success, and/or the success of athletes the coach has worked with. The worth of a coach is reputational. Their authority sanctioned by their previous accomplishments (as athletes or coaches). In time, athletes might reflect on their own successes (or struggles) working with a particular coach. But so long as a coach has a good reputation, an individual athlete’s lack of progress often enough amounts to, “he wasn’t a good coach for me.” Without the taint of a scandal (and sport has unfortunately seen many of those in coaching recently) a successful coach – one with a good track record – cannot be a bad coach.

As with Weber’s (2013) original conception, prestige relates to power, but does not determine it. There exists a complex structure of professionals encircling athletes at the oval. And coaches have to navigate these relationships. On the one hand, the coach is generally in the greatest position of power over individual athletes (not least of which because of ways in which athletes account for expertise); on the other hand, many members of the support team hold prestigious positions within other institutions. Coaches recognize their obligations to be collegial and may even express humility around issues relating to others’ specializations.

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34 It is widely recognized within high-performance sport that coaches might try to poach good athletes from others because of this evaluative schema.
Occasionally, coaches told me they felt they didn’t have the credentials to disagree (not that they lacked the knowledge or experience). That they couldn’t mount a case against a particular recommendation because their stance would face a *prima facie* dismissal: they didn’t have the correct letters behind their names.

All the same, there were times when coaches openly expressed disagreements with the recommendations of different professionals, from weight training programs, to nutritional advice, to injury management. In such instances, tact and form were the keys to success. That is, choosing the correct channel of superiors to voice concerns to, and to do so in a manner that still maintains respect for the contributions of other professionals. So pretty much like most workplaces, I would venture. As Carr (2009, pg. 331) points out, actors are “constricted and enabled by the institutional identities assigned to them, along with attendant ways of speaking.” He further points to out that while power relations are reflected in authorized ways of speaking, actors can, at times, mobilize institutional speech, and act from their positions in politically efficacious ways. Fair enough.

What’s somewhat specific here, though, might be termed the power of demonstration. Coaches can – at least situationally – place themselves beyond the hierarchy by showing their methods to be correct. A coach informed me that when he first showed a training program to a physiologist, the academic responded, “that’s not possible. It’s just not humanly possible.” To which the coach replied, “just watch us do it” (meaning the athletes, who are obviously *doing* the program, and himself, the coach). The coach shared this anecdote with me as an example of how, through the creation of an IST, they (the various professionals) have been learning from one another and developing as a team. But it is impossible to ignore that in this story, the coach is able to foreclose on the intended collaborative structure of the institution. Perhaps this was
simply the luck of having an incredible athlete capable of an “impossible” program. Or I should say, being savvy enough to recognize such an athlete. Perhaps it was a certainty borne in years of experience. Either way, confidence that he could succeed allowed him to make this gamble.

What I have been covering here, in this discussion of careers and professionals, status and prestige, are ways in which expertise is executed and evaluated. Expert first came into English usage in the 15th century (OED 2000). It shares its Latin root, exper- (to try), with experiment and experience. Accordingly, an expert is someone capable of doing something (an expert woodworker or expert tailor, for instance), an accolade acknowledging the merit of their work. When athletes evaluate coaches in terms of past successes – much like I might evaluate a tailor by the fit of a jacket – this is what they are getting at. However, another sense of expert dates to the 19th century, when several court decisions (in the US, UK and Canada) ruled on the admissibility of testimony in cases “where facts were in dispute, [and] courts required detailed hypothetical questions in the examination of an expert” (Milroy 2017, pg. 519). Thus was created the expert witness. This expert need not have any direct experience with a matter (need not witness a crime, for instance). Rather this type of expert possesses authorized ways of knowing and speaking.35

Both forms of expertise are needed at the Oval. They are largely understood to be two sides of a coin. You cannot coach without learning the theory. You cannot stay a coach without proving success. Doc Smith was an expert because of his PhD and because he made training better. But if there is doubt, if something is open to question, a practical demonstration is the most efficacious means of settling the matter. Models and theories are only as good as their

35 As Austin (1975) reminds us, words do things too. In this sense, expert witnesses can also make something.
utility. In this way, expertise is not static, and it is not reducible to a status granted, even as credentials become increasingly necessary. It is situational, performed, accomplished and, as Carr (2010, pg.18) notes, “implicated in hierarchies of value.”

The Oval is Imperfect and Ageing

As much as the Oval stands as an architectural exemplar, Calgary’s design gets some things wrong too. The high ceilings make temperature control challenging. The 762 windows – which were designed to “bring the outdoors in” – cause air leaks and tremendous solar gain (there are now heavy black curtains that cover much of the glass that looks onto the ice). As the needs of the development program have expanded, more office space is required. A larger weight room would be great. And the building itself has now past its “lifetime.” The roof system was repaired in 2010. In order to facilitate this renovation, the Oval’s funding structure was revised, allowing a $10 million draw on the legacy fund that had been set up after the Olympics. The fund’s capital was never meant to be touched, but the market downturn in 2008 left few other options for readdressing the leaking roof. Accordingly, a government-approved new funding model was created and designed to see the Oval through the next 20 years. Ten years on and new windows are needed. State-of-the-art refrigeration could be installed. The slab under the ice should be repoured. The hope of so many was that a successful 2026 Olympic bid would bring about the much-needed funds for these projects. Alas, those hopes are now gone. What is

36 This, I suspect, distinguishes the Oval, and likely other training centres, from bureaucracies more generally. Ideas are continuously subjected to pragmatic, unambiguous tests. Skaters either get faster or they don’t. Even the model of LTAD as been scrutinized by those who work within speed skating (Hillis and Holman 2014).
left is still a world-class space, just not the best, anymore. A suitable foil for so many of the
former athletes who continue to circulate its corridors.

The Oval officially chronicles its history of making champions. Other outcomes, though
less celebrated, are still readily acknowledged. Everyone here recognizes what they fittingly
term sacrifices. Sacrifices may be personal, referring to the semblance of a normal life that is
surrendered upon committing oneself to pursuing Olympic dreams. How this applies to athletes
may be evident. But coaches are also making sacrifices. As much as it is a profession, it
remains an avocation too. An administrator bluntly told me, “we don’t pay coaches well. And
the travel is hard on families. It’s a tough life.” Sacrifices are likewise made by those who
support the best athletes. For every face in the Hall of Champions, there were teammates and
training partners who didn’t realize their own dreams. Family members who supported them
along the way. Retired skaters were more likely to reflect upon the pitfalls of life at the Oval.
As one skater revealed her reasons for retirement:

“\textit{I started thinking, what do I want to be able to do at 40? Do I want to play tennis or
soccer with my kids? Will I be able to do that if I keep beating my body up? It’s hard to
remember sometimes, when you’re here, but there’s more to life than this.}”

While there may be more to life than the Oval, it can become your whole world too. Another
retired skater told me:

“\textit{The Oval is your world. You come here all the time. You date other skaters. You orbit
this space. And for me, when I retired, I wanted to get away from it. Others, they stay
close. They take jobs here. But for me, I was done with skating – or it was done with me
[chuckles]. And I felt I had to get away, to find new meaning for my life. I don’t skate
anymore. I don’t even socialize with skaters anymore. I needed a clean break.”}

The Oval is not quite a total institution, by Goffman’s (1962) measure. But it is pretty
close to one. As he distinguishes, total institutions differ from the typical arrangement of life in
modern societies “in which the individual tends to sleep, play and work in different places with
different co-participants, under different authorities, and without an overall rational plan”
(Goffman 1962, pg.17). While people don’t reside here, athletes and employees refer to the Oval
as home, capturing the complex, intense and sometimes fraught experiences and relationships
that word conveys. Moreover, most athletes house with other skaters, date and marry other
skaters, and many have part-time jobs at the Oval. For fun they come to watch other people
train. Being an athlete here can become all-consuming. People talked to me about being pulled-
in by the Oval, orbiting the space, as if it exerts a gravitational force on their lives. And I was warned early on in my fieldwork, not to get pulled in myself, the force apparently so strong.

For the vast majority of the people who come here, young men and women with dreams
of competing in an Olympic Games, their tenure is relatively brief, their experience immersive
and intense. The next few years are mapped out for them in predetermined schedules and
routines designed to transform them into something else. But this isn’t quite akin to medical
school or military training. Here, only a few initiates will realize their goals. In many ways, the
Oval is more elite than most elite institutions, but more collectively oriented than I would have
expected for an individual sport (again, hinting at its character as a total institution). Athletes
arrive here after years of benefitting from the support of their families, training partners, and
from local coaches (some of whom are volunteers). People know that it takes a lot of support, a
lot of sacrifice, a lot of fodder, to make a champion athlete. And people here accept these
expenditures. These are the necessary costs encoded in the model of high-performance athlete
development.

At a few points during my fieldwork, I worried about the congruence between my
ethnographic evidence and the Oval’s own overt efforts to reflect upon itself. That is, I thought I
saw the Oval for what it was; but in many ways, this was also how people at the Oval saw things too. And this made me worry that I hadn’t dug deeply enough; that I was not seeing behind the curtain. Because so many studies of bureaucracies and institutions, expose gaps between policy and workings on the ground, exploring how sanctioned speech or documents mask actual machinations of power or real outcomes (e.g. Gupta 2012; Harvey and Knox 2015; Hull 2012; Jackall 2010). Or, in the vein of Weber’s (2003, pg. 181) “iron cage,” the disenchantment engendered by the rationality of the bureaucratic form. In fact, a good chunk of Foucault’s (1977; 1978) writings on the disciplinary society align with this Weberian view (see O’Neill 1986). 37 Both writers assume that modern life, and the regulation of a productive citizenry, is characterized by struggles over the control and use of technical knowledge. If I were to follow Foucault (1972), I could dig for subjugated knowledges, but to what end? People here share common ideas and goals. The righteousness and dominion of high-performance sport is comprehensive. And, anyway, they’re doing what it takes.

As such, the situation at the Oval does not quite accord with any of these theories. Athletes dealing with mental health crises, eating disorders and relationship struggles, are all acknowledged (just not celebrated). And efforts are made to ameliorate these negative consequences. 38 Building Olympians is not all glory. People admit that. They are critical of themselves and of some of the outcomes, but not of the general endeavour. And I suspect that a system made for sport, by athletes, differs significantly from the workings of, for instance, politically ambitious technocrats drafting policies that affect people half a world away. Those

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37 Foucault conceives of power differently, but both authors arrive at similar assessments of the stifling conditions of modernity.
38 These efforts are not always successful, but problems are not ignored either. As is the case with their training, reflection, refinement and efforts at improving are evident. This is addressed in more detail in Chapter 6.
making the rules at the Oval, were once themselves trying to be champions. No one here doubts the importance and necessity of what they are doing. In this place, there is more consensus than conflict. To draw on the language of Certeau (1988), the strategies and tactics mostly align. This is perhaps to be expected. Here the inmates run the asylum. As they should.

Conclusion: The Oval and Olympic Imaginaries

The Oval houses hopes and dreams. The efforts first begun in 1955 are realized, step by step, as funding is secured, concrete poured, and fresh ice made. And there is a certain stasis here, an indolence (if a building can be granted that). The Oval, with its periwinkle and lavender accent colours, its too small weight room and ageing mechanical system, its habitants, some of whom have logged decades in the building, stands as a monument to past dreams and ambitions. Yet, even as it ages, and Kearns eclipses Calgary for most current records held, the Oval propagates all sorts of new imaginings. The dreams of individual coaches and athletes, the hopes for another Olympic Games. The very existence of the Oval makes fulfilling these dreams more likely, just as the breaking of a world record does not preclude faster times, but suggests that yet an even faster time is possible.

In this chapter, I have variously considered the ways in which the Oval receives and makes legacy in relation to its built form and its character as an institution. I began by thinking about what building this place involved. How it connects to a broader web – various levels of government, the University of Calgary, the Olympic movement, the ISU – but also remains

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39 Even those who joke that sport is “pointless” don’t sincerely believe this. How could they? They have committed years of their lives to become among the best in the world at it.
somewhat bounded and very local, benefitting from its unique environmental circumstances, and
the energies and idiosyncrasies of those who navigate its spaces and touch its surfaces. My
analyses have moved through considerations of space and phenomenology, routine practice and
improvisation, meaning and identity – creating a narrative that meanders more than holds a
cohesive argument. In this final section I offer what connects these strands: imaginaries.

    The concept of imaginaries warrants careful consideration as I have chosen it for
particular purposes. The term is perhaps overused and at times imprecise. It could suggest a
very cognitive model for social life. Indeed, some literature tends to use imaginaries as a vogue
stand-in for mental schema, beliefs, values or ideologies (e.g. Bouchard 2018; Taylor 2002). I
don’t employ imaginaries as values or norms in new clothing. My interest lies in thinking
through the creative and productive capacity of imaginaries and in considering the intersection of
our imaginings with very tangible things. It is, as Appadurai (1990, pg. 5) writes, “the
imagination as a social practice” (italics in original). Indeed, the scholar credited with first
emphasizing the imaginary in social theory, Benedict Anderson (1991), centers his analysis on
how the creation of print media, especially books and newspaper (what he terms, “print
capitalism”), makes possible a sense of shared interests and creates an imagined community of
fellow readers.40 This is a sound jumping off point.

    That is, while Anderson’s analysis focuses on a broadly shared imaginary, this is woven
through the materiality of new print technologies, through, for instance, a daily newspaper that
places stories from far afield next to local announcements and tells the reader that this
information matters to all of us. Likewise, Gammeltoft (2014) explores imaginaries of

40 By imagined, he means no less real, but fundamentally altered from small-scale face-to-face society.
humanness and citizenship in her analysis of reproductive imaging in Vietnam. Imaginaries in this sense are not phantasies, but statistical probabilities wedded to sonographic images. Parallels between high-performance sport and biomedicine are numerous and unsurprising given their shared scientific rationality. But I suggest that imaginaries bridge a different space in sport than in medicine. Speed skating imaginaries link the ludic and empiric, yoking the creative freedom of play with observable outcomes. The creation of superior ice (due in part to the providence of a fortuitous locale, and to the human talents cultivated here) is an essential part of these imaginings.

No one at the Oval doubts the importance of the Olympic Games. No athlete training here wouldn’t want to be an Olympian. This is not surprising. And the architecture of the Oval – from the arched ceiling trusses, to the development program – continues to spur new Olympic dreams. Crapanzano (2004, pg. 14) refers to the imaginary as an “optative space or time,” and evocative as this phrasing is, it is not just hopeful wishes that I mean to capture here. What, for instance, do athletes imagine as they return to racing after a fall? And not only athletes, but their coaches, teammates, and spectators? What imaginaries emerge and circulate as a skater who has served a doping ban takes to the starting line? The imaginaries of the Oval – a building at the end of its projected lifetime, athletes plagued by injury or those nearing the end of their careers – includes the spectre of demise. Imaginaries, then, incorporate hopes and fears, desires and anxieties.

41 Medicine is generally thought to be bounded by theory and practice, or science and craft (just consider the CBC radio program, “White Coat, Black Art”). Perhaps play is important to medicine. Gallows humour certainly is (Sinclair 1997).

42 Utopic and dystopic don’t seem suitable here, as the imaginaries I refer to are neither fictive nor phantastic.
Imaginaries map out possibilities (good and bad) that can capitalize on moments amenable to change. Repeated efforts at an Olympic bid finally found the right moment in 1981. Details about training – years of thoughtful reflection, and trial and error – get worked out through fortuitous collaborations. Athletes training together in this place generate a shared sensorial assessment of their environment, known as feel. In these moments, there is both an enfolding and unfolding of meaning and materiality. As one imaginary is realized in tangible form, new ones are generated. The Oval can be called an Olympic legacy – receptive and static as that phrasing suggests – and undeniably it inherits peculiarities of the wider Olympic movement. But the legacy of the Oval is also constructed in the shared spatiality of the place, the very bodies and records made here, and the continual remaking and harnessing of its occupants’ imaginings. To call it an institution in the normative sense, does not capture all of this. New (and old) imaginaries circulate as athletes train, compete, and even return to work here as coaches or skate techs.

Of course, it is an institution in another sense. It is the model for all other speed skating venues. At present, there is another indoor oval under construction in Québec (the Centre de Galces). This new building could shift the center of Canadian speed skating. Moving the national team there would seem to make sense, at least geographically, since Speed Skating Canada’s (SSC) offices are in Ottawa and the short track national team trains in Québec. When I raised this possibility with Marcel, he readily dismissed it:

“There’s more than ice here. We have the people, the expertise, the University. You can’t just up and move that. You can’t just recreate it.”
The ways in which we do not know things are just as important (and perhaps even more important) as the ways in which we know them. There are ways of not knowing—carelessness, inattention, forgetfulness—that lead to clumsiness and ugliness, but there are others—the unselfconsciousness of Keist's young man, the enchanting sprezzatura of an infant—whose completeness we never tire of admiring.

Giorgio Agamben, *Nudities* (2010, pg. 113)

*Prediction is very difficult, especially about the future.*

Niels Bohr

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**Transformations of Time and Potential**

It’s Saturday in early December and I’m sitting in the stands watching a ladies’ 500 m race with a group of Stage 3 skaters. We’re watching their peers. These are skaters I’ve never heard of before. But they know who these women are and know the times they skate. As a race finishes, and times are displayed on the scoreboard, everyone has a bit of analysis to offer.

“Whoa! That’s a good time for her,” one says.

“Might be a PB [personal best],” another suggests.

“She’s having a good season.”

As the next pair get in position, the skaters I’m sitting with begin making predictions.

“She should go under 40, maybe 39.5,” one offers.

Others put their estimates forward. The numbers they propose are an extension the complex calculations they are continuously performing for themselves. Past performances provide a baseline. The ice conditions are weighed in. An amalgam of other observations and rumors make for a diverse dataset. Their ability to call up data points – how well someone skated last
year, the 500 m PB of a woman living in Wisconsin – impresses. These skaters consume time. And they are consumed by it.

Of course, the goal is to achieve ever-faster times. It would seem that speed skating epitomizes the performance-centered rationality of modern sport (as defined by Busch 1998; Beamish and Ritchie 2006; Guttmann 2004). Yet time is not simply quantified within speed skating. It is also felt in various ways. And there are qualities to time. Inspired by Nancy Munn’s (1986; 1992) contributions to temporalization, this chapter explores time’s embodiment, its strategic use, and the moral evaluations and transformations of time within speed skating. As I came to better understand the temporalities of speed skating, I also came to realize time’s complex relationship with potential. As I will show, potential is polyvalent. It often references an indeterminate and contingent future. But sometimes potential is discussed as an emergent property of the body, unstoppable and inevitable. Lastly, potential is employed by athletes to understand their pasts as well. In the final sections of this chapter, I consider how potential intersects with temporal engagements and enactments, including the sequence of athlete development, cycles and rhythms of training and the experience of tapering prior to competition. Both time and potential, I argue, are sensed in the broadest meaning of that term – as sensory perception, yes, but also as an awareness that escapes or resists definition. Lastly, I consider how the timely management of potential demands faith, suggesting that athletes and coaches have much in common with speculators in financial markets.

The Values of Time

As I first observed training sessions, it seemed that most of what a speed skating coach does is carry around multiple stopwatches and yell times at athletes as they skate past. During a race, a
coach will communicate lap times to a skater by displaying them on a lapboard (the coach waits at the top of the backstretch, crouching low to the ground so the skater can read the numbers). Times, like the athletes skating their laps, are continually circling the Oval. Furthermore, acquiring the correct knowledge about times is part of a neophyte’s initiation into this social group. While I was hanging out near the skate shop, a new arrival in the development program struck up a conversation about the progression of the men’s 500 m world record with two former national sprint champions. This young athlete was working to consolidate his information, carefully noting who went below 36 seconds (Dan Jansen), 35 seconds (Hiroyasu Shimizu) and so on (the current record of 33.61 is held by Pavel Kulizhnikov), while the retired athletes provided a trusted (and accurate) chronography. In short, there are numerous measures and evaluations of time.

*Time Mastery*

I’m sitting with a group of coaches as we watch Stage 3 women compete in the 500 m. It’s March and this Grand Prix is one of the last competitions of the season. Many of the skaters have pinned their hopes on meeting a time standard that would move them to Stage 4. As a pair finishes, one coach says,

“Almost thirty-nine.”

“They’re thinking about it too much. They really want it. They can do it. They just can’t overthink it,” another replies.

What these skaters want to do is race this distance in 39 seconds or less. Doing so would meet a time standard for Stage 4. Time standards are used for acceptance into the Oval Program and
assignment into its stages, to qualify for team selections to World Cup events or the Olympic Games.

Time standards such as these are laid out in official documents, ratified at meetings, held unchanging until the authorities next convene. Consequently, athletes are aware well in advance of the times they will need to skate that season. In addition to this, skaters might declare times they want to skate, at some point in the future (these might be quite fanciful). But they also declare times they will skate. They might do this in warm-up, during a practice, or while cooling down on a bike. They may set a time for themselves prior to a race (and this may not be the race strategy devised in collaboration with their coach). Stage 3 athletes couldn’t really explain why they do this. I’m certain that it is, in part, just an extension of the way in which times – those achieved, those that might be achieved – are a constant topic of conversation. Accordingly, suggesting a time you might skate is another way of being appropriately sociable. And it serves as a sort of practice for matching your estimation of the situation with the clock (matching, for instance, your fitness, the ice, how “snappy” you are and so on). But I suspect that declaring times in this way is also a way of appropriating time, of gaining some control over it. Speed skaters are often at the mercy of others’ times – the time of the development program, time standards or the time a competitor skates – there’s an autonomy to making your own prediction. It might not even be a great time; in fact, that is often enough the case (and achievable times are all the better to control). But it is your time. Unlike the women facing down 39 seconds, a declared time, is the time of your choosing.¹

¹ I also suspect that skaters who set easier declared times are not going to progress to Stage 4. And maybe on some level they know this.
**Putting in the Time**

Time can be considered a form of investment, in what is variously referred to as, “putting in the time, “ putting in the work”, or “committing to the program”, which all amount to the same thing: doing the necessary hours of training. For some this is meant in strictly economic terms, in which case time is a currency that can be saved up in their bodily piggy banks (as I later explore, this is the logic of tapering). If there is a mantra to Stage 3 it is this, “you get what you put in.” Coaches told me this in relation to athlete progression. For them, athletes who show up and do the work, who commit to the time it takes to develop, can advance to Stage 4. Athletes acknowledge this too. But they also told me that this is what they like about speed skating,

“This is a sport, that you really get what you put into it. Like if I train really hard, I will race faster. It’s all about the work. Speed skating’s really democratic that way. Because you can be super talented, a great athlete, but if you aren’t willing to put in the time, you won’t succeed.”

Although Stage 3 is called purgatory, putting in the time is not punitive. Talk about commitment is often laced with religious overtones, with mention of devotion and submission. As one skater told me,

“At the end of the day, I can’t even skate to the right! I mean, I’m not any good, anyway. It’s like we devote all of this time to perfecting something so small, you know? And half the time, you’re not certain at all. You just have to believe. Keep the faith, you know? Keep doing. It’s your commitment that will see you through.”

They would not choose to do otherwise. In a sport in which hundredths of a second can separate winning and missing the podium, gains are made by perfecting a limited number of movements and by building the “engine” needed to race. Both goals can only be accomplished through hours of dedication. The gains are incremental, but not insignificant. Time might be beaten and attempting to do so is a matter of virtue. And time might not be beaten. Skaters can still find
happiness in this Sisyphean struggle. Many current and former athletes pointed out to me, what they do – training for so many hours, committing so much of themselves to this pursuit – appears ridiculous but feels inescapable. And they enjoy it, nevertheless.

*The Economics of Recovery*

The full effect (i.e. benefit) of any training session is realized in recovery, the period during which the body repairs itself from the stresses of exercise. Recovery could be passive rest, but this is generally not optimal. There are several ways to maximise recovery. First among these are nutritional strategies. Athletes are advised to consume carbohydrates as soon as possible after working out, ideally within an hour, no longer than two. The purpose of this is to replace glycogen stores within muscles, which are depleted during aerobic and anaerobic exercise. For a host of complex biochemical reasons, the body more rapidly coverts carbohydrate into glycogen during this 2-hour time frame (Ivy et al. 1988). Consuming protein alongside carbohydrates may also boost glycogen uptake (Zawadzki et al. 1992; although Betts et al. 2007 suggest it is not protein *per se*, but the additional calories it provides). But, as I was told, you might as well include some protein because muscles need protein to repair themselves, anyway.

So a recommended recovery meal – concoction might be a more suitable term – is a smoothie made with high glycemic-index fruits (such as banana, mango, or watermelon), which will be quickly processed by the body, and a scoop or two of protein powder (usually from whey). Some other “super foods” such as hemp seeds or wheat grass might be thrown in. Student athletes, running off to class, won’t have the option to head home and make a smoothie. Some athletes make smoothies in advance to bring with them. Others purchase a smoothie on
campus. A vendor at the University’s food court offers discounts to athletes. For the sake of convenience, processed “health foods” including protein bars (such as Clif brand) might be consumed. A nutritionist advised the skaters to keep meal replacement drinks, such as Boost, in their gym bag, because these drinks will do, in a pinch, and have a long shelf life. While the Clif logo features a mountain climber and the brand is commonly associated with athletes (the weekend warrior type and high-performance ones), Boost markets its products to seniors, especially women. And, I should add, that I witnessed numerous smoothies and protein bars consumed, but I never saw skaters drink Boost.

In addition to nutrition, athletes might find that their rest is enhanced by meditating, listening to music or other activities directed toward increasing relaxation. Recovery might include getting a specialist massage or performing self-myofascial release (achieved by rolling a stick or ball over connective tissue). Athletes also rely on numerous “active recovery” strategies to squeeze more out of their recovery time. These include going for a walk, an easy bike ride (or other light exercise), stretching or yoga. For a time, an optional, free, yoga class was offered to the all-women group on Wednesdays. Most of the athletes attended these sessions and enjoyed them. They also reported positive results (reduced pain, increased flexibility). The classes were later opened up to the men’s sprint group as well, but only a few of the men attended. There was some disagreement about whether Wednesdays should remain a passive recovery day or if this was an appropriate alternative. And eventually the classes ended. Some athletes continued to perform the stretching they had learned, simply choosing to do so at home. Others attended classes for a fee. Most gave it up.

What interests me in thinking through these various strategies to maximize the hours between training sessions, is that apart from passive rest (and taking a nap, for instance, is
considered a recovery strategy), most of what athletes do has an economic rationality. They are making time more productive. Some of these strategies also have clear monetary costs, such as buying ready-made smoothies or the ingredients to make them (including tubs of protein powder), stocking up on protein bars and paying for massages or yoga classes. In these cases, they are consuming recovery, buying time. All of these strategies would be redundant if skaters worked out only three days a week, as normal patterns of eating and sleeping and moving around would provide sufficient rest and energy to repair their bodies. But when skaters finish their mornings on the ice and have to be in the weight room in five hours, they need to replenish glycogen, they need to flush lactate from their muscles. Recovery strategies, enable them to get more training in, to get more out of the time they have.

**Aesthetic Evaluations: Beautiful Skating/Beautiful Skaters**

I’m watching a training session in early fall. Stage 3 teams are on the ice, as is the national team. There is a Chinese team warming up off-ice, and some varsity athletes are running along the track that encircles the rink. A group of women are resting between laps, sitting on the cushioned bench at the edge of the warm-up lane. They’re cheering on a man as he speeds past. I’m studying his movements, trying to train myself to see some of the details that coaches see. The coach standing next to me comments offhandedly,

“If he gets any faster, they’ll be looking at him through speed goggles!”

This draws me from my reverie, but I don’t understand what he means and give him a quizzical look.

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2 Most coaches, athletes and trainers at the Oval would agree with this. There are some dissenting voices in exercise physiology regarding lactate’s role in fatigue (Brooks 2018). And some coaches experimented with “no cool down” sessions to let lactate “cook” in the muscles. I discuss lactate in more detail in subsequent sections.
He explains: “The faster you go, the better-looking you become. Speed goggles turn a six into an eight, maybe more.”

We both laugh.

It is amusing that skaters evaluate one another in this way, but not surprising. In a similar vein, skaters presented me with a typology of races: the good, the bad and the ugly. An ugly race is poorly executed in terms of technical proficiency, coupled with a slow time. A bad race feels good (which of course is bad) and ends up being slow. During a good race, “the pain’s so bad, you have to leave your head. But if you can maintain that you’ll be fast.”

Fast times (a good race) are not always beautiful, however. When athletes shifted to the clap skate in the late 1990s, they adjusted their skating technique to benefit from the hinged blades. And as I sat in the stands at a World Cup event in 2018, a retired skater told me in hushed tones that today’s skating is ugly. In a sport in which the fastest time wins, I would not have thought that such details mattered. But becoming a speed skater is not just learning to skate quickly. As in other physical training, it is learning the correct patterns of movement – learning how to correctly see and enact the movement patterns that are valued by the group (e.g. Alter 1992; Carter 2008; Monaghan 2001b; Wacquant 2004). This is inculcated through verbal instruction, frequent contact with the ice, by watching others, and the feedback of video-replay and the stopwatch.

What is acquired is as much taste as skill. Training develops a connoisseurship. Going faster means learning to appreciate beautiful skating (its sights, sounds and kinesthesia) – as judged in its era – critically and correctly observing yourself and others.3 The clap skate was

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3 Bonde (2009) argues that as an ideology of speed emerged, new Danish masculinities were produced and the “fast man” (speed skater) replaced the “elegant man” (figure skater). But his history of replacement seems distant from the intimate concerns of racing athletes as they perfect beautiful movements.
problematic because it made the wrong kind of skating faster. An ugly skating. Of course, this also means the clap skate made the wrong type of people faster, skaters who relied more on strength. A couple of tremendously successful skaters were pointed out to me as having poor technique, though still able generate speed because of their strength. Accordingly, beautiful skating is always technically proficient skating, but even ugly skating can be fast. Fast times can win championships, they might get you looked at through speed googles, but without beautiful skating, your successes will always be accompanied by a proviso: she is fast, but the skating’s ugly.

**The Body as an Instrument of Horology**

When I began fieldwork, it was recommended that I first observe a short track team in order to orient myself to the sport. It was suggested that the training might be easier to follow (you can easily view an entire hockey rink, not so with a long track oval). And perhaps it was also thought that with only one team training at a time in short track, there would be less chaos for me to put in order. There is perhaps more order on the ice, with a dozen skaters all moving together, but the shorter (and thus briefer) laps are more frantic. And the sounds of the coach calling out times are more frequent. As the athletes speed pass, the coach shouts,

“Eleven one.”

Approximately 11 seconds pass, then “eleven one” is called out again, after which another near 11 seconds elapse, “eleven two, maintain!”

And finally, “eleven oh. Good.”
As I watched, I wondered, was this group of a dozen athletes actually given a lap time to accomplish and then able to internalize that time and achieve the desired 11 second lap within 2/10 of a second? Well, yes, they were.

As I’ve discussed, even in long track, skaters practice by following one behind the other, alternating who leads or pulls the train and who conserves energy in the draft. A clock-like precision, accurate to within fractions of a second, is accomplished by a unit working together, with skaters pulling the train, then falling back, a new leader emerging, all the while keeping the correct pace (this is the pace specified by the training program, which is why these laps are called specs). Perhaps I should not have been surprised by their accuracy. But it still seemed (still seems) pretty remarkable to me. Especially in long track, in which athletes generally compete in their own lanes, unencumbered by other bodies.

In Chapter 4 I outlined how training together develops feel. Drawing on the concept of “somatic modes of attention” (Csordas 2002, pg. 137), I understood skating in a pack as it relates to sensory education. Here, I build on this idea, considering specifically how a feel for time is achieved. In one regard, this is developed between apprenticeship and standards (Grasseni 2007). After all, the stopwatch is ever-present. But there is another between at play here too. In developing their sense of time, athletes skate together (according to specified times), and skate on their own, trying to approach their bodily maximums. Their learning is developed, then, between group and individual work.

When moving in a pack, athletes adjust themselves to one another. Sometimes a leader pulls the group too quickly or too slowly, and will be verbally corrected by fellow skaters mid-lap, or even corrected through touch (a skater touching another from behind). Skating in a train helps build time accuracy through collective negotiations of pace. As each lap time is called out,
this pace is subjected to verification, to standardization. A speed skater’s internal clock is also
developed by doing tempos, which are almost always skated alone. Tempos are about a lap in
length and skaters go (almost) as fast as they can (somewhere approaching 100% of their
capacity). Skaters accelerate prior to the tempo, so measurement begins when they are already
speeding along. Athletes have numbers in their minds for what they want the tempo to be (and
coaches do too), based on past performances and the current moment in the training program.
Through these drills (specs and tempos), skaters learn to time their laps based on various feelings
– how easy or hard (essentially how much they hurt), but also the tempo, the lean in the corner
and how much time their mistakes cost them (mistakes such as a bad corner entry or deviation
from proper skating position). As they become more adept at timing laps, skaters come to
perceive the succession of seconds.

Developing an internal clock is a sign of legitimacy. It was often remarked to me that a
good long track skater, someone not just talented, but committed to the work, does the lap times
as demanded by the training program. In turn, this skater is able to execute the racing strategy
devised by the coach (or the coach and athlete together) by laying down the correct lap times,
regardless of the race conditions, how the skater otherwise feels (sore, tired, etc.) or the race
one’s opponent is having. Doing so is termed “performance on demand.” But while a skaters’
self-tracking of lap-times is often remarkably accurate, it isn’t infallible, a problem to which I
now turn.

**Translations of Time and Feeling**

Clock-time is ever present. And it may seem the goal of training is to discipline the body
to the clock (e.g. Foucault 1977; Thompson 1967), but that is not quite correct. The goal is to
maximize bodily capacities for speed. The clock is a tool for accomplishing this, however several other tools and techniques exist as well. Feel is also developed off the ice. For instance, coaches will have their athletes perform skating imitations on slide boards or practice cornering using turn cables. For the latter, athletes, wearing a harness around their hips with a cable attached, lean away from the cable, performing slow crossovers, while the cable is held, and their weight is partially supported (and movement is partially resisted) by a partner. As movement is slowed down, sensations are maintained for longer durations, allowing athletes to dwell on fine details.

“Do you feel it?” a coach asks, “in your hips. You feel the pressure? That’s what you want.”

Another coach would watch athletes and then use his hands to demonstrate what their feet were doing – and what they should have been doing. With his hands turned on edge, his little finger and the side of his palm became a skate blade. His hands moved in a such a way that you really could feel them coming into contact with the ice as you watched. His hands made evident the cadence of the movement, the “blades” sticking or gliding, struggling or effortlessly generating power. And as he was using his hands, his shoulders were rising and falling, his head was titling, his weight was shifting on his feet. It was a whole-bodied, affective display of movement and feeling, much like the “haptic vision” described by Myers (2015, pg. 102) in her analysis of protein modellers.

These pedagogical moments could be taken as examples that illustrate blurred boundaries between sensory categories or that challenge ocular-centrism (e.g. Classen 1993; Geurts 2003; Howes 2005; Stoller 2009; Sutton 2010). However, further following Myers (2015), it is not so much that a coach is transferring his vision to his hands that is of import, but that this sensory
translation (or, if one prefers, blurring or hybridization) enables him to communicate what he has seen. Swaying arms and undulating shoulders (body parts that should not be moving this way on the ice!) are teaching skaters how to move. As such, a skater’s temporal dexterity is borne not simply in doing, but also in verbal cues (“you feel the pressure?”) and demonstrations. Through these repeated sensory engagements, developing athletes might one day master time.

Mastery means capably navigating several factors that can affect lap times. During one training session, the ice was particularly busy, full of skaters, and there was a constant wind created by their movements, something I had never before noticed in the Oval. Some skaters were told to do 34s and 35s (34 and 35 second laps), but they were doing 31s and 32s, much to their coach’s dismay.

“They’re going too fast,” he tells me.

I wonder if they are going faster without realizing it, so I say, “does this wind make a difference?”

He replies, “it can make a difference, maybe a ½ second, maybe a full second. It’s hard to quantify. But you can feel it in your legs, when you’re going faster. They should know the feeling.”

In this manner, time is transformed into feeling and feeling back into time. But with each conveyance, something can be lost. Which is why, though told to skate 34s and 35s, these young skaters, led each other astray. In contrast, more experienced athletes would have felt their way through; they would have maintained (close enough) the correct lap time in spite of the conditions. And this is the feeling developing skaters have to learn.

Another coach asked his skaters to skate at 80% of their max. Then he motioned to his stopwatch and said, “I’m not going to time you.” Of course, I asked him why not. And he told me that you have to learn to feel 80%, feel 90%. That clock-time can mislead you. If skating
outside, with a breeze, or on a super fast indoor oval, a skater might achieve a particular lap time that isn’t really 80% of her maximum capacity. It’s an embodied measurement of time adjudicated through trajectories of movement, rhythm, the pressure of blades on the ice, and muscle pain. Only this will generate the sensitivities demanded by the shifting materialities of competition (from differing race conditions, to the aerodynamics of a racing suit, the sharpness of blades, or changes in the athlete’s body). Through years of training, skaters’ bodies become instruments of horology that transform units of time into qualities of time. This is, unsurprisingly, complicated. It will (more or less) be inculcated, eventually. In the meantime, as developing athletes, they can count on pain.

_Indexing Time with Pain_

Speed skating is a “lactic sport,” a title shared with other high-intensity, short to medium-duration (generally 30 seconds to 3 minutes) racing sports such as track cycling, most distances in rowing and middle-distance running (400 m - 1500 m). The moniker refers to lactic acid, once thought of as a detrimental by-product of anaerobic cellular metabolism responsible for pain and fatigue. Presently, there’s a bit of a lactic acid revolution underway in exercise physiology that challenges this orthodoxy, and I don’t wish to get bogged down in the details and debates. In brief, there are two ways that our cells utilize energy: with oxygen and without. In the absence of oxygen, our bodies make lactate (it is actually lactate (a base) found in cells, not lactic acid, although the terms continue to be used interchangeably by many (see Robergs et al. (2018) if you care about these details). Lactate may play an important role in cellular repair and

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4 It seems our bodies make lactate all the time, just in lower quantities than during anaerobic exercise (Brooks 2018).
provide an energy source (this is the lactate shuttle hypothesis proposed by Brooks (2018)). Consequently, “lactic sports” might be blaming this metabolite when they needn’t. But that doesn’t change their affinity: these are sports that leave participants with heaving lungs and burning muscles.

One morning a coach asked his skater how he was feeling. The skater replied, I’m about a two. Now you might suppose that is on a scale of 1–10. But what that skater was saying is that his blood lactate seemed to be about two, if his blood were to be drawn and tested right then and the lactate concentration expressed as mmol/L. This sort of testing is occasionally carried out on athletes as means of tracking fitness. Two (2mmol/L) is moderate. It is below what is termed the lactate threshold, at which point lactate production exceeds the body’s ability to metabolize it and it begins to accumulate. Answering, I’m about a two, actually means I’m doing just right. I hurt, a little, but it’s completely manageable. For speed skaters, pain is not inexpressible suffering (cf. Scarry (1985)); it is easily rendered in measures of blood chemistry.

Accordingly, one of the major transformations that a speed skating athlete undergoes is learning to re-read bodily signals of distress. For instance, a former hockey player and recent convert to long track skated up to his coach one morning admitting defeat.

“I’m in severe pain,” he said.

His coach chuckled and replied, “welcome to speed skating.”

While skating, athletes describe their muscle pain as their legs “blowing up,” or say, “it feels like I could pop my legs with a needle.” And as catastrophic as that might sound, it happens pretty regularly. A coach once told me with a smile,

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5 During intense exercise skaters can reach lactate measures in excess of 18mmol/L (Smith and Roberts 1990).
“You know, I’ve never seen a skater’s legs explode.”

He meant this as a bit of a joke. And as an affirmation that athletes can handle the work, because this pain is ordinary. Another coach told me that an ability to “stay uncomfortable” is a prerequisite for skaters.

Pain may also serve as a sort of calendar marking the passage of time. For instance, when asked what she likes about training a skater replied,

“I love waking up and feeling that pain. The pain that reminds you of how hard you worked. It’s good pain.”

Another told me,

“I like the pain, you know, adaptive, physiological pain. That’s productive pain. And I know this may make me seem like a jerk, but I love looking over and seeing that the guy next to me is hurting more. If we’re doing a really tough program, and I’m managing, and he’s ‘bonking’, you know it shows that I’ve put in the work. My body can handle the program, while he’s struggling.”

Pain (the ability to handle it or the relative lack of it) provides something concrete. Athletes can anchor their progress to how much they hurt.

Pain is not only experienced during or after an intense work-out. Proper technique also hurts. The correct position is a deep knee bend, pelvis tilted forward, shoulders over knees and slightly higher than the hips. This position stresses the body even before lactate builds in the legs. Last year, a Japanese coach was working with the skaters. His English was limited, and the skaters’ Japanese was too, but one word was learned by all, itai. It translates to sore or painful. And it became a running joke that athletes would point to body parts, smile and say itai and this coach would nod approvingly. Yes, pain is good. It means you’re doing this correctly. Accordingly, skaters learn not only how to interpret pain – from itai, to heavy legs to legs
blowing up – but can use pain as a proxy for the seconds of a lap or years of training. Pain manifests, in the moment – while racing or completing an interval – to let skaters know they are pushing themselves. Skaters wake with pain, a pleasant reminder of the training they’ve completed. Pain is comparative too: allowing athletes to see which training partners have put in the work, who can handle the program. Pain provides a general gauge of how much time they have committed to the sport, how fast they are going and just how good they are.

**Records and the Flattening of Time**

One feature of high-performance sport, particularly Olympic sport, is the pursuit of ever-better performances. Scoreboards at speed skating events feature best-achieved times, such as world records, Olympic records and track records, alongside the race results from that day. These records are displayed on the scoreboard as triumphs waiting to be bested. On any day, these records might be broken. But the tendency to display times in a decontextualized, despatialized manner, creates a flattening of time. Times achieved on other days and at other places appear coeval with that day’s race results.

Record-keeping also flattens time as athletes and coaches track PBs. Athletes seek to break PBs, not to bask in the glory of meeting that goal, but to be able to set a new, faster PB. As one skater described it to me,

“Yep, it’s like, that was good, now what’s next? It’s always on to the next one. Because there’s always another level to hit. Like, I beat 39 seconds. Can I beat 38? You can’t be satisfied with today and rest on your laurels, right?”
A new PB is exciting. But the present accomplishment is only briefly acknowledged, never lingered in; it is truncated in the service of the future. This craving for new times, new speeds, new challenges characterizes the athletes I spoke with. They speak of this as an addiction, even suggesting that they need the high. And many admitted that it did seem crazy. In doing so, they adopt the language of mental health but co-opt the terms. They are proud of their pathology. These things were never told to me with the solemnity one might expect. It was not crazy, really. It was possible. Potential ensures that.

The Long-Term Athlete Development Plan

Athlete development plans are time-management strategies designed to harness potential. Speed Skating Canada has a comprehensive, Long-Term Athlete Development Plan, or LTAD, titled “Find Your Edge” (Speed Skating Canada, ND). It focuses on critical phases called “optimal windows of trainability.” These windows are prime periods (generally, given as age ranges) for developing the “5 Ss”: suppleness, speed, stamina, strength and skill. The LTAD also outlines five developmental stages, with titles such as “learning to train”, “training to train”, and “training to win.” These stages are based in understandings of physiological and psychological readiness (those optimal training windows) as well as the “rule of ten”: that it takes 10,000 hours of practice and 10 years to train an Olympian. (However, some of the guiding concepts of LTADs may involve more scientific rhetoric than evidence.) Although the Oval is home to the national

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6 This and other LTADs developed out of a symposium, Canadian Sport Policy 2002, and the subsequent creation of the Canadian Sport for Life (CS4L) document. .

7 Dowling and Washington (2019, pg. 1) argue that “the LTAD framework has become an increasingly orthodox conception of the athlete development process despite the absence of scientific research to support many of its claims.” In a similar vein, Hillis and Holman (2014) conclude that “windows of trainability” are less important to speed skating development than solid technical fundamentals.
long-track team, the Oval does not currently operate under Speed Skating Canada. Further, the Oval has its own development model, the Oval Program. Currently, the Oval Program recognizes five stages (that almost, but don’t quite, align with the LTAD). At present, only Stage 2 and 3 athletes train under Oval-employed coaches. Athletes must be at least 16 years old. Most move to Calgary to train (with or without their families) once they have finished high school.

Athlete development models operate on long timescales (see Balyi, Way and Higgs 2013). Although the specifics seem to be directed at developing an individual athlete, this is not exactly the case. In terms of building a national team, the focus is really on an amorphous pool of athletes, not a defined cohort, and certainly not an individual. The target population cannot be clearly defined for a number of reasons. Although many of the athletes that make up this population are currently in speed skating, some are not. Athletes with backgrounds in hockey, figure skating or inline skating can transition to speed skating in their late teens or even twenties. Given the rule of ten, and that speed skaters generally peak in their late 20s (for longer distance skaters, this is perhaps even their 30s), a successful late transition to the sport is possible. Still, the bulk of the athletes that I observed training were 18-22 years old and had been speed skating for over a decade. They were now in Stage 3. They are good and they “have potential.” But their bodies are still maturing. How they will develop is not certain. The logic of the LTAD establishes two temporalizations. The “rule of ten” accords with time being put into the athlete. Proficiency is acquired by practicing the same things over and over again. In contrast, the “windows of trainability” suggest that not all time is of the same worth. These are punctuated moments that must be seized to maximize potential. Here, the athlete’s developing body generates concerns around timing. Specifically, the developing body creates urgency.
“*You can Smell the Potential*”

Marcel, though no longer a coach, has coached numerous Olympic medallists. I’m sitting in his office, a generous space which overlooks the ice, affording an extensive view of the activities below. But it’s summer, and though the ice is in and training has begun, the Oval is quiet right now. In contrast, Marcel is his usually lively self and I’m hurriedly taking down notes, trying to keep up with his passionate and animated sermon on coaching. And then he says something I was not expecting.

“To me, coaching is about people. It’s seeing the potential in people and realizing that potential. Sometimes you can smell the potential, you know?”

Honestly, in that moment, I didn’t know. But I nodded my head and continued furiously scribbling in my notebook. Of course, I understood that the purpose of assiduous training and appropriate coaching was to realize latent abilities. But Marcel’s sensory connection to potential surprised me.\(^8\) I expected he might discuss all of the ways in which athletes’ bodies and their performances are carefully measured and calibrated. And he did discuss these things too. Coaches do rely on times displayed on a stopwatch or power output expressed in watts on a stationary bicycle. Assessments of potential are a form of recombinant knowledge, quantified *and* intuited, rendered as gut feelings, instincts and sense perceptions as much as numbers. This is the epistemology of potential. And coaches speak with confident prudence about the uncertain.

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\(^8\) Although I understand that he meant this metaphorically (it wasn’t truly odorous), choosing to express his comprehension in relation to a sense of smell highlights how carnal it is. When he recognizes potential it isn’t (just) because of abstract numbers.
In fact, coaches talk about potential a lot. Potential renders the athlete body a site open to coaching interventions, while delimiting the possibilities for such interventions. This allows the following sorts of assessments:

“I know he has what it takes to be a really great speed skater. His home life’s a bit of a mess. He struggles sometimes because of that. If he can figure that piece out, he can make it.”

“Whatsoever you tell her, she can just do it. For most skaters, it takes time, to change their patterns, to create new neural pathways. But she just picks it up. Like it’s easy. She’s a natural.”

“She loves the work. You can’t give her enough. You have to try to pull her back, because she’ll overdo it. But that’s her hunger, you know? And you love to see that.”

What does it mean to have “hunger” or “what it takes,” how can you know that neural pathways are forming? While coaches provide assessments such as these, it is often difficult to articulate exactly what it is they’re sensing or knowing, because this isn’t a recipe card of specific ingredients. These are qualities in/of athletes apprehended and comprehended by a knowledgeable coach.

Chambliss (1989) explains this well. He studied high-performance swimmers and points out that although differences are measured (using time, just like in speed skating), the differences that coaches are looking for are qualitative. For the coaches I worked with, differences in stride, the rhythm of arm movement, or the tension of abdominal muscles are noticed – it is not just going faster but skating differently. Chambliss (1989) argues that what appears to be continuous improvement is actually discrete – what separates the faster swimmers (or skaters) from slower ones is a quality to their movement, not just going faster. I would add one more point here. I was told that, “making a breakthrough and consolidating a breakthrough are two different things.” Even discrete improvements do not equate to progress permanently made. Uncertainty abounds.
Although coaches will readily share what they see in athletes, they make no guarantees. There is a greater degree of circumspection than bald predictions would allow. Coaches in this way, have the confidence of connoisseurs, alongside the caution of all wise forecasters. This, at least, is the sanctioned way in which these things are discussed. Moreover, although the particular future of any one athlete might be in doubt, coaches are assured of the existence of hidden, bodily abilities – this is as an ontological given – and they are confident they possess techniques capable of materializing these capacities.

**Workhorses, Thoroughbreds and Mules**

As one skater explained it to me:

“There are some guys that just make this look easy. Like last weekend, we’re warming up on the bikes. And buddy looks like he’s jest messing around. Just going easy. And then I look over and the tension’s cranked up and you realize his warm-up is this intense ride, but he’s not even breaking a sweat. The guy’s a freak!”

The skater he’s referring to is an indisputable teenage phenom. Some athletes are “naturals.” Coaches admire their capacity on the bike or their ability to learn new things. And while potential suggests malleability, some things are not changeable. I was told there are three types of athletes: workhorses, thoroughbreds and mules. The mules are hopeless; they can’t be coached. Workhorses can handle any training load. They’re an integral part of the team, not so much for their performance in competition, but for their capacity to show up and train hard, time and time again. Their work ethic is an inspiration to others. They can be depended on; they’re reliable for a certain steady output. And some of these workhorses may become quite successful, especially at longer distances. Then there are thoroughbreds. They’re gifted with raw physical abilities. They’re naturally explosive. They learn quickly. But they can breakdown if
mismanaged. Thoroughbreds require more management in every way. They crave more challenges and additional support. Using this model, teams need to cater their programs to the needs of their thoroughbred athletes. And the workhorses have to be able to follow. But not everyone relies on this typology. I was also told that the best athletes just do whatever a coach asks of them. Or that good athletes don’t get injured. Here, there are no equine metaphors, just those who can and those who can’t.

_Cultivating Potential_

LTADs work to cultivate potential. Cultivate is certainly apt. Much like a seed that has the potential to become a plant, potential is nurtured by appropriately acting on the body. It is through training in the correct manner, at the correct time, that novel bodily capacities are realized. Some potential is discussed as if it is carefully coaxed out of the body. Other times, in reference to other athletes, potential requires less diligent intervention. When people talk about athletes as gifted or freaks, this is often what they are getting at. These physical outliers generate more power than they should, are capable of going faster than they should. They are charting their own path. This is still potential – and it still requires training – it simply responds to training differently. These are athletes who can handle more work than most; or who are shown how to do something and then – voila! – just do it. They are called naturals, although even those who use that moniker don’t mean it in a naked sense. They are all unfinished. No one is born a speed skater (at least, not quite). But some seem destined for it.

Unlike many more popular and better-funded sports, in which athletes are actively recruited, speed skaters tend to arrive at the Oval because: 1) they tried the sport; and 2) they, in time, surpassed their local peers. In this way, the Oval makes do with the athletes that come
through its doors. This, at least, is the general case. Occasionally, talk about potential will land on much younger individuals – even the unborn. Let me explain. Speed skaters seem to cluster in families – in the 19th century Fens, there were the dynastic (and intermarried) Smart and See families – in contemporary Canada, two Ireland brothers work at the Oval, three Weidemann siblings currently train at the Oval and so on (there are countless examples). Talk of potential is occasionally directed towards younger siblings of current athletes or the children (or future children) born to speed skating couples. Potential in this sense is largely discussed as heritable genetic potential, taking on eugenic attributes, although familiarity forms a part of these assessments as well (for instance a prediction that a child will be introduced to skating at a young age and so on). The children of former national team members might be discussed as “there’s good genetics there” or “she’ll have what it takes.” That’s not to say that these children (or the sorts of matches that produce them) are actively sought out to become the next generation of skaters. Simply that these individuals are discussed as likely possessing that unstoppable characteristic of naturals, even if they have yet to learn how to ride a bike.

And yet, even being a natural – and even receiving good coaching – will not necessarily bring success. At least one additional attribute is needed. One coach explained it to me this way, “some are gifted but you still have to work.” Recall that hunger is about wanting it. Hungry athletes will commit. There’s also heart. Heart is about loving it, and because of that love athletes are willing to give their all to the sport. Heart also exemplifies the high ideals or best of sport. In this case, exceptional displays of sportsmanship are called heart. Moreover, some great performances might be attributed to heart. When an athlete does something that defies

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9 Ott Schacht and Kiewra (2019) note that speed skaters tend to come from families of skaters (siblings or parents) or, at least, parents who were athletes.
expectations, the only possible explanation is that it was heart. I will return to these ideas in Chapter 6. At present, it seems necessary to acknowledge that naturals, hunger, heart, thoroughbreds and workhorses may not be completely reconcilable, may not form a coherent taxonomic system. But people should be allowed their inconsistencies, should they not?

Potential and Trajectories

Since potential involves a starting position (an origin, even as gametes), time and direction, I’ve come to think of potential in relation to trajectories. These trajectories more or less coincide with the statistical probabilities of sport science. That is, where an athlete is, and where an athlete is heading (the pathway) largely follows a probable range of velocities and positions. These probabilities might be rendered as watts on a bicycle or through comparisons to a known quality. For instance, coaches frequently make developmental comparisons between former and current athletes. One pointed a Stage 3 skater out to me and said, “look at her! Reminds me of Christine Nesbitt. I tell you, she has what it takes.” Remember that having it and realizing it are not synonymous. Whether these developing athletes will become the next heroes of the national team can only be settled retrospectively. At which point, I might add, another hopeful will be doing specs, skating SFL and logging kilometers on the bike.

Trajectories are susceptible to various disturbances. Recalibrations must occur often enough. I am reminded of Certeau’s (1988, pg. xviii) discussion of “‘errant’ trajectories obeying their own logic.” Inspired by the wandering lines drawn by autistic children, he suggests that “in the technocratically constructed, written, and functionalized space in which the consumers move about, their trajectories form unforeseeable sentences, partly unreadable paths across a space”
For instance, some young superstars selected for World Juniors never compete at a senior World Cup event. Their bodies seemed on track, and then exhibited resistance to further development (the reasons why may be many and may never be conclusively settled). And a retired skater discussed how individual rates of improvement vary. In relation to a competitor, he told me, “I would think, I can always beat this guy. And then, suddenly, he’s good.” Potential opens the body to intervention, confident in the knowledge of exercise science and in years of experience, but it engenders some inscrutability too.

Faith in the Work

The thing is, although talent identification is much discussed, there is an inherent agnosticism to all of this potential business. It is not ignorance. It is not even non-knowledge. It is a type of unknowing because the thing is unknowable. Because “having what it takes” does not mean “she’ll go to an Olympics.” The closest to that sort of certainty any answer came was to suggest that someone was “on the same path” as so and so (and, of course, people wander off of paths all the time). Repeatedly, I asked trainers, coaches and administrators to identify which athletes will improve, which ones will join the national team or go to an Olympic Games? Although athletes were singled out as exceptional, that wasn’t quite the same as making a concrete prediction. Instead, I received variations on the same answer: those who want it and show up to do the work (a mix of hunger and heart, I suppose).

Initially, these answers frustrated me. Surely, desire and commitment alone can’t be enough. But I’ve come to understand them, not as elusive, but as testaments to a system of belief. The vagaries of injury and the unfolding of potential cannot be accurately foreseen. Coaches are comfortable assessing whether an athlete has what it takes or, more commonly, has
some of the attributes needed to make it, such as the skating technique or hunger or capacity on a bicycle. But there is seldom an assertion that an athlete will make it. That would be foolhardy. Instead, athletes and coaches focus on the work that, should all else align, will harness potential.

In fact, one coach, when asked, simply told me,

“I think they all have potential. It’s in them. I’m here to treat them all the same. And assume that if they work hard, it will pay off. That won’t make them all champions. But it will take them as far as they can go.”

It turns out, unknowing is generative, is productive. In this case, it is an inherent condition for action. In fact, this seems to be widespread in sport. Running coach Franz Stampfl (1955, pg. 37) wrote:

Training is principally an act of faith. The athlete must believe in its efficacy; he must believe that through training he will become fitter and stronger; that by constant repetition of the same movements he will become more skilful and his muscles more relaxed. He must believe that through training his performance will improve and continue to improve indefinitely for as long as he continues to train to a progressively stiffer standard. He must be a fanatic for hard work and enthusiastic enough to enjoy it.

And because a trajectory only becomes a career at a latter time (this is a matter of reconstruction), in the present, faith in managing time, in following the training program, provides purpose and direction.

**Rhythms of Work: Alterations of Time and Self**

Building bodies takes time and demands structuring time in particular ways. This is the basis of periodized training, the foundation of most high-performance sport training. The “father” of periodization, Tudor Bompa literally wrote the book on it (Bompa 1975). Bompa built upon programs developed by Soviet scientists in the 1940s that divided the year into different training
periods. He refined these ideas to describe yet smaller cycles of exercise that involve periods of rest to let the body recover from strenuous work. His model of periodization involves variables such as: frequency (how often), duration (how long any one training session is), intensity (how hard the training is) and volume (a measure of how much training is in a given cycle).

Alterations of intensity, duration and frequency can achieve different goals. Periodization breaks training into calendrical cycles and daily rhythms.\textsuperscript{10}

Taken from Speed Skating Canada’s LTAD “periodization is time management…[that] organizes and manipulates the aspects of modality, volume, intensity, and frequency of training through long-term (multi-year) and short-term (annual) training, competition, and recovery programs to achieve peak performances when required.” Yearly training programs are called YTPs. YTPs contain macro and micro cycles. A micro is usually one week long and typically has four two-a-days (two workouts in the day) one workout on Saturday, and one or two recovery days. Macro cycles vary in length (depending on whether athletes are “building”, “preparing”, “peaking” and so on), but are generally three to five weeks long for the Stage 3 athletes. These periodized training programs are predicated on the theory that you can generate an adaptive physiological response by stressing the body through workload. In essence, athletes start with a base fitness level, then they work a physiological system (lift something heavy or run fast), then give their bodies recovery time and their base fitness is increased, their bodies have built the capacity to do more work (lift heavier things or run faster). This increased capacity is called supercompensation. The manipulation of time through periodization should generate

\textsuperscript{10} As an anthropologist, I considered thinking of periodization as time-reckoning in the vein of Malinowski (2002) or Evans-Pritchard (1939). But such an approach relates to socially-derived concepts of time that may not accord with the passage of universal time. Here, the Gregorian calendar, and Newtonian time are not in contrast with social concepts or experience. Here, ecological time and moral time are one and the same.
improved performances as an athlete is developed and also increase the capacity for work ahead of key races. That is, periodization acts on potential; acts on bodily abilities that can be realized, if managed correctly.

In my 17 months at the Oval, I often found my days feeling timeless. Although there were subtle cyclical changes, for the most part, the training regimen generates weeks on end that seem interchangeable, the passage of time frequently difficult to mark. The competitive season, however, provides, like holidays for the rest of us, days to look forward to, and a change in temporal experience. The monotony of training, only broken up by the anticipated fun of races, is why skaters and staff discuss the “February Blues.” After the Canada Cup in January, there’s not much on the schedule for Stage 3 athletes until the Oval Finale. They are spending a lot of time indoors, skating the same laps at the same speeds at the same time of day. As a Stage 3 skater told me,

“February is the month when we all start wondering why we’re doing this! It’s hard to stay motivated and we’re kinda sick of the same everything.” (Everything was clearly italicized in this speech act.)

Boring as it might become, this repetition is a necessary part of training. Mastery comes from the rule of ten, although not always in the form of slow accretion. Sometimes gains are made as sudden leaps, after years of diligent effort.

Alongside this, improvements in fitness come from changing exercise modalities and adjusting intensity and volume. Yet even these variations can generate a sameness in training rhythms since intense workouts generally fall before rest days, and technically demanding work comes after a rest period. Accordingly, just as February has a feel to it, skaters would mention things such as “we hate Tuesdays!” because Wednesday is a recovery day and extra work would
be scheduled for Tuesdays. Of course, they hate this about as much as they hate the pain of their legs blowing up, which is to say, not really. Coaches – much more so than athletes – worried about the physical strain of training and especially, over-training. One told me,

“Too many laps break a skater down. You have to find that balance. And you need to train smart. There was a time we were making better cyclists than speed skaters. You need to remember what the goal is, or you can start training in the wrong ways. Time on the ice should be used appropriately. The heart rate monitors can help with that. Zone 3 is a no-man’s land. We really don’t want to train there, but that’s what a lot of speed skating is. And that’s where intervals come in. To go at an intensity where you’ll actually improve.”

A well thought out training program, one crafted to manipulate time just so, should create the technical improvements borne in repetition alongside gains in strength and endurance crafted through periodized cycles.

And while developing athletes generally improve year over year, they can experience long bouts of inertia, periods in which, though they are training hard, there are no improvements marked by the stopwatch. Unless there is an obvious reason for this to be happening, these periods become concerning for all involved. It’s time for troubleshooting. Is it nutrition? Rest? Did the athlete just break up with a significant other? (Curiously, this is supposed to improve performances in men and worsen them in women.) Perhaps it is something to do with the skates? When all possibilities have been exhausted, the athlete and coach must simply wait. They must have faith in the work they are doing.

Ambivalence and Ephemerality: The Experience of Tapering

Training begins in the spring, but the racing season starts in the fall. For Stage 3 athletes, some races are about achieving particular times, while other races are primarily about learning
how to race. In the latter case, it might be that the goal set for that race is just to have a good start, or to skate a strong technical race. Or maybe, to manage nerves and practice a pre-race routine (what and when to eat, for instance, and how to warm up). Of course, other races are entered to try to set a PB or even to win. For these sorts of races, athletes will taper. In general, tapering refers to a reduction in training load prior to competition, which gives more recovery to the body, and maximises performative possibilities. This can be accomplished by altering the volume or intensity of exercise.

You might expect that during a taper, a body that is getting more recovery would feel better, fresher, and in general be more energized. But it’s complicated. Tapering generates strangeness, not only by altering rhythms and routines, but also because it is often a period when novel bodily sensations, even severe pains emerge. In sports like running, athletes discuss these bodily sensations as taper tantrums and the affective dimensions of tapering are called the taper blues. But tapering has not been explained to me in those terms. A coach told me,

“Basically, as a skater you’re always hurting, and now you’re tapering and not hurting so much, so you feel things you didn’t sense previously. Now, it’s your right hip or left shoulder that feels loose or off, just vaguely wrong. Athletes complain to me about all sorts of strange things when they’re tapering. And I’m trying to reassure them. But really, you just have to trust in the program. This is when you have to know that the program will work.”

As athletes taper in preparation for competition, their bodies should become faster, but movement feels stranger. Trust in the training program, not trust in their bodily sensorium, is key. Indeed, athletes have told me, “in coach we trust,” as if divine powers would be an enfeebled match for the program a coach devised. During the race, skaters are encouraged to be in the moment. They can’t focus on the future or the past (even their last stride). They have to
meditate on the technique they are executing right then. And they cannot fear the coming pain. According to one skater,

“Pain is coming. We all know that. But I’ve learned to just let it. To let it come. Welcome it, even. If you’re afraid, you’ll hold back. You can’t win that way. You have to leave it all on the ice.”

After the race, skaters must once again build their bodies as training renews.

While progressing through this sequence, athletes experience bodily strangeness and ambivalence, uncertainty, and surprise successes and failures. No athletes in the Oval Program are confident predicting their own outcomes (perhaps a reason why they sometimes predict very doable times for themselves). They have hopes, mixed with fears. Tapering is designed to produce punctuated moments: bodies primed to be just-so, for just so long. During the race, skaters are advised to “leave it all on the ice” and spend the reserves they have accumulated through the careful manipulation of time. The race results achieved can surprise them. That is, they can fail to meet or may exceed times they imagined for themselves, accompanied by feelings of disappointment or wonderment. But none of this lasts. None of it can last. Even a great race is not to be lingered in. In a cycle of ever improving, the present is a fleeting moment building to a faster future.

_Time’s a Wasting_

Several Stage 3 skaters told me that the hardest part of what they do is not the physical training, or mastering skating technique, but managing time. This was meant in numerous ways. It referred to daily schedules of training, attending classes and working part-time jobs. It was meant in terms of recovery, and all the ways in which it might be maximized. And it was meant,
in its most looming sense, in terms of their odds of progressing to Stage 4. For almost all of these skaters, making the national team and going to an Olympic Games were stated goals. In order for this to happen, the chronological time of their own biographies and the time displayed on the stopwatch would need to align in the right way. They are getting older. They are getting faster. But is it fast enough? Will it happen soon enough? They face a dilemma of timing. There is one further concern here, that was only brought to my attention by coaches (never athletes), which is that finding the right time to progress to Stage 4 is not only about the seconds that elapse during a lap on the ice. Yes, time-standards must be met. Yet moving up a stage simply because a skater can go quickly might be problematic.

Speed comes from using efficient technique and strength to generate power. Some skaters rely more on one or the other of these, while the best in the world are incredibly powerful and technically competent, if not technically remarkable. According to coaches, the correct moment for promotion is about more than skating the right time on a stopwatch. Skaters should also have the correct technical foundations (forms of movement sedimented in the body through years of practice). A few years back, some skaters joined the national team at a young age. They were pointed out to me as a cautionary tale about rushing athletes through the stages. Because they never really got all that much faster. Though their bodies were strong, their technique was underdeveloped. And skating fundamentals would not be fostered in the Stage 4 program. These skaters ended up domestiques, a term borrowed from cycling. The domestique is in the service of the team, a body in the pack, a training partner needed to help build a draft, so

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11 Only a few considered that they were approaching the end of their skating careers.
other athletes might realize success. This was told to me with all the snobbery that such a term might engender. Then again, this is elite sport.

Approximately a dozen skaters are on the national team at any time (another two dozen might be in Stage 4, called the “Next Gen Team”). Arriving at this level is not enough. Continued improvement is needed to justify your spot on the team. As was explained to me by Marcel,

“I’ve had to sit skaters down and say, look, you’re 27 years old and you haven’t had a PB in three years. Our job is to help you reach your potential. You’ve reached your potential. You have to make room for the next athlete.”

There are few professions in which reaching your potential means you will be fired. Yet this athlete had run out of time and had no further potential to harness. Moreover, some skaters might reach their potential at inopportune moments. For instance, they might become national champions or win several World Cup events in a non-Olympic year. Perhaps they will never skate this well again (it happens!). Although they were, for a period, amongst the best in the world, their dreams of an Olympic medal will not be realized. Thus, while athletes invest time, master technique and build physiological capacities, these other clocks are ticking away too. Time management, then, encapsulates the myriad ways in which the experiences and demands of time intersect, and how time must be harnessed and oriented toward unique moments.

*Potential Can Look to the Past*

In general, potential refers to something yet to be. Which is why I was surprised when athletes began to talk to me about potential in order to emplot (Mattingly 1994) stories of their pasts. Potential in this sense, is not about what might be, but what might have been. These
athletes talked to me about ways in which their potential was mishandled. This can be relatively minor. For instance, one athlete told me that, looking back, he can’t believe he donated blood while he was training. He had worked so hard to make that blood. It was primed for performance (that is, it contained potential) and then he just foolishly gave it away. But other former national team members talked to me about training programs that exacerbated injuries or that helped some team members tap potential, but were not tailored to their particular bodily needs. The gist of this is that they could have been better, could have skated longer, if that careful manipulation of time that is training was customized to their bodies. For these athletes, potential is an opportunity. And mishandled potential is opportunity lost. Intriguingly, though the record is set – one’s race times, that is – the past is not completely settled. Articulating potential in this way creates a past that is open to ongoing interpretation. A past self open to revision.

Another way in which potential emplots histories is when athletes look back on their pasts as preparing them for the current moment. Numerous divergent experiences may be recruited into these narratives, including participation in other sports (or not), or being an only child (or not). In essence, the reasoning is that because it happened, it shaped me. In this way, failures are commonly called upon as priming athletes for successes. This is by no means unique to sport. It is widespread in self-help books and business or management writing. Here, as elsewhere, it sustains efforts that may appear outwardly irrational. Because even if things are going badly, so long as you keep at it, you will be able to look back at these trials as instrumental in your eventual success. There are plenty of athletes who will tell stories that affirm this, stories about how they overcame a disappointing Olympics or terrible injury. But there are even more athletes who never arrive at a sporting moment better than the present one, who linger in Stage 3,
plateauing or battling injury. One skater, a rare cynic, and just retired, pointed this out to me quite bluntly when she said,

“It’s pretty obvious really. Look at how many of us move up every year. What is it? About 10%? The odds are not in your favour. People don’t want to see this. They don’t want to talk about it. But realistically, most of us are heading out of the sport.”

The 2019 Canada Games

The Canada Games were launched in 1967 as part of the nation’s centennial celebrations, with the inaugural event hosted by Québec City. It is touted as the highest level of national competition and as a vehicle for developing the next generation of national team members. Athletes represent their home provinces, which means that those training at the Oval might be skating for British Columbia, Manitoba, Ontario and so on. Most of the Stage 3 skaters will compete. The Games are biennial, alternating between summer and winter events. Accordingly, the next winter Games will be held in 2023, so a young athlete will likely have only one or, at most, two chances to compete at a Canada Games. And of course, this might be the highest level of competition they ever enter. This is an event for which athletes will taper. The 2019 Canada Games were in Red Deer, Alberta (150 km from Calgary). The Games opened on February 15th and closed March 3rd. I watched speed skating events on February 16th and 17th. Races were held at Great Chief Park, where outdoor ice is maintained above an artificial turf football field.

Watching the Races: A Study in Contrasts

It’s Saturday and I’ve driven to Red Deer to catch six races over the weekend. I park and get out of my car. It’s cold. The temperature has climbed to -16°C, snow is falling and there’s a
stinging wind blowing from the north. I lean back into my car to help my son into his snowsuit. I cover as much of his skin as possible, then we walk to the gate to pay our admission. The outdoor oval sits in a clearing amongst the trees. The park is quite pretty, and with the snow hanging on evergreen branches, there is a stark winter beauty to the scene. We walk to the metal bleachers, which are dotted with “fans,” most of whom are clearly the competitors’ family members, including grandparents and younger siblings. We find some clear space (there is ample) and lay a blanket down on the bench. My son sits in my lap and we gather the blanket around us. The ladies’ 1500 m will soon start.

Five women that I have been following daily are entered. I know that many of them want to medal in individual events, and a couple have a decent shot of medalling in this race. Moreover, the skaters from Alberta figure they have a strong chance of medalling in the team pursuit (Team Alberta will take the silver). The few here who are less focused on medals simply want to enjoy the experience and learn. Even so, this is an event the training program has been built around. Skaters should be primed to do well. A couple of weeks previous, Jeff, one of the Stage 3 coaches, arranged to bring some athletes here to feel out the venue. Although many came, several declined to come. They had reasons of course – work or school, for instance. But as has been pointed out to me repeatedly by now, athletes that want to win, will commit themselves fully. No other part of their lives can take precedence over sport.

The 1500 m is a brutish race under the best of circumstances. But this isn’t the ice at the Olympic Oval, perfectly smooth and with that goldilocks balance between grip and glide. With overnight temperatures below -20°C, the ice is hard and brittle – there’s not enough give as skaters push. The feel they have worked so carefully to inculcate can’t be replicated and they will need to adjust themselves accordingly. If they are to succeed, they will have to figure out
these conditions, and acquaint their bodies with this ice. Their only opportunity to do so is during their warm-up. In this regard, both their experience as competitors, and the quality of the coaching they are receiving, becomes apparent. Some are skating like joggers idly accruing laps in a park. They clearly don’t know what else they are supposed to do. Others speed up, slow down, bend lower. They are clearly experimenting – making the most they can of this brief rendezvous with the ice. The length of the track is oriented north to south; skaters have the 20km/hr wind at their back for one length, and against them for the other. Accordingly, they will also need to consider the wind as they feel their lap times. Many are wearing face coverings (in addition to their goggles and hoods). All have gloves as well. But those thin skinsuits leave them looking terribly naked.

The athletes clear the ice and the race begins. Many of these skaters are young, still in high school. And there are glaring differences in technique (and, of course, times). Everyone bends at the hips, but only the best maintain that deep knee bend that generates long strides and more power. Some of the skaters finish their stride with their push leg flicking up towards their buttocks – they are incorrectly pushing backwards and off of their toes. Whether this is their usual technique or the result of trying to manage the race conditions, I couldn’t say. The skating looks stiff and I wonder if this is because of the cold or if they are being cautious because of the conditions. Perhaps it derives from the pressure of competing at a prestige event. Some of the pairings are so disparate that the second skater is nearly lapped. I feel sorry for these athletes. Those gathered in the stands are chatting away, occasionally giving their attention to the ice. When a familiar name is announced (perhaps their own child or their child’s training mate) they clap and cheer.
At the halfway mark of a race, a familiar encouragement is shouted out: “c’mon, keep pushing.” I wonder how many athletes “keep pushing” because of a cry from the crowd. It is obvious that the job of the fans here is to support the athletes that they personally know. So much so that at the start of each pair, my son begins to ask, “is this one of ours?” He needs to know which athletes to claim. The more, shall I say, committed, parents don’t sit in the stands, but lean against the railing near the track. I suppose this makes it more likely their yells will be heard. In the end, first and last place are separated by a full minute. The event was won by a woman who is now on the national team (NextGen). Several Oval athletes finished in the top 10, but none on the podium.

I decide to head to the indoor viewing area located in a building called Setters Place. Up a flight of stairs there is a concession stand and seating oriented around tables. Those watching the ice stand gathered near the windows. Most however are assembled in small groups, engaged in conversation. It would appear that catching up with friends and colleagues matters more than diligent spectatorship. This is the case at the VIP lounge at the Oval as well, where old friends meet over food and drink, watching the important races of the day and ignoring most of the rest. Here too, is an insider’s space, filled with those who belong to the sport and have spent their winter weekends gathered at races like this for decades. I feel like an intruder and after warming up a bit, head back out to the bleachers. The men’s 1500 m race is much like the women’s although Oval-trained athletes take gold and bronze. When it is finished, I carry my son to the car. He has been a good sport. But this is boring. And now we’re both very cold. I will return tomorrow. Skaters will race through Thursday.

By the end of the Canada Games, several Oval-trained athletes had medalled. But many were also disappointed with their results. These events are built up as an almost-Olympics, but
without the festivities that make a festival. It is a workmanlike competition. And that seems bound to be a bit of a let down. The athletes too, were built up before the event. They stored potential in their bodies. Sometimes it wasn’t enough. Or maybe they didn’t access it as they should. Potential is funny that way. They may never know why they weren’t even better that week. And they may never compete in such an event again.

**Athlete Development and Speculation: Faith and Reason**

Potentiality is an emerging zone of anthropological attention. Mostly, this research is focused within biomedicine, concerned with possibilities for (super) human enhancement, or the means to mitigate undesirable futures (e.g. Aiello 2013; Gammeltoft 2014; Zhu 2013). These possibilities long ago left the laboratory. We are all now (somewhat) conversant in cell lines, gene editing and cyborgs. Surely, this has permeated sport and influenced the athletes and staff I studied. I doubt if potential (specifically) would have been discussed in Chamonix 1924 as it was in PyeongChang 2018. So let me take this back a bit. Talent identification has a long history within sport, in which scouts seek out *hidden gems*. This metaphor for athletes who are there, but unobvious, in need of some polishing to shine, is of course taken from mining raw materials. That these athletes are called prospects almost gilds the lily. Scouts possess the methods (reports, statistics, and intuited guesses) to recognize potential. Coaches possess the techniques to manifest it. Accordingly, while talk of potential, including psychological maturity, maximal oxygen uptake and neuropathways, might belong to the contemporary era, these concepts build on a long-standing logic of discovering and developing athletes.
The situation at the Oval differs from this general arrangement, though, because speed skating is not hockey (or even swimming). To my surprise, the majority of the Stage 3 skaters had been speed skating since before puberty, often inspired to try the sport after viewing coverage of an Olympic Games, or dragged to the ice because an older sibling was already involved. Furthermore, speed skating is neither popular enough nor lucrative enough to sustain a scouting industry.\footnote{12} Athletes at the Oval may have once been figure skaters or hockey players or cyclists, who, having failed to progress as far as they desired in their former sport, try speed skating because they already know how to skate, or have built the body needed for a lactic sport. The Oval readily accepts these discards. The general rule, then, is that scouting, when present, is fairly passive. It might come in the form of a trainer suggesting to an athlete, “you should try speed skating.” One exception to this is RBC Training Ground, a corporately sponsored program that has partnered with nine NSOs to identify potential Olympians.\footnote{13} In addition to travelling Canada, scouting 14–25 year olds on behalf of these NSOs, the program provides funding to the athletes selected. Only one of the Stage 3 skaters was a Training Ground funded athlete at the time of my research.

Perhaps it is the absence of formal scouts that causes speed skating coaches to discuss potential so animatedly; perhaps they concern themselves more with this than coaches in some other sports. And perhaps the need for a team of training partners, supporting the efforts of a few champions, makes talk of potential invaluable. Within the logic of potential, even domestiques might prove to have what it takes in time (So don’t give up!). But these are my musings. I am

\footnote{12} These NSOs notably represent less popular or well-known sports, including Boxing Canada, Canoe Kayak Canada, Cycling Canada, Freestyle Canada, Nordic Combined Ski Canada, Rowing Canada, Rugby Canada, Ski Jumping Canada, and Speed Skating Canada.
not certain why potential is so discussed by coaches, except that is it, of course, foundational to their work. I can tell you what accepting potential does. Taussig, Hoeyer, and Helmreich (2013, pg. S6) point out “that articulations of potential typically enact politics by working on and through morality, by making claims on us to do something.” Potential’s moral claims “to do something” are plainly evident in speed skating, from the necessity of building the Oval itself, to the Oval Program, and the heartrate monitors and ankle transponders documenting athletes’ laps. Precision movements, honed steel, lactate thresholds, and unique climatic conditions (among other variables) are mobilized to develop athletes (and coaches), generating measurable changes in bodily capacities. Potential entails authorized ways of speaking about developing bodies, and informed intuitions or gut feelings. Potential is located, mapped and acted upon, emerging out of the infrastructure writ-large that is the Oval.

Alternatively, potential can call on people to wait. Weszkalnys (2015) explores potential in relation to resource extraction and draws on Agamben’s (2000) notion of the gesture, suggesting that “industry-specific instruments intended to realize petroleum become gestural in the absence of significant commercial discoveries” (Weszkalnys 2015, pg. 616). In this instance, potential sustains exploration projects in a state of suspension, gesturing to possible futures. Potential, I contend, can sustain training too. In those times when no significant improvement is being made, athletes and coaches keep on training, they stay committed to the work. Just as potential can be unstoppable (for the naturals), it can also be fickle and capricious. And either way, athletes anticipate that their present struggles will reveal future successes, so long as they stay the course. As the gesture suggests, they endure.

In considering the connections between potential, speculation and sport, I am intrigued by Miyazaki’s ethnographic work amongst members of a trading team at a Japanese securities firm.
He stresses the temporal incongruity inherent in “the ontology of not-yet” (Miyazaki 2003, pg. 260), an incongruity between knowing and acting that oscillates between faith and reason. In fact, he states that we need to consider how faith is at the heart of reason.\textsuperscript{14} While speed skating relies on the certainty of scientific knowledge, the vigilant monitoring and measurement of bodies, and the ever-present surety of the stopwatch, time and potential are also sensed. As but two examples, you can smell potential, and feel time in your legs. In addition, the sport is infused with the language of ritual and religion. Athletes talk of keeping faith in their training, and attest, “in coach we trust.” Many anthropologists write about magic and ritual in modern sport, tracing antecedents to rites and games in other societies. Perhaps this link is misleading. Perhaps this affinity is owed to chance, reflecting that ritual and faith are also means to manage uncertainty. It is the temporal incongruity inherent in “the ontology of not-yet” that demands faith. As I consider sport science, the physiological facts that coaches, trainers and athletes are so certain about, and the faith they put into doing the work to harness potential, it seems clear that their enterprise in grounded in as much faith as science. And that this is not incongruous at all.

\textbf{Conclusion: Sensing Time and Potential}

This chapter has considered the operative logic of potential and its connection to temporalizations within speed skating that are subjectively experienced and actively reproduced in social life. While speed skating – in many ways – epitomizes the \textit{citius} part of the Olympic motto, it turns out that the precise measurement of atomistic units of time are but one way in

\textsuperscript{14} An argument about the “meeting” of biomedicalization and magic in sport medicine is offered by Faulkner et al. (2017). They interpret this as a form of pluralism.
which time manoeuvres within the sport. Time links classes of people together, as competitors or training partners within a shared space, and as a lineage of athletes in a succession of records. Time is linear and cumulative, slowly accrued in the body through the rule of ten. But all time is not of equal duration or worth. There are punctuated moments, windows of opportunity, supercompensation and tapering. Most activities are future-oriented, giving a truncated feeling to the present. However, in chasing records, time seems flattened, as the past, present and future exist in a coeval moment. As coaches and athletes develop and share a feel for time, time is embodied. Seconds becomes movements and sensations.

My interest in potential emerged out of several conversations I had with athletes and coaches. Potential is an emic category, and my main concern here has been to document how potential animates the lives of my interlocuters. Athletes and coaches discuss lap times, anthropometric measures, and beautiful skating technique because of what these attributes could become. For them, potential is a hidden capacity that operates at a disjunction between what is known, what is expected and what is hoped. Accordingly, potential generates ways of seeing and making visible, of noticing talent and of graphically displaying it, and of coaxing hidden attributes into view. In short, potential involves the senses and rhetoric, rendered as shrewd calculations. It is in this way that potential underpins their entire enterprise of athlete development and Olympic dreams, building impressive, capable bodies, and emplotting speculative futures and pasts.

But I also offer this to contribute more broadly to theorizations about the body and potential. Within biomedicine, potential is often tied to risk, suggesting ghastly, unethical, or

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15 Which is why I discuss potential and not the more vogue, “potentiality.”
dystopic futures to be avoided (think cloning). Here, I present ways in which potential is opportunity, entailing both a future that may emerge from the conditions of the present, and the unfinished possibilities of the past. Furthermore, potential is not a rigid temporal sequence (a future unfolding), but an opening, a gap that renders futures and pasts amenable to ongoing projects. Nonetheless, there is a general temporal logic embedded within potential. This makes some moments urgent and demands that other moments be dwelled upon. Together, athletes and coaches navigate these movements, placing their faith in an infrastructure of empirical measures, educated perceptions, and collective experience.

In doing so, they choose to embrace speculation in their daily lives – the chance of success, yes, but also the risk of failure. The parallels between the ostensibly disparate spheres of high-performance speed skating and finance are borne in the temporal distance between acting and knowing. While athlete development on the whole may mirror the markets, the biographies of individual athletes follow a more circumscribed path. As time is evaluated, transformed and mastered, incorporated into bodies, and potential is supposed, felt and tested, the gap between acting and knowing is narrowed, though never entirely closed. For even after what might be is finally exhausted, and a career comes to an end, there always remains, what might have been.
Bodies and minds are not two different substances or two different attributes of the same substance but somewhere in between these two alternatives. The Möbius strip has the advantage of showing the inflection of mind into body and body into mind, the ways in which, through a kind of twisting or inversion, one side becomes the other.

Elizabeth Grosz, *Volatile Bodies* (1994, pg. xii)

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**Moral Fiber and Muscle Fiber**

The association between athletes and heroes goes back at least as far as ancient Greece. Greek heroes were often bestowed with gifts of the divine, but remained mortal, or in some way vulnerable (consider Achilles’s heel). Consequently, these heroes couldn’t (just) rely on supernatural gifts; to overcome the various tests meted to them, they needed exceptional virtue. And it is this connection to virtuously triumphing in the contests they face that links athletes to heroes. According to Reid (2017, pg. 40):

> Ancient athletes were not heroes, rather they re-enacted heroic struggles, thereby experiencing heroic virtues, and inspiring both artists and spectators to bond with the higher ideals implied by their shared belief in divine ancestry. In this way, athletes, athletics, and the media that celebrated them played important social and educational roles.

As such, ancient Olympians weren’t heroes proper, but modelled them. However, the philosophy of Olympism is less concerned with maintaining fine distinctions between hero and athlete (and with acknowledging a hero’s flaws¹). Recall that Coubertin was inspired by the pedagogy through sport he witnessed in British schools. In espousing his philosophy, Coubertin (1983, pg. 11) wrote that “the muscles are made to do the work of a moral educator.” Further,

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¹ The ancient Greeks accepted moral fallibility in their heroes too. This more pragmatic approach to virtue allowed deceit and cheating to appear alongside courage and wisdom (Morford, Lenardon and Sham 2014).
Coubertin (1967, pg. 133) wrote of the “true Olympic hero.” In his vision for the Olympics, athletes no longer emulate mythical heroes, they are the heroes of a new liberal humanism.2

Given this history, it is perhaps unsurprising that the connection between athletes’ bodies and virtue has been so well-studied, from specific cases such as Samoan rugby players (Clément 2013), Indian wrestlers (Alter 1992), and Chicago pugilists (Wacquant 2004) to the notion that sport is a morality play (McNamee 2008). As these cases demonstrate, athletes building bodies for sporting projects, also encode morality into their muscles. This is more than “the social skin” (Turner 2012). Sporting practice penetrates the surface; discipline is made manifest in changes to bones, muscles, blood vessels and hormonal chemistry, alongside temperament and disposition. These bodies are as much moral fiber as muscle fiber. In this chapter, I consider how speed skaters’ bodies are trained, monitored, made knowable through science and virtuous through success and struggle.

A Science-y Body of Knowledge

A host of new scientific understandings of the human body were concurrent with the emergence of modern sport. For example, in 1889, Charles-Édouard Brown-Séquard injected himself with an extract derived from animal testicles. He reported the results of his self-experiment in The Lancet stating that his vigor was “briefly but markedly restored” (Brown-Séquard 1889, pg. 106). Work such as this inspired decades of continued research into the virilising effects of testosterone (which also, eventually, led to the use of anabolic steroids in sport). Another early contribution to sports medicine was the identification of maximal oxygen uptake and oxygen

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2 While Coubertin traces this association to the ancient world, the morally edifying role of sport also aligned with Soviet notions of a heroic citizenry (Mertin 2009).
debt by Archibald Vivian Hill in 1922 (Hale 2008). As research into human physiology and exercise science proceeded, the body’s mysteries were revealed through the continued portioning of its parts (see Park (2007) and Welshman (1998) for a discussion of this history).

Meanwhile, athletes competing at the first modern Olympic Games employed substances such as strychnine, alcohol, cocaine, heroin and caffeine in order to improve their performances (Dimeo 2007). As no rules were place against doing so, this was not cheating. (The ancient Olympians also consumed various substances to enhance their sporting performance, including alcohol, hallucinogenic mushrooms, and sesame seeds (Hunt 2011)). At the 1904 Olympic Games in St. Louis, the marathon gold medallist, Thomas Hicks, was twice injected with a strychnine sulphate solution during the race (Rosen 2008). Of course – in order to revive himself – he chased the strychnine with brandy. Hicks collapsed after the race and was treated in hospital. A growing concern for the health of athletes lead the International Amateur Athletic Federation (now World Athletics; still IAAF) to implement a ban on stimulant use in 1928. Coincidentally, 1928 is also the founding year of the Association Internationale Medico-Sportive (now known as the Fédération Internationale de Médecine du Sport or FIMS). According to the FIMS homepage:

FIMS aims primarily to promote the study and development of sports medicine throughout the world, to protect the physical and mental health and ensure the wellbeing of all who are engaged in sports and exercise and to assist athletes in achieving optimal performance by maximizing their genetic potential, health, nutrition and (access to) high-quality care and training. (https://www.fims.org/)

In short, science was initially integrated into sport along two fronts: monitoring athlete health and developing improved techniques, training and equipment. Since the 1960s, sport science has also focused on detecting cheating. All three objectives begin with a normative body and analyse how far beyond normal a body can go before it’s been taken too far.
There is a lot of sport science. And there is a lot of sport science conducted at the University of Calgary that includes fancy equipment such as wind tunnels and electrodes. Here, I am less concerned with the laboratory and more concerned with how science regulates the quotidian practices of athletes and coaches. Often this science is more like the self-experiment of Brown-Séquard. I suspect this disposition is widespread within sport. Consider how medical student, Roger Bannister, broke the four-minute mile barrier in 1954. Guided by his coach, Franz Stampfl, Bannister used a training method called *fartlek*, a Swedish word that translates to “speed play,” but that employs scientific rationalities (Bale 2004; Krüger 2006). This method, a precursor to later interval techniques, combines bursts of brief, intensive running, with longer periods at an easier pace. Athletes still use it today.

Bannister’s choice to employ *fartlek* was not surprising because Swedish middle and long-distance runners were among the best in the sport in the 1930s and 1940s. But even so, Bannister was not able to go as fast as he needed. Frustrated, he took a three-day break from training. When he returned to the track, he discovered he had shaved two seconds off of his previous best ¼ mile interval (Bannister 1955). Ever the empiricist, he recorded his results in his training diary and chose to integrate longer rest periods into his training regimen, including five days of rest prior to his famous run on Oxford University's Iffley Road Track. It is this sort of self-experimentation, and an openness to trying new things, recording changes and adjusting training accordingly, that is most prized at the Oval.4

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3 1954 is also the founding year of the American College of Sports Medicine.

4 Howe (2006) points out that though Stampfl is viewed as a scientific coach, both he and Percy Cerutty, the coach of Bannister’s rival in the quest to beat 4-minutes, John Landy, combined science and art. I am getting at much the same thing, there is a practicality and aesthetic to scientific coaching.
Training as Experimentation

The development of a speed skater involves a cadre of experts all referring to scientifically-derived training programs that manipulate physiology. This paradigm is accepted by all, even if various actors quibble over some of the finer details (e.g. the best way to manage nutrition, or whether or not to warm down to expedite the removal of lactate). The science so relied upon is revised frequently enough to accommodate such flexibility. It provides the certainty to say, “we know,” and the prudence to say, “our knowledge is incomplete.” And for all the laboratory science called upon, there is no substitute for years of experience. Enough so that one coach was certain that in time, what he knew to be best in terms of weight training, would be proven, scientifically. In this way, athletes, coaches, and others are practical scientists, crafting bodies according to higher principles. Science legitimizes and underpins (much of) their endeavours, but the pragmatism of their project demands that science sometimes be worked around as much as it is worked with. This is not because science is an unwarranted or deficient method for getting at truths, rather, it is because formal science may not keep pace with the rapid gains in knowledge gathered rinkside, where every day of training is treated as a sort of experiment.

It is in these regular training sessions that athletes are observed and learn to observe their own bodies. Athletes and coaches attempt to understand individual idiosyncrasies – the ways in which this person may deviate from norms – and work to tailor training accordingly, as much as possible. At least, that’s the idea. Athletes are expected to figure out – through trial and error

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5 I understand that science is designed to disprove hypotheses, but that is not the point here.
6 And it should be noted that the flexibility to fully modify training only rests with the most successful skaters. Journeymen or women and domestiques can’t make demands of the program, though they should know how to best treat their own bodies.
framed by science – how best to warm-up, what and when to eat and so on. But this isn’t
disparsionate experimentation. Because at the same time that physical abilities are being
developed, athletes are also learning the temperament of a skater. They are learning that pushing
themselves a little more than the program demands is admired. They are learning to laugh at
pain. They are learning that it is appropriate to know the science behind their training, and to
throw it aside at times. Part of this is excused because the scientific body is a normative body,
and their bodies aren’t normal at all. Part of this is encouraged, because what good would a
skater be without the correct virtues? In the following sections, I explain some of the forms this
education takes.

*The Normative Body*

High performance athletes do not have normal bodies. Depending on their speciality,
athletes may be taller or shorter than average, stronger, have greater flexibility, or many more red
blood cells. Sport honours much of this exceptionalism and polices a lot of the rest. For
instance, swimmer Michael Phelps has, among other unusual traits, size 14 feet that bend at a
greater angle than typical (Hadhazy 2008). His abnormalities are credited with no small part in
his success. Yet, runner, Caster Semenya, who has higher than typical female testosterone
levels, must take medications to artificially lower her testosterone if she is to compete in future
IAAF and IOC sanctioned events (Camporesi 2020). I am less interested with this in terms of
pointing out inconsistencies, and more so with considering how certain deviations from
normativity can be celebrated or condemned, depending on the context. Even more so, I am
intrigued by speed skating, specifically, as it is a sport in which there both is and isn’t a
normative body.
Let me explain. Again and again, athletes, trainers and coaches (but mostly athletes) touted speed skating as essentially democratic. It is a sport that welcomes people from all backgrounds and in all sizes, and rewards those who work hard. This is deemed one of the best things about speed skating. And because the sport (especially if you include short track) offers specializations that might best suit different raw physicalities, you can imagine that it is mostly sort of true. Even athletes specializing in the same race distances can look pretty different. At the moment, Canada’s two best women in long distances are Ivanie Blondin (162cm and 56kg) and Isabelle Weidemann (188cm and 70kg).\(^7\) And many athletes transition to speed skating when they know their bodies are not amenable to their first sport. For instance, skaters told me,

> “At puberty, my body changed. And it was just clear I didn’t have the body for figure skating anymore. But I didn’t want to accept that. I kept skating for two more years. Then I switched to speed skating.”

Or,

> “I knew I wasn’t big enough for the NHL. But I didn’t want to stop being an athlete. When I tried speed skating, I was like, yeah, this is it!”

So yes, more so than in sports such as figure skating or hockey, different bodies can succeed as speed skaters. Some skaters are tall, others short. In general, the sprinters are more muscular, the distance skaters more sinewy. All have well-developed lower bodies, sometimes to the extent that it appears two disparate bodies were sewn together at the waist. Even though speed skating might welcome everyone, there’s not a lot of demographic variety on display at the Oval. Most skaters come from “middle class” families (broadly defined). Parents devote a lot of time and money to a child’s burgeoning interest in the sport and speed skaters are, for the most part, drawn from economically comfortable Euro-Canadian backgrounds.

\(^7\) Celebrated 19th century speed skaters, Harald Hagen (6’) and Axel Paulsen (5’4”) were similarly dissimilar.
Moreover, in spite of all of this talk about inclusivity, there is an ideal body type recognized by coaches – the situation is simply that this ideal type doesn’t dominate athlete selection into the sport. Instead, it is recognized that athletes can be successful notwithstanding deviations from the standard. What constitutes the perfect speed skater body has changed over time and owes something to who the best in the world is at any given moment (Eric Heiden’s famously over-sized thighs are no longer desired). In general, a successful body is an emulated body. Many coaches mentioned to me that the Europeans (read: Dutch) are slimmer, especially the women and that this gives them an advantage. These comments surprised me so greatly that I gathered BMI data from women on the Canadian and Dutch long track national teams in 1998 and 2008 just to quantify this for myself (see Table 6.1). Indeed, the Dutch are on average slimmer, but not by much (I’m not concerned with statistical significance). All the same, 1998 was the dawn of a “Golden Age” in Canadian speed skating. Canadians Susan Auch and Catriona Le May Doan took a total of three medals at the Nagano Games, while Dutch women took two. And 20 years later, both teams appear to have slimmed down slightly, though no Canadian women medalled at PyeongChang.

Table 6.1. BMI Average of Dutch and Canadian Women’s Speed Skating Teams

<table>
<thead>
<tr>
<th></th>
<th>Nagano 1998</th>
<th>PyeongChang 2018</th>
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<tbody>
<tr>
<td>Netherlands</td>
<td>21.6</td>
<td>21.0</td>
</tr>
<tr>
<td>Canada</td>
<td>22.4</td>
<td>21.7</td>
</tr>
</tbody>
</table>

These casual comments about slimmer Europeans were one of several different ways in which ideal bodies – size, proportions and musculature – were revealed to me. In addition to body composition and size, coaches discussed limb lengths, pelvic angles, and flexibility. For
instance, Japanese skaters are generally smaller in stature, with shorter levers (limbs). This is not perfect. But they also supposedly have naturally different pelvic geometry that makes speed skating’s butt-tuck easier to achieve. There have been numerous successful Japanese skaters, including Olympic champion and multiple World Single Distance winner Hiroyasu Shimizu, who is only 1.62 m tall. He is too short; his success owes to other attributes. Shimizu was discussed as a bodily freak, with massive thighs. It was (half) joked that he must have shot testosterone straight into his legs (as far as I know, he has no doping infractions).

Coaches also told me things such as, “she’s a great athlete, she’s just not meant to be a skater.” Or, “he’s not built for this.” In some ways, this talk turns the body into a site to assign failure. Of course, it cannot be the training regimen, because others grind through that. It must be a missing trait in the body. To these coaches, beyond a look or type, there is a quality that makes a speed skater’s body. In this way, those who succeed, have a speed skater’s body. There are numerous sports in which one might expect these sorts of bodily assessments, especially those with weight classes such as weightlifting or boxing. And this has been commented on in other events too (e.g. in gymnastics and figure skating in Ryan (1995); in swimming in McMahon, McGannon and Zehntner (2017)). After athletes spoke with me about how “cool” speed skating is because any body can do it, I was somewhat surprised to hear coaches suggest otherwise. It seems the athletes have things turned around somewhat. Champions might come in a variety of body types, but that doesn’t mean that any body can do this.

Data Collection and Monitoring

There’s an established practice of diarizing among athletes. Roger Bannister did it. And the Canadian Amateur Speed Skating Association published a manual on how to maintain a
speed skater’s diary (Gertstad 1971). Diarizing enables both monitoring by others and self-reflection. Some athletes might keep a private journal. They are also expected to report to CIS.

“Do you think it’s too much? Are you over monitored?” I ask.

“No. Sometimes it’s a little frustrating filling out the forms, but I wouldn’t say we’re over monitored. I have a roommate in short track – they’re over monitored!”

This exchange occurred while interviewing a woman in Stage 3. She was talking to me about the reports that athletes complete daily. In these, they record their sleep and eating patterns, stresses and injuries, although not all skaters comply. Further, a coach expressed some frustration to me, mentioning that the summaries for each athlete are sent out at around nine in the morning, at which time, everybody is already supposed to be on the ice. Consequently, if a skater is struggling with something, it may not be brought to the coach’s attention until after the ice session. While documenting their lives in this way seems intrusive to me, athletes found it more of a nuisance than breach of privacy. Revelation is a sacrifice of membership, given voluntarily or unaware. Rich datasets are kept on an athlete’s weight, body composition, heart rate, and so on. The skinsuit leaves little to the imagination. And everyone knows who is sleeping together. What part of their lives that might be rightly considered private had shrivelled to the types of secrets we seldom admit to ourselves. But none of this comes with a sense of vulnerability. It is just the way it is (and at least it’s not so bad as in short track).

Some of the coaches found managing all of this data cumbersome. And there were a few cases presented to me in which the capacity to measure had exceeded its usefulness. For instance, the data recorded by the ankle transponders – lap times alongside speed and velocity,

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8 Canada’s speed skating NSO and the University of Calgary have also published books on programming and exercise physiology specific to speed skating (e.g. Cumming 1974 and Thibault 1991).
all things neat to know – are generated in a time-lag. The transponders are pretty useless during training, although the numbers produced can be plotted and contemplated later. While training, the stopwatch is all that matters. And after training, the nifty details caught by the transponders are seldom counted. Furthermore, in the lead up to having anthropometry measures conducted, a coach told me that he knows how fit his skaters are, that he can see their improvements on the ice. He said he wasn’t expecting these measures to tell him anything more. And he feared that year over year changes to bodies might concern some athletes; that they might needlessly worry over measured gains or losses irrespective of their performance.\footnote{Further, according to a study involving young Dutch speedskaters, anthropometric measures were not predictors of future success (Koning et al. 1994).} He did, however, think it was important to have blood drawn and tested. In fact, he wished that happened more often, suggesting that what blood might reveal – an iron deficiency, for instance – cannot be as readily observed as “fitness.” He was missing that these measures are not just about gleaming what can be revealed through scientific tests. This annual pilgrimage is also related to what Strathern (2009) terms \textit{audit cultures}. The data collected serve to affirm transparency and validate good practice.

\textit{Measuring the Body}

I accompanied one group of Stage 3 athletes on “anthro day,” which was carried out at WinSport in the spring. Most of the athletes don’t drive, so we travelled together in the Oval’s passenger van. WinSport provides high contrast to the Oval.\footnote{One skater confessed, “I don’t like it here. It’s too nice. Too much. I prefer our gym.”} Although it dates back to 1956, stemming from the founding of the Calgary Olympic Development Association, this site has in recent years been extensively renovated and expanded and is best described as a compound, with
contemporary glass and steel buildings radiating around parking lots. There are spaces dedicated to the National Sport School, National hockey team, Own the Podium and more. We head inside the high-performance training centre, where athletes will have blood drawn, be tested on bicycles and have body measurements taken including skin folds.

The training centre is flooded with natural light and perhaps 30 times the size of the weight room in the basement of the Oval. But this is not our destination. We ascend some stairs to a second-floor lounge that overlooks the training area below (there are various labs and offices on this floor too). There’s soft seating arranged around a gas fireplace and a generous kitchen space with a large island that at the moment appears to be serving as a conference table for CSI employees. The skaters drop their backpacks and jackets on the floor. The earnest casualness with which training is approached carries on here too. Skaters sit comfortably. They are at ease, making jokes, but taking this seriously too. A speed skater has the soul of a mystic concealed by a veneer of disinterest.

The athletes are split into groups. Those heading for anthropometry are put into pairs. I follow a pair. We enter a room about three by four meters in size that looks like a laboratory crossed with a medical exam room. There is a hanging skeleton in one corner, a scale, a world map poster (why?), two conference posters featuring University of Calgary kinesiology research, a sink and counter, and a filing cabinet. The academic performing the measurements is entering data into a laptop. One athlete strips to her underwear, while the other assists with measuring (which is why they were paired). I stand at a distance, feeling useless and obtrusive. The questions begin. Have you travelled by air in the last seven days? When did you last void? When did you last eat? Then the skater hops on the scale and has her weight and height taken. A measuring tape encircles her calves, thighs, and buttocks. Skin folds are taken with calipers.
The purpose of this is to determine how much of her body is fat, and to use this to deduce how much is muscle.

Afterwards, I head to another lab where skaters are again taken in pairs and placed on stationary bicycles. This is a measurement of their maximum workload. The bike starts at a particular tension that is based off of factors such as the skater’s weight and previous accomplishments in the lab. They are to pedal for 8 minutes, maintaining at least 75 rpm. Every minute, the pedalling tension increases. The test runs either until 8 minutes or until they can no longer sustain 75 rpm. An academic monitors their progress. Meanwhile, their teammates (and I) watch on. As skaters perform the test, their peers call out encouragements such as, “c’mon, push”, “you’ve got this!”, “big circles”, or, “get through this phase.” Everyone makes it to 8 minutes, though some appear to do so easier than others. Once tested, some athletes check their phones or pull out protein bars and other food from their backpacks and begin to snack. Those finished wait until the van will carry us back to the Oval.

Anthro day provides hard numbers that can be compared year over year. And allows coaches and athletes to peer into the body. Perhaps a skater’s weight is unchanged, but muscle mass has increased. Perhaps a blood test will reveal a problem needing redress. The data produced will be accepted as truth, recorded in electronic files and (possibly) referred to in future. All of the science-y stuff I have discussed is about how knowledge is gained, recorded and put to use. It is pragmatic – sometimes serving athlete training and sometimes serving bureaucratic confirmation. Knowing these things about these bodies, adding these details to individuals’ records, constitutes important proofs.
**Fuelling the Body**

Anthropologists have long considered food as communal, symbolic and, of course, economic, not to mention that subsistence strategies offer explanations for social and political organization. People who share meals often share kinship or other significant relationships. And important moments, whether celebratory or sombre, are frequently accompanied by special meals. Food, then, provides a lens into myriad dimensions of sociality (e.g. Crowther 2018; Mintz 1986; 2002; Sutton 2001). But food in high-performance sport takes on a distinctively independent quality. Yes, preferences and practices are socially engendered. But eating is an individual concern and can just as often sever bonds as create them. For instance, athletes may not be able to eat with family and friends because the wrong food is being consumed, or meals are arranged at the wrong time. Accordingly, while food itself takes on greater importance, it does so for the unique reason that it provides certain amounts of carbohydrate, protein or micronutrients. Many of these nutrients can be conveniently consumed in the form of sports drinks and other highly processed health foods that are consumed alone and need not be (especially) tasty. The social bonds supported by eating together or the pleasure of enjoying a meal are often distal concerns: the primary purpose of food is to *fuel* the body.

Food as fuel is, of course, a metaphor, but it is hardly understood as such since the mechanical functioning of the body forms the basis for knowledge about training (Gleyse 2013). Food is not *like* fuel. It *is* fuel. Because the body is not *like* a machine. This fuel is most conveniently measured in calories, ideally consumed at the correct intervals (especially post-workout), and in the optimal proportions of nutrients. Athletes in general, and speed skating athletes in particular, need more fuel than the average person. Rather then generate a feeling of freedom or gluttony, this need for more food – and the right kind of food – renders a host of food
reckoning concerns (I almost wrote, food management concerns, but it is more about accounting than anything else). These are related to the volume and type of food consumed and how this correlates with athletic performance and bodily appearance. One trainer told me he suspected some women were under-eating. He suggested that by limiting their caloric intake these women were unable to get the full benefit of their training regimens. And he contrasted this with a volleyball team that he witnessed eat at a buffet after training,

“Those guys knew how to eat. They got ten plates deep into that buffet. That’s how real athletes eat. You have to fuel the body.”

Brownell (1995) outlines the anxiety, jealousy and security that varying levels of access to food created amongst athletes occupying different strata of the Chinese sport system. While Canadian speed skaters aren’t beholden to the state for rations, they can similarly face barriers to acquiring sufficient or ideal foods. The requisite food volume is a part of this, only exacerbated by the high amount of protein needed (1-2 gr/kg body weight) and the desire (or requirement) to consume nutritional supplements. It costs a lot to eat like a skater. One athlete relayed the story of a fellow skater who received a sponsorship in the form of $5,000 worth of beef. This food windfall not only provided security to the sponsored athlete but turned him into a sort of big man able to redistribute beef to his skater friends.

Clean Eating

Related to fuel, is the notion of clean eating (Spencer 2014). This was not a unanimous concern. Some skaters talked about gorging on junk food, for instance making a pan of brownies and consuming the whole thing with fellow skater roommates (although, in admitting this, they also admitted this was not especially healthy). And furthermore, the particulars about what clean
food includes are highly individualistic, but for those athletes worried about eating clean, certain foods become taboo. For some, items such as cookies or pizza are simply not consumed, regardless of the occasion. This means not indulging at family Christmas gatherings or not sharing in celebratory pizza with the rest of the team at the end of the season. These concerns around controlling food are often considered forms of disordered eating, framed by a clinical perspective (e.g. Thompson and Trattner Sherman 2010). (And people at the Oval discuss eating disorders too.) However, I’m more interested in considering how these food taboos derive from complex assessments of what constitutes good food, alongside the construction of a skater’s identity. In this way, clean eating is disciplined. It is part of an ascetic lifestyle (as in Spencer 2014). And it is a further demonstration of a skater’s commitment to being the best.

*Dietary Advice*

Some foods are unambiguously good. These include lean protein, complex carbohydrates (especially higher fibre options), all vegetables and certain fruits at certain times (higher glycemic-index fruits such as pineapple, are better recovery foods, while lower glycemic-index fruits such as apples are better before training). After this list, things get complicated. Some coaches and trainers emphasize that athletes should listen to their bodies and eat whatever they crave, but a healthful, homemade version of it. Accordingly, a fast-food hamburger would be a bad choice, but a homemade one using high quality ingredients is a good choice. Likewise, eating until sated likely means consuming enough. Others encourage lower fat diets (burgers might have to be made of ground turkey) and measuring food. These competing discourses circulate amongst additional healthy eating messages in broader society. Some athletes felt in command of navigating these discourses. They had a clear, if personal, moral ordering of
foodstuffs. They knew what they should eat, when and why. Others expressed personal failing, admitting that “nutrition is a weak spot for me.” Three coaches and trainers expressed concerns to me about female athletes not eating properly. These concerns were founded in either 1) plateauing or worsening performance with no other obvious cause, or 2) appearing too fat or too thin.

Weight Standards

As I began working with the all-women’s team, I had hoped that concerns about weight wouldn’t surface. I had wanted this group of young women to be proud of what their bodies were capable of and to not worry about weight. I got one part of my wish. Pride with a caveat, was common enough. Lots of athletes spoke about their body meeting one standard they were pleased with while butting up against another. As a skater quickly pointed out,

“I’m an athlete. I am proud of my body. But I’m also a woman, and I can’t just toss that aside.”

And to be clear, though weight was often about desiring a smaller body (this could be less fat or less muscle), this wasn’t always the case. A retired male skater told me,

“I’m naturally lean, it’s just my body type. But I was told I needed to gain weight. I was put on this special diet, and I had to drink these powdered milkshakes.”

I raise my eyebrows, hearing this. His tone suggests this was a bother, but I’m surprised.

“It’s not what you think. Eating becomes a chore. You come to resent it. You’re forcing yourself even when you don’t feel hungry. And it takes your focus away from other things. It becomes a distraction. And I don’t think it made me any faster. I actually think it was detrimental. And I think about the young women who are told they need to lose weight, and all the messages they get about their bodies inside sport and outside sport. I think we focus on this too much. What matters is if you can go faster. We’re not competing in weight categories.”
Conversely, some athletes attempting to gain weight were pleased to discover that they had. One woman got up on the scale in the weight room and announced with glee, “I’m up four kilos since last year!”

Consequently, there were both men and women considered (or who considered themselves) too slim and, correspondingly, men and women considered too big. But whether the goal is to move up or down on the scale, it can come – much like chasing faster times – to exemplify Zeno’s paradox, approaching but never reaching a definitive end. As a retired skater told me,

“I could never reach the weight I wanted. I was always heavier than I though was right. And skinsuits back then were not as stylish as today’s. Like you felt pretty ridiculous already and there’s no hiding anything. On top of it all, you see everyone else’s body. And if this guy is going faster than you and he’s slimmer, you want to be slimmer too.”

And a current skater explained things as such,

“You have to not compare yourself to others. That’s the hardest thing. Because we’re all in skinsuits and it’s easy to look and wonder. Maybe if you could just change your body to be more like that, you would have those times. And there’s always going to be someone you can feel you’re lesser than. You have to keep that out of your head.”

Refining Bodies

If going faster is what matters, perhaps it is best to keep weight and the appearance of others out of your head. But how can you? With the focus on perfection – perfecting movement, perfecting training, perfecting the technologies employed – it is no surprise that weight comes

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11 And there were also some athletes who didn’t worry about their weight.
under this purview with the goal of manipulating grams up or down just a little bit in order to shave off time, millisecond by millisecond.

While I tried, I never acquired the critical gaze of coaches. One sprinter was told by his coach that he would have to slim down in order to achieve the next level of success. To my eyes, this athlete looked like a fitness model. I could clearly see abdominal muscles through his skinsuit. Other athletes who overheard this conversation confessed to me that they worry about what their coach thinks of their bodies. Another coach casually commented that, compared to the Dutch, the men on the Canadian national team have “dad bods,” a term usually reserved, part-lovingly and part-critically, for middle-aged fathers who maintain healthy-ish weights, but certainly don’t look like high-performance athletes. However, it was mostly women who were pointed out to me as either too slim or needing to lose weight. In spite of this, coaches and trainers were reluctant to directly discuss weight with female athletes. It is (probably correctly) assumed that this is a more sensitive subject for women, though in my conversations with athletes, past and present, both men and women could be unsatisfied with their weight and related their bodies to various standards, including what they weigh, how they look, how clothes fit and how they compare to other skaters.

Lastly, trainers and nutritionists spoke to me about not only fat, but carrying too much muscle, and certainly the wrong kind of muscle. Even muscle can be extra weight to tow around the rink, diminishing performance. As one trainer told me,

“The days of just massive thigh volume are gone. You don’t want to have to haul that around the ice.”

Similarly, an overly-developed upper body, which might appear more congruent with broader standards (in fitness or society) equates to useless extra weight. I have frequently thought about
athletes and coaches as building bodies. But this is perhaps too utilitarian and coarse a term for the \textit{body projects} (Featherstone 1991) underway. I suppose that sculpting is more appropriate. Their bodies are fashioned after models (scientific and aesthetic – could the two ever be separated?). And their bodies are subject to continual refinement.

\textit{Look Good, Skate Good}

While observing training, I tried to discreetly look for signs of undergarments. (What a pervert I seem! But I was curious.) Sports bras were largely evident. Underwear was frequently less obvious. I asked a few skaters what they wear under a skinsuit and got different answers. Whatever made you comfortable was deemed acceptable, so some preferred underwear and others not, although I was told about the dangers of forgoing a bra. Apparently, a Dutch skater once finished a race, unzipped her suit and her breasts fell out. (It’s pretty much always the Dutch, Russians or Japanese that feature in these fables.)

Skaters frequently told me, “look good, skate good.”

\footnote{This expression is not unique to skating. It is widespread in sport and exercise (see Monaghan 2001a). It is sometimes extended to “look good, feel good, play good.”} It was a general comment about feeling properly equipped for the race (right suit, right skates) and of confidently presenting oneself. For instance, a woman might style her hair nicely and wear make-up on race days, although when training her face is natural and her hair is pulled back in a ponytail. By changing her appearance, she’s likely to get compliments from her peers when she arrives at the track. And that provides a race-day confidence boost. Men also, might shave their faces or style their hair with particular care, literally putting their best faces forward.
This differs from the rituals that are meant to provide a more hidden edge. For instance, one skater is convinced that a small (very small) amount of air penetrates the skinsuit, so he shaves his legs in an aerodynamic v-shape to further reduce drag. And many skaters have experimented with different ways of tucking their hair into the cap on their suits, convinced that there is a more aerodynamic way to do so. This too, provides a confidence boost, but not one derived from the validation of others, at least unless you do it the Dutch way,

“The Dutch women put their hair up loose in their caps. Just twist it in there. And then when they finish a race, they unzip and pull the cap back and this long blonde hair tumbles out. It’s such a power move! You’re just like, wow, look at her!”

Looking Good off the Ice

I’m sitting around with a group of young women. It’s clear athletes think about their bodies as objects a lot. I ask them if they think about their bodies primarily in terms of performance or in terms of how they look. It sparks a good deal of conversation.

“If I wasn’t a skater, I wouldn’t want this body. Like I would just do some cardio and yoga to keep fit. I would definitely want smaller legs.”

One woman tells a story from her part-time job at a clothing store,

“I’m helping this customer find jeans and I tell her that we have the ‘boyfriend cut’ which fits a bit looser in the thigh. And I say, it’s what I’m wearing. And this woman looks at me and she’s like, those look pretty snug to me. And I reply that I have larger thighs, but that it is definitely a looser cut. And she’s like, those look real fitted. And again, I tell her that’s just because my legs are big. And she’s like, those are tight! And now I’m just thinking, look, are you interested in buying some jeans or not!”

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13 I believe this was told to me in earnest. I didn’t see his shaven legs and I do wonder about the veracity of the claim.
She tells this story with a lot of humour and also a pang of hurt. These are young women who want to be among the best in the world in their sport. They train hard and this generates a particular physique. And yet they also want to be able to wear stylish clothes and to feel they look good in them. To my eye, they did “look good” in these clothes. Young and fresh and hip. Though they also looked very different from their usual selves. I grew so accustomed to seeing skaters in skinsuits or workout wear, that on the occasions when I saw them dressed in other clothing, they were hardly recognizable to me.

Concerns about how they look off the ice were not restricted to women. A retired skater told me about his struggles finding clothes that fit, especially jeans. He used to make an effort to shop when competing in the US because he found a larger (in every way) selection of clothing there. And in particular, the US was where he might be able to find jeans that fit. As he told me this, he pointed out,

“You know, they didn’t always put spandex in jeans! Clothes didn’t stretch back then like they do now.”

And other men commented on their bodies as “weird” or “strange” referring to the difference between their well-muscled lower bodies, and much slimmer upper bodies,

“I mean, just look at my arms. It’s almost like a T-Rex! You’ve got these shrivelled things compared to the rest of your body. It’s weird.”

However, it’s not that athletes don’t like their bodies. Not at all. Several athletes told me that skating gives you a great butt (not just a big one). And one woman acknowledged that she loved

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14 I suspect that jeans are important because of the way they stand for what everyone else wears. They are ubiquitous and anonymous clothing. Miller and Woodward (2012) explore these issues well and propose that to understand denim we need to think of jeans as ordinary (linking to practice) rather than normative. Athletes struggling to find jeans that they can wear suggests their broader ill-fit with the practices of ordinary society.
the weight room, telling me that she knows she’s strong and that having muscles makes her feel powerful. Another told me,

“I like that, as a speed skater, you can still be feminine. I mean, yes, I’m strong, I have muscles, but I don’t look like a bobsledder. I still look like a woman.”

In short, skaters critically assess their bodies and the bodies of others. But the standards from which they judge are not uniform. What constitutes the right body is an ongoing mediation of self and identity, successful performance, and navigating different standards, inside and outside of sport. There’s a desire to find jeans that fit, and to back squat even more weight. There’s a confidence that comes from having an athlete’s body, accompanied by doubts. Skaters find themselves between two worlds, both of which train a critical gaze on the body. As one woman put it,

“They make us do these surveys. To check on us. To see if we’re at risk. But it’s like what are we going to say, you know? Like, it will ask, have you ever been unsatisfied with the look of your body? While I’m a woman, right? So yeah!”

I am reminded of Monaghan’s (2001b) study of bodybuilders and how a neophyte’s perceptions tend to change over time, coming to appreciate the look of larger muscles. Further, the bodybuilders Monaghan studied even looked down upon the average person on the street who didn’t ascribe to the muscular ideals they were striving towards. Here the situation differs. As much as skaters realize that all of their training enlarges particular muscle groups, a less cohesive body subculture has developed. I submit that this is because the physique developed is a consequence of their training, more so than the goal of it.
“Your Mind is Stronger than Your Body”

In the last four decades or so, a great deal of social theory has focused on matters relating to mind and body (e.g. Bourdieu 1977; Lakoff and Johnson 1999; Leder 1990; O’Neill 1985; Scheper-Hughes and Lock 1987; Shilling 1993; Turner 1984). The athletes and coaches I worked with similarly have a thoroughly fleshed out theory of mind and body. Parts seem amenable with Bourdieu’s (1977) theory of practice and some is straight-up Descartes. It goes like this. Essentially, athletes form habits (from healthy behaviours to the execution of technique) through years of training and repetition. Much of this appears second nature, but it’s not quite instinctive. Correct technique (patterns of movement) is laid down in neural pathways. The mind has to learn to recognize these initially awkward motions as correct. Sometimes this develops as “muscle memory.” But not always. It is more so that there is a memory for the “feel,” even as muscles resist this positioning. Additionally, athletes need to consciously work to execute movements as pain builds in their bodies and they become fatigued. It is expected that their bodies will fail them at some point, and that at those times they need to let their minds take over. In this regard, many expressed to me that, “your mind is stronger than your body,” an assertion of mind over matter.

Even at the highest levels of international competition, coaches holding lapboards during races are also acting out or calling out cues to their athletes. These cues may include general reminders about technique, such as “stay low,” or “all the way” (a reminder to maintain full, complete strides when shorter ones feel easier). They may also simply reference body parts, such as “shoulder” or “hip,” reminding the athlete to focus on a technical weakness and correct it, a weakness such as turning their shoulders, or raising a hip. In spite of years of training the correct movement into the body – into nerves and muscles and tendons – executing technical
proficiency still requires deliberate effort. Rather than these sporting skills becoming pre-discursive, sedimented habits (as in Wacquant (2004)), they are maintained by a continuous interplay between cultivation and naturalization, an ongoing “movement of practices in and out of conscious reflection (hexit) and everyday normality (habitus)” (Wilk 2009, pg. 151). In this relationship, cultivation brings “unconscious habits and routines forward into consciousness” (Wilk 2009, pg. 149). Whereas naturalization pushes “conscious habits back into the habitus” (Wilk 2009, pg. 150). Accordingly, although skaters come to know correct skating technique, this is neither as completely reflexive nor as requiring constant conscious effort. The moments demanding conscious effort are related to “the mental game.”

“The Mental Game”

Returning once again to Norse mythology, when Thialfi raced upon skates of bone, his foe was Hugo:

[The king] arose and conducted Thialfe to a “snowy” plain, giving him a young man, named Hugo (Spirit or Thought) to dispute the prize of swiftness with him. (Longfellow 1855, pg. 5)

Hugo is not just “spirit or thought” but also a giant. And he handily beats Thialfi in three separate contests. How fitting that the Dutch named a speed skating oval in honour of a mythical character who continues to exert himself in a race against reason. Athletes who know the story of Thialfi chuckle about this connection to their sport (although they know the part about a giant, not what Hugo’s name means, placing a slightly different emphasis on the absurdity of Thialfi’s
efforts\textsuperscript{15}). Thialfi’s struggles are familiar to athletes in a sport that demands mental toughness. Athletes know that their bodies will want to quit, but that they have to push on, anyway. It’s accepted that there will be moments in training, and especially in racing, when you will want to give up. But these are not real limits. Yes, your body is tired. So what? Commit yourself to carrying-on. Let your mind be in charge.

Of course, doing so is seldom easy. As one Stage 3 skater told me,

“It’s a constant struggle. You can see it sometimes, when a skater gives up, when they’ve lost the mental game. And their body just pops up a bit. They’ve given in.”

There are two simultaneous mental struggles here. The first is to keep executing the correct patterns of movement even as your body is besieged by lactate (this relates to Wilk’s (2009) concept, cultivation). The second, related effort, is to “stay in the moment.” I thought perhaps that this was a learning stage. That this mental game was a struggle for Stage 3 athletes, but that World Cup competitors would react reflexively, like Wacquant (2004) when boxing. But even skaters who broke world records confirmed this for me,

“You can’t be thinking about anything but what you’re doing right then. If you start to let your mind relax, or if you focus on mistakes, if you think about how that corner wasn’t quite what you wanted it to be, another 200 m will have passed you by. You need to focus on where you are in your race plan and what you’re supposed to be doing right then. You need to be fully conscious and in the moment. And that’s it”

I have spoken to internationally ranked athletes in other sports and this certainly does not seem universal. One bobsledder told me that her best run ever was an “out of body experience” – that her body just took over and reacted and she felt like she was watching herself from a distance. A similar experience may occur for some speed skaters, but I was generally cautioned that if

\textsuperscript{15} Likewise, Thialf arena is named in his honour because he raced a giant. Regardless, this hero is engaged in a hopeless cause, a race that he cannot win.
things feel easy or automatic, that should serve as a warning that you’re letting something slip. This is a very fine line, however, because it’s possible for athletes to “over think” things too; that is, to focus in a manner they shouldn’t, and tense up.

This mental struggle is separate from fatigue. The snappiness derived from a proper taper is welcome, it simply should not be accompanied by a sense of letting go or of things feeling easy.\textsuperscript{16} It is hard. It’s supposed to be! What mastering the mental game does, if possible, is allow heightened perceptual awareness. Athletes describe enhanced capacities for absorbing and processing sensory information. For instance, some discuss increased sensitivity to sights and sounds; some also to proprioception (the sense of self-movement and the body’s position in space). It is cultivation in the sense that it demands conscious effort, but through this experience of heightened perceptual awareness some novel sensations might, in future, become naturalized. Each experience at the starting line can draw upon sedimented habits and recruit new capacities. Athletes are ever improving (until they are not). During periods of heightened perceptual acuity, time is also transformed. It would not be fair to write that time stands still (skaters remain instruments of horology, marking the passage of time), but time becomes fuller, each millisecond more richly informed.

\textbf{Nationalism: The Soft Power of Hard Bodies}

The Olympic Games – the festive and competitive gathering of the nations of the world – is inescapably framed by nationalism. The charitable interpretation, as advocated by MacAloon

\textsuperscript{16} In relation to the concept of “flow” developed by Mihaly Csikszentmihalyi (1990), and popularly applied in sport psychology, speed skaters emphasize “concentration on the task,” and “transformation of time,” but not so much “action-awareness merging,” or “loss of self-consciousness.”
(2008b), is that during an Olympic Games, *communitas* is possible, generating a momentary levelling of division and a sense of solidarity. The majority opinion, however, is decidedly more critical. According to these scholars, the Olympics serve as a proxy or de facto venue for nation-building projects (e.g. Ariail 2020; Bairner 2001; Castañeda 2014; Hargreaves 2000; Hong 2007; Shen 2020). At the very least, the coming together of the nations of the world enables displays that project the temperament, aspirations and power of nation-states.

Of course, speed skating inherits and inhabits the broader legacy of global high-performance sport and Olympism. And nationalism presents itself – even if quite benignly – in the selection of the country’s team (and perhaps this can be understood as patriotism, not nationalism – as was certainly Coubertin’s intent). Further, speed skaters benefit from government funding, either directly in the form of stipends or through subsidized training fees, or by virtue of having access to a venue such as the Oval to train at to begin with. Canada’s speed skating champions will be honoured – they make the news, receive sponsorship deals and will be invited to speak at business conferences or primary schools. They are lauded and appreciated, but the grosser aspects of nationalism described in some other analyses of sport are largely absent. Perhaps this is because the stakes are so low for speed skaters – this isn’t Canada’s national sport. In the Netherlands, past and former greats are better known and more celebrated. This all matters so much more to the Dutch. It might be different there.

But I also presume it is because there are strong ties that cut across national divides within the sport, serving to create a sense of camaraderie forged in their shared mettle. Training was, for decades, an international affair, with skaters from Canada and the United States travelling to Europe in the winter. Because of the limited locales to train and race on, skaters were routinely brought together for prolonged periods. Unsurprisingly, skaters formed
friendships with athletes from other nations: in particular, a closeness developed between US and Canadian skaters. The construction of indoor ovals in North America, has altered the specifics, but not the tradition of this sort of exchange. Speed skaters belong to a small and highly specialized community. The solidarity they feel with fellow skaters arises from their speed skater identity as a master status (Goffman 1963). This reveals itself most tellingly as athletes appreciate and cheer for talented skaters from other nations. And though, in general, a skater from almost any nation may be admired, the amity between Canada and the US endures most.

However, it is not that skaters consider themselves to all belong to a utopic community. Numerous Russian skaters were treated with suspicion. For example, Pavel Kulizhnikov, the current world record holder in the 500 m and 1000 m, has served two doping bans. After he raced well at a World Cup event in Calgary, a skater sitting next to me said, “that’s what drugs do for you.” Accordingly, some divides exist. And plenty of distinctions are made. For instance, coaches comment on the training programs in other nations – the Dutch are more fit, the Japanese train brutally hard – but these are at best weak boundary mechanisms. They distinguish what Canadian speed skating is all about by comparing it to another, but without disparagement. These comments were generally about noting and admiring differences, not criticizing them. In fact, these were barely differences, just shades and gradations. (Then again, notice is a form of judgement, is it not?)

Although the Oval is the training centre for Canada’s long track team, it is also a speed skating mecca. A Norwegian team visited and trained with the Stage 3 athletes as did a lone Dutch skater. The circulation of ideas, people, and technologies through the building precludes

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17 Although this seems similar to other 21st century deterritorialized communities (e.g. online groups, ethnic diasporas), it appears to have a unique and much older history in speed skating. Fish Smart named one of his sons, Harold Hagen Smart.
the most guarded sort of sport’s nationalism. Certainly, keeping a training method top secret would prove difficult. Nonetheless, some things are considered proprietary. Right before I started fieldwork, a Canadian coach lost his job after showing a new skinsuit to a foreign coach. Given the larger history of the Oval and the development of sport, both this coach’s choice and its consequences seem equally predictable.

My emphasis on the moral fiber/muscle fiber frame (as opposed to Brownell’s (1995) “building the body for China”) is because the moral personhood of speed skating athletes is tied much more closely to transnational heroics of the sport (speed skaters everyday battle lactate and wind and cold). On the whole, it is one’s status as a speed skater that yokes athletes together. Consequently, it is not nationalism proper that I witnessed. But there was plenty of talk about what Canadian speed skating is, plenty of pride in Canadian successes in international competition and pride in what is accomplished at the Oval, and, reciprocally, a sense of the obligations entailed. As far as their project is concerned with the nation, it is about the responsibilities of civics, more so than nationalism.

_Civic Duty_

When athletes talked to me about the national team, they discussed it as an honour. Stage 3 athletes discussed the imperative of joining the national team, founded in a sense of pride and/or obligation. There’s a probity to this. And a sense of responsibility. At the level of the national team, athletes talk about the opportunity to give something back (though this transition also marks when they begin to receive direct funding). This is, then, at least in part, guided by the logic of exchange. Society invests in athletes (not just monetarily), and athletes can return those investments by representing their country in international competition. This seems to me
to be the clearest explanation for why athletes can claim, “I still have so much to give to sport.” It’s as if they are attempting to balance that ledger. Or perhaps that talk is just a cover for what they recognize as ultimately selfish (see below).

High-performance athletes are afforded many concessions from the expectations of regular young adult life. It is fine if they take many more years to finish a degree, if they delay embarking on a career or getting married (in fact coaches are likely to encourage them to do this, so they can focus on their training). Achievement ameliorates some of the frivolity of their pursuit. To choose speed skating over time with family and friends, finishing school, starting a career, becomes much more acceptable if an athlete reaches the zenith of the sport. It’s an odd sort of formula. Through unwavering dedication and, yes, selfishness, the debt owed as an athlete-citizen, can be repaid (settlement can be attempted, anyway). And in this sense, it is not only about titles. Comportment weighs with accomplishment. Athletes should “make us proud,” broadly construed. When they fail to do so – for instance, the case of the “sore loser” or “bad winner” – it is an embarrassment, but not a national shame. Only athletes embroiled in real scandal – cheating or illegal activity – could rise to the level of national humiliation. So far, Canadian speed skating has not seen this.18

The Spirit of Sport

As part of my thinking through the moral construction of athletes, I came to this research project interested in the “spirit of sport.” You see, there’s a Laureus Spirit of Sport award, and the IOC

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18 The nearest scandal involved Clara Hughes, who, while competing as a cyclist, tested positive for ephedrine. She has always maintained her innocence and never accounted for how the positive test occurred (save perhaps, laboratory error). The rules have since been revised. Ephedrine is now permitted in low doses. I know of one short track athlete who served a doping ban because of marijuana. But that too could not amount to real scandal.
awards the Pierre de Coubertin Medal to honor “the spirit of sportsmanship.” I figured athletes thought about this stuff. Certainly, analysts do when they write about sport for peace and development or sport as war. But when I posed questions such as “what would you say is the spirit of sport?” or “how would you describe the spirit of sport?” few respondents even understood what I was asking about, it being so removed from the concerns of young athletes wanting to succeed.

The answers I did receive split, taxonomically, into two contrasting domains. Some discussed sport as, in the big picture, quite self-centered. As one skater told me,

“What we do is selfish. We do it because we like it. But what are we contributing, really?”

And a retired skater told me,

“The best speed skaters are assholes! That’s the truth.”

But most of those who understood my question espoused the high-ideals I was expecting. They discussed how sport teaches you to work hard, set goals and achieve them, deal with disappointment and work collaboratively with others. No one mentioned that sport is exclusionary, though maybe that was too obvious to say. When Coubertin wrote of the true Olympic hero, he was responding to pressure to include more events for women. As he explained:

The True Olympic hero is, in my view, the adult male individual...I, personally, do not approve of the participation of women in public competitions, which is not to say that they must abstain from practicing a great number of sports, provided that they do not make a public spectacle of themselves. In the Olympic Games, as in the contests of former times, women’s primary role should be to crown the victors. (Coubertin 1967, pg. 133).
At its highest levels, sport is discriminating. It is selective. There are workhorses and thoroughbreds, good athletes that shouldn’t be speed skaters, athletes that have reached their potential and should retire. Success demands dedication, perhaps at the expense of all other social obligations. Perhaps, though we vaunt them as heroes, athletes must be self-centred and self-seeking. The spirit of high-performance sport is both frivolous and noble, built upon an exclusionary excellence. It feels familiar to an academic like me. But in addition to this more general spirit of sport, there are several virtues (at times, perhaps they are also vices) demanded of speed skaters.

Passion: For the Love of Sport

While the spirit of sport was not a particularly fruitful avenue of questioning, speed skaters talked a lot about their love for the sport. This affection can explain their commitment and their willingness to prioritise skating over other aspects of life. It may be manifest in displays of “heart,” or the highest ideals of sportsmanship. For athletes, it might be what keeps them coming back and carries them through training when training is hard, through periods when they aren’t getting any faster; it carries them through the February Blues, when there are few events to look forward to but still so much season left. Coaches also love the sport, or why else would they coach? It’s not for the money, nor the lifestyle.

I suspect that those who stick with skating have an ardent sort of love that carries them through slumps, through the ups and downs of training. Memories of the pleasure of racing a friend to the end of the rink are mostly spectres of a skaters’ past. It has been a long time since the unadulterated, carefree delight of playfully going fast sustained them, kept them at their
work. Sure, there are moments, brief ones, in a fast lap, a good race, when feeling “snappy,” that these feelings can flow over them again, recalling the pleasure of pure physical prowess. Some skaters chase recapturing these feelings. Some have replaced this sort of fun with other pursuits altogether; the chase now is the pleasure of meeting pain with surrender, getting better or winning. But to make it this far, I’m certain they need to love it. As athletes spoke to me of their love for the sport, I began to wonder, is this affection or affliction? The answer to “why do you do this?” could just as easily be “I’m crazy” as it could be, “I love it.” While love is the term repeatedly told to me by skaters, it seems that passion – with all of its intensity, devotion and irrationalities – is more apt.

Fortitude

It’s early fall, morning ice session, and the Oval is full. The short track team is raucous. Their blades grind the ice, their coaches yell out times and cues. On the outer ice, there’s the rhythmic sound of clap skates clicking away and the soft hiss of hardened steel etching the ice. Several long track athletes are gliding easily in the warm-up lane, resting between intervals. Others are doing specs in trains of four to seven skaters. Some are skating alone. Suddenly, one of these lone skaters “loses an edge” and falls on the straightaway. As he falls, he pushes his legs out, keeping the weapons attached to his feet away from his body. It looks capably choreographed. This is how a speed skater falls. But this fall is not graceful, and his body hits

19 And sometimes hunger sustains when the heart isn’t in it. For instance, some athletes view the weight room in instrumental terms – it is a means to an end. They don’t love it, but they do it because they want to get better. Heart and hunger often seem to overlap, though hunger is a baser appetite than heart. But perhaps I shouldn’t try to be too precise here – split too many hairs – where my interlocuters didn’t.
the ice hard, sliding meekly into the cushioned boards. He doesn’t get up. A few more seconds pass and he still hasn’t moved.

A maintenance crew is rushing towards the site of the fall (this skater’s body is several meters farther down the track). Emergency repairs to the ice begin. An almost imperceptible dip is patched with slush. Then a fire extinguisher is deployed, the compressed carbon dioxide quickly hardening the repair. Meanwhile, the fallen skater has finally gotten up, but is hugging the boards. While the ice is diligently repaired, no one tends to him. I look on anxiously. Shouldn’t someone do something? More time elapses. He is still slumped over the boards. Jeff skates over (Jeff is not his coach, but he is on the ice – perhaps this is why he comes over) and places a hand on his back. They speak in low voices. This seems to create a thaw in protocols, as some teammates now approach too. The athlete awkwardly skates to the benches, and a cheer erupts that is both jovial and mocking. The laughter does break the tension. But I can’t get past the loneliness of this fall. The vulnerability. And I think about the courage needed to skate like this, balanced on thin blades of steel, pushing at the limits of control. And the courage to do it again. It demands fortitude.

Humour

I have thought a lot about all the laughter at the Oval. It’s ever present, at times jubilant, jesting, or jeering. Even when used to mock, it is mostly done so because you are one of them. It is seldom exclusionary. The jokes bind the group together. Laughing at yourself is necessary.

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20 The SSC guide for parents states that an athlete should stop skating when another falls and does not get up quickly.
And like so much dark humour, laughter allows them to find pleasure in grim situations. After following a women’s training group for several months, I began following an all male group. A few days later, I bumped into one of the women skaters.

“How’s it going with the guys?” she asks me.

“So far so good,” I reply.

“Yeah? Have you noted any differences yet?” she asks, motioning to my notepad.

“They smell a bit,” I laugh, and she laughs too and wishes me luck as we part ways.

If I could, I would answer her differently now. I would have told her the biggest difference I observed was that the men laughed more. They laughed for a variety of reasons. Sometimes the laughter was self-deprecating or at someone else’s expense, sometimes it was just a solid joke, well-landed, or it was sarcasm, or an acknowledgment of the apparent absurdity of what they were doing. It was later that I realized that although the women laughed, they did so less. And that this remained the case even in the mixed training groups I subsequently followed. The women were more outwardly solemn, more likely to cry (though I witnessed men cry too), more likely to openly show disappointment in themselves, than to laugh it off. I suspect that these women, like so many women, occupy an uneasy space within their chosen career. They need to laugh (the temperament of a skater demands it), and they do laugh, but they want to be taken seriously too. It turns out, that for all the ways that laughter manifests, it is gendered also.

Resilience

So long as skaters keep trying, even a poor performance, is a kind of victory. To give in is to lose the mental game, to give up, and this is weak-willed, if not shameful. Resilience is
needed to handle the adversity that all skaters will at times face. Related to this is a particular and valued emotional disposition. Skaters chuckled when I pointed out that they seemed to move through high and lows very quickly. They didn’t have a name for this characteristic. I thought of it as keeping a steady state or an even keel.21 Athletes can feel disappointment or frustration (during a race or afterwards), but they need to get past it. They can feel excitement and joy, but they cannot be carried away by it. They should not “get ahead of themselves.” As such, it is not about being unemotional. It is more about processing emotions, digesting them quickly, and maintaining focus on the goals ahead.

Grit

It’s summer and while there’s ice in the Oval, the Oval Program athletes are heading to Yaak, Montana to cycle in the mountains. There are mountains just west of Calgary, so the impetus to travel must be about more than a training regimen. And regimen might not be the best way to describe this training. As one athlete informed me,

“There’s no good physiological argument for drinking 20 cups of coffee at the base of the mountain and then spending 7 hours on your bike, wishing for death.”

Yes, that does sound, well, unsound, physiologically. As it turns out, the trip to Yaak is about a lot of things. It brings peers together in an immersive and challenging experience. One coach told me it’s a rite of passage and lamented how few of those there are for young people in modern societies. For him, this is teambuilding, and not in some business school sense of the

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21 Sport psychologists use “even keel” too.
term.²² It’s the sort of activity that binds a cohort through suffering and challenges, not always successfully met.

Perhaps most importantly, the reason for “spending 7 hours on your bike, wishing for death,” is that it works on grit.²³ Without grit, an athlete cannot succeed as a speed skater. As one coach who was involved in the RBC Training Ground selections explained to me,

“It was really interesting to see what coaches in other sports where looking for. The rowing coaches, they just crossed everyone off the list who was under 6’2”. But speed skaters come in all sizes. And sure, there are some raw physical abilities we’re looking for, power generation, speed, you know? But we designed this really gruelling set of exercises. Just awful stuff. To see who would stick with it. We wanted to test for grit.”

Psychologists write about grit as an individual personality characteristic. They define it as, “perseverance and passion for long-term goal” (Duckworth, Peterson, Matthews, and Kelly 2007, pg. 1087) and have various measures for it and means of assessing its relationship to future success. The “awful stuff” requested of athletes at Training Day suggests that speed skaters see grit as perseverance too, though not simply as a psychological attribute. Part of the rationale for subjecting the body to awful training is that it trains into the body the capacity for awful training. And while grit is discussed as an individual characteristic, I frequently witnessed how grit was built and sustained in the presence of others.

On one of my first mornings observing training, an athlete asked me to pass a trash can his way. Trying to be helpful, I reached out my gloved hand and said, “I’ll toss it for you,” assuming it was a soiled tissue. A teammate laughed heartily and exclaimed, “you don’t want to catch this!” Ah ha! I realized he needed the trash can to vomit in. I pulled the can forward and

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²² These skaters aren’t assembling Lego while wearing a blindfold, they are exploring the limits of their bodies.
²³ This trip identifies the athletes who have grit and those who don’t. And as the training group pushes one another, it nurtures grit as much as that is possible.
the skater gripped it firmly with both hands as his head hung low. Athletes skating past him, cheered, laughed and called out encouragements, such as “way to go!” Training to this point, was, in one way, something to be celebrated. It meant training hard. Of course, it also meant his “body couldn’t handle the program.” Athletes redeem themselves only if they push on. This particular skater didn’t vomit, thankfully. And he carried on with the program, to whooping sounds from his peers.

The difficulty of training programs was often met by athletes with laughter. There would be pats on the back and jokes about pain. Coaches would smile at me, explaining that “this is a hard day.” At first, I thought the smiles were apologetic. I then wondered if they were sadistic. I think now, more than anything else, they are smiles of pride. Pride in their athletes; pride in their sport. On those occasions when athletes exceeded the program (put more work in than stipulated), coaches often smiled. A lot of coaching effort goes into designing the training plan, and when it is disregarded, well, I thought these smiles might be befuddled exasperation. But instead, it seems that the training program, based on mathematical calculations designed to build capacity through varied training loads, periods of stress and recovery, can at times be ignored for the sake of grit. For instance, an athlete skating too fast (according to the stipulated lap times) might be met with a reproach, but also with a satisfied smile. It is important to follow the program, it is important to develop a correct feel for time, but it’s also important to work hard. Similarly, when athletes request to move elements of the program around, to perhaps do a bike ride scheduled for the afternoon immediately following morning ice, permission is granted, in part because that commitment to pushing oneself and working hard is also what the program is designed to train into the body. How much then could a coach chastise displays of grit, even when they surface in ways that seemingly rebuke the coaching plan?
It Takes a Village to be Gritty

Denny Morrison is one of Canada’s most successful speed skaters, with four Olympic medals and numerous world single distance medals. Beyond these achievements, his career is laced with dramatic twists, adversity and comebacks. I begin this story with Morrison in the middle of his most successful season, leading the World Cup circuit, with his sights on the 2014 Games in Sochi. And Morrison, who had shared in the team pursuit victory at the 2010 Olympics, wanted a medal in an individual distance. It all looked promising. Then he fractured his tibia while cross-country skiing during a family holiday. Maybe re-read that sentence. Could those circumstances sound more benign? He wasn’t racing double slalom. He was on holiday, engaged in an activity only slightly more hazardous than walking. The fracture lead to a cascade of other injuries, to his fascia, back and hips. But he was skating again soon enough and able to compete at the national trials to qualify for the 2014 Olympic Games. However, a fall in the 1000 m race cost him an Olympic berth in that distance.

What happened next is well-known to many Canadians. Morrison’s teammate, Gilmore Junio, gave up his own spot so Morrison could race in the 1000 m. Morrison went on to win a silver medal in the 1000 m and a bronze in the 1500 m. Junio was heralded as an emblem of Olympic virtues (see MacQueen 2014). This was sacrifice and altruism and teamwork. It was heart. And Junio, only 23 at the time, had given 29-year-old Morrison what might be his last best chance for an individual Olympic medal (this turns out to be the case). Coming out of Sochi, Morrison was undeniably one of the best speed skaters in Canadian history and he was already looking to the next Olympic Games. Then he was involved in a motorcycle crash. In the accident, he punctured his lung, damaged his kidneys and liver, tore an ACL, and broke his elbow, spine and femur. He now has a titanium rod in his leg. Remarkably, he recuperated from
his injuries and returned to training. But less than a year after this comeback, he suffered a stroke at the end of a 20-day bike ride along the Arizona Trail. Indefatigable, he again returned to skating and competed at PyeongChang 2018.

Morrison’s story encapsulates many high ideals of sport. It is about overcoming obstacles to achieve success. It’s easy for this story to become a heroic narrative. And it’s understandable that, when it comes to grit, many point to Morrison as an exemplar. At Morrison’s retirement ceremony, several speeches were given that focused on Morrison as an inspiration. These speakers discussed his legacy as a lesson in resilience and growth – in sport and out. Then Morrison took the mic. After years of giving interviews and talks, he’s comfortable in front of a crowd and that day chose to connect the arc of his public speaking experience and with the arc of his skating career. Morrison began his speech with this,

“When I first started given talks, I spoke about how it takes a village to make an Olympian, about all the people who have supported me through my career. I’m very fortunate to have those people and I’m thankful to all of them. But after recovering from the crash and my stroke, I would talk about diamond grit. How diamonds are created under intense pressure. Today, I want to bring those two themes together. I like to say that, in order to be lucky, you have to be gritty. And in order to be gritty, you have to be lucky. But grit isn’t possible without the village.”

Indeed, grit is forged in the village. It is neither strictly mind nor body. And, as athletes train and persevere, it is remade daily in ways big and small.

**Finding an Edge: Working at the Margins**

Speed skating – long track, at least – requires very little equipment. You need a timepiece, skates, a fitted suit, and an ice surface. Most of the improvements in equipment have been fairly gradual save for two major innovations: moving the ice inside and changing the mechanics of the
blade. Here, I focus on the blades themselves and trace two revolutions from the last quarter of
the twentieth century. The first – which developed solely within long track – is the ascendance
of the clap skate. The second – bending and rockering the blade – originated in short track and
diffused into long-track. The cases are quite different – at first glance suggesting Lévi-Strauss’s
(1966) contrast between the engineer and bricoleur – though this distinction collapses. In either
case, a disposition is demanded of athletes, an openness to experiment, that enables them to
tinker with their equipment and their bodies. Beyond this, the cases reveal contradictions within
speed skating, and perhaps high-performance sport more broadly. Athletes must adhere to
notions of fair-play and are called to chase sport’s linear record, getting faster, higher, and
stronger. These at times competing moral goods can generate ambiguity. As rule bound as sport
is, it is not always clear how actions will be judged. However, it is not ambiguity alone that
muddies the outcome. Actors undertake uncertain actions. Through heads-on engagements with
risk, the future is made.

The Clap Skate

The clap skate is a variant on a traditional fixed blade speed skate, in which the blade is
hinged at the toe and detachable at the heel. The first skates with a detachable heel were
invented in the late 19th century, but never really caught on (Hilvoorde, Vos and Wert 2007).
This story picks up in the late 1970s, when a Dutch researcher, Gerrit Jan van Ingen Schenau,
began to investigate the potential mechanical advantages of a hinged blade. He correctly
identified that such a modification could produce better results, although, interestingly, he was
wrong about the reasons why. He named his invention the slapskate, because it allowed skaters
to slap on extra work each stride. The name was later revised to klapskate (more commonly
spelled as clap skate in English), though Van Ingen Schenau still intended this to refer to the extra work performed wearing the skate, to its mechanical advantage (Koning, Houdijk, Groot and Bobbert 2000). However, everyone I have spoken to assumes the name refers to the “clapping” noise made by the blade when it closes.

Van Ingen Schenau began a collaboration with Viking, a premier speed skate manufacturer. Some of the research team members were competitive speed skaters, though not internationally ranked. One in particular, Erik van Kordelaar, switched to the hinged skate during the 1990/1991 season and improved his best times considerably. And yet, many top skaters remained resistant to adopting the technology. Making the most of the new blade required a change in skating technique, particularly a change in ankle flexion. Speed skating technique is inculcated through years, even decades of training. And if skaters are already at the top of their class, messing around with a new blade and perfecting a novel technique (that violates all the principles mastered, no less) may seem unnecessary. It turns out that young skaters, trying to advance to the next competitive level, proved willing to try the blades (perhaps they were also more likely to heed their coach’s advice). In 1992/1993, a regional junior team that Van Kordelaar was coaching switched over to the clap skate and logged remarkable improvements in their times. The potential performance-enhancement offered by the new skate became well known in the Dutch competitive speed skating community. Though there still remained some doubt as to what sort of difference it would make amongst top-level skaters.

Then, in the 1996/1997 racing season, the international speed skating world was rocked by three Dutch women donning these novel skates: Tonny de Jong, Barbara de Loor and Carla Zijlstra. De Jong claimed the 1997 European Allround Championship, upsetting reigning champion, Gunda Niemann, who called the new skates illegal (Mantell 1997). American
sprinter, Chris Witty called the new skates, machines (Shipley 1997). The president of US Speed Skating, Bill Cushman, argued that the skates were a form of mechanical performance-enhancement, no different than corking a bat (Shipley 1997). A cadre of international skaters and coaches joined in the call. Clap skates amount to technological doping. The skates threaten the purity and tradition of the sport.

The US team lobbied to have clap skates banned before the 1998 Olympic Games in Nagano (Hilvoorde, Vos and Wert 2007). However, the ISU concluded that clap skates were legal according to the current rules. Additionally, the ISU determined that a change to the rules would not be possible until the organization’s next scheduled convention in the summer of 1998. That meant that the blades would be allowed at the upcoming Games, creating a panic amongst national teams desperate to get the new skates for their athletes. The Americans accused Viking, a Dutch company, of withholding product (Weir 1997). Viking claimed they were backlogged with demand and were processing orders as they arrived. Athletes who were able to get the skates, needed to figure them out and adjust their skating style accordingly. Pretty much everyone got faster on the clap skate. Gunda Neimann, who had set world records in the 3000 m and 5000 m on traditional skates, set new world records in these distances on clap skates. And Chris Witty, likewise, set a new world record in the 1000 m wearing those machines. But the pre-clap skate order was not fully restored and some skaters leap-frogged over others. For instance, Marianne Timmer’s World Cup finishes in 1996/1997 didn’t portend a medal threat. Her overall ranking was 52nd in the 1000 m, and 44th in the 1500 m. But at the 1998 Olympics she took gold in both distances.

When the ISU did reconvene, the rules were revised to add a clause stating that, “the skate does not contain any element that would violate the requirement that all energy expended
during the Speed Skating exercise originates from metabolic work generated by the Skater”
(isu.org). The clap skate – enabling more work to be slapped on – was here to stay. Of course,
new technologies are introduced to sport all the time, usually with some initial controversy. For
instance, new Nike running shoes are credited with the first sub 2-hour marathon (Hall 2020).
As with the clap skates, some argued these shoes are technological doping (Longman 2020).
The matter was reviewed by running’s governing body, which lead to some adjustments to
equipment rules – setting limits on how thick a heel can be – though the shoes as they are fall
within these new guidelines (Hall 2020). But the story doesn’t always go this way. Swimming’s
governing body (FINA) allowed Speedo’s LZR racer swimsuit at an Olympic Games (Beijing
2008), before doubling-back and determining that the suit violated the principals of sport
(MacDonald 2018). FINA subsequently revised the rules to ban full-length suits.

It’s curious that similarly record-shattering innovations in equipment may be accepted in
some cases and rejected in others. The shoe, the skate and the swimsuit reveal that although the
rules are laid out in advance, they are also subject to change. Transformations in sport – be they
in rules or bodies – are largely unpredictable in the moment. Forecasting, as I have been
outlining, is complicated. I will return to these complications in a moment. But for now, I want
to suggest one other reason why FINA would rule against the LZR swimsuit, while the ISU
accepted the clap skate. The LZR swimsuit was proprietary (developed by Speedo), excluding
athletes and nations that held sponsorship deals with other swimsuit manufacturers. The concept
of the clap skate could not be patented by Van Ingen Schenau and other skate manufacturers
eventually produced hinged skates. But speed skating, being the small sport that it is, has only
three big skate makers: Viking, Evo (also Dutch) and MapleZ (a formerly Canadian company,
now headquartered in the Netherlands). And most top-level, long track athletes use Viking
skates. I suspect that if the Japanese team had developed the clap skate, and created a new manufacturing competitor in the process, the matter might have been settled differently. But that is just a thought experiment.24 The Dutch team and the Dutch company reaped the initial benefits of the revolution. And at least in that regard, the order of things was maintained.

_Skate Hackers_

Anyone familiar with hockey or figure skates may have noticed the pronounced curve to the blade from toe to heel. In contrast, speed skate blades appear nearly flat – but they’re not. Most have a progressive rocker, meaning that different sections of the blade curve according to slightly different radii. Usually, the toe is roundest, the middle flattest and the heel somewhere in-between. While the curve on hockey skates tends to follow the circumference of a circle with a 10 m radius, typical speed skate rockers fall between a 20-24 m radius. The rocker helps skaters cut into the ice, as a perfectly flat blade is near impossible to control. In addition to rockering, contemporary speed skaters bend their blade (actually, they bend the aluminum tube that holds the runner). This slight curvature helps while cornering. Since speed skaters are only ever turning left, bending brings the toe and heel slightly left on both skates. Other possible modifications relate to the position of the blade on the boot. It might be off-centre medially or shifted to the front or back. All of these customizations are aimed at fitting the skate to the skater – rendering a tool fully attuned to the body.25 I was told this about the pioneering work Canadians had done in regard to skate modifications: “we built this knowledge ourselves, and

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24 I suspect that if the Americans had developed the skate, it would have been accepted, because isn’t that usually the way?  
25 Gravestock (2013, pg. 64) describes a “porousness” between figure skaters’ bodies and skates.
then we shared it too widely.” How this knowledge was built, and how it was shared, seems to relate (somewhat) to broader do it yourself culture. But it’s also important to recognize this knowledge as part of the Oval’s legacy, that in bringing a community of skaters together, accelerated the development of this sort of tinkering.

I’m talking with a former short track coach about skates, while we eye a training session from afar. “In the 1990s, short track skaters just couldn’t go any faster,” he tells me. “We had surpassed our equipment. We wanted to see what we could do. How far we could push it,” as he says this, he grins. So Canadian short track athletes began to play around with their skates. As they figured out ways to get faster, some long track skaters caught on. These skaters weren’t operating under a single theory. But they weren’t operating without a framework either. They understood the physics of skating and there were some commonsensical principles guiding them, though they were mostly feeling their way through. Finding that perfect balance, in which the blade is not too round to glide, and not too flat, or it slips away. Skaters themselves talk about this as experimentation and that seems accurate. It was empirical in the strictest sense of that word – based on sensory experiences – and measured against the clock. What they generated were not hard and fast rules but ranges that guide how skates are modified. As it turns out, it’s unlikely two skaters will want their blades exactly the same.

The skate shop at the Olympic Oval is situated across from the main stairwell. Stuck between the men’s and women’s changerooms, and adjacent to a hall that leads to the weight room, the skate shop’s location is practical, not prominent. It’s a small, windowless space on the lower level, that, from the public side, looks like it was conceived with the same design parameters as the concession stand at a community rink. Behind one counter, is a merchandise display area (featuring, blades, boots, gloves and so on for sale). Behind a second counter is the
service area. The shop’s personnel are, likewise, unassuming. Dressed in jeans or sweats, they move through the day’s work at a steady but easy pace. The contrasting activity levels between the skate shop and the intense training of the nearby athletes always felt at odds. But this nondescript place is heralded as a “Centre of Excellence.” And before coming here I was told that Canadian skate techs are among the best in the world. In the far back is a small room I think must have been a closet. The national team’s dedicated skate tech works out of here. They call it “Brandon’s Cubby.”

The shop is run by James, a former National Sprint Champion. James is from Winnipeg but moved out to Calgary to train and never left. I spent a few days with him, learning the basics and getting a feel for the work. The shop is a strange mix of high and low tech, neoteric tools and relics. A few years back, a collaboration with the University’s Schulich School of Engineering, produced a CNC machine for custom rockering the blades.\textsuperscript{26} It can be programmed to produce any rocker desired, but the old machine (essentially a key-cutting tool that uses templates) is still employed, depending on the application. Most of the rest of the tools are not designed specifically for speed skates. Japanese knife sharpening stones are used, as well as equipment intended for hockey skates. As I was told, “steel is steel.” And then there are other tools, unlikely to be used, but saved, it seems, for posterity. There’s something that looks like a long vice with a large lever handle.

“What’s this?” I ask.

“Oh, this was made by the other Marshall brother,” he laughs.

It’s clearly an inside joke and I’m confused.\textsuperscript{27} James goes on to explain how this tool was pieced together in a garage but does a decent job of bending.

\textsuperscript{26} CNC stands for computer numerically controlled, and this is a computer-run, high-precision cutting tool.

\textsuperscript{27} There were three Marshall brothers who speed skated, Kevin, Neal and Mike. But as Neal and Mike both built coaching careers (stayed in the sport), it turns out that the “other” brother here is Kevin.
“Before this, we were using door jambs,” James tells me, smiling ruefully.
“You would bend the blades in a doorframe?” I ask.
“Yeah.”
“You used it…like a vice?”
“Exactly. You had to be careful, though,” he chuckles.
Yes, I would imagine so.

Even today the work is not all machined. “We thought the machine would be perfect. But when we tried the skates, they were garbage,” James confesses. Still the technology saves a lot of labor time, and generates reproducibility, even if it doesn’t produce a flawless result. James estimates that 3–4 hours of work can be reduced to just 15 minutes, though blades still get perfected by hand. Despite the artisanal character of the work, James would not consider what he does craft. In fact, he tells me it’s easy, though I am certain it’s not. Most development stream athletes can’t sharpen their own skates well, let alone attempt to rocker by hand. While I was visiting with James, he picked up a pair of skates to let me feel the edge. As he eyed the blade, he spotted an imperfection. He took his thumb to it, perpendicular to the length of the blade and confirmed his suspicion. Yes, some burr on the edge. He placed the skates back on the shelf and tells me he’ll fix them later. In his work, he is guided by his hands and eyes, and a gauge that measures variations in the metal to 1/10,000 of an inch. If that seems obsessively fine, I am reassured that top athletes can feel it. And that for the lesser skaters, the knowledge that their blades are worked within such fine variances gives them confidence.

These precise measurements and the fancy CNC machine are the consequence of plucky Canadian skaters trying to shape their blades in a door jamb (others used hockey pucks and a mallet). Mucking about with their skates like this was revolutionary. The period spanning Nagano 1998 to Vancouver 2010 was the Golden Age of Canadian speed skating. These
achievements are often touted as the legacy of the 1988 Olympic Games and the construction of the Oval. And that’s true. But as I discussed, that legacy is about more than having good ice to train on. It’s the opportunity to train together and experiment together. Like the 19th century Tebutt and Smart families, tinkering with techniques and technologies on the Fens, the Marshalls and Irelands were tinkering at the Oval. A retired skater laughs about some of the crashes he had while trying to find the limits to which you can push skates. He laughs because it was fun and crazy and ultimately a little futile. Because the knowledge they developed soon spread to other nations. And maybe that should have always been expected. The Oval attracts athletes from around the world: that’s a part of its legacy too. And coaches and trainers and techs all move from here to other countries. There’s nothing truly proprietary in speed skating, at least not for long.

*Risk and Tinkering*

What can be made of these apparently contrasting cases? On the one hand, the clap skate stands as a concept and technology that moved from the engineering lab to the ice. On the other hand, bending and rockering moves from athletes’ garages and basements, using materials at hand, and only eventually are tools designed to accommodate the task. It calls to mind the distinction between the engineer – who makes the world in its totality – and the bricoleur – making use of and reimagining what is immediately available (Lévi-Strauss’s 1966). Science and rationality, on the one hand, and myth and magic on the other. And yet, the clap skate (manufactured by Viking – how’s that for mythology?) works for the wrong reasons. Meanwhile, guided by feel and fast times, Canadian skaters molded metal to their needs. And even though the specifications for customized skate profiles are now maintained on computer
files, the finishing touches are still accomplished by hand. And in either instance, the successful use of technology relies on embodied skillsets, honed by the group and accrued over time. These innovations happened because athletes were willing to play around with their gear, something best captured as neither engineering nor bricolage, but rather as tinkering. There is something else here too. About pushing at the margins. And about the moral code in sport. These are distinct, but related.

When clap skates first appeared in international competition, they were called cheating by some, although there was no attempt at deception. And the new skate was quickly embraced by all. In contrast, bending and rockering was crafty and cunning, and those secrets should have been more closely guarded. It is a shame they weren’t. How can this be reconciled? Maybe it needn’t be, at least not in a tidy manner. There is ambiguity here. Sport’s ethos contains many, possibly competing, claims (but also an overarching coherence related to excellence). For instance, consider the ideals relating to both chivalry and improvement, expressed as fair-play and *citius, altius, fortius* (the Olympic motto). Consequently, fairness entails many outcomes, at times generating divergent, but not necessarily antagonistic, moral goods. Within this code it is possible to suppose that techniques and technologies should be shared or secreted, commercialized or made freely available. I have suggested that the commercialization of the clap skate (who made it and who had access to it) may provide a partial explanation for its acceptance within the sport. But the athletes I talked to never mentioned this. They talked about risk. A good athlete takes risks (calculated ones). They skate at speeds on the edge of control (and sometimes beyond control). They push their bodies to unknown places. And though many were hesitant to try clap skates because doing so required they relearn how to skate, they eventually took this risk on too. It is important to understand the institutional and subjective
characteristics of risk in high performance sport and how this might differ from risk in broader society. And maybe this helps explain why athletes laugh as they share these stories.

*Edgework and Fatefulness*

Lyng (1990; 2005) has theorized extensively on risk-taking as a form of boundary negotiation, what he terms *edgework*. While many other theorists have explored risk-mitigation and the ways in which risk regulates or constrains actors, Lyng’s focus is on what draws people to engage with risk head-on. He has inspired a body of scholarship on high-risk lifestyles and extreme leisure pursuits. Although the particulars of these cases vary widely, they fall into two general categories. In the first class, which most closely resembles Lyng’s early theorizing, edgework constitutes a form of resistance, a means to transcend stifling institutional constraints. In the second class, drawing on theories of the risk society (Beck 1992; Giddens 1991) and the concept of governmentality (Foucault 1991), edgework is understood as an answer to the institutional insistence on self-governance. In this latter sense, individuals are called upon to develop skills and capacities to manage uncertainty. In either case, there is a thrill to edgework, a satisfying carnality to risk-taking that draws people to it. Lyng (2005, pg. 10) poses this as, “the paradox of people being both pushed and pulled to edgework practices by opposing institutional imperatives.”

Edgework seems a term well-suited to an analysis of speed skating. Athletes and coaches have spoken to me literally and metaphorically about finding their edge, being on the edge and so on (for instance, the Oval produces a video series about up and coming skaters called “On the Edge”) and those I spoke with were excited when I shared Lyng’s ideas with them, especially as related to the visceral thrills of pushing the edge. To the thrill of attuning their bodies to the ice.
Attending to the moment. I wanted to use edgework, if I could, because it seemed a captivating blend of emic and etic accounting. To do so required I examine the parallels and distinctions between speed skaters and other edgeworkers.

High-performance athletes, unlike “weekend warriors,” are not escaping their mundane Monday-Friday routine. And they are not like deviant edgeworkers (criminals and graffiti artists). For many athletes, the illicit is still illicit, and they don’t want to cross that line (their estimation of that line, anyway). Undertaking risk is reputational and material (economic or bodily, possibly both in either case). As exciting as risk is, as much as athletes find pleasure in exploring and cultivating capacities, it is also an obligation. Good coaches and athletes are open. They are permeable to new knowledges, techniques, and technologies.\textsuperscript{28} Athletes speak of the fun and thrill of pushing to go as fast as they can. Of almost falling in the corner. Of being “on the edge.” Feeling their blades cut into the ice just right. Finding their limits, and more importantly, finding that their limits change. They discussed learning to manage their fears, their pain and to quiet their minds. This control generates a sense of selfhood based in mastery of body, mind and technology (united as one). This is sublime.

What they describe is not just about finding an edge, it is about moving the edge, expanding the margins. This is not self-governance in Foucault or Beck’s sense. Athletes are not (merely) building capacities to meet the institutional demands of the present. They are building selves for an unrealized future. And they are aware of this. Chasing potential fulfills them and by exploring possibilities they can transcend the strictures of the rules as such. Accordingly, risk is engaged in both willfully and for the pleasure of it. To suggest there is

\textsuperscript{28} This is part of self-experimentation.
ambiguity in the moral code, is correct, but not wholly explanatory. The uncertainty of any outcome is also due to ambiguity about where the boundary might be (re-)located. This is not strictly, as Giddens (1991, pg. 111, italics in original) writes, “the colonisation of the future,” based in probabilistic rationalities (through those probabilities matter). It is more akin to Goffman’s (1967, pg. 185) analysis of action, referring to “activities that are consequential, problematic, and undertaken for what is felt to be their own sake.” Long before risk society scholarship emerged, Goffman had witnessed amongst gamblers an approach to fatefulness, that he discusses as chasing the action. He tells us:

Instead of awaiting fate, you meet it at the door. Danger is recast into taken risk; favorable possibilities, into grasped opportunity. Fateful situations become chancy undertakings, and exposure to uncertainty is construed as willfully taking a practical gamble. (Goffman 1967, pg. 171)

He goes on to explore this disposition within numerous occupations, not surprisingly those in finance, though he also lists sports, including: “football, boxing, and bullfighting…mountain climbing, big game hunting, sky diving, parachuting, surfing, bob-sledding, spelunking” (Goffman 1967, pg. 174). Like Lyng and those inspired by edgework, he misses that all high-performance sport, whether extreme or apparently dangerous, presents an occupation woven with contingency.

Athletes talk about what they do as taking risks and being on the edge. These are discourses informed by broader society. And to an extent, these terms fit, analytically. It is edgework, more or less. But it is also, as Goffman writes, that their actions are consequential and problematic. Consequential in that it is not thrill for thrill-seeking’s sake (and it is not re-enchantment); their actions enact change. Changes in their bodies; changes in their sport. It is only in fateful situations that character be can be truly tested. And these actions are problematic
because the outcome is unknown (and the boundary might shift). Whether, like the LZR swimsuit, the innovation will be rejected, or like the clap skate, it will be accepted, is a matter for retrospection. Novel techniques and technologies emerge in the unfolding of fateful situations. Novelty, in general, is delightful. Because taking risks is good. It’s fun. And it makes the future.

**Conclusion: Sculpting Bodies**

In this chapter, I have reflected on the various ways in which athlete bodies are worked upon and evaluated. Speed skaters approach this work as practical scientists, tinkering with their bodies and equipment. Their training forms an on-going experiment comprised of measurement, comparison and assessment. The speed skater’s physique – from gross changes in muscle groups to minute changes in blood chemistry – forms as a consequence of this training. But this is not rightly understood as adventitious. These changes are monitored and refined, fashioned through the processes of sculpting. They are crafting their bodies as beautiful machines, correctly fuelled and tuned. What emerges is a body *almost* endlessly malleable. When skaters say they would craft a different body for themselves if they weren’t high-performance athletes (e.g. they would jog and do yoga), it suggests that the body could be sculpted into anything desired. And yet, some bodies simply don’t have what it takes. They’re not cut out for speed skating.

According to the neuroscientific theory of skill acquisition, the mind is embodied, carried through neuropathways in flesh, laid down in a memory of correct feelings. But sometimes a more Cartesian model emerges; sometimes the mind is stronger than the body. Sometimes the body will give in to pain and fatigue, but the mind can overcome. The mental game is the
hardest part of this sport. It requires honing one’s focus to enable heightened levels of
perception – skaters talk of being able to hear a pin drop when they ready themselves at the
starting line – and building the perceptual endurance to maintain that focus throughout the race
(a perceptual endurance that is body and mind). If they can do that, can master the mental game,
then one further transformation of time within this sport is possible: time is expanded, holding
more in each unit of measure.

While I have foregrounded the specifics of speed skaters at the Oval, this has all been
considered against the backdrop of the Olympic movement, in which athletes are heroes, and
muscles are made to do the work of moral educators. In this case, training is inculcating the
temperament of a speed skater. In addition to a science-y orientation to their bodies and
equipment (the tinkerer), skaters must display the virtues that constitute the spirit of their sport:
humour, passion, fortitude and resilience. But the most valued of all of these is grit. Grit is
bodily – not just a mind pushing through physical pain. And grit is cultivated in the collective.
As I listened to athletes and coaches talk to me about grit, it recalled an anecdote I had read
about 19th century Fen skating. The winter had been mild with little opportunity for racing.
Then snow and deep cold came. It would make for great skating if a course could be prepared.
Turkey Smart volunteered to sweep if he could be provided with ten men to help and four
gallons of beer to enjoy. His request was met, and he and his companions worked through the
night:

Only one ‘contretemps’ occurred. After a hard spell of sweeping the men assembled to
refresh at the four gallons. Alas! what a terrible moaning; the beer was frozen hard! But
your fenman is not put down by trifles; while ten swept the odd man embraced the bottle
and thawed it with the heat of his body. Thus they took it in turns, and kept the tap open
till all was done beer and sweeping by about 4 a.m. (Heathcote 1892a pg. 252)
Yes, winter is dark and cold and easily miserable. Winter sports demand doggedness. You need to be a bit askew to find fun and pleasure in it. Maybe this is one last way that the athletes I worked with are not normal. This sport makes use of discards and misfits and sets to crafting them into speed skaters.
If I have seen farther than others,  
it is because I have stood on the shoulders of giants.  
Isaac Newton

If I have not seen as far as others,  
it is because giants were standing on my shoulders  
Hal Abelson

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**Considering Continuity and Change**

I had thought this project would use sport as a case through which to explore matters of science and the body. And while the logic and practice of science, and questions of bodies and embodiment traverse these writings, sport was not the lens I imagined it would be. I had underestimated sport; viewed it as a social microcosm. As research proceeded, I became more convinced of sport’s status as institution. That said, I have not truly written about sport – vast and varied as that terrain would be – but about a narrow strip of the field, focusing mostly on one high-performance development program. Yet, in order to capture what speed skating at the Oval is, I have jumped and darted around, considering analyses of ritual and record, and most crucially, the people who choose to race the wind, running upon ice. This analysis is, accordingly, framed by the concept of sportscapes (Carter 2002), flows of people, ideas and capital. It is at once highly localized, with fieldwork primarily sited within a single building 18,946 square meters in size, and simultaneously global, considering the Oval’s place within international speed skating and Olympic sport.

My account begins with bone skates found in Bronze Age Finland. From there, I have traced an arc of developments that led to international skating races held according to agreed
upon standards. This style of racing was eventually incorporated into the modern Olympic Games. A good deal of competition, collaboration and borrowing are apparent in this history. What emerges is a community that receives and remakes its history through a shared identity as speed skaters, above all. This is a status denoting not only momentum on the ice, but also the disposition of a tinkerer and the appropriate cultivation of virtues. In this arc of events, borders are erected and maintained as nations compete against one another and rules are codified. But athletes and coaches move across borders too (in just the last couple of years, coaches moved from Canada to China and Switzerland, for instance, while Ted-Jan Bloemen moved from the Netherlands to join Canada’s national team). Borders are transgressed by remarkable athletes breaking through supposed barriers in speed, and through innovations and new technologies – quite often, borders keep moving. And borders are transcended, not only by a shared sense of belonging to a community, but also by the sport’s fantastic stories, the accuracy and provenance of which matter little. Norse mythology is claimed by the Netherlands, as the Dutch skate brand, Viking, and Thialf oval attest. And Speed Skating Canada’s website recounts the apocryphal tale of British army officers racing along the St. Lawrence River. I noted these borders – their maintenance, transgression, and transcendence – while myself on the threshold, an ethnographer peering in.

In this peripatetic history, I privilege no single causal argument. The sport of speed skating does not arise because of capitalism or modern rationality; the Oval does not end up in Calgary, nor end up one of the best facilities in the world, because of Roger Jackson.¹ But all these things do matter. They shape the present. I have outlined an interplay (constraining and enabling) of imagination, materials (steel, sinew), environment (Europe’s Little Ice Age,

¹ I doubt it irrelevant that Jackson and Otto Jelinek were themselves Olympians.
Calgary’s elevation and climatic conditions, rules and politics (organised and diffuse), economics (especially funding), and the fun people have racing on skates. With such complex and diverse causes, this isn’t a history of replacement either. It is not rupture, so much as a succession of recreating and recasting the past. Being a contemporary speed skater still means being hardy, still means tolerating the cold, enduring long-distance races, even when you specialize in sprints and train in a cozy indoor arena. Traditional Fen skating and *kortebaanschaatsen* persist today alongside ISU sanctioned events. People all over skate for a variety of reasons still. I simply focused on why people skate at the Oval.

There’s a lot of talk about teams at the Oval. The athletes train on teams. There’s a team of experts who support the athletes. The coaches and administrators and other staff are part of a team. Teams sound great! They sound supportive and egalitarian. But the team is organizational; it is not the foundation of group membership. The basis for group membership, the mark of authenticity, is having been a skater oneself. Former athletes take jobs in the skate shop, or they coach or volunteer at competitions. For many, their social circle continues to orbit around skaters and the Oval even after retirement. They show up to major events and occupy the VIP lounge, reuniting with other former athletes and eyeing the current generation of skaters. Analogous to the off-hand way in which skaters discuss their addiction, speed skating is also discussed as inescapable, as if it marks you, claims you. Jeff (who, incidentally, I thought of as a Viking, tall and muscular with a full beard of red hair) warned me, “once you get in, you never get out.”

At the time, this comment struck me as melodramatic. But over the year and a half that I spent at the Oval, it became more obvious what he was trying to caution me against, even if he himself was lost to the sport. It also became obvious that I wasn’t really at risk, because there’s
a camaraderie amongst skaters that I could never penetrate. Intersecting with the institutional structure of teams is a formidable esprit de corps amongst former high-performance speed skaters. I choose that phrase quite deliberately. It would be possible to think of speed skater status as attained through a rite of passage, perhaps not in a strict Turnerian way, but certainly in the term’s looser usage. But that is not quite correct. A rite of passage is stressful and consequential, possibly humiliating and full of hardship, but who doesn’t make it through a circumcision, quinceañera or wedding? No, rites of passage don’t discriminate nearly enough. Esprit de corps, a phrase commonly used in the military, highlights an intersubjective corporeality, speaks to the precarity of their endeavour, to their devotion and enthusiasm, and to the insistent concerns about honour that resonate among speed skaters.

The Oval gathers some of Canada’s (and the world’s) best coaches, athletes, trainers and technicians. Together they create something world-class. It is a place that harbours and spurs Olympic imaginings. However, its official branding may offer more grandeur than the daily routine on the ground. Olympic medals and world championships are produced through the quotidian slog. It is not fancy. Athletes traverse the utilitarian tunnel, dressed in second-hand suits. They sweat and struggle and sometimes vomit in garbage bins. They lift weights in a basement. They compete in events with sparse crowds of mostly distracted spectators. The pomp and excitement of races in the 19th century and in the present-day Netherlands are a jarring contrast to the staid and dull races held in North America. As I sat in the stands at the Oval watching World Sprint Championships, World Cup events and the Oval Finale, it became clear to me why short track and mass start – and the crashes that ensue – seem integral to making this sport enjoyable to watch on this side of the Atlantic. But as I think back on the thrill of getting
swept up in the communal excitement of a crowd, I know another possibility exists. I know that passionate fans make an excitement all their own.

The Oval’s official version of itself conceals how things are crumbling a bit. Money is needed. In September of 2020, the ice’s mechanical system failed. Competitions were cancelled. Training delayed. A fix is on the way. And in the meantime, the national team and Oval Program athletes are using the concrete slab for inline skating. That’s the ingenuity and perseverance demanded of speed skaters. But it also seems absurd. Athletes in Canada’s most successful Olympic sport surely deserve better. Beyond upgrades and repairs, there is a slight staleness to the place. Lots of people have been here for many decades. This brings remarkable experience to the Oval. It may also detrimentally preserve the status quo. When the development program began almost 30 years ago, both the cost of training and the cost of university tuition were substantially lower. Can today’s Olympic hopefuls really keep up with these changes? The Oval’s future success will require more than the trademark, “The Fastest Ice in the World.”

The vast majority of athletes in the development program hope to make the national team. A few acknowledge this is unlikely. Regardless, they all keep training because they love the sport. In this pursuit, they have found an irreplaceable something: there is no substitute. It fulfills them; pulls them in. Their work is uncertain, but they have trust. Trust in the program. Trust in the process. Trust in those who preceded them. There’s a casualness to their deportment that belies the seriousness of their endeavour. As they work to realize their potential, they change their bodies in measurable ways, forming new muscle fibres and neurons and blood

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2 The early Oval Program didn’t include physiotherapists and nutritionists either. Some of the fee increases simply track increasing costs owing to an expanded team of experts.
cells primed for excellence. They also make qualitative changes to their bodies. Their sensory perception is not just more, but different. They feel the ice or alter the experience of time. Eventually, the quality of their movement differs. Furthermore, they develop the virtues demanded of the sport: passion, fortitude, humor, resilience and grit. They are following those who came before, but they want to be better than them. Their goal is the sublime.

There’s ugliness here too. Most young athletes won’t make it. Skaters are physically injured, they’re under emotional and psychological strain. There are burdens to pursuing such ambitious goals. Their social connections are narrowed – they date and marry one another, which is surely convenient, perhaps inevitable, but further removes them from regular society. There’s competition – how could there not be? – and jealousy. There is longing and loneliness as they chase perfection. Stage 3 seems designed as an (almost) impossible test. Skaters work part-time jobs, attend school, and train hard. They’re supposed to maximize their recovery too. They need to improve. Yes, it is purgatory. All the same, as young athletes pursue their Olympic dreams, they form valued friendships, they speak of the Oval as a family. Just being here and attempting this engenders respect. It sometimes even engenders compassion. I suppose I could have tried to be more critical of this place. It would be easy enough to argue this is unhealthy. But when skaters themselves admit “we’re crazy!” what more do I have to add? And would that critique have brought me (or you) any closer to understanding what it takes and what’s at stake when you’re chasing giants?

Instead, I have framed my analysis inside of classical oppositions drawn from social theory and the study of sport. I have done so, in part, as an homage to previous analyses, just as I have structured this ethnography as an homage to traditional works. But this choice was not made as a contrivance without analytic merit, neither as the reification of concepts. Theory is a
flexible tool, not life as we live it. I use these frameworks because they *do* get at something to help us better understand sport. And they reflect my own shifting sympathies and understandings in the field, merging my biography and my discipline’s history. And while I employ these classic frames, I don’t do so in a dialectic sense. I don’t find these oppositions are (permanently) resolvable, even through synthesis (and isn’t most synthesis an act of elision, leaving something out in the act of joining together?). For me, these contradictions are best understood not as oppositions at all, but as productive tensions, enabling and enriching the other. Agency only matters because of structure; magic derives power from rationality. Accordingly, I have used these frames to capture the unwieldy, letting ethnographic descriptions flow within their bounds.

**Chasing Giants**

There are numerous ways in which “chasing giants” encapsulates my analysis. Giants are part of Olympic mythology, Norse mythology, and there is a greatness – beyond what us mere mortals can accomplish – to the feats of high-performance athletes as they pursue records, chasing the giants that came before them. I now turn to consider some other implications of chasing giants. The first is a consideration of routine practice. In this, I am concerned with the ways in which high-performance sport (and games more generally) operates outside of ordinary life. What is challenging in this regard is that according to most social theory, life is broadly reproduced by following rules and/or routines. It is hard to imagine any activity more routine or rule-bound than high-performance sport (I will just use sport from now on, as this is too cumbersome). But this regulation is not solely in the service of reproducibility. Lastly, I return to the giants of sport studies as I consider speed skating in relation to play, modernity, and bodies, spaces and time(s).
Anthropological and sociological analyses of the everyday, routine or ordinary aim to demonstrate how life goes on, much as it has before. It is through the unnoticed and mundane that social life reproduces itself. We are either inescapably and necessarily complicit in recreating an order of which we may be largely unaware (from Goffman (1959), Sahlins (1976), Schütz (1962) and Williams (1977)) or subjected to reproduce, though our routine practices, a demoralizing and dehumanizing order (Certeau (1988) and Lefebvre (2004)). In this scholarship, the ordinary may be romanticised or critiqued (and either way, it’s worthy of study). And society carries on reproducing itself through the continuation of habitual activities. Small changes might be effected as agents manoeuvre within the tactical limits accepted by others, as evinced by Bourdieu’s (1977) exploration of Algerian peasant exchanges of gifts and counter-gifts. Within such an understanding of social life, major change often arrives via disruption, disjuncture or disaster (and this is what excites anthropologists when something unusual occurs, as we may be present to view the limits of routine and the possibility of change).

Sport training and athlete development demand an expanded consideration of social life in relation to reproduction, repair and rupture. In this regard, my point of departure is Trentmann’s (2009) suggestion that disaster and disruption (from floods, blackouts, and traffic jams) are, in many places, normal, and that practices are, generally, more flexible than many analysts might grant. He suggests that these regular disruptions illustrate “the elasticity of everyday life” (Trentmann 2009, pg. 68). After disruption, repair work proceeds, returning life to normal. This, while intriguing, implies a rubber band that in most cases will snap back, once allowed, though may occasionally break. As such, Trentmann is not offering a new paradigm,
but simply inserting greater malleability – a greater tolerance for variation – into the model. But I find the notion that disruption is normal has another utility within sport.

Athletes use the ordinary (received and accepted methods of training) to become extraordinary. This is what Chambliss (1989) captures in his evocative title, The Mundanity of Excellence. What sport challenges us to consider is how, through routine and habitual practice (the same drills, the same sequence of training, the same calendar of competitive events) athletes can break out of the mold. The answer to this lies, in large part, within periodization, a model of routine that, through its very temporality, effects change. Change emerges from the timing, duration and sequencing embedded within the structural logic of training. And I wonder what other examples there might be of change emerging from goings-on continuing much as they were intended (changes to life related to Moore’s Law, the exponential growth of computing capacity, seems a possible example). Change is also brought about as a result of tinkering. Again, this is a disposition generated within extant structures, but oriented to exceeding the limits set by them. Tinkering orients athletes to work at the edges, to carve out new margins. Using Goffman’s (1967) incomparable phrasing, athletes are chasing the action. They don’t want life as it was, or is, but the thrill of what it might be. The point is that while structures, in general, limit human action, in sport, structures expand human capacities.

Disruption is normal. In this case, it is not so much because of an elasticity in everyday life. The goal is not to snap back but move forward. In considering this, I suggest that it is not routine itself – the practices we are doing – but our comfort in routine, that reproduces society. Bourdieu (1984) approaches this in his analysis of taste, though again, this is aimed towards an understanding of maintenance, how class distinctions in 1960s France are reproduced through ascribed tastes. Skaters are uncomfortable where they are, they hunger for more. And perhaps
much discussion of people being unaware of their habits, considerations of routine as reflexive, glosses over just how much people enjoy their habits. For instance, Giddens (1976, pg. 15) writes:

The production of society is a skilled performance, sustained and “made to happen” by human beings. It is indeed only made possible because every (competent) member of society is a practical social theorist; in sustaining any sort of encounter, he draws upon his knowledge and theories, normally in an unenforced and routine way, and the use of these practical resources is precisely the condition of the production of the encounter at all.

And he adds that:

[The] constitution of society is a skilled accomplishment of its members, but one that does not take place under conditions that are wholly intended or wholly comprehended by them. (Giddens 1976, pg. 102)

I am suggesting that it is not some sort of mindlessness or cognitive negligence (social action as not wholly comprehended) that repeats patterns, but an embodied attachment, that is more than what is captured by Bourdieu’s (1984) notion of taste (i.e. preferences). Bourdieu was curious why people accept social distinctions that benefit a ruling class. His answer was habit. But I think comfort is explanatory. By indicating comfort, I mean taste in a more affective way. In the way we crave the comfort of a mother’s cooking. And for athletes, it is their discomfort that pushes them to manipulate routine to other ends. There is volition in this; directed intent. Of course, taste can be ascribed (à la Bourdieu) – that comfort begins by being born into a particular household – but I’m arguing that new tastes (perhaps ones that, in the present, can only be imagined) can surely also be acquired.

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3 This idea predates practice theory. For instance, Lévi-Strauss, in his borrowing of Marx, writes “men make their own history, but they do not know that they are making it” (Lévi-Strauss 1963, pg. 23-24),
Improvements at the Margins

The first iterations of this research project were inspired by – and set against – a caucus of sport studies scholars who hold that doping is unavoidable (e.g. Beamish and Ritchie 2016; Hoberman 2001; Houlihan 1999; Hunt 2011; Miah 2004; Waddington 2000). In this view, the demands of improvement – whether incentivized by broader social forces (e.g. Connor 2009) or borne in the push and pull of the puritan–epicurean pole proposed by Dunning and Waddington (2003) – inevitably leads to excess and cheating. And while I did not, in the end, study doping, I did come to see how working at the margins may generate excesses of a sort (over-training, clean eating and so on). However, I remain unconvinced that any outcome is necessary or obvious (this is what makes their actions consequential and problematic). Again, the intentionality apparent within athlete development and training, alongside their reflexivity, means that people are seldom unaware of what they are doing. Their habits are scrutinized. And they are making choices.

Suits’s (2000) offers another way of conceptualizing sporting structures. He argues that games are not fundamentally paradoxical. Instead, he considers contrasts and tensions as rudimentary features. He proposes that “playing a game is the voluntary attempt to overcome unnecessary obstacles” (Suits 2014, pg.55). By this he is getting at why, in basketball, for instance, a particular type of ball must be tossed into a hoop of a certain size set at a precise height. In this way, the rules and conventions of games are all necessarily silly and wholly necessary. Rules are accepted because they make the activity possible. Accepting arbitrary rules is what he terms the lusory attitude demanded of players. Again, we are not in ordinary life.

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4 Though they may be uncertain about what future their present actions will bring.
And yes, of course, some players choose not to accept the rules – they bend and twist and break them. But the artifice of sport is not its undoing – it is not (necessarily) that doping occurs because boundaries are arbitrary or unclear. Boundaries are arbitrary (and they may be unclear). This artifice is sport’s making. The erection and erasure of boundaries is how sport proceeds. This, more than “wining at all costs”, is the logic of sport.

*Skating is Fun and Creative*

Numerous sport studies scholars posit that sport is play, a strange sort of divestment of Huizinga’s (1949) ideas, since he insisted that modern sport corrupts play. Nevertheless, the field abounds with titles invoking sport-as-play especially as it relates to capitalism, the nation, various inequalities, consumption and the media (e.g. Boyle and Haynes 2009; Figler and Whitaker 1991; Keim 2003; Lavalette 2013). I have used the term too, including as “imaginaries at play.” But is sport play? Is it more so than anything else? Feezell (2004) concludes that sport is play, and argues that we are drawn to sport because of its aesthetic richness and narrative structure. He contends that the earnestness that sport requests of participants engaged in such trivial pursuits is absurd. Sport, then, demands an irony of its participants. And while this accords with some of the more sardonic responses I received about the “spirit of sport,” I think this whole analysis begins on the wrong foot.5

I suggest that Huizinga was largely right to separate modern sport from play, even if I suppose he largely misunderstood sport. Quite simply, while the sporting imagination might be

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5 Play studies are interesting and offer provocative insights into society. For instance, Sutton-Smith (1997) argues that play differs in ancient and modern periods and contends that the *rhetorics* of play under modernity are progress, the imaginary and the self. This is cool. I just don’t think play should be wedded to sport anymore than it is wedded to industry, religion and so on.
playful, sporting events (governed by rules) are always rigid in ways that play is not. Accordingly, when we discuss sport as play – as in we are playing at it – this is only accurate in the sense that it is pretense, not that it is free (though perhaps it is liberating). Further, if I am recalling my childhood education about Canadian-claimed, John Naismith, correctly, basketball was invented at a YMCA to keep young men active and fit in the wintertime. In this way (and so many others), sport can be profoundly purposeful and productive, whether as pastime, proxy for politics or a means to test one’s own limits.

Where I suspect some analytic imprecision lies around sport and play, is that sport is fun and creative. Athlete development programs discuss “FUNdamentals” for a reason. And I don’t doubt that the first people to experience the thrill and pleasure of gliding on the ice were having fun too. Those at the Oval, although working hard, struggling, and suffering, are having fun all the same. Creativity is evident in abundance, as people first don skates, explore movements or devise training programs. At times, this creativity is a labour of abstraction, but often enough, it is the labour of making – making tools, bodies, and buildings. The tension (and not paradox) to me is that high-performance sport is a serious sort of fun, an outlet for creativity, constrained by established rules. In this way, it is like many other achievements of human greatness.

*Thinking Through the Modernity of Sport*

I have traced speed skating’s origins far into the past, but the sport has undeniably developed in a way that reflects many tenets of modernity, that age dawning around the early

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6 Caillois (1962) attempts to get at this with his continuum of *paidia* to *ludus*. It seems to me, that once rule-governed, it makes little sense to call it play anymore. In Chapter 4, I argued that there is a playfulness to imaginings. And though this may seem like splitting hairs, this distinction between a sporting imaginary and sport-as-event matters. This relates back to the difference between plans and dreams that I mention in Chapter 1.
19th century. Modernity is future-oriented, relying on the promise of science and rationality to usher in a better society. Progress and improvement of self and society are on the horizon. And yet, modernity has been constructed in relation to its other, antiquity (Morley 2009). And a certain dis-ease accompanies progress, leading to a wistful yearning for another (simpler) time. In a sport that includes the Vikingskipet, Thialf arena and Viking skates, in which athletes dream of competing at a revival of the ancient Olympics, goals for the future are infused with a nostalgia for the past. That’s the sentimentality of the modern age. Tradition and faith, as well as science, underpin rationales and authority. Imaginings and dreams – some grounded in statistical probabilities and others not – secure, within modernity, “the imagination as social practice” (Appadurai 1990, pg. 5, italics in original). An imagination cast to the future as well as the past.

I return to Latour’s (1993) suggestive expression, with which I ended my introductory chapter. He asserts “we have never been modern” (Latour 1993, pg. 11). He offers this as critique. He contends that because the world has never been as modernity holds it is (that culture and nature cannot be separated), well, we: 1) have never actually been modern (a failure of recognition); and 2) we need a new language for analysis. I agree that science and, moreover, rationality writ-large, have never been as reasoned as (some) may hold. Latour correctly points this out. But is the issue (and his quarrel) not simply that social transformation is uneven, simultaneously residual and emergent? The modern is distinct form the past, just not uniformly so. And so, I embrace the modern appellation. How else can we acknowledge history and relationships?

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7 It might seem that I should be writing of the postmodern. But both speed skating and anthropology are 19th century activities that somehow, strangely, have endured into the 21st century.
The current age is a continuation of the Enlightenment, with which comes the uncomfortable acknowledgement that we make our own destinies (as Nietzsche pronounced, “god is dead”). But the modern era is not just the ascendance of knowledge or abstraction. We admire the wisdom and ingenuity of the ancients. We welcome the potency of a little magic. This fuller understanding of modernity is in accord with (parts of) Henning Eichberg’s argument about sport. In marking the progression of records in so-called “c-g-s” sports (referencing events in which standing is measured in centimetres, grams and seconds) modern sports make a “ritual of the record” (Eichberg 1990, pg. 123). Exactly so. Moreover, it is, as Harvey (1989) rightly identifies, that the present age is marked by novel, compressed, relationships of time and space. What was once the change beyond an individual lifetime is now apparent within the frame of Braudel’s (1980) événement or conjuncture. Modernity is made whole – layered and richly textured – by acknowledging superstition, faith and nostalgia as part and parcel of the age, and by considering the novel relationships brought about as the distance between people, places and events in shortened.

In fact, on one level, this ethnography is a rumination on modern selfhood. Those at the Oval – with their various projects underway – are crafting selves (as Kondo (1990) so compellingly wrote). I suggest that mastery over their bodies, over tools and materials, mastery over time itself, offers something that athletes chase at least as much as the greatness of the record. They are working to achieve the sublime, elusive as that can be. And in this work, the present moment holds spectres of both progress and decline: there is the possibility of ushering in new, better techniques and performances, and of also being less valiant, less rugged, less remarkable than the heroes of the past. With this in mind, I now turn to a consideration of the many transformations of bodies, spaces and times within speed skating.
The Sporting Triumvirate: Bodies, Spaces and Times

I have reviewed analyses of sport that emphasize ritual and the sacred – that which is set apart from the profanity of regular life – analyses that explore the ideals made manifest in bodies under various physical cultures, and analyses that consider the special spaces created for particular activities or the various ways time governs sport. All considered, these are arguments that sport enacts particular arrangements of spaces, bodies and times. The centrality of this triumvirate to a general understanding of sport cannot be in doubt. But in this ethnography I have explored how, at the Oval, and especially through the athlete development program, particular transformations occur in bodies, times and spaces. These changes include the different ways in which the spaces of the Oval are experienced by athletes of all levels, coaches, technicians and so on. How time is evaluated, embodied and enacted. The myriad ways in which bodies are made knowable and demonstrate mastery. It would be simple enough to write that I encountered material contingencies framed by socio-technological interventions. But that would not be wholly accurate; this sort of argument assumes some layering or mapping of the social onto the material, the qualitative onto the quantitative.

But here, quantities and qualities of times, spaces and bodies intermix in complex ways. For instance, gains in fitness, in oxygen transport, which are derived from training programs, relate to gains in the quality of a stride in a 1500-meter race, leading to faster lap times, and novel sensory engagements with time itself. Moreover, spaces and times are projected from and incorporated into bodies, further muddying the margins. What I document, instead, are indeterminacies, some of which become settled, and others that remain open. The openness – porosity – of bodies, spaces and times enables new achievements of greatness, new forms of mastery, marvels to behold. All the same, there are limits – somewhere – places in which
materiality pushes back firmly against imagination (these limits may be permanent or fleeting). Those at the Oval are seeking these limits out. In working at the edges, they are at the mercy of such constraints, they are just not certain where they’ll find them. Developing an athlete is a process, not a state; more becoming than being. I have chosen to end this chapter with an extended vignette. The event I document offers intriguing insights into the selves in-the-making at the Oval. And like those I studied, there is something unfinished about ending in this way. It seems entirely appropriate.

**Hiking Day**

It’s 8:45 a.m. on a sunny day in September. I’m standing in the parking lot outside the Oval with a dozen Oval Program skaters and an equal group of Norwegian skaters here on exchange for two weeks. Four coaches (three Canadians – Jeff, Mike and Arno – and one “Norski” round out the group). We’re heading to the mountains to hike and sight-see. There’s some confusion about orchestrating rides and whether or not I’ll have to drive. Skaters load into vehicles and in the end, I’m the odd one out, and drive up, alone. Not how I had hoped for the trip to start – I wanted to gossip with the skaters.

The original plan, such as it was, was to go to Moraine Lake, but when we get there, we are curtly sent onwards by attendants: the lot is full. The coaches scum and it is decided that the hike to the Lake Agnes Tea House will do. Still, parking for our five vehicles is not easily found. Two of us end up in a lower lot and start our hike early. Mike notes that one of his athletes isn’t carrying anything with him.

“Did you bring water?” Mike asks.
“It’s in the van,” the skater replies, “I drank a lot this morning.”

A teammate makes him an offer, “I’ve got a big bottle with me. I can sell you some at the top.”

We all laugh. I also wonder why anyone would want to hike without water. For what purpose?

We eventually gather at Lake Louise. It’s midweek, and yet the site is packed with people. Our group of nearly 30 doesn’t move easily through the crowd as we make our way to the trail head. Finally, we arrive at the sign reading “Tea House 3.6 km.” I consider myself a competent hiker. And this trail is not especially difficult. Plenty of tourists are on the path, of varied ages and disparate apparent fitness levels. This should be easy. But as we begin, we are marching up the mountain side. No one is running, yet it’s an impressive clip. I can’t look around. The terrain is rough in places, and my feet are moving too fast. I have to keep my eyes downward. Thirty minutes in, I’ve landed in the middle of the pack behind Arno, whose been coaching at the Oval for more than 30 years. He’s an avid hiker, trim and fit, but he’s also a couple decades older than me. Surely, I can keep up with him. I focus on the rocks and roots, planning my steps, and occasionally glimpse Arno’s backside. There’s no opportunity to look around. Forget the scenery! There are a few conversations going, but most of us are not talking. I’m certain we’re obnoxious to others, as they stop and step aside to allow us to speed pass. We’re a horde charging up the trail. Conquering the mountainside.

In time, I settle into a pace, stubbornly committed to keeping up. I eventually pass some of the athletes who started out zipping and zagging through the crowd. I push on, focused on my footing and the tempo of my stride. I surrender to it. I’m passing people, some in our group, mostly those who aren’t. I’m determined to just keep going, keep doing. As time passes, I’m surprised to discover that it’s me and a Norwegian woman, alone, in front. Our laboured breath
is rhythmic and menacing. Others slink to the edge of the trail as they hear us approaching. My face is moist; sweat is beading down my back. I’m a bit annoyed. This was not what I was expecting. But I’m certain this (whatever this experience is) is almost over. We’ve covered at least 3 km by now. There’s not much farther to go. The Norwegian and I the first to reach a waterfall at the base of a set of stairs that leads to the tea house. Surely, people will want to pause here. I rest against a cool rock wall. The Norwegian looks at me, then at the stairs. I look back at her and then to the falls. Her fair complexion has turned ruddy. She seems to accept the rest point and pulls out her phone to take a picture. Moments later, others catch up. Some decide to photograph the falls. Some briefly discuss how to tackle the stairs. Is two at a time fair game? Should they try for three? They laugh and leap up the stairs. As they ascend, I dutifully follow behind.

At Lake Agnes, we stop to drink and eat. I sit on a boulder in the shade and share some of my blueberries with the skaters. People joke (half seriously) about swimming in the lake. Then someone suggests we go higher. There’s a trail to the top of Devil’s Thumb.

“Okay”, Jeff orders, “let’s get going. It’s not that hard.”

Jeff is the only coach who decides to carry on. A couple of athletes stay behind as well, but most of us continue. Soon, we’re not on a trail anymore; it’s technically a scree. Jeff and a skater are just ahead of me, engaged in conversation. Both are former hockey players. I note the mentorship that Jeff is offering, caring and supportive. But they also discuss the sport’s challenges and detriments. They love what their doing. And they know it’s imperfect.
Soon enough we’re on the last switchback, the physical demands of the hike no longer front of mind. I just press on. We reach the summit and break for water. There are five of us gathered near the lookout. That’s when I notice that one skater is wearing Crocs.

“Your choice of footwear is ambitious,” I say.

He smiles, “I took my boots off at the lake. Didn’t want to bother putting them back on.”

We just jettisoned up loose rock like mountain goats and he did it, by choice, in slip-on shoes.

“You know, I’m curious about feet. Athletes’ feet,” I say.

I receive raised eyebrows in return, but carry on, “it seems they’re often really gross. My sister-in-law is a dancer; those feet get wrecked. My office mate is an ultra-runner. They get these blisters that cause their toenails to fall off.”

“I have nice feet,” Jeff replies.

“ Didn’t you almost lose a toe to frostbite? Haven’t you lost sensation in that foot?” I insist.

“Sure, but when I get a pedicure, they don’t need to exfoliate. These are soft and smooth,” he says with a smile.

A skater pipes up, “on days off I like to soak my feet. Then use a pumice stone. My feet are nice.”

“You don’t get calluses?” I ask.

“Not really,” she says.

“I have one, right here. But it’s small,” another says, pointing to the side of his foot near the arch.

“Inside the boot is too sweaty for calluses. Your skin stays moist,” Jeff offers.

“No blisters?” I ask.

“ You know, your boots only hurt when you’re standing. When you’re in position, they’re comfortable,” an athlete asserts.

“Yeah,” Jeff concurs, “I only got bone spurs once I started coaching. Because I was standing in skates.”

Noted. Your feet are lovely. They only have bone spurs, callouses, damage from frostbite and are prone to blisters when you get new boots or stand for too long in your skates.
We decide to head back down. Jeff and I talk about grit and commitment. He is referring to training; but I’m thinking about today’s hike, thinking about those skaters who opted not to come, or who stayed behind at the Lake. Are they committed? Do they have grit? Is this a test? It feels like one. As we head down, we’re picking up skaters we dropped along the way. Some did, in fact, dip into the lake in their underwear. Others are filling their water bottles at a small waterfall, which seems like a risky choice. Back at the Tea House, we meet up with the rest of the group and all head down the stairs and to the trail. No one’s rushing now, though we still pass others continuously. I hike back with Mike and Arno. The conversation starts off about our kids, but soon becomes a debate over how well certain skaters can hike. Then talk shifts to biking performance and skating, comparing skaters that could and couldn’t translate biking prowess to the ice. Times and achievements – the entirely nontrivial trivia of the sport – are recalled with ease. And even those who were better on the bike than on the ice are still admired for their accomplishments, their raw power celebrated.

Mike laments that we didn’t time the hike. And suddenly this whole experience becomes clearer to me. Until then, I hadn’t understood this was a race. I had thought it was a test perhaps, but not a contest. And now, without a record kept, today’s climb could not be compared to future outings. The objectives and outcomes of this hike were perhaps not unique to high performance athletes, but I suspect shared more widely by them than by the broader population. Our primary concern had certainly not been to enjoy views, look for birds, or to appreciate the foliage. And it was not even, it seems, about accomplishing something together, as a team. I’ve hiked a lot. But I’ve never hiked like this. I suppose that when your oeuvre is

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8 A friend who leads tours up a mountain tells me he once guided a Finnish cross-country ski team and had much the same experience. They reached their destination in less than half the usual time and he felt obliged to remind them that they had paid for a day’s worth of his services.
competitive, and when pushing your body is accompanied by deep satisfaction, if not downright fun, a casual, touristy hike to the Lake Agnes Tea House is still you against the mountain (against 27 others). Too bad we didn’t keep track of who won.

According to the training program, the hike was not a rest day, but it was considered an “easy day.” Skaters who opted out were instructed to replace the hike with a 60-minute bike ride in Zone 2. We hiked for three and a half hours. And I drank two liters of water. The skater who chose not to bring water drank and refilled a bottle before we loaded into our vehicles. I ended up driving three skaters back to the Oval. On the ride we talked about training and future goals. Talked of making the national team. And after, as I drove away from the Oval, I thought about Thialfi racing against reason itself: a servant racing a giant.


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Appendix

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Hi Sarah;

It feels good to see that there is ongoing use for some of my work from years past. You’re entirely welcome to make use of the illustration. Attached is a digital image for your benefit. Good luck in your dissertation, and in your future endeavours.

Sincerely,
Rene

Rene Thibault

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Good afternoon Sarah,

Thank you for contacting us regarding usage of our Olympic Oval images. We are okay for use of these images within your dissertation, provided GEC Architecture is credited for their usage and they are not used for commercial purposes otherwise.

Attached is a contact sheet for our images for the Oval. Let me know which images you'd like to use, and I can send the image files to you via a download link. We will require you to sign one of our standard photography usage contracts and send back, which I will send / you can review once you've selected the images you'd like to use. The download link will be in the contract.

Regards,

[Logo]