

What Can a Body Do? Exploring Female Adolescent Sporting Bodies

by

Nicole Land
BSc, University of Alberta, 2011

A Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of

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ABSTRACT

As embodiment riddles the body, this thesis interrogates embodiment as a riddle by foregrounding ethical, epistemological, and ontological questions of what embodiment(s) and bodies might be capable of creating and performing. Articulating local embodiments while also attempting to work through the puzzle of embodiment to playfully illustrate multiple responses to embodiment, this thesis incorporates images and discussion generated with a group of female PeeWee hockey players. Thinking with Deleuze and Guattari, Braidotti, Barad, Kirby, and Grosz, I experiment with articulating tentative, enfolded, entangled, and emplaced local embodiment(s) through the hockey-bodies of female adolescent athletes.

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SOMETIMES I SEE THE DRESS OF MUSCLE AND FLESH WORN
BY THESE BONES AND I WONDER WHY I CAN'T HEAL
MYSELF, WHY I CAN'T CHANGE THE BODY CLOTHING AS
SOME BELIEVE, AND LET THE BONES BE FREE, WHY I CAN'T
JOURNEY INTO THE MATTER OF MY OWN BODY AND TOUCH
THE ORGANS, LOOSEN THE LIGAMENTS WHERE THEY
HOLD THINGS TOGETHER...THE NETWORK, THE TANGLE
NOT EXISTING AT THE BASE OF THIS HUMAN BRAIN...
BUT THE INTERIOR, THE VITAL FORCE, SLIPS THROUGH
ALL OUR HANDS, EVEN WITH OUR OWN BODIES.

(HOGAN, 2001, P. 191)

Chapter 1. Riddling Embodiment

“Why do we assume that bone poses a riddle that only flesh can resolve?”

(Kirby, 2011, p. 23)

Snacking on fact-finding impulses, tugging at the boundaries of language, nose-diving from the fingertips of reason, and scribbling with creativity until creativity marks the contours of scribbling—embodiment riddles the body. The act of defining embodiment through the rational and empirical imperative to hammer down, to make enduringly clear a singular definition holds the potential to trouble all that might be the body. From Spinoza to Braidotti to Deleuze, through Kirby, Grosz, and Barad, embodiment abounds as everything from a theoretical concept and material reality, to a problem to be solved and a problem solved. As we live theory, working to “weave flesh onto . . . theoretical bones” (Tuana, 2008, p. 194), ideas and practices of embodiment articulate themselves on an array of material-discursive (Barad, 2007) potentiality, becoming perceptible as anything from “letters of a corporeal alphabet” (Braidotti, 2011 p. 194), to microontologies (Hird, 2009), from “how we got ourselves so trapped in relation to biology” (Wilson, 2010, p. 197), through “*fashion reasons*” for jersey tucking, toward “neither pure cause nor pure effect but part of the world in its open-ended becoming” (Barad, 2009, p. 25). Embodiment charms forward the “contributions, viscosity, leakiness, sensuality, imagination, movement, affects, fluids, relations, [and] capabilities” (Evers, 2006, p. 233) of bodily materialities as they become agential, pertinent, and forceful.

Carefully clutching bodily extensions constructed of Kevlar—tensile strong marvels of synthetic engineering that culminate in the perfect blade curve, judiciously blunt at the heel and flaring out at the toe—female hockey-bodies layer themselves on the riddle of embodiment. Trapped, but also a minor force within “dominant understanding[s] of the technology of physical

fitness, both popularly and in most academic discourse . . . [as] a practical way to maximize the body's natural physiological and psychological capacity" (Pronger, 2002, p. 4), female adolescent hockey players operate within the "modernist sporting assemblage" (Atkinson, 2010a, p. 114), an entangled milieu made meaningful through wider material-discursive forces that include gender, athleticism, adolescence, sport, competition, violence, and physicality. Within this often oppressive configuration of material athleticism, embodiment exerts such generative force that the "illusory primacy of the pure human athletic body" (Fouche, 2012, p. 282) is marked as incredibly precarious while material agencies collude to "stretch the idea of a bounded humanist body to foreground an extended body with intersecting parts plugging into various 'real' and virtual assemblages" (Renold & Ringrose, 2011, p. 397). Feeling the sharp pull of hair as it becomes matted with sweat, as strands are yanked free from a low ponytail and effort-drenched bangs stretch down toward eyes, female adolescent athletes matter with embodiments capable of forcefully fleeing dominant Euro-Western definitions of the (human) body; they materialize with embodiments that are "more interested in the capacities a body has for certain velocities and intensities than how it might be categorized according to an outside set of standards or measures" (K. Skott-Myhre, 2012, p. 309). At a time when sport and physical activity transgress their traditional boundaries to join into new relationships with obesity, mental health, disordered eating, and capitalism, and constantly grapple with more established lines of competition, feminism, violence, and scientific conceptions of athletes, there may be space to violate canonical compulsory ontologies of the body and experiment with unique formations of the physical, human, and athletic adolescent body.

Deleuze and Guattari (1987) defiantly stuck their minor-leg out and tripped my science-informed, securely strolling academic career in the direction of a critical, hesitant, and unsettling

engagement with all that might be the term/concept/articulation/materiality of embodiment. As I continually face-plant into their belief that “we know nothing about a body until we know what it can do, in other words, what its affects are, how they can or cannot enter into composition with other affects, with the affects of another body” (p. 257), I think with the materiality of embodiment. As I stumble to orient myself amid the immanent flux of material wonderings that asking what Buchanan (1997) calls the “Spinozoist question: what can a body do?” (p. 74) might initiate, I wonder if it is not the question of a body’s affective capability that creates space for experimentation, but if, rather, there might be a (perhaps intentional) problem with the question. What if, instead of asking what a body can do, we ask what embodiment(s) might do? What if we drag Deleuze and Guattari’s question of corporeal potentiality left, such that it becomes a problem of what embodiment(s) do and how bodies might be embodied? Perhaps the friction created by this movement would warm the embodiment question to the meticulously material, performative, and intra-active theorizing of Barad, Mol, Kirby, and Law? Here we might interrogate what embodiment is, we might experiment with articulating local embodiment(s). Thinking with bodies is inherently political because, as Kirby (1997) notes, “commerce with the body is considered risky business because the split between mind and body, the border across which interpretations of the body might be negotiated, just cannot be secured” (p. 73). What, then, if we hold to the contested ambiguity of the body, imagining that the questions of “what can a body do” and “what can embodiment(s) do” might weave through each other, leading us to experiment with embodiment(s) and with how bodies can be embodied?

If we initiate a movement, a strong perpendicular stride away from the traditional Euro-Western requirement to formulate and solidify embodiments that have been “distorted into clarity” (Law, 2004, p. 2), what possibilities for embodiment(s) emerge? If we stutter toward

messy, entangled, complicated embodiments, rather than the clean renderings of the body foregrounded by a discourse-driven “ruthless linear nature of the narrative of knowledge production in research methodology” (St. Pierre, 1997, p. 179), what embodiment(s) become perceptible? If we engage in a concerted experiment to move from “research about bodies to a way of researching through bodies” (Evers, 2006, p. 230), what does embodiment become? How does embodiment become? Plunging our momentarily-reading-eyes and scrolling-fingers into the immanent flux of “nonarbitrary, nondeterministic, causal enactments through which matter-in-the-process-of-becoming is iteratively enfolded into its ongoing differential materialization” (Barad, 2007, p. 179), I wish to experiment with embodiment(s) so that we might articulate (an) enfleshed, entangled, and emplaced local embodiment(s) through the hockey-bodies of female adolescent athletes.

Sweatily traversing a Euro-Western frozen field of hockey, a milieu productively infiltrated with tensions of canonically colonial femininity, adolescence, and athleticism, as well as intensities that matter as neoliberal structuration and the minor matters that tangle with such dictatorial forces, female adolescent athletes made bodily contact with the theorists, camera, and academic body I brought to this thesis. My well-loved skates of 12 years, threaded with pink laces and tagged with an image of Betty Boop, touched their notched steel blades with the freshly Zamboni-flooded ice that became part of the team practices of a female PeeWee hockey team that I attended. Mimicking the “hockey-position” motions, the squaring of my hips and tightening of my hip flexors, I skated with five athletes over two practices. Without my hockey gloves, the mittens I had did nothing as I set my stick aside and asked my stiff fingers to adjust the lenses of my camera as I worked to capture images during practice. I kneeled to the snow-

etched ice and adjusted my aperture settings as pucks hit my ankles and drills were executed. The camera clicked, blades carved, ponytails danced, and images were generated.

Body contact is illegal in female hockey. As shoulders set and weight is transferred into the chest protector of another athlete, a whistle blows and discipline comes to play. The offending athlete's game is not over, simply delayed in accordance with the hegemonic rules of Canadian hockey. Body checking—disrupting, unsettling, tripping—the strident forces of all that makes contemporary Euro-Western female hockey—is chained with the same molar forces that mark body contact as illegal; body checking is perfectly legal in men's hockey. As I sit with the five athletes in the “female dressing room” of an arena, my laptop displaying images from practices is passed around the room and body checking occurs: Boy's hockey, toughness, injuries, stride strength, shot accuracy, coaching, and winning are hit with the full force of bodies that, even amid intensely ordering forces, find a way to trouble, dismantle, and riddle all that might make matter or perform the female adolescent athlete hockey-body.

My experiments with embodiment in this thesis are two fold: I wish to experiment with articulating these local embodiments while also attempting to work through the riddle of embodiment—not to solve such a riddle but to playfully illustrate one response to embodiment, one unfinished and intra-actively material local embodiment.

“Well, Sometimes We Talk About Hockey”

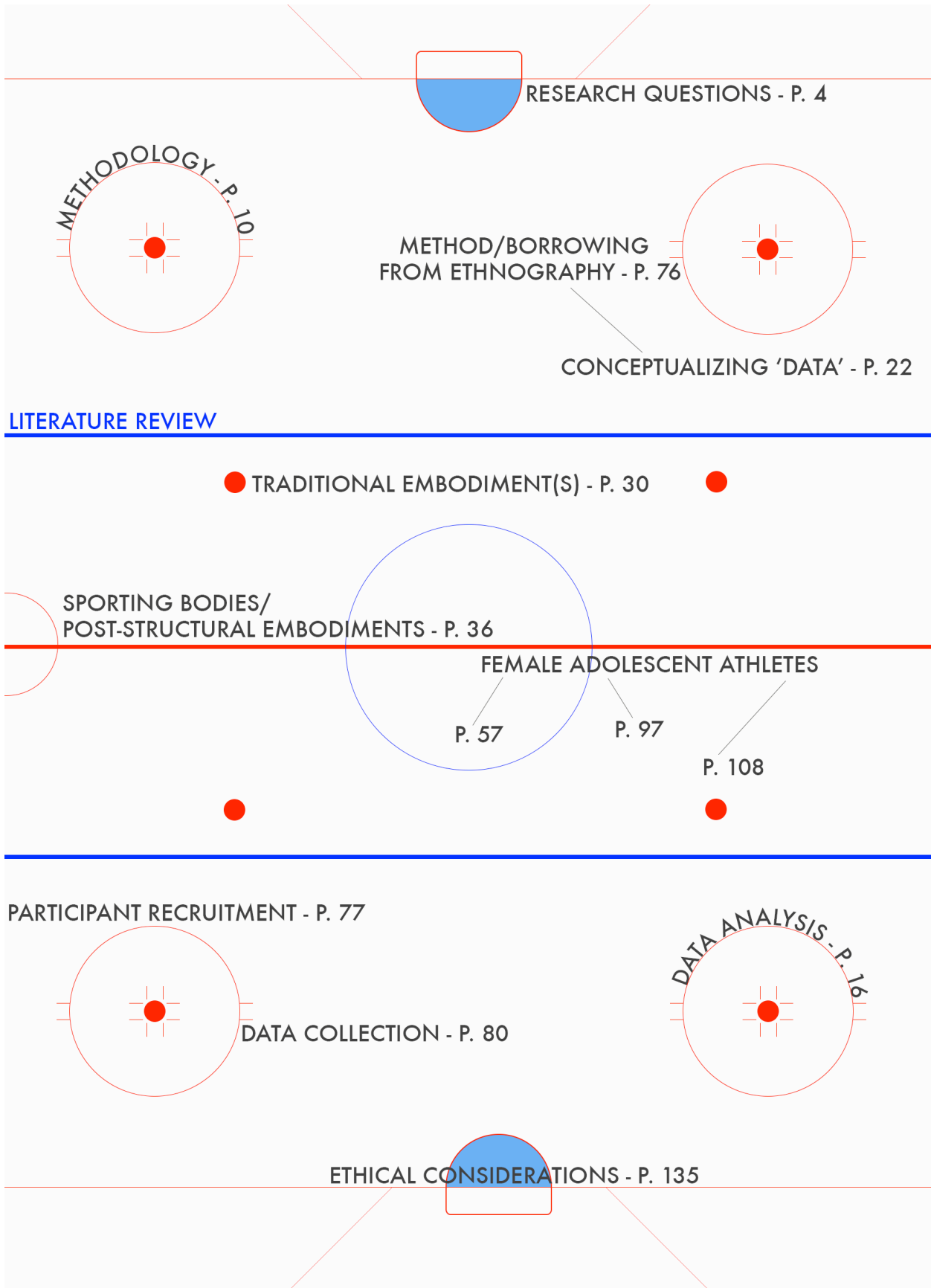
Materially theoretical work on embodiment is generative in its dissention, much in the way a momentarily perceptible female hockey-body might be dedicated to a multiplicity of practices of hockey rather than loyal to a singular, stable practice of one hockey. Embodiment might also be fractured and stuttering in its very character, as participants in this research, their hair matted with sweat from a hard practice, remind me: *“Well, sometimes we talk about hockey*

[while on the bench during games].” The local, fleeting performativity and perceptibility of embodiment comes to play in questions of how bodies can be embodied and experimentations with these embodiments. In this way, embodiment might attend to the “physicality of theorizing” (St. Pierre, 1997, p. 184), a practice of theorizing woven through the “unfathomable multitude” (Barad, 2012, p. 214) of material agencies, of haecceity, of becoming.

My engagement with experimentally articulating local embodiments aspires to a messiness that counters the tendency, with research steeped in empirical traditions, to hold back on complicated theoretical exploration when theory and data are separated into different sections of a paper (St. Pierre, 2008); it aims to take up diffractive generativity, paying attention to “matter-in-the-process-of-becoming [as it] is iteratively enfolded into its ongoing differential materialization” (Barad, 2007, p. 179) as theory-matter-space-time become meaningful in their entanglement. As such, I will work to push away any impulse to section off data from analysis from literature review from theory, instead writing-with the intra-activity, the diffractive relationality, the matterings that mark varying embodiments as meaningful. Within this project, any chapter is not, to borrow Kirby’s (2011) words, “so much a separate part of a larger whole to which it remains indebted, but rather a unique instantiation of the system’s own reinvention (or rewriting) of itself” (p. 55). As such, I have organized chapters to provide clarity, but they do not exist separate from any other experiment within this work. Experiments and chapters are purposefully and unavoidably entangled, never completely ending and only merging through one another. To write this entanglement into this project, I have arranged chapters to touch “within” chapters, such that Chapter 1 turns into Chapter 2 through a One Within Two experiment.

Each chapter moves through a series of experiments with various scholars as I imagine and articulate fragmentary and intra-actively material local embodiments. Chapters also contain

within them some of the traditional facets required in a master's thesis, including a theoretical framework, encounters with relevant literatures, and an exploration of all that comes to be data. These parts of the work are woven throughout this project, underscoring my inability to bracket them off without doing violence to their intra-active potentiality. The image below illustrates where these canonical components of a thesis are located within this project.



As I work to develop a methodology for my experiments with articulating (a) local embodiment(s), I encounter a multitude of theoretical work on embodiment. Compiling and marking these embodiments as intelligible requires me to articulate a methodological framework to guide the remainder of this work. I put forward this framework not as a checklist that I can follow in an effort to reach a singular, knowable truth, but as a veracious material-discursive tool that is made meaningful only as it becomes entangled and emplaced within the experiments that it makes perceptible. This theoretical guidepost acts as a methodology and method that “is not, or should not be, limited to representation . . . it is better thought of as crafting, allegory, or gathering” (Law, 2004, p. 118).

Touching Theory

I need not an evidence-based backbone, nor a well-honed ethnographic mould, but rather a flexible and always material anchor from which I can cast my methodological intentions: touch. Touch, the art of contact, the moment of material connectivity, ties closely to traditionally phenomenological notions of embodiment whereby “the sensory dimension of sporting experience” (Hockey & Allen-Collinson, 2007, p. 118) works to define a sporting body embodiment. These embodiments, rooted in mind/body duality in which a knowing mind reads a carnal body, are the very embodiments that I hope to knock off balance. The connection touch holds to these Cartesian phenomenological embodiments is crucial; touch moves quickly as an aggressor, slew-footing these embodiments as I move forward. The touch I wish to touch through my methodological framework is “an encounter with the infinite alterity of the self. [As] matter is an enfolding, a involution, it cannot help touching itself, and in this self-touching it comes in contact with the infinite alterity that it is” (Barad, 2012, p. 213). Touch is indeterminacy, affect, and entanglement. Touching theory launches all that is this thesis (such as the Nicole-tea-

camera-mittens-Sharpie material assemblage that matters with the sharp crevices of arena ice and the carefully crafted practice plan executed when I attended team practice to generate pictures) into relational flux with all that is text-ocean-reader-napping-coffee-APA-format-multitude. . . . Touch clutches Cartesian embodiments with the same grasp with which it holds embodiments that might be made within a postfoundational or feminist new-materialism(s) vein of theorizing. Touch is all embodiments with the same force by which it is any embodiment. In this way, “theorizing, a form of experimenting, is about being in touch” (Barad, 2012, p. 207).

As I cup my writing around Barad’s agential realist “onto-ethico-epistem-ology” (Barad, 2007, p. 185), I touch Braidotti’s (2013) posthuman methodologies as they intra-act with material agencies, and I begin to articulate my methodological framework. Touch, the coalescing of infinite alterity with spacetime-mattering, leans into Barad’s methodologies of diffraction. A practice of “reading insights through one another in attending to and responding to the details and specificities of relations of difference and how they matter” (Barad, 2007, p. 71), diffraction exerts ontological forces as a methodological tool that articulates “a deep sense in which we can understand diffraction patterns—as patterns of difference that make a difference—to be the fundamental constituents that make up the world” (p. 72). Diffraction attends to the weaving through of material realities present in the exteriority-within that stems from ontological indeterminacy, in which interferences and difference pull our attention toward specific, local material entanglements.

Diffraction anchors itself to an ontology of ontological indeterminacy, in which entangled material-discursive phenomena are agentially inseparable—only phenomena exist and they are continually intra-acting to produce material cuts that mark matters perceptible as matters. In this way, matter makes matter matter through a series of agential cuts. Real, touchable material

differences exist, but they emerge through ontological inseparability rather than any primary difference among phenomena. Here, matter is filled with purposeful initiative and is agential in that the material marks it makes matter are not haphazard, nor are they necessarily ordered by any strict (perhaps teleological) determinism. Rather, matter is a doing, an intra-active materiality that iteratively makes matter matter through the enacting of well- and less-patterned material cuts. Diffraction attends to the intra-actions of phenomena; diffraction performs and is made from this intra-action. Diffraction is entanglement and this entanglement holds phenomena accountable to the marks made on bodies, to the material realities that come to matter. Barad (2007) summarizes diffraction as the work of “accounting for how practices matter” (p. 91) through “respectful engagement that attends to detailed patterns of thinking of each” (p. 91); in these entanglements, “fine-grained details matter” (p. 91). In conjuring forth a tentative diffractive methodology of embodiment, “the analysis of entangled practices requires a nonadditive approach that is attentive to the intra-action of multiple apparatuses of bodily production” (p. 94). To think with diffraction requires questions of difference, of thinking with/in/through differently materialized differences in an effort to attend to local material practices and performances.

Touch interjects here to make clear that while, in articulating this methodological framework, I most explicitly engage Barad’s and Braidotti’s methodologies, I also bring to this conversation the methodological orientations of the other theorists with whom I engage throughout this work. Law, Kirby, Deleuze and Guattari, Atkinson, Wilson, Hird, Grosz, and Mol are all entangled, diffracted, all performing touch, at each moment of the experiments to follow. Post-sport bodies (Atkinson, 2010a), the “nonhuman charisma” (Hird, 2009, p. 143) of bacterial agencies, bodies that are “organically, biologically, ‘incomplete’ . . . indeterminate,

amorphous, a series of uncoordinated potentialities” (Grosz, 1995, p. 104), desire and multiplicity and becoming (Deleuze & Guattari, 1987), and practices that mark perceptible differential embodiments (Mol, 2002) weave together and “together-apart” (Barad, 2011, p. 125) within this methodological framework.

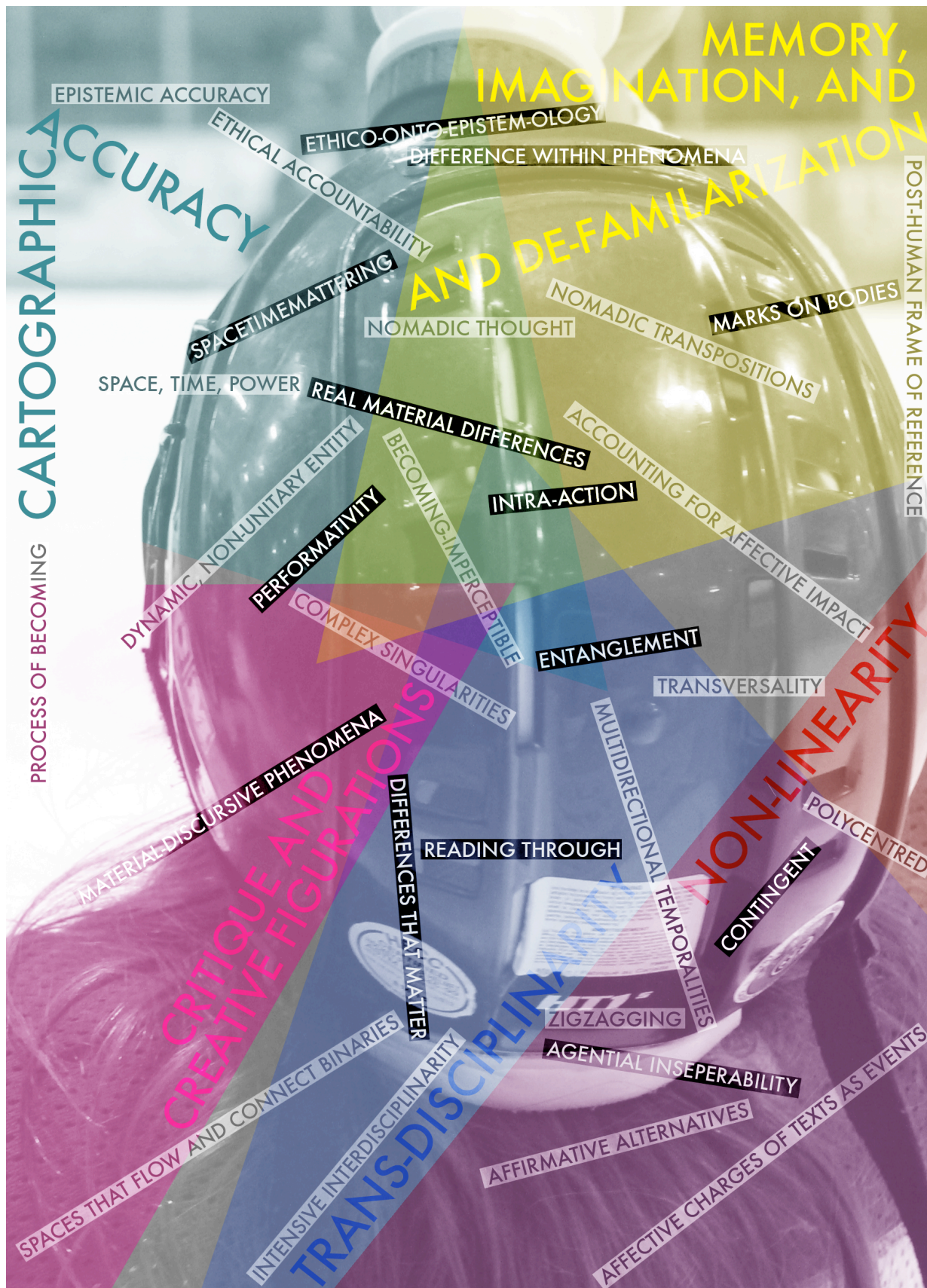
Purposefully entangling agential realism with the matter-realist ontology Braidotti (2013) builds, I hope to tug Braidotti’s posthuman methodology up through the carefully slippery gel of diffraction. Braidotti’s posthuman methodology, a methodological guide nourished by ontologically indeterminate spacetime-mattering, where “intensit[ies are] simultaneously after and before us, both past and future, in a flow or process of mutual differentiation or becoming” (p. 166), casts outward from five “golden rules” (p. 163): “cartographic accuracy, with the collary of ethical accountability; trans-disciplinarity; the importance of combining critique with creative figurations; the principle of non-linearity; the powers of memory and the imagination and the strategy of defamiliarization” (p. 163). Intertwined throughout these golden rules sits an ethical imperative toward epistemic accuracy, a chance to work in spaces between and within binaries, the disruptive potential of “zigzagging” (p. 164), a loyalty to the affect of text, and the becoming-imperceptible of “the active reinvention of a self that is joyfully discontinuous” (p. 176). While perhaps it might seem counterproductive to select a posthuman, nonanthropocentric methodological guidepost in articulating a methodological framework with which to think through various local embodiments, it is such a non-Cartesian, antibounded subjectivity, other to the anthropocentric centring of the senses or a “looking in” embodiment, that I wish to think with. Bringing into touch a posthuman ontology, one originally ontologically inseparable from the ethico-onto-epistem-ology of Barad, lends creative space and potentiality necessary to think with the embodiments I hope to move toward.

Spanning the breadth of an entire page, bordering the university-regulated margins, images are active in this thesis as a momentary sensory entanglement of word and picture, theory and flesh. Images intentionally refuse to be labelled as figures, because to do so draws a thick line between text and photograph—a divide that seems to fight against the embodiments the images work to imagine with. Touching images, how do we intra-act with them? Are they seen? Heard? Felt? Visually touched? Loudly optic? Affectively visited? Throughout this thesis, images are text and image-text is data. Images are messy and purposeful, overt and veiled in confusion. They are always-incomplete phenomena. Here, as images touch with any body, they are meant to be affective and fractured, not firmly illustrative.

Echoing the entirety of this thesis, the image below serves as an illustration of my diffractive moment in touching both Braidotti's posthuman methodology and all that is Barad's diffraction. This complicated collage attempts to make perceptible my reading and/or doing together/within/together-apart these two methodologies. The experiments that inhabit this thesis extend the touching of diffraction with cartographic accuracy, transdisciplinarity, creative figurations, non-linearity, and defamiliarization present in the image below, winding this unrelenting touch through an entirely entangled, carefully nuanced illustration of this methodological framework. In the image that follows, quotes with a light background are from Braidotti (2003, pp. 163–169) and quotes with a dark background come from Barad (2007, pp. 89–90). Where necessary, this methodological framework does not hesitate to dart in the direction of other theorists, as it will do relentlessly throughout the experiments to follow.

Because this framework is emergent, contingent, local, and made meaningful only within the experiments it both makes possible and emerges within, I wish to emphasize that this

framework will be employed as a zigzagging, robust material-discursive gizmo—something that is both playful and purposeful, but not prescriptive nor presumptive of any essential truth.



CARTOGRAPHIC ACCURACY

MEMORY, IMAGINATION, AND DE-FAMILIARIZATION

CRITIQUE AND CREATIVE FIGURATIONS

NON-LINEARITY

PROCESS OF BECOMING

POST-HUMAN FRAME OF REFERENCE

EPISTEMIC ACCURACY

ETHICAL ACCOUNTABILITY

ETHICO-ONTO-EPISTEM-LOGY

DIFFERENCE WITHIN PHENOMENA

SPACETIME MATTERING

NOMADIC THOUGHT

NOMADIC TRANSPOSITIONS

MARKS ON BODIES

SPACE, TIME, POWER

REAL MATERIAL DIFFERENCES

ACCOUNTING FOR AFFECTIVE IMPACT

DYNAMIC, NON-UNITARY ENTITY

PERFORMATIVITY

BECOMING-IMPERCEPTIBLE

INTRA-ACTION

COMPLEX SINGULARITIES

ENTANGLEMENT

TRANSVERSALITY

MATERIAL DISCURSIVE PHENOMENA

DIFFERENCES THAT MATTER

READING THROUGH

MULTIDIRECTIONAL TEMPORALITIES

ZIGZAGGING

CONTINGENT

POLYCENTRED

SPACES THAT FLOW AND CONNECT BINARIES

INTENSIVE INTERDISCIPLINARITY

TRANS-DISCIPLINARITY

AGENTIAL INSEPERABILITY

AFFIRMATIVE ALTERNATIVES

AFFECTIVE CHARGES OF TEXTS AS EVENTS

Female (and) Adolescent (and) Athlete

While I aim in this project to think with numerous theories, the dictates of contemporary Euro-Western culture loom large. Especially relevant in the local milieu of the participants in these experiments are the forces of femininity, adolescence, and athleticism. At various points in my attempt to experiment with local embodiments, I work to trouble these stratified lines. These experiments do not hinge solely on their encounters with femininity, adolescence, and athleticism, but, much like the bodies that come to matter through local embodiments, are threaded through with the matterings of these forces. As such, experiments with the stratified colonial dictates of the female, the adolescent, and the athlete will be scattered throughout this project and will range in scope. I begin each segment of this process by exploring conceptions of femininity, adolescence, and athleticism as they exist in a Euro-Western context, making clear how these forces are firmly rooted in hegemonic processes of minoritization, nourished by the many complex “interlocking systems of oppression” (Scheibelhofer & Marotta, 2012, para. 12) at work amid these discourses. Following each of these explorations, I trouble these dictates as they pertain to bodies and embodiments, imagining how modern, humanistic conceptions of performing female, adolescent, and athlete may be problematic in that they emphasize the rational and bounded individual while working to position female adolescent athletes as subordinate within their cultural milieux. My intent in troubling these concepts is to imagine how bodies might be active in their resistance and disobedience to seemingly taken-for-granted or stable limits on bodily potential.

Inquiring into what a body is denotes a problem rooted in a “binary logic that separates humans from their environment, children and adolescents from adults, homosexuals from heterosexuals, and women from men [that] is increasingly dangerous and its two central

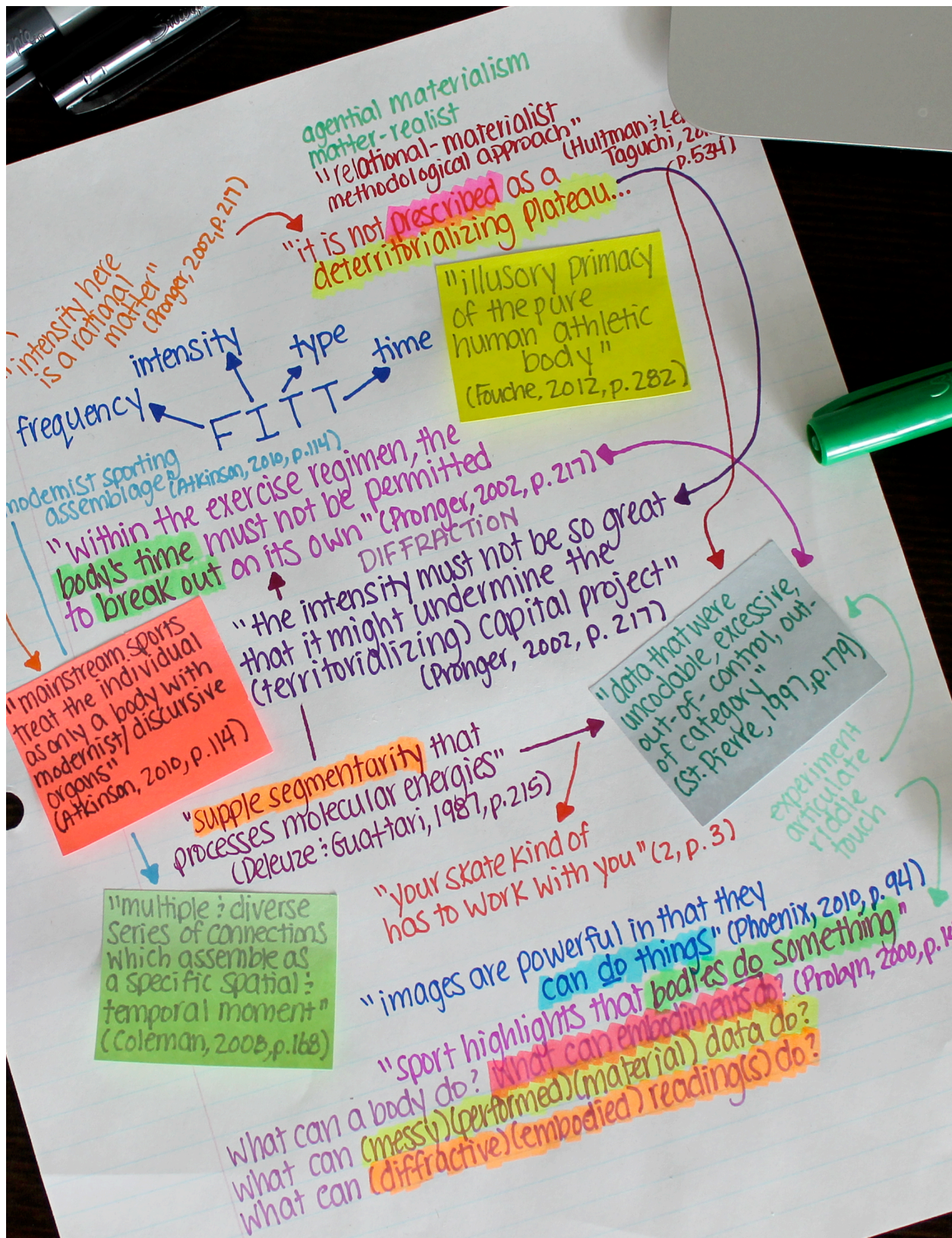
identities—human and male—may well be finished as useful social forms” (K. Skott-Myhre, 2012, p. 306). This traditional query of what a body is is answered by modern understandings of femininity, adolescence, and athleticism. To engage with the question “what can a body do?” we must think with these well-established forces, both highlighting their unavoidable importance in the coming together and momentary assembling of any body, and complicating their centrality and dictatorial nature.

Since the early 1990s in Canada, young female athletes have been “entering the arena; lacing up their shoes; picking up balls, bats, sticks, and racquets; [and] becoming active participants in sports” (Malcom, 2003, p. 1387) to a greater extent than previous generations. This increased sporting participation is often touted as the “widespread acceptance” (Giardina & Metz, 2005, p. 61) of female athletes in Euro-Western culture. However, a multitude of literature posits that “cracking patriarchy” (Adams, Schmitke, & Franklin, 2005, p. 18) may involve more than merely allowing girls to play sports because the very foundations of sport are so firmly rooted in masculine hegemony (Pilver, 2008) that sport itself acts to sustain Euro-Western “hierarchies of normativity” (de Finney, Dean, Loiselle, & Saraceno, 2011, p. 364). Further, the centrality of the category of adolescence cannot be ignored in the experience of young female athletes (Adams et al., 2005). If adolescence, like sport, is a “social fact . . . [that] reinforce[s] dominant social norms” (Lesko, 2002, p. 182), then both pervasive Euro-Western conceptions of sport and adolescence, as well as the underlying (colonial) gender binary, merit examination.

Female adolescent athletes perform each day amid the intersection of socially sanctioned lines of femininity, adolescence, and athleticism, and thus must balance their performance of these three hegemonic prescriptions with a multiplicity of other intensities, such as racialization, heteronormativity, ability, socioeconomic status, and infrastructure. Throughout this thesis, I

pose questions related to the riddle of embodiment as it matters with the question of what embodiment(s) might do, while always touching this riddle with the structuration and dictatorial forces that matter with/as the hockey-bodies of female adolescent athletes.

One Within Two: "Sinewy and Connected" Data-Bodies



The FITT¹ principle digs in its heels, cushioned within its popular shoes tied securely with the laces of scientific-evidence-based recommendations, and boxes itself out as the captain of all that is the “modernist sporting assemblage” (Atkinson, 2010a, p. 114): the regulated, planned, commodified, contrived, and individualized body of contemporary Euro-Western sport and athleticism. The rigid federation that governs such a sporting body gains credence through its close friendship with the Euro-Western academic machine. Due to their shared values of knowledge colonizing, scientific supremacy, and capitalistic motivation, along with their concurrent emphasis on assuredly “hegemonic and dominatory pretensions of certain versions or accounts of method” (Law, 2004, p. 4) and practices of knowledge, neither modernist sport nor academia “really value[s] eclectic writing-within” (Puig de la Bellacasa, 2012, p. 207). Diffractive bodies with diffractive movements, diffractive readings, embodiments, and writings come to presence and materialize as idiosyncratic, eclectic, minor ontologically inseparable embodiments. This thesis, this body, with its momentary temporalities, readers, riddles, and practices, is a diffractive body. It is not separate from the insidious stratifying energies of contemporary academic or sporting apparatuses, but holds these forces within its composition. It does not aim to echo, claim, or become methodologically hegemonic, working instead to traverse the emptiness, motions, and embodiments vacated, ignored, or uninhabited by these major modern forces of knowledge creation.

Post-sports (Atkinson, 2010a) are messy, diffractive bouts. Post-sport engages all that marks a methodological framework that riddles with matter-realism and material ethico-onto-epistem-ologies. As “sinewy and connected athletics that inflect anti-commercial, co-operative ideologies over the competitive . . . [and which] do not fetishise advanced material technology,

¹ FITT stands for frequency, intensity, type, time. The FITT principle was designed as a set of rules to govern fitness training plans.

are socially inclusionary rather than hierarchical, process-oriented, holistic and internally differentiated in their orientation and engagement” (Atkinson, 2010a, p. 112), post-sports mark a moment of playful performance between and within athleticism and this methodological framework. Post-sport comes alive as it injects itself within modernist sport to “challenge boundaries demarcating the sacred and profane, the raw and the cooked, the civilised and the primordial through rigorous movement” (Atkinson, 2010a, p. 112). Diffraction purposefully wears this same disobedient, co-operative post-sport jersey, although perhaps playing a different game, diffracting the cooked through the raw, the academic through the sweaty, the primordial through the profane, the first draft through the revised, the methodological through the embodied.

Attempting to live, write, and matter theoretically through a methodological framework that congeals through the riddled touching of Barad and Braidotti demands a considered troubling of the concept of data. Working to use such a framework while spiralling off into the worlds of Deleuze and Guattari, Grosz, Kirby, and others requires that what comes to be marked as data reconfigure at various points during this project. In this way, data must be fluid in a material-discursive vein, as what comes to be perceptible as data continually becomes differently perceptible through mattering differently. Any reader, writer, or data-body present in this work is “a longitude and a latitude, a set of speeds and slownesses between unformed particles . . . [an] entire assemblage in its individuated aggregate” (Deleuze & Guattari, 1987, p. 262). Not only is my interaction with any “data” situated in my own moments of experience, indicating what *my* body can do, but I must write and present my work in such a way as to create space for an appreciation of multiplicity and complexity. I present both images and athlete-participant quotes so that reader-bodies can inhabit-with these phenomena in a moment of intra-action. At the same

time, I consistently emphasize the enacted nature of each of these bodies in each event of reading. Neither the materiality nor the discursive power of data, which function as the agentially material-discursive, is stable or bounded. Rather, they are read and re-read, marked, re-marked, and re-markable (Kirby, 1997).

Data-Bodies and Stealing Ice

“Don’t take the ice,” I’m warned when I ask the five female PeeWee hockey players who generously shared their embodiments with this research what they might protect if I tried to steal one part of their sporting body. Why ice? Our skates dig into the ice, the edges of their blades scraping into the adhesive sheen the ice performs. The ice propels us, throws deep ruts to cause us to stutter, and cloaks our socks in its flaky snow when we fall toward it. But why the ice? Why protect the ice? To argue that the ice is foundational seems moot. If what is perceptible as hockey is marked as hockey through collaboration and co-performance, how might any one part of this ensemble be deemed to be the first? Is the ice the most active in hockey? How can we, the anthropocentric, designate categorical levels of agential activity? Is it because ice is always there in hockey, playing the role of inert hockey surface? How can that idea hold up when ice performs surprise or disobedience, slipping us invisible puddles to freeze our pucks or deep divots that jarringly grab hold of our skate blades? Perhaps it is because hockey-bodies stand on the ice and such a linear footing is required? If we throw hockey into the blender of an agentially materialist ethico-onto-epistem-ology, such a linear narrative is thrown into the flux of spacetimemattering.

I won’t steal the ice. I can’t steal the ice—possession seems intolerable when it isn’t a matter to be pinned down, to be contained. I can’t define why something so intangible seems to suspend ice as something important/central/performative/present in the making and marking of

hockey-bodies. Perhaps to hammer such a reason down is irrelevantly impossible within an agential realist matter-realist methodological framework, maybe any “attempt to be clear simply increases the mess” (Law, 2004, p. 2). Slippery as ice, the concept and matter of data troubles and is troubled within this project. As I won’t steal ice, I won’t steal data—I won’t delimit a snappy working definition of data as it applies to this project. Instead, I engage data as I engage ice: as loyal, fluid, agential, and unpredictable material-discursive bodies. I think with a “data whose language and text is the very tissue of [my or any] body” (Kirby, 1997, p. 3). Data emerges as intentionally and productively “uncodable, excessive, out-of-control, out-of-category” (St. Pierre, 1997, p. 179), coming to matter as “different material configurations of ontological bodies and boundaries, where the actual matter of bodies is what is at issue and at stake” (Barad, 2007, p. 155): data-bodies.

In the experiments that follow, I borrow from a multiplicity of data-bodies. Many, in the form of images and discussion excerpts, come from work with five female hockey players aged 11 and 12. Their words are always italicized. Images of transcripts come to play so that transcripts are more than simply typed words. Images of my notes and the marks made when my highlighter-enabled body touched books are present. My own diffractive practice takes place on more than the plane of my MacBook. As such, images of my notebook and messy Post-it notes and arrow-filled scribbles are here, along with treasured images from some of the antique anatomy books my father and I collect. Words poured into books by various scholars participate in these experiments alongside the musings of less academic authors. My camera, Photoshop, iPhone, and mittens play prominently as extensions of my own data-body as I posit “my body as part of what researches” (Evers, 2006, p. 230). Hockey interjects itself within this work, but less as a phenomenon and more as phenomena, as the material-discursive matterings of hockey and

hockey-bodies matter as material data-bodies, not as a dictatorial conceptual formation. The athletic body becomes perceptible as a molar formula by which Euro-Western culture might conceptualize a body, thus mattering only in intra-action, not as a firm theoretical boundary.

Data-bodies are never presented as fact, nor are they analyzed for metaphor or hidden meaning, or placed into categories in the experiments with embodiment to follow. Rather, data-bodies vibrate amid the methodological framework made perceptible through Braidotti and Barad. Interspersed among cartographic accuracy and spacetime-mattering, non-linearity and marks on bodies, data-bodies play as cartographic accuracy, marks on bodies, spacetime-mattering, and non-linearity. Through the following series of experiments in thinking-with data-bodies, “veracity is not the point. Instead it is interference. . . . [This work] is part of a practice or a set of practices” (Mol, 2002, p. 151). Data-bodies are not artifacts with this methodological framework stamped on top. Rather, data-bodies are made of and through this framework, such that, while the framework is not always made overtly obvious, it is always active as a methodology that “stutters and stops, that is more generous, that is quieter and less verbal” (Law, 2004, p. 147). At many times in this work, athlete-participants and I referred to data-bodies as “*hockey-bodies*.”

This project is a becoming-with data, becoming of data, marking and re-marking data, an inhabiting-with data, as active matterings “try to read the flows and passages where life continuously emerges in an immanent flow of potentialities and becomings” (Hultman & Lenz Taguchi, 2010, p. 537). Planes of immanence, method assemblages, and material agencies collude, as reading becomes perceptible as “not something that a human subject does but [as] an intra-action in which a larger experimental apparatus enacts a cut between object and measurement agency. The reading defines the writing as that which precedes it” (Schrader, 2012,

p. 151). Truth is not the goal of my experiments. Rather, articulation, experimentation, unpredictability, playfulness, and intra-action momentarily congeal to direct this work through underscoring perceptible “situated enactments and sets of partial connections” (Law, 2004, p. 155).

Inhabiting-With Data-Bodies

Throughout these experiments, I often use the language of inhabiting-with data-bodies. In using this language, I hope to invoke a reader-Nicole-data-body mattering that is not necessarily a becoming-data-body (or experiment or reader or writer), as per Deleuze, where “multiplicities ... continually transform themselves into each other, cross over into each other” (Deleuze & Guattari, 1987, p. 249) and become-other. Such a presence implies too much of a prior truth or essence, too much of separation between reader, words, and bodies. Rather, I aim to imagine an inhabiting-with-data-bodies, or becoming-through-data-bodies, where what is marked as any text or body is an enfolding materialization of active matter. As we inhabit-with, the “stuff” of any body is also the stuff of all bodies, where bodies differentially come to matter through the conditioning of an agential cut. By inhabiting-with data-bodies we can conceive of a more transient, agential mattering and experimenting, as the intra-actions of any/all bodies mark the data-bodies we matter with, and this intra-activity marks differential enactments of the images as perceptible.

To avoid falling into a pattern of analysis in which material-discursive intra-actions are understood only to perform the well-congealed patterns that have come to be marked as dominant discourses—a pattern that fails to capitalize on the potentiality of iterative matterings—I wish to highlight how we might inhabit-with iterative data-bodies, rather than supervising or viewing active data-bodies. We must imagine the matter(s) of bodies as active,

agential, and ethical as they iteratively mark and re-mark themselves. No data-body can, and does not attempt to, capture the complexity of any enactment of a body, and it undoubtedly fails to highlight far more agential matterings than it embodies. Rather, we can be accountable to any data-body by using it to conceptualize the performative and stuttering bodies at play amid any intra-action with, or within, any data-body. Inhabiting-with data-bodies is a moment of imagining in and with molecular, transient encounters. Inhabiting-with data-bodies is a touching, a performance of enfolding touch that is threaded through itself and alterity. Data-bodies underscore the continual enfolding and marking of bodies as matter continually enacts difference upon entangled phenomenal matters and bodies.

Alterity C-Cuts

Learning to skate backward, to propel your being in the opposite direction to that which much of one's daily activities involves, is hard. For seven-year-old Nicole, it involved tears of frustration, new hockey pants, doubt, stick-straight knees, and an evil fall straight back onto my tailbone that took walking off the table for weeks. Within the machinic dictates of skating instruction, strong skaters typically practice alternating backward crossovers, in which the right skate-foot crosses over the left skate-foot, pushing the body left, then left skate-foot over right, as the hockey-body picks up backward speed. Climbing down the ladder of skating mastery, a foundational step in skating instruction is the C-cut, in which a hockey-body pushes from one hip flexor, with skates rooted to the ice, opening and propelling one leg at a time in a C shape, such that alternating C shapes are created the whole way down the ice.

Situated within the modern sporting apparatus, might there be embodiment(s) where C-cuts perform what Pronger (2002) describes as the “territorializ[ation of] the smooth space of movement, producing striated spaces through which movement is managed as a resource” (p.

168)? What if, in the moments in which hockey-bodies might be fractured from such a disciplinary machine, C-cuts perform diffraction and post-sport, whereby “the essential structure of movement, which is our be-ing, is our source of alterity” (p. 235)? How, by what practices and matterings, might hockey-bodies encounter this alteritous motion, this immanent potentiality of C-cutting? Is accessing such alterity, such possibility, an embodiment? How might embodiment(s) touch or touch-with this alteritous movement?

Immersing their intra-activity within a strong Deleuzian pool, both Atkinson (2010a, 2010b) and Pronger (2002) imagine that traditional sports practices, as Atkinson (2010b) asserts, “contain, discipline and enframe physical bodies as resources to be deployed toward the attainment of competitive, rule-bound and performative sport outcomes” (p. 1250) through their enactment of *pouvoir*, materialized as the exploitation of bodily power by modernist technology. *Pouvoir* is the C-cuts one battles to eke out while a furious coach bag-skates your body to exhaustion. *Puissance* performs these alteritous C-cuts as bodily power that traverses a line of flight toward its infinite potentiality. Movement here traffics toward a “section of chaos” (Deleuze & Guattari, 1994, p. 42) wherein “chaos is defined not so much by its disorder as by the infinite speed with which every form taking shape in it vanishes” (p. 118), as post-sport marks and re-marks diffractive and diffracted bodies with infinite playfulness and velocity. These bodies begin to articulate an embodiment that works to “rethink embodiment in conjunction with movement” (Braidotti, 2003, p. 55) rather than as boundary, structure, or truth. Here, I grasp my methodological framework and drag it toward the imaginations of Deleuze and Guattari to undertake experiments with articulating local embodiments through their riddles. Here, C-cuts move nearer to their touch with alterity.

Chapter 2. Touching Immanence: Molar Embodiments, Speaking Hands, and Fractured Femininities

“The technology of physical fitness, as a systematic method of producing life, of realizing the body, is also a system of interpreting the body, of interpreting life, of representing what the body is and can be. . . . To what extent is the reality of the body that is rendered second by the technology of physical fitness inaccessible to those who have embodied the technology? . . .



Infinite energies are expended to enclose the body, to initiate landslides of structure, rule, and order such that the potentialities of the body become buried beneath boulders of gendering, colonialism, capitalism, and individualism. These boulders are dense and riddled with the sedimentation of striated molar forces. The potency with which these boulders enclose the body rumbles with questions stemming from its hegemonic dominance: When forces, events, exist

with such immeasurable power and function with such insidious ease, what kind of life remains within and through their clout? While endeavouring to contain the body, how might these striated structures encounter the invisible, the crack, the minor? To chisel at these sedimented arrangements of fascist bodies, Pronger (2002) hurls post-sport bodies into the mix, imagining a body that lives immanent creativity, knowing but deliberately disrupting logics of containment, exclusion, and authority, a body “unhinged from the credo and ethics of capitalist, technologically enframed and spiritually limiting main-stream sports” (Atkinson, 2010a, p. 113). Such a body, perhaps an embodiment, screams “don’t ask me or ‘my body’ to account; ask our BwO [body without organs], the one that you and I are, the infinitely interdependent body of which we are reflections” (Pronger, 2002, p. 209).

Fascist bodies and embodiments abound. They come to materialize as corporeal realities, bodies we both encounter and are. Even when we work to carefully interrogate and unsteady their stratification, they assemble as our matter, as our momentary bodies. As such, I now wrestle with some traditional Euro-Western conceptions of embodiment in an effort to present them in their affective potential so that I might begin to make clear some of the molar embodiments that inform, assemble, and matter as I work to experiment with articulating local embodiments. Following this engagement, I experiment with the immanent deterritorializing force of Deleuze and Guattari’s chaotic theorizing in imagining local embodiments with data-bodies.

Majestically Over-Coded Embodiments

Academic literature rooted in the molar forces of Euro-Western culture presents embodiment as a known and knowable entity: Embodiment is being in a body and, as such, we are all embodied. This embodiment lives as a molar category, constituted by a majority and solidified through “trees of logic and empirical sense, rising majestically towards a realm of

transcendent perfection” (H. Skott-Myhre, 2008, p. 140). Such a simplistic conception of embodiment is riddled throughout the experiments I undertake, as I work to matter with an embodiment that materializes in intra-action with, but also as molecular “rhizomes of non-sense spreading in infinite extension” (H. Skott-Myhre, 2008, p. 140) across, within, and diffracted through such an overcoded molar embodiment. This understanding of embodiment marks a pointed departure from traditional phenomenological definitions of embodiment that involve “looking in” to the body or attending to one’s sensory experience and are rooted in Cartesian mind/body duality. The multiplicity of ways in which the body may be perceived (and in which it has traditionally and predominately been perceived) comes to matter in (an) embodiment(s), as does the intra-activity performed by molar conceptions of sporting and hockey-bodies. Therefore I now turn to the literature, beginning with conventional conceptions of static and striated bodies both within the traditional athletic sphere and beyond any athlete/nonathlete or active/sedentary binary.

(Traditional) Phenomenological Embodiment

While the conceptual definition of embodiment varies widely across theoretical orientations, the term embodiment emerged from the phenomenological tradition. I do not wish to draw from this body of literature in conceptualizing embodiment in this exploration; however, I wish to explore the limits of phenomenological embodiment in an effort to arrive at a working definition of embodiment appropriate for this research.

The phenomenological notion of embodiment “coincides with the rebuttal of what is usually considered Cartesian dualism” (Caiani, 2010, p. 1), has a focus on perception, is grounded in human materiality, and “leads to collapse of the conventional distinction between subject and object” (Csordas, 1990, p. 40). It is generally agreed that Merleau-Ponty (1962)

elaborated the most influential model of embodiment (Caiani, 2010; Csordas, 1990), in which the body is “a setting in relation to the world” (Csordas, 1990, p. 8). According to Merleau-Ponty, because “the body is in the world from the beginning” (Csordas, 1990, p. 9) it “is not a mere object among other things, instead it emerges as the best candidate to represent the condition required to make intelligible a personal conscious experience” (Caiani, 2010, p. 5).

Drawing on Merleau-Ponty, phenomenological conceptions of embodiment refer to “the sense of one’s own body” (Longo, Schuur, Kammers, Tsakiris, & Haggard, 2008, p. 979). Embodiment becomes the focus of research when “we begin to think of the body as being-in-the-world” (Csordas, 1999, p. 147). Embodiment can be understood “when the body is recognized for what it is in experiential terms” (Csordas, 1990, p. 36) such that one “seeks to reveal the lived experience of the body” (Anderson, 2001, p. 83). Within this framework, “embodiment is about neither behavior nor essence per se, but about experience” (Csordas, 1999, p. 148); it is “a methodological attitude that that demands attention to bodiliness” (p. 148). Neurobiological investigations of embodiment have bolstered phenomenological conceptions, as “results suggest that embodiment . . . is a genuine but complex experience” (Longo et al., 2008, p. 995).

While the suspending of any dichotomy between mind and body aligns with many of the theoretical perspectives within this exploration, it has been argued that phenomenological investigations of embodiment act to further mind/body dualism by positioning the body as both a physical entity given within, and separate from, the world; it is independent of a reality about which it can provide (rational) knowledge (Colebrook, 2000b). This perspective positions the human body, and subject, as central to knowledge construction, proliferating an anthropocentric attitude toward embodied research (Hultman & Lenz Taguchi, 2010). Further, much phenomenological research surrounding embodiment positions methodology as “looking in” to

the body, such that mind and body are not only conceptualized as independent of one another, but an essence of solidity is attributed to physicality. Drawing on sport-related literature, the following subsections present historically dominant theories and applications of embodiment(s) as they matter within sporting research and practice.

Sport-related embodiment.

In sport-related literature that explores experiences of physicality, embodiment involves “working from/with/on the body” (Rossholt, 2009, p. 57) through investigating “the sensory dimension of sporting experience” (Hockey & Allen-Collinson, 2007, p. 118) such that the “epistemic body” (Allen-Collinson, 2009, p. 292), the epistemological potential of human materiality, is recognized. Within this approach, our hands, for example, “are not any old hands, but rather ‘I-myself-grasping-things’; our feet are not merely body parts in some anatomy discussion, but rather involved in ‘I-myself-walking’” (Hockey & Allen-Collinson, 2007, p. 117). This theoretical deployment of embodiment serves to emphasize both the subjective presence of any individual, evidenced by “I-myself” and the solidity associated with physicality within the phenomenological tradition.

The well-fed, hydrated, and healthy sporting body.

The most traditional and pervasive conception of the sporting body is that which is permeated by biomedical discourse. Within this conception, the athletic body is understood through the “scientization and technologization of human performance” (Maguire, 1993, p. 47). This sporting body stems from the Victorian era, during which “Victorians tended to think of fitness in terms of biological adaptiveness” (Park, 1994, p. 61). Most conceptions of bodies within this category, even in modern times, favour traditionally male notions of sport, including “muscle size [and] body contour” (Park, 1994, p. 62). The positioning of the sporting body as

healthy remains prominent in modern sport, evidenced by a plethora of “diet, drug, and illness” (Maguire, 1993, p. 47) discourses closely connected to athletic bodies.

The trained and disciplined sporting body.

The disciplined model of sporting bodies stems from “the linking of health [and physical activity] with intellectual (and moral) as well as physical development” (Park, 1994, p. 64). In Victorian times this model emerged as muscular Christianity, which served as an “antidote to the poison of effeminacy” (Watson, Weir, & Friend, 2005, p. 2). This conception of the body remains prevalent in “physical education programs, training regimes and elite competition” (Maguire, 1993, p. 47). It is rooted in the belief that sports may “help equip youth with attributes, skills, competencies, and values that will contribute to their role as productive, socially conscious, and healthy citizens” (Weiss, 2011, p. 55).

The skilled sporting body.

Maguire (1993) refers to the skilled sporting body as “commodified” (p. 46) in that it is subject to capitalism: As an athlete becomes more skilled, they become more valuable. This conception of the body is rooted in the commodification of sport as a whole, as modern sport is “subsumed into the logic of the marketplace” (Sewart, 1987, p. 171). Vande Berg (1998) illustrates how elite professional athletes experience the “inevitable integration of the heroic and the celebrity” (p. 141) as a result of, and directly tied to, capitalism. This privileging of skill and physical fitness is nourished by patriarchal notions of male dominance, wherein physical supremacy is closely tied to colonial conceptions of masculinity.

The motivated and socially influenced sporting body.

The motivated sporting body is tied to the symbolic body, which extends, to a greater degree than the three sporting bodies discussed above, into the intersection of the molar

categories of the physical, cultural, and social (Maguire, 1993). This symbolic body is also the socially constructed sport body (Kirk, 2002). A great deal of research examines social constructions in sport, such as that of Light and Kirk (2000) who note that rugby traditions reinforce masculine hegemony for male athletes at an Australian high school. Likewise, Krane, Choi, Baird, Aymar, and Kauer (2004) found muscular ideals to be socially constructed for 21 female collegiate athletes.

The carnal and “embodied” sporting body.

Drawing on her ethnography of a women’s intercollegiate basketball team, Cheville (2005) addresses the importance of exploring embodiment in “disciplines . . . concerned with the form and function of the human body” (p. 85). Cheville is allied with the growing body of sport-related literature that adopts a phenomenological stance, exploring “corporeal realities” (Evans, Davies, & Rich, 2009, p. 391) whereby “we relate ourselves to the world by the medium of the body” (Jung, 1996, p. 5), thus positioning the body “as a voice ‘of itself’” (Evans et al., 2009, p. 393).

The carnal body has been explored through autoethnography by Humberstone (2011), who investigated spirituality and flow as embodied in nature-based sport. Monaghan (2001) examined the somatic experiences of body-building athletes through ethnography and found that embodiment may be an important consideration in understanding less conventional sports.

Moving from embodiments predicated on a mind/body divide, “looking in,” or any understanding of the body as a commodity, Deleuze and Guattari sit amid a small but healthy rhizomatic moment of theorizing sporting-bodies and embodiments.

Deleuzian Sporting Bodies

Drawing on Deleuze to frame shame and pride as affects produced by sporting bodies, Probyn (2000) interrogates modern sports situations, such as that of two Australian cricket players caught cheating, and proposes that “it is shame that comments on the body . . . shame reconfigures the body” (p. 24). Markula (2006) draws on Deleuze’s concepts of the plane of consistency, assemblage, and the Body without Organs (BwO) to explore how Pilates might assist women in creating a BwO. Cox and Thompson (2000) borrow from both Grosz and Deleuze and Guattari to probe the multiplicity of bodies experienced by 16 adult female soccer players. While all three of these investigations utilize a Deleuzian-inspired lens to explore athletic bodies and all highlight how Deleuze and Guattari’s concepts might facilitate a productive, positive, and fluid understandings of the sporting body, none of these explorations engages explicitly with the physicality of athletes, nor do these researchers attempt to experiment with novel methodologies inspired by the ontologies of Deleuze and Guattari. Instead, they adopt more traditional applied, discursive, or participant observation methods.

Post-sport athlete bodies.

Post-sports, while they may include some elements of modernist sport, such as the technique of running, are “sinewy and connected athletics that inflect anti-commercial, cooperative ideologies over the competitive” (Atkinson, 2010a, p. 112). They can include sports like skateboarding, Parkour, yoga, and surfing. Utilizing ethnographic and image-based data, Atkinson (2010a) explores fell running as a post-sport athletic endeavour. Drawing on Deleuze and Guattari, he states that post-sports depart from the “modernist sporting assemblage” (p. 114) in that “human desire and flow exploration . . . is thus unhinged from the credo and ethics of capitalist, technologically enframed and spiritually limiting mainstream sports” (p. 113).

Through a “deterritorialisation [from modernist sport] . . . post-sports show real potential as existential, democratic, and community-building activities” (p. 129). While I aim to explore female adolescent athlete bodies in what is considered a modernist sport, I wish to engage with Deleuze and Guattari to understand whether female athletic bodies may be conceptualized as similar to desiring and productive post-sport bodies when they participate in a traditional sporting realm.

Connective Embodiments in Poststructural Theory

The histories and predominant poststructural theories of embodiment as a conceptual tool make themselves felt amid and beyond molar sedimentations of the body. The following image works to diffractively present such embodiments, as I move toward experimenting with Deleuzian data-body embodiments.



Becoming-Hockey-and-Data-Bodies

As I sit typing this work, I feel the cushions of my fingertips push into the plastic keys of my computer; is this my hand? Sometimes my fingers slide off the keys, inadvertently hitting an incorrect letter; is this my hand? Up my shoulders, between my scapulas, and right to the base of my skull, my body works with the motion of my fast-moving wrists and fingers; is this my hand? Is there a mythology within this narrative of writing? What hands am I part of? Can I feel hands? Do I have hands? Can I claim ownership to hand? Is this hand a singularity? Is any hand bounded? Are fingers, knuckles, and brightly painted nails hand? Are knees, teeth, and slippers hand? Can we name (any) hand(s)? Am I becoming-hands, where hands are the hands shown in the anatomical drawing below, while also the hands who make no sense as a part? By naming a hand as a hand, am I territorializing it to a stratum in which it loses any potential it may have held when made perceptible on a different plane, through a different (whole?) body? What happens when I invoke, think-with, move-with, become hand?

As Dr. Henry Gray (1948) speaks of the human body in the image below, he draws on an image of the human being as stiff, solid, and still—as a biological being “composed of several hundred trillion cells” (p. 17) where the “form of the body is dependent upon the structures which lie beneath the skin” (p. 16). According to Gray, the physical body is best understood when dissected along three discrete anatomical planes; when conceptualized from these vantage points, the entirety of a body can be “rendered evident to the naked eye” (p. 15). To Gray, a hand is structured, inert, known, and knowable. A hand is made of a palmar and dorsal surface, filled with palmaris brevis and abductor digiti minimi, allowed to move through radio-ulnar articulations, and given structure by metacarpal bones. A hand might be part of a larger body, but it is also perceptible as only a hand, bracketed off and held as a solidified system.

How might hands act, perform, or be comprised of both what Gray (1948) and the canonical texts of human anatomy describe, while also being composed of and through “the deepest of the synaptic fissures, in the hiatuses, intervals, and meantimes of a nonobjectifiable brain, in a place where to go in search of them will be to create” (Deleuze & Guattari, 1994, p. 209)? How can hands perch on the plane of immanence, be filled with chaos and composed of “sensations, percepts, and affects . . . beings whose validity lies in themselves” (p. 164)?

If hands engage creatively as intensive, as continually reforming, and as surprising, how might we conceptualize what is traditionally supposed to be the entirety that is the “human body”? Can this body persevere as a solid whole, a bounded organism known completely by its structure and function? If we hold that “the different organs . . . only make sense and become decodable, readable, analyzable, thanks to the fact that, like letters of a corporeal alphabet, they all belong to the same assembled unity” (Braidotti, 2011, p. 194), what is this assembled unity? Who writes this corporeal alphabet? What is a body?

Touching Deleuze and Guattari lends space to interrogate a body in which there “is no ability to claim structure, no patterns to connect, no zones and lines that erode and contest boundaries” (H. Skott-Myhre, 2008, p. 140)—no dictate of biology or stringent corporeal alphabet to order a body. Deleuze and Guattari (1987) reject essentialism and universal truth, and instead favour immanent difference. Instead of understanding a body or a subject as a bounded entity, they posit that all materiality, including bodies, are “not to be confused either with an intelligible, formal essentiality or a sensible, formed and perceived, thinghood” (1987, p. 407). They position bodies as “waves and vibrations, migrations, thresholds and gradients, intensities” (p. 153) which are “not indeterminate or undifferentiated, but [express] the pure determination of intensity, intensive difference” (p. 164). Essentially, it is the coalescing of intensities in any one

instant, organized by assemblages that constantly form and reform amid stratifying and deterritorializing forces as they encounter other particles moving at differing velocities, which informs the affects (becomings, potentialities) any entity is capable of creating in any one moment, and thus constitutes the material at that instant. In conceptualizing bodies, Deleuze and Guattari draw on Spinoza (in Morgan [Ed.], 2006), who rejects Cartesian dualism of the mind and body, instead believing that mind and body are different expressions of the same substance. Spinoza proposed that “God, or substance, consisting of infinite attributes, each of which expresses eternal and infinite essences, necessarily exists” (p. 8) and “there can be, or be conceived, no other substance but God” (p. 10), meaning that everything that exists is God, and is therefore composed of combinations of the same substance.

Thinking with Deleuze and Guattari (1987), we might posit a body that “knows nothing of differences in level, orders of magnitude, or distances . . . of the difference between the artificial and the natural . . . [or] the distinction between contents and expressions, or that between forms and formed substances” (p. 69). Amid the cracks in the ordering forces of Euro-Western strata, “there are no longer any forms or developments of forms” (Deleuze & Guattari, 1987, p. 266), instead there are “only relations of movement and rest, speed and slowness between unformed elements . . . molecules and particles of all kinds” (p. 266). Bodies might move within “a world constituted of relations of force” (H. Skott-Myhre, 2008, p. 140), of “longitudes and latitudes, speeds and haecceities” (Deleuze & Guattari, 1987, p. 266), where “we witness a transformation of substances and a dissolution of forms, a passage to the limit of flight from contours in favor of fluid forces, flows, air, light, and matter, such that a body or a word does not end at a precise point” (p. 109).

Through Deleuze and Guattari (1987) a body, and anything composing any body, is constantly becoming through a “constant state of movement and transformation” (Coleman, 2008, p. 89) and can no longer be described as superficial, deep, anterior, or posterior. Rather, a body is “defined by a relation of movement and rest, speed and slowness, by a combination of atoms, an emission of particles: haecceity” (Deleuze & Guattari, 1987, p. 276); it “is not yet anything and as such might well be anything or everything” (H. Skott-Myhre, 2008, p. 140). Bodies demand to be understood beyond the constraints of a “relatively constant internal environment” (Unglaub Silverthorn, 2007, p. 5) dictated by “a body’s vital functions” (p. 2).

Engaging with data-bodies, I experiment with speaking or languaging the body, exploring how bodies might disrupt the “whole” human body, and how the “female” of female adolescent athletes might be fractured, contested, and thrown into flux. Following this exploration, I think with Braidotti to experiment with how bodies might be surprising and unpredictable. I move this chapter forward by imagining how embodiment and becoming-body/embodied might be understood as “full creative expression of life force” (H. Skott-Myhre, 2008, p. 67), as “a positive and productive agent, rather than . . . a fleshy shadow” (Hickey-Moody, 2009, p. 11).

Speaking and Sensing a Body

Do bodies speak? What is their language? How do bodies express themselves in ways beyond language as dictated by Euro-Western ordering? Scientific discourse works to give language to bodies, as though in order to be heard or made perceptible, bodies must be spoken of in terms of anatomy and physiology and as part of an entirety of the body. How do bodies make noise, speak affect, beyond such dictates of language? How do bodies evocate in ways that might trouble the anthropocentric underpinnings of speech? Can bodies speak through and within the making and materializing of words, rather than through words already assigned to their

physicality? In this section I examine Western scientific or medical language surrounding the human body and how this discourse, which acts to stabilize the complexity of human physicality, may foreclose on the body's potentiality. Next, I illustrate possible avenues through which language surrounding the body may move beyond the framework of biological discourse to position and yield language to the body as "absolute creativity; a poetics of action not reliant on outside definition" (H. Skott-Myhre, 2008, p. 38).

Euro-Western anatomy as a (constrained) performance of bodily potentiality.

Within a contemporary Canadian environment, anatomic language surrounding the body acts as a primary, perhaps contrived, method for speaking of the materiality of the body. Scientific language surrounding the body, such as that used by Gray (1948), is focused on describing the "normal functioning of a living organism and its component parts, including all its chemical and physical processes" (Unglaub Silverthorn, 2007, p. 2). Through dissection, illustration, and experimentation, this discourse works to order the body by structuring it along the lines of chemical, molecular, cellular, physiological, and ecological processes in which "all specific functions are performed by specific structures" (Martini, Timmons, & Tallitsch, 2008, p. 2). For a description of a body to be understood in these terms, one "must express [themselves] clearly, using the proper terms in the correct way" (Moore, Dalley, & Agur, 2010, p. 4). According to this mandate, the discourse that provides the "proper" words and the "correct" way to value these words must be prized above all others with "the effect of producing all other language systems as secondary to this privileged code" (H. Skott-Myhre, 2008, p. 27).

Through positioning "anatomy [as] the setting (structure) in which the events (functions) of life occur" (Moore et al., 2010, p. 2), language is placed outside of physicality in a plethora of terms derived from Latin and Greek that are no longer meaningful to the body. For example,

terms like supraspinatus and cauda equina are of little internal value to the body in which these terms apply; within the body these structures are known through sensation, action, and motion, not these names. Quantifying bodily sensations within the confines of scientific discourse positions physicality as stable and inert, completely exposed through scientific language. The structure of scientific supremacy in regard to the body serves to place biological certainty in a position of authority over individual corporeal experience. It is through this “investment in restricting or containing . . . the body within the biological and life sciences and disallowing all traces of corporeality that appear elsewhere” (Grosz, 1994, p. 20) that physicality is situated and becomes inert, and language is given, by rational, bounded humans, to the body.

When the body is positioned as subordinate to and firmly within scientific discourse, there arises an “inability to adequately express or reveal the lived experience of the subaltern group [bodies] independent of the overarching system of codes that cover over and mask the actual antagonisms and struggles they experience” (H. Skott-Myhre, 2008, p. 28). One example of this stratified overcoding of bodies is the conceptualization of the body in anatomical position where “the person stands with the legs together and the feet flat on the floor. The hands are at the sides, and the palms face forward” (Martini et al., 2008, p. 14). Within scientific discourse, all “descriptions are expressed in relation to [this] one consistent position” (Moore et al., 2010, p. 5) to reduce ambiguity between alive bodies and the cadaver dissections from which most anatomical knowledge is derived.

In quantifying physicality from anatomical position, descriptions of the body no longer indicate the jumping, affectivity, or climbing a body is capable of, and therefore fail to characterize a body’s lived experience. Furthermore, if bodies must be described from anatomical position to be meaningful within this discourse, such a form of language is then

unable to denote the fluidity and potentiality of movement the body holds. The only way that scientific language is able to make sense of physicality is if the body is reduced to lying prone, creating “a translation that renders [a moving body’s] speech inarticulate,” often even to itself (H. Skott-Myhre, 2008, p. 29). Can bodies articulate, affect, or speak outside of the constructed dictates of scientific dominance?

Bodies as a performance of bodily potentiality.

If scientific discourse is unable to express the lived experience of a body, then within any alternative discourse “speech must be able, in some way, to express the antagonisms and desires of the subaltern [the body]” (H. Skott-Myhre, 2008, p. 30). That is not to say that in order to render language meaningful to the body all notions contained within scientific discourse must be rejected. Rather, the certainty of truth contained within locating anatomy as the setting of life must be countered by a language in which “no one set of meanings can be absolutely true” (H. Skott-Myhre, 2008, p. 32). In positioning the body along the plane of immanence, language must adapt so that it “becomes less important whether a representation is fully accurate” (p. 32) and is focused more on the “creative potential of the description” (p. 32) of a body. Language must be repositioned from outside of a body lying in one standard position, and be relied on only to “order the world rather than describe it accurately in a way that can be communicated between subjects” (p. 33). Essentially, language must be meaningful within one body and materialize (as) the lived experience of this body.

If language surrounding the body is to be of value within the body, and we imagine bodies in the liminal veins of Deleuze and Guattari, any appropriate form of language must be fluid enough to encompass all aspects of physicality. This language must “stop making sense through ordering the world [as scientific discourse does] and begin to create the world in motion,

as fragments of perception organized in the moment of the act between bodies” (H. Skott-Myhre, 2008, p. 36). As “the pure matter of the plane of consistency . . . lies outside the strata” (Deleuze & Guattari, 1987, p. 45), any language given to the body must move beyond the ordering strata of biology; it must deterritorialize from the strata to “the plane of consistency [which] is always immanent to the strata” (p. 57). This language must allow for an understanding that “individuals do not use speech or language, they are productions of speech and language who then produce more speech and language” (p. 38). Considering these demands on traditional forms of language, coupled with the potential of every body to produce speech, perhaps “the force of bodies together simply can never be fully contained by language” (p. 35) of a traditional nature.

If the force of bodies strains the borders of conventional language, then there must be an additional way in which bodies can express themselves. Perhaps bodies speak a language of physicality similar to “evocatory performative linguistics” (H. Skott-Myhre, 2008, p. 38), where “utility is separated from a particular framework of effect and released into the full desires of creativity itself” (p. 38). This language of bodies is not constrained by words and “flees appropriation through observation, categorization, or structural analysis” (p. 38). Using this language, bodies speak through a “flight of creative articulation [which] produces passages across the social world that exceed the capacities of order” (p. 39).

This language of physicality, which places a body as the setting of life, circles back to embody scientific discourse as perhaps it is through chemical, molecular, cellular, physiological, and ecological processes that the body is enabled to speak. It is the material value and sensation that any one body gleams from these processes that serves the function of giving language to the body. Further, it is the infinite productions and interpretations of these bodily processes that

enable bodies to be understood as a liminal difference of the solidified, stable, “looking in” Cartesian notions of embodiment.

Hearing hockey-bodies.

The humanistic five senses of touch, smell, sight, hearing, and taste are often the foundation of embodiment studies, with these specific sites of embodiment targeted as conduits of insight into the body. These Euro-Western five senses tie closely to biological knowledges of speaking and knowing the body. Hockey and Allen-Collinson (2007) depict “a range of sensory activities involved in sport” (p. 118). The first of these is movement, which targets “sensations emanating from organs (including the skin), ligaments, tendons and muscles” (p. 119). Then, as “perhaps the most fundamental way in which sportspeople listen is to their own embodied selves” (p. 120), the next area of focus is the aural. A third focus for embodiment research is the visual, as “sports participants see in active ways so as to make sense of [their environment]” (p. 121). Since “sport is often intimately connected with sweat and a certain kind of pungency” (p. 122), the olfactory is a fourth focus. Finally, the haptic experience is emphasized, as a “sportsperson’s touch is mainly an active one combining pressure between the sporting body, terrain and equipment” (p. 123).

While being aware of these Euro-Western conceptions of sensuality might prove valuable within my engagement with athletes, this division and concretization of perceptive experience into five distinct categories diminishes the potentiality of any sensory integration (for example, might athletes perform a haptic-aural-movement?), but it also leaves little space for any event that might be outside the language attributed to these five senses.

Evers (2006) proposes that embodiment might be thought of as a practice of researching “through bodies in a way that does not treat biology as given but affective, liminal, moving,

doing and creating” (p. 233). In this way, Evers positions biology, and the five senses, as another force amid the multiplicity of forces with which a body might interact, such that any sense or amalgamation of senses, might inform what a body can do in diverse ways in any instant. If any traditional sense is liminal, moved toward its borders, then perhaps we might imagine any one sense as fractured—for example, sight is no longer solidified sight, with me seeing the outside world; instead sight becomes tangential and creative. Sight is no longer one sense, bracketed off from taste, but comes to be through and of taste and touch and the auditory. Sight becomes-minor and throws itself toward an infinite, fast-moving horizon of alterity, opening space for sight to be disobedient, surprising, and productive. Thinking with Deleuze and Guattari, we might imagine the becoming-minor of any traditional sense, until all semblance of traditional embodied sensing is thrown into immanent flux.

Such a data-body, threaded through with immanence, emerges from an imagining of hockey in darkness with athlete-participants: How does your hockey-body change if the lights go dark?

If the puck was like glowing bright blue and the boards, there were like dots all over the boards and different coloured dots and the benches and every player, their helmet was glowing . . . you'd be able to hear things better so you'd be able to hear hockey.

What is the hearing we are invoking in this discussion? Do we not hear hockey when the lights are on? If there is a singular auditory method, to be able to hear hockey only when the lights are out implies that hearing is not present, or at least is filled with difference, when the lights are illuminated. Perhaps the hearing we are hearing is multiple? Is this hearing connective, made in the coalescing of darkness and bodies, rather than through a linear transmission of the

sounds of hockey toward the human ear? Is naming what happens in the event of “hearing” with the broad swipe of Euro-Western-dictated “hearing” adequate?



A HOCKEY-BODY IS NOT HEARING HOCKEY;
HEARING HOCKEY IS A HOCKEY-BODY

If we pause to inhabit-with the language that traditional scientific discourse might give us to understand hearing, hearing emerges as a strictly linear process involving a sound wave that travels to a human and transmits a neurological message down a predictable, stable pathway:

Sound waves striking the outer ear are directed down the ear canal until they hit the tympanic membrane and are converted into vibrations. . . . These vibrations are transferred to the malleus, the incus, and the stapes, in that order. . . . As the stapes vibrates, it pulls and pushes on the thin tissue of the oval window to which it is attached. Vibrations at the oval window create waves in the fluid-filled channels of the cochlea. . . . As waves move through the cochlea, they push on the flexible membranes of the cochlear duct and bend sensory hair cells. . . . Neurotransmitter binding . . . send[s] coded information about sound through the cochlear nerve to cranial nerve VII and the brain. (Unglaub Silverthorn, 2007, p. 350)

If we hear hockey differently, hear a differential hockey, when the lights are not bright, does such a stable notion of sensing and hearing hold merit? Is this understanding of hearing the only hearing that happens for hockey-bodies? If we work to hear the body in such a way as to disrupt the stability of this scientific hearing, we can touch physical sensation “not as a fixed object but as a line of infinite extension” (H. Skott-Myhre, 2008, p. 16). Hearing one hockey moment is not identical to hearing (in) another hockey moment. Hearing becomes a multiplicity, as hearing becomes hearings, as various forces come together to mark iterative sounds and idiosyncratic bodily interactions that we might hear. Hearing becomes embedded in the constitution of any moment, such that the separation between outside and a hearing individual within humanistic hearing is no longer enough. A hockey-body is not hearing hockey; hearing hockey is a hockey-body. To name hearing as simply hearing, a molar sense, infringes on the various, and perhaps unknown, hearing that the body might be enabled to speak with if we imagined hearing as “affects and local movements, differential speeds” (Deleuze & Guattari,

1987, p. 260). Hearing is an encounter, hearing is an event. To hear is more than waves vibrating in the cochlea. Hearing is made of the stuff of stapes and cranial nerves, but consists of other local forces and bodies, such that hearing might coalesce in an energized, powerful, “radical performance” (H. Skott-Myhre, 2008, p. 17) of its own potential.

Hearing hockey in the dark is not strictly bracketed to the auditory. Hearing is not localized to the human ear. Hearing is threaded through with the smell of touch, the taste of sight, and the sound of taste. Hearing “produces itself through lines of force that criss-cross its surface, simultaneously composing and fleeing their own composition” (H. Skott-Myhre, 2008, p. 16). Darkness touches the auditory; the well-dictated boundaries of sight and hearing collapse through each other, such that being able to hear hockey in this moment becomes see-hearing, auditory-looking. The aural marks a “contradictory and discontinuous story” (Sermijn, Devlieger, & Loots, 2008, p. 634) in which the anthropocentric labelling and languaging of sensing implodes into “anonymous matter, [marked] by infinite bits of impalpable matter entering into various connections” (Deleuze & Guattari, 1987, p. 255). Traditional hearing—and, we might imagine, all sensing—can no longer stand as a holistic or adequate language of the body. The body speaks through touch-yelling, quiet-smelling, impatient-sight. This coming together of various forces, from both what might come to be a localized body and all the forces surrounding and making such a body, can be understood as bodily language. Such a speaking is inherently incongruous, constituted only by intermittent instances of “movement and rest, slowness and speed” (p. 253). Any sense, any “ability to detect [or speak] in pressures and textures” (Kirby, 2011, p. 133), is “necessarily differentiated/disrupted a any sensory modality, not just within itself, but because its ‘own’ sense is also enlivened by an entire field of corporeal sensation” (p. 133). The language of the body becomes unpredictable, disobedient, and affective

in its own corporeality. What if we hold that this fractured speaking is a speaking of the body, a screaming of a local embodiment?

In this moment, hearing as an unstable, temporal, and active force might come to be part of a body, but it no longer fits in its traditional specific bodily location. Hearing is not chained to the ear. If hearing no longer fits into the predictable puzzle of the body given to us by traditional scientific discourse and instead speaks with a fractured language of the body, a rethinking of the “whole” status of the body is required. If bodies are the difference to a stable amalgamation of sensations, organs, and carbon, then are bodies ever complete? Do bodies need well-contoured borders to be bodies?

Bracketing Bodies

If we imagine that bodies are fluent in their own material language, we might posit that Euro-Western forces hold similar expertise in demarcating a body’s boundaries. Here, a body is masterfully bracketed off as a knowable and known singular amalgamation of skin and bone, where “critical interest ends at the skin” (Alaimo, 2010, p. 10). This body holds great strategic value for numerous Euro-Western dictates, including scientific supremacy, neoliberal individuality and accountability, and commodification of physicality for capitalism-nourished intentions. Bodies are assumed to be whole and complete, with skin separating me from you. Traditional notions of embodiment also draw on this body, as I “embody” a phenomenon, such as spirituality, by taking it into the whole of my body, physically sensing its affective capacity. What happens if we trouble such a notion, openly questioning the legitimacy of a body ever being complete or whole? What can a body do if physicality “has no stable core, but is multiple, multivoiced, discontinuous, and fragmented” (Sermijn et al., 2008, p. 636)? What if to embody is

not to take in—because to take in implies a clear bracketing off of one from another—but to be with: a cocreation?

In this research, bodily borders emerged often in data-body discussions with participants. The question “well, where does that body end?” was ever present, evoked with nearly every image. This presence was especially tangible when we discussed equipment, when descriptions of how one’s hockey-body extends past the skin to pucks, boards, lights, and protective Jills to gather together far more than a traditional body when being active materialized: “*Your skate kind of has to work with you.*” Such discussion hinged itself on hierarchical descriptions; we would name the hockey-bodies in an image by asking, “What is the most important/central hockey-body?” We then named bodies until the bodies overlapped and merged, becoming entangled and troubling any notion of an inherent or clear boundary of a body.



Skates are not flesh nor nerve nor bone, but can be conceptualized as part of a hockey-body—*“If it’s too tight or too loose, it changes your body.”* Skates are active as part of the riddle of wondering what a body can do. In a local embodiment that is a hockey-body, skates become skate-feet, skate-knees, skate-hips, skate-helmets. Ice, air, Velcro, glove-hands, and hair-sticks become connected with and implicated as a hockey-body comes to be practiced. The anthropocentric brackets drawn around bodies, limiting their scope to skin and bones, dissolves.

The borders of a body cannot be nailed down with any certainty or consistency, and are instead only made in any moment, any singularity, any local embodiment.

With Deleuze and Guattari, a (liminal) body “cannot know itself until it has expressed itself through all of the bodies involved in its expression” (H. Skott-Myhre, 2008, p. 72). “All of the bodies” involved in the experience of any body leaps outside the Euro-Western notion of a body as human or mammalian to include all coagulations of material-discursive forces—any intensities, any forces, any “body”—and must also then include the corporeality of a bodily singularity. If all intensities intermingle in “a perpetual field of interaction” (Deleuze & Guattari, 1987, p. 370), this means that not only can a body not “be aware of itself until it collides with all of the other bodies in the moment of the act” (H. Skott-Myhre, 2008, p. 72), but it must also collide with itself in each moment. Bodies are made perceptible in the moment of their impact with any and all other bodies, and the brackets that delimit any body are also made in this collision. As such, bodies are the stuff of traditional human material, but also the othered material-discursive stuff that falls outside of that which is designated as human. Bodies are filled with an immanent “series of processes, organs, flows, energies, corporeal substances and incorporeal events, intensities, [and] durations” (Grosz, 1993, p. 170).

If bodily borders emerge only momentarily, can a body ever be whole? If bodies are made through a series of unknown and unpredictable moments informed by “speeds and compositions of speed among elements” (Deleuze & Guattari, 1987, p. 400) within “the field of life that surrounds [the body]” (H. Skott-Myhre, 2008, p. 71), are bodies ever complete? Do bodies require a sense of wholeness or bracketing off, of meeting all the Euro-Western requirements of a body, to be a body? What if bodies are never complete, if incompleteness is part of a body? Perhaps bodies are becoming-bodies, rather than bracketed-bodies. We can

conceptualize bodies as actively making disjointed brackets, as momentarily bracketing, rather than solidly bracketed. Maybe the brackets of bodies are fragmented, active in their discontinuity, as the “body constantly produces itself” (H. Skott-Myhre, 2008, p. 71) through random collisions with itself and others. In this way, the body “no longer tolerates segments” (Deleuze & Guattari, 1987, p. 197) or scientific ordering and instead deterritorializes toward a smooth, “intensive rather than extensive space, one of distances, not of measures and properties” (p. 479), an experimental, nonbracketed, continually reassembling body, active in the making of its own momentary, potentially fractured limits.

Imagined in this way, bodies are an invitation to experiment with, not “signify and interpret” (Deleuze & Guattari, 1987, p. 139) our understanding of, and relationship to, any body. In the local milieu of female adolescent athletes, the social dictates of femininity loom large. As such, the expectations and limits that accompany femaleness play into the composition and potentiality of any data-body.

Next, I experiment with the notion of the feminine through Deleuze and Guattari, troubling the dictates of this force and imagining how the body might speak or make and remake its borders as it disobeys and reassembles with the feminine.

Multiply Transitory Female (Adolescent Athletes)

Femininity and the colonial gender binary.

The male/female gender binary is prevalent not only in contemporary Euro-Western culture, it is also central to discussions of adolescence (Lesko, 2002) and sport (Adams et al., 2005). According to Lugones (2007), the colonial gender system functions on “biological dimorphism [and] the patriarchal and heterosexual organization of relations” (p. 190) wherein there are two sexes based on anatomy. This reliance on biology creates a “binary opposition of

male and female” (Grosz, 1994, p. viii), such that all people are assigned a mutually exclusive sex. Stemming from this designation comes a mandatory set of behavioral expectations known as gender, wherein one is expected to practice either masculinity or femininity. Because gender expectations are based on a binary, gendering functions with an assigned heterosexuality: to be masculine or feminine is to desire the appropriate counterpart in the male/female binary.

The scientific knowledge that sustained this gendering process positioned males as the majority, or those at the top of the normative hierarchy, since scientific knowledge was an inherently masculine domain in the colonial era (Castañeda, 2001). As such, the benchmark of scientific normality referred to those who were white, able-bodied, and male and who contributed to the economic welfare of the colonial project: “unified, self-reflective [men] with coherent identities and emotional control” (Lesko, 1996, p. 142) who both demarcated and exemplified the normal, while also identifying and classifying the abnormal. Anyone who fell outside of the category of male was minoritized and thus afforded less social clout in conjunction with restricted access to resources. Further, as the category of female was subordinate to that of male, it was imperative that women not display the same traits or intellectual capacity as men. Additionally, child rearing was understood to inextricably link women to their physicality, and though this feminine physicality, the dominant (male) population could proliferate through women’s bodies. Women were positioned on the body side of mind/body duality, subordinated to a position similar to that of children and savages (Castañeda, 2001).

To practice femininity amid male hegemony was to perform as docile, attractive, weak, and cooperative, and to accept reproduction and child rearing as a responsibility to the state project of colonial domination (Lesko, 2002). Within a contemporary Euro-Western context, “gender is an ever-present construct that crosses borders of race, ethnicity, sexuality, class and

ability, among others” (Saraceno, 2012, p. 254); consequently, the colonial understanding of femininity remains insidiously germane. When this passive, frail, appearance-oriented femininity interacts with forces of neoliberalism, females are required to take responsibility for managing their own performances of femininity (Harris, Aapola, & Gonick, 2000). By requiring women to patrol their own actions and bodies such that they manifest colonial expectations of femininity, masculinity is able to assert its position of dominance.

Tasked with performing each day amid colonial understandings of gender that hinge on a system of dichotomizing, I wonder how female adolescent athletes might embody such a pervasive reliance on binaries? How might us/them valuations permeate sporting bodies? How might a binarized understanding of gender affect what a female adolescent sporting body can do as it moves? Does a neoliberal mandate of individual agency and patrolling of one’s own female body inform the embodied experience of female adolescent athletes? How might a (female adolescent athlete) body trouble such a stable notion of femininity, agitating all that is traditionally taken to be the limits enacted on a body by the dictates of “female”?

Fractured femininity.

Thus far, I have argued that a language of scientific anatomy that knows bodies only through predetermined criteria and words is inadequate to describe the infinite ways that a body might speak or affect. In this vein, I then imagined a body that iteratively and continually reassembles, bracketed only by borders that are themselves fractured and active in the composition of the body they are part of. Following the theorizing of this notion of a body, the preestablished limits imposed on a body by Euro-Western dictatorial forces of femininity no longer hold the same solidified strength as they might when a body was described on the mind/body divide, strictly bounded in its knowable character.

Femininity is typically exemplified by expectations of obedience, attractiveness, feebleness, and submission. An almost obvious rebuttal for these expectations would be to experiment with ways in which data-bodies might be disobedient, strong, or bold or fall outside heteronormative standards of beauty. Following this reasoning, by virtue of their athletic character these athletes violate expectations of the female, adopting male traits such as aggression or competitiveness. Such logic still falls within the binary-driven structure supported by the mind/body, male/female dichotomy—this argument would simply attribute male traits to female athletes. Thinking with Deleuze and Guattari demands that we explode with this binary logic, injecting the male with the female, the obedient with the beautiful, the bold with the weak.

For Deleuze and Guattari (1987), the making of a female body becomes problematic when a body becomes marked or structured by stratified sanctions. A resistant body, a composition that flees from strata, can be conceptualized as a body without organs (BwO), and is opposed less to organs as such than to the organization of the organs insofar as it composes an organism. The body without organs is not a dead body but a living body all the more alive and teeming once it has blown apart the organism and its organization. (p. 30)

The BwO is made of multiplicities, corporeal and otherwise, that assemble to respond to the question of what a body might do. For Deleuze, the physical body is a collection of “a multiple and diverse series of connections which assemble as a specific spatial and temporal moment” (Coleman, 2008, p. 168). The BwO is “not at all the opposite of the organs” (Deleuze & Guattari, 1987, p. 158) but is “where assemblages are productive . . . it is where organs defy the organism by entering new and undefined relationships” (Jordan, 1995, p. 128). A BwO is a body:

before the extension of the organism and the organization of the organs, before the formation of the strata. . . . [It is] defined by axes and vectors, gradients and thresholds, by dynamic tendencies involving energy transformation and kinematic movements involving group displacement, by migrations. (Deleuze & Guattari, 1987, p. 153)

The BwO is just “beyond the physical limits of the physical body” (Buchanan, 1997, p. 79) such that “it is the body’s limits that define the BwO” (p. 79). Therefore, while “you never reach the [BwO]” (Deleuze & Guattari, 1987, p. 150), a body must “increase its capacity to be affected” (Buchanan, 1997, p. 88) by “strugg[ling] to push the BwO, as the limits of its capacities, further and further away, and thereby enlarge the envelope of what it can do” (p. 88).

Returning to desire, a BwO is “the *field of immanence* of desire, the *plane of consistency* of desire” (Deleuze & Guattari, 1987, p. 154, italics in original) wherein desire is productive. A BwO does not necessarily exist to “oppose or to step out of the strata but [may instead] create new territories that gradually allow the strata to smooth out” (Markula, 2006, p. 42). In fact, because desire is only productive and not necessarily positive, the BwO must only be “a cautious escape from the smooth-striation-smooth ordering of the organism or body or person” (Goodley, 2007, p. 153).

The BwO may escape territorialization upon a line of flight, whereby nomadism is marked by this fleeing from structuration (Fox, 2002). Nomadism is a process that continually resists a fixed perspective (Fox, 2002). As such, it is the absolute deterritorialization of the BwO (Fox, 2002), so that a body may be “free to roam, untrammelled by the territorializations of power, and free to resist” (p. 355). This “dismantling of the organism,” Deleuze and Guattari (1987) write, “has never meant killing yourself, but rather opening the body to connections that

presuppose an entire assemblage, circuits, conjunctions, levels and thresholds, passages and distributions of intensity, and territories and deterritorializations” (p. 160).

The BwO fractures femininity. It creates by creating a multiplicity of femininities, an infinite series of bodily performances that assemble as fractured “femaleness.” Femininity no longer ascribes to a linear transformation from girl to woman, all the way bounded by normativity, but stutters and becomes reversible (Renold & Ringrose, 2011). Importantly, femininity does not dissolve into nothingness. A utopic image of a gender-free becoming is not invoked; instead, femininity becomes contested and multiple. Colonial femininity still plays into the composition of a hockey-body: *“Once the ref was like, we were lining up for the faceoff, and he was like ‘do you like Taylor Swift?’ I’m like, what?”* No matter how active a crouched-over, stick-clenching, hockey-body might be, femininities still matter in a body. The pervasiveness of gender expectations is both problematic and generative, performing a complex and fluid femininity within hockey-bodies.

Injecting a body with the stuff of multiplicities carefully disrupts the ordering forces of Euro-Western colonial femininity. No longer is femininity defined in opposition to the masculine. Such a binary is profoundly disrupted by a body that gives no credence to a mind/body divide, and is instead populated by an assemblage of intensities. The data-bodies in this experiment do not become-male through their hockey-bodies. Rather, they become hockey-bodies, they become-bodies. Forces coalesce to perform a body that can no longer be described by “femininity” and instead flees such dictation. Ponytails, the long hair traditionally ascribed to the female gender, are part of hockey-bodies, but they are ponytails that are not entirely constrained by gender norms. Ponytails are part of a body, not a symbolic marking of a body. Ponytails rub on necks, they become entangled with Velcro, their texture changes as they interact

with sweat and become matted. Ponytails become only part of a body, active as part of the assemblage that acts as a body. Hair is affective, relational to “the moving body in itself, to speeds and compositions of speeds” (Deleuze & Guattari, 1987, p. 400). Ponytails are intensities on a speed vector. Any ability that a ponytail has, as it comes to be within and of a body, to “affect and be affected” (p. 261) works to define a body, as the body is known through “the sum total of the intensive affects it is capable of at a given power” (p. 260).

Ponytails are a fractured femininity. Secured in, but also straining, the hair ties that shape their movement, ponytails “foreground the transitional space of young femininity as always in-movement . . . as multiple, liminal and reversible” (Renold & Ringrose, 2011, p. 392). Ponytails hold within them the structures of the colonial gender binary, but also work in the cracks of this binary to perform a fluid and momentary femininity, a femininity that speaks outside the language of science and Euro-Western expectations, both formed in and forming the temporary and splintered brackets of any body.

Nomadic Puck-Shooting Bodies

Braidotti (2011) inhabits-with her Deleuzian training to think with sex and gender, imagining a “morphologically dubious” (p. 226) body that is capable of being both made of asymmetrical sexual difference, while also fragmenting any sexual difference. Fractured femininity composes with a body, in tandem with the material difference afforded to any body by histories of gender and sexuality. As such, femininity does not dissolve, for if it were to disband it would do injustice to the material temporalities of a female body. Rather, bodies are active within sexually differentiated becoming and “consequently take different forms according to different gendered positions” (Braidotti, 2011, p. 259). For Braidotti, a “body refers to the materialist but also vitalist groundings of human subjectivity and to the specifically human

capacity to be both grounded and to flow and thus transcend the variables . . . that structure us” (p. 25). The transcendence that she imagines a body inhabiting implies “a transcendence of the present, not in a flight away from the body by rather in a radical exploration of the immanence of the flesh” (p. 109).

Thinking through the examination of anatomical language and its constraining power within the body, Braidotti (2011) echoes this radically fleshy body by conceptualizing an “intensive body, desiring body, sexually differentiated body, organs-without-bodies body, for whom anatomy is no longer destiny” (p. 188). Bodies assemble as a “layer of corporeal materiality, a substratum of living matter endowed with memory” (p. 158), such that a body might become as “nomadic because it is intensive, multiple, embodied, and therefore perfectly cultural” (p. 162). With Braidotti, bodies are slices of organic and libidinal contradictory forces, both socially formulated and resistant within such stratified forces. Thus the “spatiotemporal coordinates we have learned to recognize as the body” (p. 109) can be surprising in their nomadic tendencies, active, as Hans Skott-Myhre (2008) asserts, as “creative performance[s] of the body by the body” (p. 71).

“You have to get used to the shot,” I’m told when participants and I discuss an image of a hockey-body directing the puck at the net. As illustrated in the data-body image below, which is an excerpt from a transcript, hockey-bodies are unpredictable. If the body “is a surface of intensities and an affective field in interaction with others” (Braidotti, 2011, p. 25), net-puck-skate-arm relations, as they come together as a body, are a stuttering, surprising complex. What might traditionally be formulated as a skill, or lack thereof, related to shooting the puck reassembles outside of the normative judgmental machine that ranks skill to become a fractured, liminal performance of a body. The puck facet of a hockey-body gliding along the ice, rather

than driven to the top corner of a net, is no longer judged as a failure of skill. Rather, it reassembles as a surprising performance of a body. The bottom-left-corner-puck-hockey-body does something: it is affective; it has potentiality; it is generative in its unpredictability. It speaks with the velocity of the puck, communicates through the momentum of twisting shoulders and strained hips, and screams with the viscosity practiced by the fluffy snow piled on the ice. Ponytails, threaded through with the specificity of sexual difference and the stratified dictates of colonial femininity, are also active in the relations of this hockey-body-shot. Hockey-bodies don't always launch pucks along a trajectory a body might imagine. In this way, hockey-bodies perform their nomadic, rhizomatic potentiality, and their volatility is part of the stuff that comes to make a body. Hockey-bodies interject within modernist conceptions of sporting embodiments, performing "joyfully disrespectful affirmations of positive and multiple differences" (Braidotti, 2011, p. 273).



LIKE ONE TIME IN A GAME I WAS LIKE, EVERY SHOT I TOOK IN WARMUP DIDN'T LIKE, JUST KIND OF FLAT, KIND OF WAS ON THE ICE SO I WAS KIND OF WORRIED FOR THE GAME. BUT SOMETIMES I'LL MISS A SHOT OR I'LL SHOOT IT AND IT'LL BE ON THE ICE AND THE GOALIE WILL SAVE IT REALLY EASILY AND I'LL BE LIKE, AWWW... BECAUSE I KNOW I COULD HAVE RAISED THE PUCK.

SOMETIMES I GET REALLY FRUSTRATED WHEN I'M KIND OF LIKE, WHEN I CAN'T RAISE THE PUCK IN THAT PRACTICE, I'LL BE LIKE, WHY CAN'T, YOU STUPID PUCK.

I NEVER BLAME THE PUCK.

I GOT MAD AT MY STICK.

WELL I THINK THAT IF YOU MISS IT ONCE AND THEN YOU KIND OF GET LIKE, OH I MISSED IT SO THEN YOU GET THINKING ABOUT IT AND YOU'RE GETTING ALL WORKED UP SO YOU JUST YOU JUST TRY AND YOU KEEP MISSING IT, YOU KEEP MISSING IT, SO YOU KEEP GETTING ANGRY.

YEAH, BECAUSE YOU KNOW EVENTUALLY YOU'LL GET IT RIGHT, YOU KNOW? LIKE IF I SHOOT IT AND IT JUST LIKE STAYS ON THE GROUND, I'LL BE LIKE AHHHH, AND I'LL SHOOT IT A FEW OTHER TIMES, MAYBE YOU'LL FLIP THE PUCK ONCE TO REASSURE MYSELF I CAN GET IT IN THE AIR.

Momentary Local Embodiments

Touching Deleuze and Guattari along with Braidotti conjures a body that is liminal, creative, and nomadic, composed of infinite intensities, resistant within but always threaded through with molar ordering forces. Working to articulate a local embodiment through these bodies formulates embodiments that can be

defined only by a longitude and a latitude: in other words, the sum total of the material elements belonging to it under given relations of movement and rest, speed and slowness . . . the sum total of the intensive affects it is capable of at a given power or degree of potential. (Deleuze & Guattari, 1987, p. 260)

Embodiments are momentary assemblages, informed only by “relations of movement and rest between molecules or particles, capacities to affect and be affected” (p. 261). This adds a temporality, a temporary character, to thinking embodiments. Embodiments are nourished by relations, their liminal potentiality both symbiotic with and parasitic on historically contemporary, non-linear mandates of ordering. Corporeality might become productive through its generative speaking, its iteratively fractured and fracturing borders, and its momentary performances of bodies.

Braidotti calls attention to a local embodiment whereby sexual difference and the historicity of a body is tangible. In this way, we can conceptualize “embodiment as positionality” (Braidotti, 2011, p. 128), as embodiment becomes through a “point of overlap between the physical, the symbolic, and the sociological” (p. 127). Embodiments are not utopic. They are filled with intensities and potentiality, but must touch the alteritous materiality of their own politically injected bodily histories.

Even if physicality might be understood as productive, “the materialization of bodies cannot be reduced to embodiment” (Barnard, 2000, p. 673): there is a material reality involved somewhere/how in bodies, but it is not contained by the physical. Holding to this tenet, Atkinson (2010b) states that embodiment might involve “simultaneously experiencing the material and non-material parameters of human existence” (p. 1263). This means that embodiment must not attend only to physicality, but must extend to alteritous forces with which a body might interact. Perhaps these forces might be acknowledged by considering how bodies are lived “within and across multiple sites of connections and negotiations” (Budgeon, 2003, p. 51). This body, a connective and not only corporeal body, seems to highlight that physical bodies are dynamic and contextual. If this is the case and physical bodies are malleable, perhaps we might “rethink embodiment in conjunction with movement” (Braidotti, 2003, p. 55) and consider embodiment itself as transient and enacted within a realm of material and nonmaterial forces.

If, with Deleuze and Guattari, we understand the body as an idiosyncratic aggregate of forces, and both physicality and embodiment as transient as they engage with a plethora of other intensities, while still being constrained and enabled by various forces, might there be a way in which all these factors come together in their moment-to-moment manifestations? Bray and Colebrook (1998) argue that the body can be thought of as “the event of expression” (p. 36), and this conception of the body as an event or enactment seems extremely appropriate in defining embodiment. Events might be ephemeral, unpredictable, local, and contextual and are enacted or performed by the forces implicated in an event.

Drawing the above experiments together, a working definition of embodiment that touches Deleuze, Guattari, Braidotti, and the secondary scholars who imagine with them, might involve researching through the event of the body, attending to how a body might affect, interact

with, or negotiate multiple sites of connection, (material and nonmaterial) forces, relations, and intensities (of gender, biology, and race, for example). Embodiments involve events of body/bodies, appreciating what any body might be doing as it is enacted in various moments and within unique relations and aggregates of forces. In this way, perhaps we are always becoming-embodied, becoming-bodies?

Thinking with these momentary embodiments creates the potential for understanding the “infinite pliability of the body” (Grosz, 1994, p. 210), where bodies move beyond biological determinism to be seen as “an open materiality, a set of (possibly infinite) tendencies and potentialities which may be developed” (p. 191). Grosz imagines a body where difference is performed of and through the body, developing an embodiment that thinks with Deleuze and Guattari but develops into a differential embodiment. Holding all of the previous experiments, I now move to touching with Grosz as I continue to imagine with embodiment(s), thinking with enfolded, entangled, and emplaced local embodiment(s) through the hockey-bodies of female adolescent athletes.

Two Within Three: Enfolding Embodiments

Grosz positions corporeality as essential in her work to dismantle the male/female binary, stating that “the construction of alternative models of corporeal or carnal existence, if they are to represent both sexes adequately, should place special emphasis on women’s particular corporeal experiences” (Grosz, 1987, p. 14). Grosz (1994) calls for a feminist corporeality wherein “bodies themselves, in their materialities, are never ever-present, given things, immediate, certain self-evidences because embodiment, corporeality, insist on alterity, both that alterity they carry within themselves . . . and that alterity that gives them their own concreteness and specificity” (p. 209). In this way, Grosz highlights the alterity and malleability of the body, in which a body is neither strictly biological nor culturally determined. Consequently, she calls for a “tracing of the kinds of libidinal pathways across women’s bodies that various corporeal flows make possible and in turn respond to” (p. 203) so that “the subject is no longer seen as an entity—whether psychological or corporeal—but fundamentally an effect of the pure difference that constitutes all modes of materiality” (p. 208).

Grosz adopts the Deleuzian concept of becoming. She states: “becoming-women disengages the segments and constraints of the molar entity in order to reinvest and be able to use other particles, flows, speeds and intensities of the BwO” (Grosz, 1993, p. 177). She cautions, however, that Deleuze and Guattari “sever becoming-woman from being-woman, and make the specificities of becoming-woman crucial to men’s quest for self expansion” (p. 179). Grosz holds to the notion that “women, insofar as they are human, have the same degree of solidity, occupy the same genus, as men, yet insofar as they are women, they are represented and live themselves as seepage, liquidity” (Grosz, 1994, p. 203). In this view, female bodies are of the same materiality as male bodies, but yet there is a corporeal experience specific to women.

Grosz (1995) focuses specifically on the body, which she views as a “concrete, material, animate organization of flesh, organs, nerves and skeletal structure, which are given a unity, cohesiveness, and form through the psychical and social inscription of the body’s surface” (p. 104). According to Colebrook (2000a), this means that “the body is not that which resists meaning, nor is it constitutive outside to the structures of meaning; the body is a becoming meaningful” (p. 86). The body, therefore is “organically, biologically, ‘incomplete’; it is indeterminate, amorphous, a series of uncoordinated potentialities” (Grosz, 1995, p. 104). Grosz (1994) believes it follows then that “the body must be seen as a series of processes of becoming, rather than as a fixed state of being” (p. 12). With Grosz, the body is process, it is incomplete, and it is in unending motion as it continually forms and reforms itself as and with a/any body.

Touching Flesh

Thinking with Grosz, I come to see the body as “neither—while also being both—the private or the public, self or other, natural or cultural, psychical or social, instinctive or learned, genetically or environmentally determined” (1994, p. 23). The body is an enfolding, a touching of any binary to itself, such that “flesh is being’s reversibility, its capacity to fold in on itself, a dual orientation inward and outward” (p. 100). Flesh, skin, corporeality, are active and dual. The body continually touches itself, evoking the touch that this project’s methodology feeds off.

Flesh is always touching itself and its alterity; it is liminal. Flesh is of a body, but also more than a body. Flesh is born of the “indeterminate and reversible phenomena of the being touched of the touching, the crossing over of what is touching to what is touched” (Grosz, 1994, p. 100). Flesh is an enfolding. The flesh of an ear is also the flesh of hearing, of femininity, of speaking. Thinking flesh with Grosz enfolds with the previous experiments with theorizing hearing, hands, and gender. Flesh is not the limit, the border of a body, but “the ambiguity which

entails that each hand is in the (potentially reversible) position of both subject and object, the position of both phenomenal and objective body” (Grosz, 1994, p. 100).

“THE FLESH IS COMPOSED OF THE ‘LEAVES’ OF THE **BODY** **INTERSPERSED** WITH THE ‘LEAVES’ OF THE WORLD.”



LINKING AND SEPARATING THE ONE FROM THE OTHER, THE ‘**PURE DIFFERENCE**’ WHOSE **PLAY** GENERATES PERSONS, THINGS AND THEIR **SEPARATIONS** AND **UNIONS**”
(GROSZ, 1994. P.103)

Momentary Local Embodiments

Grosz articulates a continually enfolding embodiment where what comes to be a body is also made of the stuff of what is not that body, such that an embodiment is composed of body

and world: all matterings. Embodiments are fluid, immanent, and an enactment of pure difference. With Grosz,

the body is a most peculiar “thing”, for it is never quite reducible to being merely a thing; nor does it ever quite manage to rise above the status of a thing. . . .

Human bodies, indeed all animate bodies, stretch and extend the notion of physicality that dominates the physical sciences, for animate bodies are objects necessarily different from other objects. . . . Bodies are not inert; they function interactively and productively. They act and react. They generate what is new, surprising, unpredictable. (1994, xi)

Grosz bridges a transition between thinking bodies with Deleuze, Guattari, and Braidotti through imagining embodiments of biology, where the corporeal material of bodies, the flesh, becomes animated as the excess of traditional science. Flesh, through Grosz, pushes the following experiments in the direction of the material, toward a bio(logy) (Kirby, 2011) of corporeality that attends to the contested, momentary, and messy stuff of the body.

Chapter 3. Touching Science(s): Messy Biologies, Microontologies, and Performative Bodies



Anatomy has been interrogated as limiting, as a dictatorial aspect of a machinic scientific assemblage that is highly effective as foreclosing on the communicative, liminal, and intra-active potentiality of bodies. Is the anatomical, the biological, inherently violent? What if we hold that it is not the anatomical physicality of bodies that applies limits to bodies, but the strategic use of hegemonic “method assemblages” (Law, 2004, p. 38), which “[pretend] to know the nature of matter (as the matter of nature no less)” (Kirby, 1997, p. 5), that brackets the intensive potential of bodies? What might be created, performed, or differentially excluded if we interrogate the “pervasive yet unpalatable belief that the anatomical body locates the unarguably real body, the literal body, the body whose immovable and immobilizing substance must be secured outside the discussion” (Kirby, 1997, p. 70)? Perhaps the material stuff of bodies is made of complexities we might be blind to within our pervasive strategies of inhabiting with corporeality?

With Law, Mol, Hird, and Kirby, the following experiments touch the scientific machine while taking “the biosphere seriously as an entangled actant” (Hird, 2009, p. 2) to ruminate with the materiality of bodies. Science is interrogated as messy, performative, and ontologically relevant as bodies come to matter. When we imagine with questions of what a body can do and what embodiments can do, these experiments work to articulate momentary, local data-body embodiments that emerge when bodies engage biology as more than, and difference within, the hegemonic science of modern capitalism.

Differentially Embedded Anatomies and Methods

Touching Deleuze and Guattari, Braidotti, Kirby, and Barad, we might imagine a science that is inundated to excess with a multiplicity of momentary sciences. Law (2004) acknowledges the multiplicity and entanglement of forces amid any knowledge-generating process by positioning research within a wider world that is “complex, diffuse, and messy” (p. 2). Law

speaks to the multiple and contingent character of research, where “different objects [are] produced in different method assemblages” (p. 55), meaning that the “results” or “outcome” of any investigation do not produce reality, but rather produce a situated truth based on the moment-to-moment context(s) within any research process. As such, there is never any singular reality or absolute truth that research might uncover. Instead, “different realities overlap and interfere with one another” (Law, p. 61) and each reality is “an uncertain product of moment-by-moment practice” (p. 66).

Within this instantaneous performance of various truths endorsed by methodological practices, Law highlights the importance of attending to enactment, which is a process in which “realities . . . are being endlessly or chronically brought into being in a continuing process of production and reproduction, and have no status, standing, or reality outside those processes” (p. 159). According to Law, by appreciating how various knowledges are being practiced or performed in any one moment, the “situated enactments and sets of partial connections” (p. 155) inherent to phenomena begin to open toward “vague, diffuse or unspecific, slippery, emotional, ephemeral, elusive or indistinct” (p. 2) bodies and matters.

Borrowing from Stable Methods

Much as bodies are both constrained by and nourished through a predominant and problematic method assemblage of science, this thesis is located within an academic milieu. The methodological orientation of this project, which touches Braidotti and Barad, is also part of a “hinterland of realities, of manifest absences and Other-nesses, resonances and patterns of one kind or another, already being enacted, and it cannot ignore these” (Law, 2004, p. 143). Further, “methods cannot simply be repeated, because in repetition there is always difference; methods are done differently, and will make a difference” (Coleman & Ringrose, 2013, p. 7). The

overarching position of these methodological expectations is generative in that its overt dominance opens space for difference. As I make clear my attempt to meet the ontological expectations of a master's thesis, the gaps in such regulated knowledges emerge in the cracks, privations, and silences of such a hinterland.

Research initiation.

Utilizing purposive sampling (Kirby, Greaves, & Reid, 2010), I recruited five female athletes ranging in age from 11 to 13 to participate in this exploration. For the purposes of this research, it was necessary that all the athletes played on the same sports team and that the sport was accessible to photography. I elected to work with female hockey players because I find this population meaningful due to my previous athletic experience.

I contacted a local hockey organized in British Columbia (Appendix A) and inquired about their ethics approval processes. With their approval, I contacted the head coach of a female PeeWee hockey team and discussed my project with him (Appendix B). With coach approval, I crafted two letters outlining my research, one addressed to the players and one to their guardians, and emailed them to all players on the team (Appendix C, Appendix D). The letters designated four team practices, two of which I was to take photographs at and two of which I was to meet with athletes either before or after. It was made clear that participants must be present for at least one of each of these sessions.

I then scheduled a time after a game to speak to interested athletes and their guardians. I distributed letters to both athletes and guardians at this time and, following a discussion about my research in which I explained my research further and answered questions, I gave interested guardians and athletes consent forms (Appendix E, Appendix F).

Five guardians and athletes returned signed consent forms to me at this time. Next, I sent a letter to the coach to forward to the remainder of the team that detailed my research purpose, explained my presence at team practices, and invited questions (Appendix G).

Borrowing from ethnography.

This series of experiments is loosely located in the ethnographic tradition. Rather than locating this research within canonical definitions or methods of ethnography, I carefully drag some tenets of ethnography toward the touching of diffraction and Braidotti's posthuman methodology, entangling image collection with non-linearity as group discussion meets with intra-activity. In utilizing ethnography in an unconventional way, it is necessary to acknowledge this methodology's roots. Traditionally, ethnography has meant "to commit to looking at, and attempting to make sense of, human social behavior in terms of cultural patterning" (Wolcott, 1990, p. 48). However, I make no claim to engage in or produce a traditional ethnography. Rather, I draw on ethnographic methods to engage in an exploration inspired by an ethico-ontopistem-ology of touching. Davies (1999) explicates a more contemporary take on ethnography, adopting "a broad interpretation of ethnography as a research process based on fieldwork" (p. 4). This definition seems to allow for this work to borrow from ethnographic methods in my fieldwork-based data collection.

Visual ethnography.

Visual ethnography provides a partial methodological justification for capturing photographs of participants while they engage in sporting activities. These photographs focus both on entire active physical bodies and on specific parts of the body, including bodies outside the borders of a traditional body, as they are active in their sporting activity. Traditional visual ethnography utilizes images in "a process of creating and representing knowledge (about society,

culture, and individuals) that is based on ethnographers' own experiences" (Pink, 2007, p. 22). Visual ethnography also refers to such a process of interpreting culture, and it is not a practice that this exploration will emulate. Instead, I loosely borrow from visual ethnographic data collection methods and take photographs of athletes.

Focusing on how photographs might be understood, ethnographic conceptions of images position "photographs [as] inherently ambiguous, their specifiable meanings emergent in the viewing process" (Schwartz, 1989, p. 120). Pink (2007) extends this positioning by stating that "images have no fixed or single meanings and are not capable of capturing an objective reality" (p. 32). While emphasizing the emergent and contextual nature of images within this exploration is important, the ambiguity and enacted character of photographs might add to the affective potential of this exploration. Each image might be understood as valuable because of the interactions of which it is a part, such as when I capture images, when I upload and review images, when the athletes encounter images, when the athletes and I discuss images, when I interact with both images and athletes, when I write, or when anyone reads our work. In this sense, "images are powerful in that they can *do* things" (Phoenix, 2010, p. 94); they can affect, be in relationship, and participate in the event of the body. Further, as "material objects are . . . visual, but visual images are not, by definition, material" (Pink, 2007, p. 32), images can not only be conceptualized as possible material forces, but might also be understood through how they might be practiced in any one encounter. In these experiments, "bodies and images are not separate but experienced through each other. Images therefore do not represent bodies but produce the ways in which it is possible for bodies to become" (Coleman, 2009, p. 94). In this way, images are a becoming-with-an athlete or becoming-with-Nicole, enacted differently in unique instances.

Visual ethnography is an appropriate method within the context of this investigation because it is likely accessible for 11- to 13-year-old females. Coffey, Renold, Dicks, Soyinka, and Mason (2006) found that “taking photographs or video footage was something . . . children understood, and already had experience of in their lives (the concept of fieldnotes, by contrast, was more difficult to explain)” (p. 25). Further, 11- to 13-year-olds may be in a unique position to understand the use of digital images, having grown up amid “the proliferation of images of individuals via social networking sites, and the use and exchange of images through digital media” (Wiles, Coffey, Robinson, & Heath, 2012, p. 46). I took care, however, to make clear the risks of digital image dissemination because the girls were unlikely to be aware of the implications of this familiar practice.

Generating images.

All photographs were captured during team practices. Only participants with signed consent forms are present in images used in the thesis. I attended two practice sessions and photographed constantly throughout. I was very conscious of interfering with the flow of practices, and I was also aware that my presence altered the affectivity and rhythm of each practice session.

In photographing the athletes, I aimed to capture images that “break the frame of [athletes’] normal views” (Harper, 2002, p. 20), moving beyond the taken-for-granted sport photographs of entire athlete bodies and surfaces of play. Following Harper’s (2002) suggestion, I photograph[ed] the athletes from unusual angles, using zoom to photograph them very closely so that they might see their bodies “from a new and interesting perspective” (p. 21). I tried to focus on specific areas of athlete and nonathlete bodies, such as the boards, in each image so that I would eventually have snapshots of the entire hockey-body.

After the first practice that I gathered images at, I reviewed all the images with a reflexive ethical stance, where I was careful to select images that were disruptive and rich, hoping that athletes and their guardians would affectively intra-act with each image and approve only those with which they were comfortable. I chose about 30 images that I found appropriate, interesting, and affective through the event(s) of my own body in my initial encounter with them. I included a wide array of body areas and activities. Following this selection, I sent the photographs of each athlete that I wished to use to their guardians via email, such that the entire array of images was reviewed by relevant participants. I asked the guardians to review these images with the athletes and let me know if there were any images they did not wish to be included as data. From these approved images, I selected 10 to include in discussions with the athletes.

Generating discussion.

After the images had been approved, I met with participants after practice at the arena. All participants attended the first discussion; one was absent for the second discussion. For both discussions, we met in the female dressing room, as named by the arena, which was very small.

The participants and I looked through the approved images of themselves and their teammates on my computer. If there were any photographs of their own bodies that participants wished to remove at this time, these photographs were removed. I initiated conversations by talking with the athletes about researching through the event of the body, finding a collaborative language for engaging with what bodies can do. I asked questions about what bodies were present in images, how we could name or know these bodies, and what these bodies could do. Participants were very curious about the language of a hockey-body and we often thought with this generative terminology. We went through each image, exploring what and how sporting

bodies might affect and be affected, perform and be performed, and be in interaction with other forces in different instances. I did not suggest to athletes what the body in each image might be doing or feeling because the moment captured in each photo is transient and I did not want to encourage an anthropocentric, individual interaction with the images. We also imagined with the inquiry “what happens when you view this image?” Our conversations were emergent and fluid. I concluded the first session by asking athletes how I might improve my picture taking to better appreciate what their bodies can or might do. All sessions were audiotaped and then transcribed by me. Both discussions were about 60 minutes in duration.

In my second practice on the ice, I took photographs based on the athletes’ advice. The same reflexive review process, and parent and athlete review, of images took place. I met with athletes a final time and we examined the new collection of photographs.

Following this review of the images, I began the writing process, which emerged as an engagement with all data, adding another layer of encounter that was inextricably intertwined with my both my initial reactions to the images and collaborative moments with the athletes. After I have completed my final document, I will send it to all participants via their guardians’ email and invite their feedback. I will also create a small poster with some quotes from these experiments to share with athletes and their guardians via email (Appendix H).

Multiple Anaerobic Threshold-Bodies

Physicality is often portrayed as a biologically inert matter, an “inherent, fixed property” (Barad, 2007, p. 151) of the body that is made meaningful through the laboratory equipment that brings understandings of molecular biologies as biochemically active into existence. In the milieu of sports, biochemistry is a particularly potent force on bodies. Popular imaginaries place trust in the scientist whittling away at his laboratory bench, dropping chemical reagents on fat

tissue, for example, and viewing its reactions through a microscope. Through this “method assemblage” (Law, 2004, p. 38) of physiological inquiry, which both stems from and sustains the “embedded hinterland of scientific method [and] the practices it carries, [which] work to produce a reality that is independent, anterior, definite, and singular” (p. 37), bodies are made perceptible as an inert, docile body. Here, bodies are quantifiable, and the matter of bodies becomes appropriated by the machine of scientific objectivity. This is the canonical scientific machine that Canadian female adolescent athletes know well.

Traditional anatomical perspectives on the body leave little room for intensive difference. The scientific hinterlands of physiology speak often of anatomical variance, but only within the language and context of its own ontologies—a body is allowed to have an extra bone, for example, but what bones might be imagined as is held stable within these sustaining assemblages. The perceived solidity and veracity of scientific inquiry forecloses on difference, a desire-filled difference as per Deleuze and Guattari, to produce what Law (2004) calls “stories [that] help to sustain a strong perspectival and singular version of out-thereeness even as they manufacture multiple realities” (p. 53). Contradicting itself, scientific supremacy assumes and at the same time helps to enact “the standard version of Euro-American metaphysics while also crafting something different” (p. 53); the study of anatomy is internally fractured and contradictory, and these discrepancies are not problematic but are generative. They open the body to difference as bodies are “crafted, assembled, as part of a hinterland” (p. 54). If bodies are made within different method assemblages, anatomy also orients itself toward the multiple. Any “in-hereeness and out-thereeness can be, and indeed usually [is], multiple” (p. 57).

Within a traditional Canadian exercise physiology laboratory, anaerobic threshold (AT) is used to provide a training prescription for athletes. AT is firmly located within a modernist

sporting assemblage, producing constrained, ordered bodies (Pronger, 2002) AT gains traction within a language of measured, commodified bodies wherein AT is

translated into human practices such as swimming workouts that use the anaerobic threshold to make swimming times faster. This faster swimming confirms the meaning and value of the anaerobic threshold. The science becomes ‘real’ in this marriage of practice and textuality. But something valuable has been lost: namely, alternative visions of the reality of swimming and the body. These visions might prefer to construe swimming and the body not as productive, performative, linearly temporal, a resource for the professionalization of sport, but rather to make swimming play, liberation, a non-linear, perhaps spiritual, experience of the body that is worthwhile in and of itself, inaccessible to the reality of modern techno-scientific culture. (Pronger, 2002, p. 48)

Do the bodies present in anaerobic threshold end with the production of anaerobic threshold?

When AT is invoked, are bodies congruently completely foreclosed on by the fascist forces of a modern sporting machine? Perhaps to imagine only limited bodies within this scientific assemblage is also a violent act; perhaps this method hinterland might “manifest realities/signals on the one hand, and generate non-realities/silences . . . on the other” (Law, 2004, p. 113), where hands are the touch of the methodological orientation of this thesis and to touch is to touch alterity?

Sitting on a Monarch bicycle, my body is produced as only a biochemical system that draws on both aerobic and anaerobic energy systems to sustain my feet as I pedal to exhaustion. Anaerobic, short-term energy burrows into readily available energy stores, exploding into powerful pedal strokes until these energy stores become drained and lactate is produced.

Aerobic, long-term energy is more stable and lends my muscles less explosive, more sustainable power. My anaerobic threshold is the intersection of these two energy stores, the moment where lactate begins to accumulate within my exhausted muscles. Within this scientific hinterland, my anaerobic threshold is correlated as a percentage of my VO_{2max} (the maximum rate at which my lungs can consume oxygen) and $heart\ rate_{max}$. Strapped to my face, its hard plastic edges cutting into my gums, a metabolic cart kicks out data about the rate at which I breathe and produce CO_2 . A heart rate monitor measures the lub-dub rhythm of my heart. I'm told that the more economical I can make my movements, combined with my aerobic fitness or VO_{2max} , the higher my lactate threshold and overall fitness and performance will be.

My body is made as an AT-body and only an AT-body. This body is formulated as a reality, a truth, a body validated by the efficacy of scientific methods. My AT-body is predictable, produced in methodological patterns sustained by the specific “practices of [a] method assemblage [that] craft[s] out-thereeness by condensing particular patterns and repetitions while ignoring others” (Law, 2004, p. 113). This moment is both violent and generative. Any other bodies that might be active in this moment are made invisible, but are also enabled by the scientific hinterland that makes my AT-body. The bodies not perceptible within this instant, the bodies filled with “out-thereeness or absence are a set of potentials” (p. 116). The method assemblage of modern Euro-Western science might also enable assemblages that “mediate and produce entities that cannot be refracted into words” (p. 122). How might these differential methods produce bodies injected with alterity, embodiments filled with potentiality?

Lungs fervently yank oxygen into their vessels, tossing muscle fibres the energy they borrow from as they metabolize intramuscular fuel into the power that feet push against pedals with. What are the silences, the out-thereenesses of this moment, where anaerobic threshold is

only one enacted body? What happens if we refuse to accept AT as the “real” body and instead “seek practices which might re-work imaginaries . . . [and] imagine coherence without consistency” (Law, 2004, p. 139)? What other bodies cohere with and through my AT-body? Rewriting AT-bodies as many messy bodies, bodies made of flux and unpredictability and informed by a differential ontological project, might enact bodies that hold a differential disruptive potentiality than the body prescribed by the hinterlands of a modernist sporting assemblage. Science no longer holds prescriptive supremacy over the body. Imagine a body where “the world makes us in the same process by which we make the world” (Pickering, 1995, p. 26) and where the “boundaries between our flesh and the flesh of the world we are of and in is porous” (Tuana, 2008, p. 198): AT-bodies become through and of the mutability of skin, wheels, alveoli, plastic, arteries, and oxygen. The moment of anaerobic threshold is no longer controlled or linear because we can materialize with the otherness of the dominant scientific apparatus as lungs touch bike tires, touch biochemistry, touch bone, touch alterity, touch tendon, touch, touch, touch.

Thinking with Law and the enactments that bring bodies into being, we might imagine bodies as they come to be performed through different method assemblages. How can we attend to the performativity of bodies and what might a performed body do?

Multiply Performed Bodies

What if material-discursive intensities “do” or make bodies? What if bodies are made or performed into perceptibility, rather than being the ontologically prior medium through which things outside the body come to matter? With Mol (2002), “as long as the practicalities of doing disease [or bodies] are part of the story, it is a story about practices” (p. 31). While Mol thinks with atherosclerosis, I wish to posit that her theorizing also applies to human corporeality

because, in the poststructural theoretical landscape through which I am working to imagine with the body, we might also conceptualize atherosclerosis as a body. Bodies might be conceptualized as a landscape of various enactments of bodies, with practices that bring into being, or make perceptible, different bodies. This understanding troubles the claim that there is a body that is a knowable and known entity. If, as Law (2004) suggests, we articulate “a sense of the world as an unformed but generative flux of forces and relations that work to produce particular realities” (p. 7) through “practices that are thick, fleshy, and warm, as well as made out of metal, glass, and numbers—and that are persistently uncertain” (Mol, 2002, p. 31), it becomes possible to imagine that various bodies might “differentially materialize as particular patterns of the world as a result of the specific cuts and reconfigurings that are enacted” (Barad, 2007, p. 176). When the possibility of grasping the onto-epistemological totality of bodies is troubled, bodies consist of “practicalities, materialities, *events*” (Barad, 2007, p. 13).

Touching the previous experiments with bracketing bodies, troubling the scientific hinterlands that enact dominant bodies and the alteritous potentiality of bodies, it is evident that when “the intricacies of its enactment are bracketed, the body becomes established as an independent entity” (Mol, 2002, p. 36)—this is a process that contemporary Euro-Western culture knows well. With Mol, it is the specificities of the enactment of any body that become foregrounded because attending to and contesting these specificities makes a multiplicity of performed bodies visible. In this vein, the anaerobic threshold body is no longer the only body present in the moment of what we might imagine to be anaerobic threshold. To continue experimenting with the questions of what a body or embodiments might do, below I present three data-bodies that take up the ontology that “as long as the practicalities of enacting a [body] are kept unbracketed, out in the open, the varieties of [bodies] multiply” (p. 51). These data-bodies

interrogate questions of how differential bodies come together to perform the material-discursive phenomena of hockey/hockey-bodies through incoherence, difference, distribution, and intratransivity (Mol, 2002).



NET-BODIES
TAPE-BODIES
HELMET-BODIES
LACE-BODIES

"LIKE I NEED THIS
BRICK HERE OR I
CAN'T PLAY HOCKEY
THE SAME"

"[HOCKEY] ENACTED IS MORE
THAN ONE - BUT LESS THAN
MANY...EVEN IF IT IS MULTIPLE,
IT ALSO HANGS TOGETHER...
HOW DO THEY ADD UP, FUSE,
COME TOGETHER?"
(MOL, 2002, P. 54)

"I THINK THAT'S
A LEG"

"the singularity of objects, so often presupposed, turns out to be an accomplishment" (Mol, 2002, p.12) → temperature-hands?

I also like gloves because my hands get cold without gloves *multiple*

intratransitivity assemblages

They keep your hands warm

temperature=performative?
↳ site of glove-hands?

hands = process?
gloves = process?

temperature=hanging together?
↳ coordination of hands?
relatedness

No they don't my hands are always freezing

gloves → "the fact that there is multiplicity stays the same, in every site, on every scale" (Mol, 2002, p.50)

My gloves keep my hands warm

temperature=process?
temporalities

"troubles that have a relation, but not necessarily one that is linear."
trouble multiplicity

My gloves keep my hands stinky

difference

↳ troubles in their own right" (Mol, 2002, p.66)

My gloves don't do anything

↳ "not always a necessity to search for common ground" (Mol, 2002, p.88)

↳ incoherence

I like skates

↳ incoherence=performance(s)?

*distributed realities
distributed performativity
distributed trouble/temperatures/hands/gloves
incoherent warm-stinky-cold-hand-gloves*



"I HAD NEVER SEEN ANOTHER PERSON UP CLOSE BEFORE.

THINGS HAPPEN TO GOD'S PERFECT AESTHETIC.

NOSES ARE MOUNTAIN SLOPES,

CHEEKS ARE FIELDS,

LIPS GAPE AND PULL,

MORPH AND STRETCH,

WE ARE NO LONGER FACES,

WE ARE LANDSCAPES"

As we imagine with these data-bodies, bodies come to matter through the practices that perform them into perceptibility. In this sense, bodies are liminal performativity, limited only by the field of practices in which they might participate. The singularities of stinky hands, bracketed faces, and equipment-body relations dissolve into a vast landscape of performance. Bodies are composed in and of “discord, tension, contrast, multiplicity, interdependence, coexistence, distribution, inclusion, enactment, practice, inquiry” (Mol, 2002, p. 181). Dominant science becomes a performance as biologies, rather than a biology, actively perform bodies. Material openness and indeterminacy become political as differences play out in the practices of bodies. The phenomena that assemble as performances of bodies are iterative and relational, made real in

intricate [relations] that we find between practices. Instead of being piled up in a pyramid, they related like the pages in a sketch book. Each new page may yield a different image, made with a different technique and in as far as scale is recognizable, it may again, each time, be a different one. There is no fixed point of comparison. (Mol, 2002, p. 157)

Hockey-bodies play amid an ontological multiplicity; there is no fixed stuff or image of the body. Multiplicity marks the body in its complexities, enacting a body multiple. Biology becomes biologies, enacting multiple precarious biology-bodies that are no longer held within the deterministic grip of Euro-Western biology or strictly bracketed by the practices of a scientific hinterland that performs bodies. Thinking with Mol, there are always multiple bodies at play within the wider frame of reference known as the body(ies) and biology(ies), and these bodies are brought into being through differential practices.

Passing Drills with Microontological (Female) Adolescent (Athlete) Bodies

Leaping from the multiply enacted body of Mol (2002), we can build on the ontologically multiple body to experiment with a microontological body, a body made in the “collapse of autonomous individual organism[s] in favour of organisms as assemblages” (Hird, p. 2009, p. 67). If “all organisms larger than bacteria are intrinsically communities,” as Hird (2009, p. 65) suggests, the body becomes an always composing and decomposing relational web of bacterial phenomena, a “centre of flux messily interacting in evolving populations” (p. 85). Bodies are made within an “ontology of primordial entanglement” (p. 86). Thinking with Hird (2009), we can begin to interrogate the material stuff of bodies, burrowing into the relations of microbes that make even the most microscopic bodies as a community of microbe-bodies.

Touching Hird (2009), it is the “nonhuman charisma” (p. 143) that bacteria perform that comes to matter as the multiple, creative, liminal performances of bodies. Bodies are always communities, and through the playfulness of a richly active bacterial assemblage, bodies are made in a “literal enmeshing of bodies and all of their resident companion species in a recursive cascade that defines what we know and how we know what we know” (p. 135). Biologies are performed within differential communities of communicative bacteria, as “matter organizes itself and . . . nonhuman organisms organize matter” (p. 113). Microbes might mark a traditional field of study for a traditionally hegemonic science, but microbes both make and explode the dictates of this science as they continually assemble and reassemble as iterative and productive bodies.

Growing from a microbial sense, relations become ontological through the radical opening of the traditional supremacy of an ontologically stable body, as the notion of any unit/body/phenomena as autonomous no longer holds true. Instead, bodies are only cobodies, profoundly relational and never made in isolation, continually communally coalescing until “the

idea of the human is simply that—an idea. The supposed fact that it is a discrete organism is again just an abstract idea” (K. Skott-Myhre, 2012, p. 307). Made with/of microbial communities, bodies flee the stringent bodily limitations dictated by canonical definitions of a (human) body—microbes infuse bodies with liminality, potentiality, trepidation, and ordered disorder. If all bodies are made of relational assemblages, “corporeal generosity” (Hird, 2009, p. 77) becomes through an overwhelmingly ethical body as the “debt that any body owes other bodies” (p. 80): all bodies are held in a web of comaking, coexistence, and because of this overt relationality, any body is performed in and made of ethical accountability.

Passing, traditionally dictated in a modernist hockey assemblage as the act of one player passing a puck to another player, was a common point of discussion with participants. Athletes are taught to “cup” or “cushion” the puck as they pass, moving their stick backwards in the instant before the puck contacts their stick, such that in one swift movement a blade can drift backward with the puck, swiftly then propelling the puck forward. If a puck is properly cupped, the puck does not stop or bounce off a player’s stick. This technique maintains puck control while also increasing the speed and accuracy of a player’s pass.

Within contemporary Euro-Western ways of speaking the body, two bodies are involved in passing: one passer and one receiver. What happens to what the body might do or what embodiments might do if the following transcript-excerpt-data-body is inhabited with a microontological body? This data-body is intentionally presented as a series of sentences, not delineated by identifiers. Each indented line comes from a different body than the previous line.

Well, if it was a bad pass you have to skate for it

Well, if [player] did a pass for [player], [player] has to react and get that pass to do it

But if I did it way goofy then she’d have to go skate for it or if, say, I did it way over here

she would have to turn and get it on her backhand. If I did it here she would have to stop it with her skates, if I did it here she would have to move. So it's two

If you're passing with someone who's slow then you have to pass more slowly

If you're passing to the coach, you're firing at them because you want to show that you are really good

If you're passing to somebody who can't skate very fast you kind of have to pass slowly and they can get it

If I'm passing with [player] or someone I'll try and pass it light and make it really good, but if I'm passing with [player] I'll try and make it harder and maybe not pay as much attention as trying to get it on her stick, I'll try to pass harder and do saucer passes

And then when you get a pass it's like, that's a bad pass so I better give her a good one this time

Or you go, ha ha. There was a person who was moving all around when you are trying to pass to them, it's hard

If any given body is also a symbiont, as Hird (2009) suggests, can the moment of passing stand as a singular player passing a distinct puck on a separate sheet of ice to a singular player, with all bodies distinctly bracketed from all other bodies? If bacteria make a body that is communal, how can any body be bracketed off from another? With Hird, all traditionally bracketed bodies thaw into a flood of uncertain and conscious bacteria, where bacteria reside “in the body but [are] not contained by it” (p. 81). Rather, bodies are coloured over by bacteria, where the bacteria of what comes to matter as any body is also intricately related to the bacteria that makes any one body. The following data-body is an experiment with my (momentary) body

inhabiting-with a multiply microontological body to infiltrate the boundaries and performances of the transcript data-body above.

"FORCES CANNOT BE DIVIDED INTO HUMAN AND NONHUMAN" (HIRD, 2009, P. 16)

Well, if it was a **BAD PASS** you have to skate for it

Well if [player] did a pass for [player], [player] has to **REACT** and get that pass to do it

BUT IF I DID IT WAY GOOFY

then she'd have to go skate for it or if, say, I did it way over here she would have to turn and get it on her backhand

if I did it here she would have to stop it with her skates, if I did it here she would have to move. **SO IT'S TWO.**

If you're passing with someone who's slow then you have to pass more slowly.

IF YOU'RE PASSING TO THE COACH YOU'RE FIRING AT THEM because you want to show that you are really good

If you're passing to somebody who can't skate **VERY FAST** you kind of have to pass slowly and they can get it

If I'm passing with [player] or someone I'll try and pass it light and make it really good, but if I'm passing with [player] I'll try and make it harder and

MAYBE NOT PAY AS MUCH ATTENTION

as trying to get it on her **STICK.** I'll try to pass harder and do saucer passes. And then when you get a pass it's like **that's a bad pass** so I better give her a good one this time.

Or you go, ha ha. There was a person who was moving all around when you are trying to pass to them. **IT'S HARD.**

"MATERIAL NOTION OF BECOMING AS CORPOREAL GIFTING" (HIRD, 2009, P. 89)

"BODY" - COLONY

BACTERIA - COGNITION RELATIONS/RELATING

BACTERIAL ASSEMBLAGE

ONLY PARTIAL DISTINCTION

BOUNDARY-EXCESS

CONTAGION

"CHALLENGES THE BOUNDARIES OF THE ORGANISM" (HIRD, 2009, P. 6)

"ONTOLOGY OF PRIMORDIAL ENTANGLEMENT" (HIRD, 2009, P. 86)

Micro-Adolescence

A body made within a microontological field also profoundly troubles any contemporary colonial vision of time and aging. Bacteria do not operate through the same binding, linear time

ascribed to a bounded human body. Hird (2009) conceptualizes gender as an “epiphenomenon” (p. 191), a strategically constructed machine to organize bacteria in an ordered, gendered way. As contemporary structures of making “adolescence” are firmly correlated to colonial gendering processes, it can be argued that such structuring forces act on microbial relations in a similar way. Through these controlling structures, always made of and through microbes, “all organismal meetings focused on [adolescence] . . . seem to obscure other meetings with our environments” (p. 102).

Following Hird, I now turn to traditional conceptualizations of adolescence, working to trouble their hegemonic positionality and imagine with microbes to articulate how adolescence can become performatively fractured and micrological within a bacterially defiant potentiality filled body.

Canonical and contemporary Euro-Western adolescence.

Adolescence is a 20th-century Euro-Western phenomenon, Raby (2002) argues, “linked to capitalist imperatives and consumer culture” (p. 425). It is often bounded by the social designations of “‘too old for father’s lap’ and ‘too young to vote’” (Vadeboncoeur, 2005, p. 1). The category of adolescence emerged at a time of “social confusion” (Lesko, 1996, p. 145) and acted to “[speak] with and to the (primarily) White, middle class . . . concerns about social order and progress” (p. 145). Following this concern with discipline and social order, the modern conception of adolescence is problematic in that it minoritizes young people by understanding them as hormonal, at risk, future-oriented, peer-driven, or avid consumers (Lesko, 1996; Raby, 2002). While each of these conceptions serves to position the adolescent as other to dominant (white male) adults, what is perhaps most troubling about these understandings is the way in which they have become naturalized and insidiously powerful within Euro-Western culture,

where adolescence is understood to be “natural and naturally occurring” (Lesko, 1996 , p. 140). It is this naturalization of their status as other that legitimizes the need for surveillance and control of young people by the majority (Lesko, 1996).

Because adolescence is typically associated with the onset of puberty, the first characteristic of colonial adolescence that positions young people as minoritized is the understanding that youth “are controlled by hormones and, therefore, dangerously out of control” (Lesko, 1996, p. 150). This understanding of adolescence based on biology works to privilege the scientific supremacy inherent in the medical model of understanding humans, thus asserting the truth of a knowledge that is only accessible to the rational male. Equating adolescence to hormonal changes positions adolescence as a time of sexual maturity, in which a young person must enact hegemonic norms of gender and compulsory heterosexuality and become responsible for practicing their gender in allegiance to dominant norms (Aapola, 2005). Further, understanding adolescence primarily through a physiological lens works to objectify young people as “things that are out of control” (Lesko, 1996, p. 153), thus removing contextual and experiential specificity from adolescents’ experiences and cementing their status as subaltern to fully human, rational males.

The lack of control afforded to the hormonal teen body informs a second minoritizing discourse surrounding adolescence: the at-risk youth (Raby, 2002). Coupled with specific Euro-Western societal concerns, such as drug use or eating disorders, discourses of biological uncertainty suggest that due to “storms of hormones and moods” (Lesko, 1996, p. 151) youth are at risk of harming both themselves and society (Raby, 2002). This framing of teenagers allows adults to distance themselves from teenagers’ actions and justify “mechanisms of social control” (Raby, p. 435) to discipline irrational and unpredictable young people. In this way, adolescents

are positioned as subordinate to male hegemony, subject to patriarchy and control, and thus minoritized. Raby (2002) speaks of how this discourse surrounding violence or abnormal behaviour in adolescents acts to “naturalize and hence justify . . . violence” (p. 436) among certain teens, which then lends empirical support to the conception of adolescents as risky, thus perpetuating a cycle of dominance by knowledgeable and developmentally complete adults.

Central to modern conceptions of adolescence is the notion that it is a temporary “stage” in a sequential and cumulative progression that emphasizes developmental achievements (Vadeboncoeur, 2005). Again, such a reliance on empirical knowledge in understanding human behaviour works to assert the dominance of those who have access to such scientific theory: rational (white) males. Further, adolescence is inextricably tied to age and the “belief that time tightly rules human development” (Patel Stevens et al., 2007, p. 108). Accordingly, all people must pass through adolescence on their way to becoming an adult. This positioning of the adolescent as “in between,” neither legitimate child nor legitimate adult, acts to further minoritize them. Because their current experience and location are insignificant, they must orient themselves to the future. They are “flawed and incomplete” (Patel Stevens et al., p. 108) and must engage with the rules of adolescence to reach maturity.

Similar to women, adolescents are often positioned as being strongly influenced by their peer groups (Lesko, 1996). Such a reliance on relationship positions adolescents as less rational and truth driven than adult males, as young people are assumed to be “insufficiently individuated” (p. 155) and unable to adopt the autonomy required in adulthood.

Finally, the category of adolescence emerged amid and perpetuates capitalistic values. Adolescence was demarcated in relation to a demand for a “more widely trained, disciplined work-force” (Raby, 2002, p. 437) which, because youth were required to spend more time in

school, created a lucrative market of young people who had ample access to monetary resources (Raby, 2002). Under the modern influence of neoliberalism, youth are “courted as a high-consumer group, and are modeled in the media as the ideal age” (p. 437). Such a conception is so pervasive and powerful that it is understood that “teens are supposed to acquire their independence and identity through the neo-liberal freedom of spending” (p. 437). Through this objectification and homogenization of young people as consumers, adolescents are subordinated to both the influence of capitalism and to male hegemony whereby dominant males are the recipients of the spoils of capitalistic enterprise.

It is evident how the nature of the term adolescence has, and continues to, locate young people as minoritized within a Euro-Western context. How then, might the positioning of a young person as both female and adolescent work to further their subordination?

Female adolescent.

Lesko (1996) describes the male-oriented construction of adolescence, arguing that the category was created so that young men could be controlled and placed on the correct developmental trajectory to colonial male normalcy. Consequently, females were largely disregarded within the concept of adolescence, cementing their minoritized status by exclusion. If adolescence was the path to developing into a powerful male, and females were not privy to such a channel, their inability to transcend to the top of the colonial hierarchy of normativity was furthered. When young women were included in discourses of adolescence, females were “required to save themselves for marriage and children, which ultimately supported white racial progress and patriarchy” (Lesko, 1996, p. 183). Female youth were required to avoid “sexual precocity” (p. 183) and male/female segregated activities were instituted as a patriarchal tool of

control. This subordination to male hegemony reasserts the minoritized position of certain female adolescents.

An emphasis on health and sexuality surrounding female adolescents remains prevalent in Euro-Western culture (Raby, 2002), and young females are objectified in discourses of health and reproduction, or positioned as at risk for teen pregnancy or sexual assault. Combining neoliberal agency with sex-based conceptions of the female adolescent locates the responsibility for understanding and controlling one's own sexuality solely with the adolescent (Aapola, 2005; Harris et al., 2000). In this way, when female youth are unable to demonstrate their ability to fulfill normative expectations of adolescent or female sexuality, they are positioned as in need of individual intervention and hence minoritized.

Microbial adolescences.

Hird (2009) warns that contemporary Euro-Western processes of gendering and understanding sex are “all too human for the future” (p. 91) because they foreclose on a microontological multiplicity of sexes. If we extend this vein of thinking through Canadian dictates of adolescence and linear bodily temporalities, adolescence emerges as a distinctly human creation bounded and sustained through profoundly anthropocentric (and androcentric) machinery. Bacteria, the microbes that compose any body, defy adolescence. Microbes are not constrained within any external framework of aging that relies on a static series of developmental stages, and instead express aging and evolution as a creatively bacterial phenomena. In a continually formed and reforming body composed of microbial agencies, adolescence, like sex, can be conceptualized as an event, rather than as a teleological biological trait, as contemporary theories of adolescence and gendering posit. From a Deleuzian perspective, microbes radically detach adolescence from the biophysical strata of control within which it is usually trapped,

throwing adolescence into a flux of ages and aging, “a literal enmeshing of bodies and all of their resident companion species in a recursive cascade that defines what we know and how we know what we know” (Hird, 2009, p. 135).

Microbes do not operate within definitions of adolescence that delimit bodies as medicalized, problematic, transitory, minoritized, or objectified. Instead, microbes momentarily make and disrupt the boundaries and temporalities of any body, acting within various microbial temporalities that vary greatly from those assigned to any human body by Euro-Western developmental sciences. A body that is made and operates within a microontology is always an assemblage—it is always made of various microbial human and nonhuman bodies. Microbial bodies, Hird (2009) writes, are made of generosity, contagion, and relation, where all “encounters [are] already deeply and endemically contagious” (p. 143). Each of these micro-bodies is made of a different temporality and lifespan, thus to label any body as adolescent raises questions about which component(s) of any body might be adolescent? What becomes of adolescences when the contemporary image of a bracketed body becomes fractured by microbes? Rather than a body that might be known through or contained by lines of adolescence, Hird asserts, microbial bodies are a “startling extension to those whom we meet-with” (p. 143), within a “life to be understood as a verb in which life gets on with the messy processes of living through repair, contagion, affiliation” (p. 126).

Momentary Local Embodiments

Thinking and inhabiting-with biologies and anatomies through Law, Mol, and Hird articulates profoundly fleshy and material embodiments, where each body assembles intimately with and through the material stuff and conditions always entangled with any body. Working to articulate a local embodiment through these bodies formulates embodiments in which “the so-

called whole [body] is a part of its individual elements no less than the individual elements form part of the whole” (Mol, 2002, p. 132). Any element is already an intra-acting community of microbes composed of and within ontological and epistemological conditions of “world-making as flows, vortices, or spirals in which links between different partially connected goods are made and remade” (Law, 2004, p.151).

Anatomy is threaded through with and disrupts the static scientific supremacy predominately associated with the term anatomy as made within the typical scientific hinterlands of Euro-Western culture. As such, Law (2004) adds to my previous experiments with local embodiments a material awareness of the apparatuses that make and mark bodily knowledge. These embodiments are precarious. They are made in methods no longer given the longstanding credence of “truth” because embodiments emerge as truthless, as contingent, relational, and messy. Thinking with Law, articulating embodiments does not necessarily become a moot task because bodies continually flee traditional coherence and clarity. Instead, this flux-nourished mess is the productive stuff of bodies. Embodiment becomes an exercise in mess, where bodies can be made of the out-there-ness, the otherness of traditional conceptions of bodies, as bodies flee “a focus on construction to attend to enactment” (Law, 2004, p. 141). Embodiment becomes an experiment in enactment, as we think with creative imaginaries and potentialities of bodies to articulate embodiments made of “coherence without consistency” (p. 139), where embodiments are only ever enacted fractionally and locally.

With Mol (2002), embodiment emerges with a body that is ontoepistemologically multiple, practiced through “discord, tension, contrast, multiplicity, interdependence, coexistence, distribution, inclusion, enactment, practice, [and] inquiry” (p. 181). Embodiment becomes an experiment with practices of the body, as articulating the practicalities that bring the

body to matter foregrounds the enacted character of embodiment. Different practices “each do the body differently” (p. 176), enacting a different body and embodiment. Embodiment becomes materially multiple, productive as an experiment with production, not objectification; embodiments “do not so much cohere as assemble” (p. 150). With Mol, as with Deleuze and Guattari, Braidotti, Grosz, and Law, “the ontology of [bodily] practice is not the ontology of a single practice” (p. 150). Instead, it is always a friction-filled multiplicity. Embodiment is embodiments; material is materials; body is bodies.

Touching Hird (2009), bodies are microbial, inherently made of and with communities of microbes. Any notion of bracketed bodies dissolves into a rich world of microbial intra-actions and entanglements. In this way, bacteria participate in cuts that momentarily make a body that is always communal, always in flux. Any local embodiment becomes fractured in its composition because it is made of a multiplicity of microbial bodies, always composed of and with other bodies. Embodiment becomes about reciprocity and connectivity as the notion of any local embodiment necessitating a bracketed border explodes into bacterial agencies. Here, embodiment is not about containment but about community and entanglement.

Experimenting with embodiments through Law, Mol, and Hird responds to the riddle of embodiment by articulating an embodiment that is transient, connective, multiple, and contingent. Embodiment is about messy communal practices and enactments. The material stuff of embodiment is never inert, never taken for granted, and never knowable. Rather, it is active in any local embodiment. Embodiment here might involve inhabiting-with a body that is always fractured, made of material and microbial multiplicities, and momentarily materialized and performed through practices that can be both stratified and radical.

Inhabiting-with this creative, biological, and materially productive embodiment tugs this project toward the work of Kirby, who interrogates the nature/culture divide that most contemporary Euro-Western science and knowledge is predicated on, imagining “how . . . the body itself is a scene of writing, subject to a sentence that is never quite legible because to read it is to write it again, yet differently” (Kirby, 1997, p. 56).

Holding all of the previous experiments, I now move to touching with Kirby as I continue to imagine with embodiment(s), thinking with fleshy, connective, and messy local embodiment(s) through the hockey-bodies of female adolescent athletes.

Three Within Four: (Athletic) Atomic Embodiments

Dispersing literacy (textuality) as the weaving of life itself means not only that ‘old’ texts remain contemporary and productively alive because never closed off in a past that is simply behind us, but also that the ‘texts’ of seemingly primeval organisms, or even a supposedly inanimate and lifeless entity such as a photo, become subjects of cognitive and agential entanglement and observational intention. (Kirby, 2011, p. x)

Interrogating the nature/culture divide, a construction that is crucial in sustaining the Cartesian mind/body binary, Kirby (1997) argues that the body is made of the stuff of nature (biology) and culture (language), to the point that nature-culture becomes nature-cultures and the body “itself is a scene of writing, subject to a sentence that is never quite legible because to read it is to write it, again, yet differently” (p. 56). Touching with Kirby, the “curious pulse of the body” (p. 65) becomes foregrounded as materiality and signification strategically merge to make perceptible a “body as the scene of writing” (p. 95), where any notion of a body bounded by scientific essentialism that is then marked by a separate language apparatus is profoundly disrupted. Kirby invokes a body wherein “radical otherness cannot be confined to an elsewhere . . . it no longer makes sense to insist that the body, reality, death, woman and so on, secure an irreducible originariness whose matter is unrepresentable because its substantive facticity is absolutely exterior to representation” (p. 96). The body is not governed by a lost origin or a rule of essentialism that is outside of the composition of the body itself. Instead, the body comes to matter as “nature scribbles or . . . flesh reads” (p. 127).

Touching a biology already present in the engagements with data-bodies that have already emerged in this project, a fractured, performative, and messy bio(logy), Kirby imagines a

“biological body as a way to think through a differential logic that is not as easily recuperated for consciousness” (1997, p. 158), as a “body’s vital signs involve the pulse of elemental passions, passions whose ubiquity unfolds within a very different space/time from which nothing is divorced” (p. 148). Biology is no longer bounded by the structured strata of permanence or essentialism, instead coming to matter in the composition of a body as a “changing, differential script” (p. 159). Biology, nature, writes. It is creative and expressive, both made of and always performing an iterative corporeal logic as “nature is neither lacking or primordial, but rather a plentitude of possibilities, a cacophony of convers(at)ion” (Kirby, 2011, p. 88). Kirby (1997) cautions that conceptualizing a body amid a speaking biology does not mean that “we can simply add what we conventionally regard as the stuff of matter and substance to the soup of textual dissolution” (p. 96), because to make biology intelligible in this way would be to constrain biology into phenomena that can be completely known by the body. Instead, “Nature reads and writes, calculates and copulates within itself in the most perverse, creative, and also destructive ways” (Kirby, 2011, p. 95). The biologies that Kirby puts forward are made of an ontology wherein “unintelligibility is an intelligible notion” (1997. p. 24) because not knowing, not being perceptible to a (conscious) body, is part of the very composition of these biologies.

Re-Markable (Female Adolescent) Athletes

Within a contemporary Euro-Western framework of social constructivism and semiotics, a study located within the nature/culture divide, the phenomena of athleticism and athlete/sporting bodies are typically imagined as sociocultural creations imposed on (preexisting) bodies. Within this ontology, the experiences of athletes become more complex when additional structures of femininity and adolescence are layered on their bodies and experiences. Touching with Kirby conjures a body that profoundly disrupts the female adolescent athlete put forward in

predominant studies of these bodies. When “the body is the drama of its own re-markability” (Kirby, 1997, p. 154), athleticism is momentarily made within the composition of a body, emerging with movement that writes and reading that sweats. I experiment with this biologically atomic, iterative, and re-markably material sporting body after exploring traditional formations of the (female adolescent) athlete body.

The Strong, Muscular, and Competitive Euro-Western Athlete

Since its appropriation by the colonial apparatus, sport “been a closely cultivated arena for males to demonstrate their privilege and power” (Adams et al., 2005, p. 17). Originally created as an antidote to femininity among young males in Victorian times, “sports were viewed as an essential developmental exercise for males, imbuing them with skill sets and personal qualities that would be necessary as they entered the public sphere” (Pilver, 2008, p. 12). Such learned traits included “leadership, strength, self-discipline . . . teamwork, endurance, [and] responsibility” (p. 12) which in turn produced “healthy, virile, hard-working, rule-following, competitive, courageous and moral men” (Markula & Pringle, 2006, p. 94). Because sport was designed to foster attributes of masculinity, the athlete was constructed as the disciplined, responsible, and brawny male. This “muscular, taught, technologically constructed body signifies sovereignty” (Pronger, 2002, p. 235) and highlights the centrality of autonomy, agency, and control over one’s body within colonial conceptions of the athlete.

Through employing sport as a tool by which young males can learn to practice masculinity, sport ties to colonial conceptions of the incomplete adolescent in need of intervention. Further illustrating the relationship between colonial sport and adolescence, “sport was . . . assumed to build moral character by preventing immoral thoughts and actions” (Markula

& Pringle, 2006, p. 93) since, through enacting dominant conceptions of the athlete, young men would learn the control necessary to become an ethical, autonomous, rational male.

As a consequence of both the rooting of sport in the gender binary and the construction of the athlete as male, females cannot enter the realm of sport without violating constructions of femininity: The very notion of a female athlete disrupts the pervasive definition and associated traits of both a female and an athlete. As such, it is important to investigate how the present-day Euro-Western female athlete both challenges and solidifies the colonial gender binary.

Female athletes.

As Euro-Western conceptions of the athlete centre on the image of a muscular, violent, and contesting male body, “placing the female body within an institution that is grounded on the value of physical strength . . . [positions] the resultant athletic female body . . . [as] a site of conflict” (Pilver, 2008, p. 2). An athletic woman seems to violate the colonial construction of a female as weak, docile, and fragile because instead she adopts traditionally masculine traits of muscularity and competitiveness. Within Euro-Western culture, understandings of the female athlete centre on self-monitoring, desirability, gender deviance, medicalization, and heteronormativity, all of which act to minoritize the athletic female (Malcom, 2003; Pilver, 2008).

Pilver (2008) writes that a “muscular, sweating, strong female body that runs as fast or hits the ball as hard as any man can be seen as a threatening, disruptive body” (p. 12) because it violates the core tenets of the colonial gender binary. Such a disruption of the gender binary might manifest as the “cultural contradiction of female athleticism” (Malcom, 2003, p. 1388), whereby female athletes must privilege their performances of femininity over those of athleticism. This requirement for self-monitoring highlights the interplay between neoliberal and

(neo)colonial forces, in which individual female athletes are required to exude femininity in accordance with colonial gender if they wish to maintain their heteronormative status.

Even amid careful compensatory performances of femininity by female athletes, the notion of the athletic woman profoundly troubles the colonial gender binary, thus male hegemony works to reappropriate the female body to maintain supremacy. Carty (2005) believes that male hegemony reframes the athletic female body as desirable by men, therefore reasserting male dominance as a desired female body becomes a minoritized and controlled entity. Further, female-appropriate sports have been created “which are based on a more feminine model of cooperation, teamwork, love of the game, and bonding with other females” (Adams et al., 2005, p. 31) and remain consistent with colonial understandings of femininity. This othering of female athletes, such that they must contest within a different conception of sport, serves to further their minoritized position. The segregation and subordination of female sport ties to neoliberal influence and is evident in the lack of media coverage and corporate sponsorship for female athletes in Euro-Western culture (Vadeboncoeur, 2005).

Through the appropriation of female athlete bodies as desirable by males and the creation of socially sanctioned female sports that cement the inescapability of the gender binary, hegemonic norms are able to adapt to some infiltration of the sporting domain by female athletes. However, when female athletes violate gender by too great an extent, perhaps by playing traditionally male sports or by being extremely skilled, they face the assumption that “athletic talent equates to homosexuality” (Pilver, 2008, p. 13). As the “maintenance of athletic masculinity . . . requires that women be sub-par athletes . . . any deviation from this standard can be reconciled by questioning the participants’ sexuality” (Pilver, 2008, p. 13). By being labelled as queer, talented female athletes are no longer positioned as women; accordingly, when they

challenge men in sport (and potentially beat them), men are not being trumped by a “real” woman, but by a delinquent, gender-abnormal hybrid (Pilver, 2008). This classification maintains the privileged positioning of both masculinity and male athleticism.

While an in-depth discussion of the medicalization of female athletes is outside the scope of this project, it is important to highlight that in much the same way as conceptions of femininity rely on placing the female body as a vessel of necessary reproduction and patriarchal surveillance, female athlete bodies are often subject to a profoundly scientific gaze. Again, this reliance on science acts to objectify female athletes and assert male hegemony through the privileging of empirical knowledge.

Richardson (2008) argues that the contested positioning of female athletes within, and in violation of, the colonial gender binary demonstrates “the plasticity of the body and affirms that the body’s gender is a performative effect” (p. 291). As such, athletic female bodies are not masculine female bodies, but act as one constructed body within a multiplicity of bodies. This understanding of female athletes violates the dualistic structure of colonial gender ordering and is thus problematic, and therefore minoritized, within dominant sporting discourse. Further, Richardson contends that female athletes act to “queer heteronormative sexuality” (p. 297) because it is possible that the physically strong partner in a heterosexual relationship may be the female, rather than the male, partner. Within this argument, female athletes act to profoundly trouble the notion of colonial heterosexuality and therefore the gender binary.

In Euro-Western sport, female athletes are able to transgress the gender binary and push conceptions of femininity in small ways. However, these minor flights are quickly appropriated by male hegemony to reestablish the minoritized status of female athletes. If, then, Euro-Western

conceptions of femininity, adolescence, and athleticism all act to position female athletes as subordinate, how might these three understandings coalesce on the female adolescent athlete?

Female adolescent athletes.

Adolescence is a time of accepting sexual maturity and acting to fulfill dominant normative performances of one's assigned gender (Lesko, 1996). Consequently, female adolescent athletes often face increased pressure surrounding the "cultural contradiction of female athleticism" (Malcom, 2003, p. 1388). This social mandate, as explained previously, often leads young female athletes to perform an "apologetic defense" (Adams et al., 2005, p. 23) in an effort to prove that their gendered identity trumps their athletic self. Such a response is also known as "emphasized femininity" (Dworkin & Messner, 2002, p. 24), whereby girls "are pressured to make themselves 'attractive', to get a boyfriend, [and] to define themselves and other girls in terms of their positions in the heterosexual market" (Thorne, 1993, p. 170). Emphasized femininity and the apologetic defense dictate that athletes "must 'girly' their athletic image" (Adams et al., 2005, p. 23) through actions such as "having long hair, tying ribbons around one's ponytail, and wearing makeup at practices and games" (p. 23). These two technologies of patriarchal control function through self-surveillance, highlighting the emphasis on individual agency within neoliberal discourse (Harris et al., 2000). This privileging of individual agency acts with the apologetic response to illustrate how ubiquitous masculine sporting hegemony remains, as young women must change their appearance and behaviour so that even when they are disrupting gender norms by engaging in sport, they hold enough semblance of femininity to remain within conceptions of Euro-Western normality.

Malcom (2003) makes clear an intersection between conceptions of femininity, adolescence, and athleticism, as the apologetic defense is most prevalent in girls aged 12 to 13.

Further, while the apologetic defense is generally a well-acknowledged Euro-Western phenomenon, Malcom suggests that perhaps this mechanism must interact with age, gender, socioeconomic status, and social context. Therefore, emphasized femininity might go beyond the expression of heteronormativity and femininity to indicate normative developmental mandates for colonial adolescence, whereby girls want to show that they are maturing by accepting their sexuality (Aapola, 2005; Malcom, 2003).

Vadeboncoeur (2005) highlights an intersection of dominant understandings of the female adolescent athlete with both male hegemony and capitalism in which young girls are taught that “women can no longer just provide wonderful homes and/or be successful businesswomen—they can also, and at the same time, be successful, empowered, sporting participants” (p. 63). Such messaging occurs through the media and corporate advertisements. Further, the notion that young women should aspire to succeed in business and sport while never forgetting their obligation as a homemaker illustrates the underlying patriarchy inherent in female sport. Finally, Vadeboncoeur critiques the popular Euro-Western rhetoric that expounds the empowerment of young female athletes because this lending of power to girls within a culture of male hegemony acts to further the patriarchal supervision and approval of women’s activities that are deemed essential under the colonial gender binary.

Biologically Re-Markable Female-Adolescent-Athlete-Bodies

Touching with Kirby, bodies are the stuff of “atomic ident[ies]” (Kirby, 2011, p. 27), where any body is “implicated in the very ontology of what it is he is looking at” (p. 133). In the disruptive and productive fluidity of each movement, female adolescent athlete bodies are made of and make athleticism. Athleticism and sporting-bodies are threaded through with anything and everything that performs athleticism. The contaminated histories of athleticism, as explored

above, matter with the atomic fluctuations of a creative biology, modern structuring and disruptive forces, and material agencies to perform a momentary quantum athleticism. A stringent nature/culture divide no longer conjures a material body marked by cultural expectations of athleticism because a body makes and is made of the ontological conditions of itself in any moment. If, as Kirby (2011) imagines, “the limit to my situation is chiasmatically given, then ‘my’ situation is more than local” (p. 136). In this way, any sporting body is scribbled within and over with atomic materialities, connected in its composition to historical athlete-bodies, the hinterlands and elsewhere of biology, and powerful quadriceps muscles as they strike downward in each skating stride. Athleticism doesn’t dissolve into the potentiality of an atomic body, but becomes as part of that body, mattering as the stuff of “contamination and confusion” (p. 113).

While contemporary formations of athleticism hold biology as a commodity, as a matter to be harnessed and controlled in the pursuit of sporting excellence, which performs the stratified anaerobic threshold I experimented with through Law, touching with Kirby enacts a biology made with athleticism that radically recasts the notion of biology as a resource for consumption. Atomic biology becomes ontological and is “neither lacking or primordial, but rather a plentitude of possibilities, a cacophony of convers(at)ion” (Kirby, 2011, p. 88). Biology writes the sporting-body through movement, injury, and sweat. Biology is both the stuff made in traditional scientific hinterlands and the material agencies that sustain the liminal potentialities of these hinterlands. The essentialism attributed to traditional athleticism becomes “vulnerable to the accident of rewriting itself . . . [undoing] itself in the very expression of itself” (Kirby, 1997, p. 98), as biology becomes a creative scribbling that matters as the sporting-body. The following data-body inhabits-with an atomic biology that marks re-markable bodies, a biology that is

always both an ontological condition and a consequence within the making and remaking of sporting-bodies.

"WHAT IS INFINITE ABOUT THE BODY



Momentary Local Embodiments

Kirby (2011) riddles the riddle of embodiment by formulating a body that is a doing, an atomic and ontologically accountable body that is profoundly disruptive to the canonical nature/culture divide as it is made of a fleshy biology that is threaded through with re-markable, liminal speakability. A local embodiment becomes a quantum embodiment that foregrounds the ontological responsibility and entanglement of any body: To be embodied is to be performed of and with atomic agencies and a materiality that is iterative, creative, and vocal.

Any embodiment is implicated in its own contested and complicated performativity. However, this embodiment is not a utopian flux of agencies. Even in its infinite borders, a body has real material consequences because nature (biology) can never, and should never, be entirely relegated to the realm of human perceptibility. Embodiments are made of a bio(logy) that speaks more than the body, that doodles and moves with temporalities that are more than human consciousness, and it is this biology that marks an interesting, creative, liminal body. Touching with Kirby (2011),

the Cartesian subject can admit that s/he has a body . . . and yet s/he is somehow able to sustain the belief that s/he is not the body. This denial is necessary because to contest the latter and all its possible consequences would at least suggest that it might be in the nature of the biological body to argue, reinvent, and rewrite itself—to reflect on itself and cogitate. (p. 75)

Embodiment(s) that touch with Kirby are “already practicing physics” (Kirby, 2012, p. 204). Matter reads with embodiments and bodies are ontologically quantum. Embodiments are inseparably messy, where mess is not uncontrollable chaos, but a chiasmic, entangled, agential chaos that purposefully enacts embodiments made of vocal materialities. Touching all of the

previous experiments with embodiments, Kirby moves this work toward the imaginings of Barad and a quantum, more-than-human embodiment.

Chapter 4. Touching Physics: Bodily (Quantum) Riddles, Accountabilities, and the Nonhuman

THE "STUFF OF MATTER
**GENERATES, COMPOSES, TRANSFORMS
AND DECOMPOSES:**
IT IS BOTH THE **STUFF OF (HUMAN) CORPOREALITY**
AND THE STUFF THAT

eviscerates

THE VERY NOTION OF HUMAN'

(ALAMO, 2010, P. 25)

What happens if we refuse to accept that matter, the matter(s) of bodies, is inert, and instead fully invest in conceptualizing matter as “substance in its intra-active becoming—not a thing, but a doing, a congealing of agency”? (Barad, 2007, p. 151)

Touching Barad, what becomes of/with bodies if we also touch with all the above experiments with embodiment(s) and interrogate and articulate bodies within the flux of material agencies, whereby bodies are the stuff of iterative, creative, always intra-acting phenomena? How might we make contact with the riddle of embodiment when we inhabit-with the atomic matterings of bodies, imagining with bodies that are made of and within an agential-realist “ethico-onto-epistem-ology” (Barad, 2007, p. 185), inseparability, diffraction, and spacetime-mattering (Barad, 2007)?

When the possibility of grasping the onto-epistemological totality of bodies, the conventionally biological limits of physicality that Euro-Western bodies know well, is troubled, “it is through specific intra-actions that a differential sense of being—with boundaries, properties, cause, and effect is enacted in the ongoing ebb and flow of agency” (Barad, 2007, p. 338). Storying bodies is no longer an exercise in borders, anatomy, and discipline; bodies write with the agencies and accountability of re-markable, iterative matterings. Embodiment cannot speak of inhabiting or sensing an essential body because bodies are always the messy, performative stuff of intra-acting material-discursive phenomena.

Touching with Barad (2007), if “matter is differentiating . . . [in] the iterative production of different differences” (p. 137), it is the agential cuts ratified in any moment that are of consequence. These idiosyncratic matterings mark “which differences come to matter” (p. 137) and thus what might be possible, perceptible, or meaningful amid the various material-discursive

practices configured when “matter makes itself felt” (p. 66). Amid the ontological entanglement of matter in continual intra-action, “bodies differentially materialize as particular patterns of the world as a result of the specific cuts and reconfigurings that are enacted” (Barad, 2007, p. 176). Through these differential enactments of matter performed by agential phenomena, “marks are left on bodies” (Barad, 2007, p. 176). It is these scratches or scribbles on bodies, these material manifestations of the agential cuts iteratively performed in any intra-action, that act to delimit both the intelligibility and consequences of any intra-action.

Riddling Riddled Hockey-Bodies

In much of the inhabiting-with data-bodies with which this thesis has experimented, bodily borders and the limits of corporeality are foregrounded. Touching Deleuze and Guattari, any borders of a body cannot be known with any certainty or consistency, and are instead only made in any momentary assemblage, any singularity, any local embodiment. With Braidotti, any bodily brackets are always fractured, always multiple in their nomadic character. Grosz imagines with bodily borders that are made in a constant enfolding and touching with alterity—any bracketing of the body is liminal, a horizon rather than an achievement. Through Law, bodily borders are enacted, made differentially perceptible within different apparatuses of knowledge production such that any bodily limit is a doing rather than an essential truth. Touching Mol, there are multiple momentary brackets to any body and bodies are made to matter within an assemblage of practices. Hird adds a micrological character to bodily borders, invoking brackets that are performed through socially conscious bacteria. The outer limits of bodies become made of a creative, transient, and multiple biology(ies) with Kirby, as biology flees the strata of traditional Euro-Western hegemonic science to become a nonessential, productive, and messy writing of a fleshy body that scribbles.

Touching Barad, we can also contact all of these imaginings with bodily borders, envisioning the outer edges of corporeality as a fleeting performance of coalescing matter that participates in “the enactment of determinate . . . structures with determinate boundaries, properties, meanings, and patterns of marks on bodies” (Barad, 2007, p. 140). In this way, bodies are continually reconfigured while they inseparably re-perform and re-mark other molecular bodies. Barad (2003) notes that questions of “how the body’s materiality—for example, its anatomy and physiology—and other material forces actively matter to the processes of materialization” (p. 821) matter in the production of bodies, as phenomena differentially perform material-discursive bodies. With Barad, bodies become less an experiment in fleshy borders and more a meeting of the multiply intra-active molecular agencies that make any/all borders matter: The riddle of embodiment thoroughly touches embodiment because the riddle itself “matter[s] [as] an agentic factor in its iterative materialization” (Barad, 2007, p. 178).

With Barad, the notion of a limit of corporeality that delimits a body is exhaustively riddled and productively contested. Do bodies need borders? If embodiment is not a story about the outer edges of corporeality, what is embodiment? Perhaps bodies are intra-activity, where ontological inseparability makes bodies matter as differential performances of always intra-active phenomena. Touching with Barad, the riddling of bodies matters as bodies because bodies play amid quantum complexities that nourish the liminal productive potentiality of any body. The following experiments imagine with bodies as they matter with differential patterns of mattering(s) and causality, and are made of and with alteritous temporalities amid the flux of spacetimemattering.

Causality and Patterns of Crossovers

Shoulders pull upward, right hip flexors and thigh contract to anchor the body, left hip flexors lift and twist, and the left skate towers above the right, crossing the body and contacting the ice under the right elbow. This is a crossover. Crossing over, a traditional hallmark of a strong skater, is a technique used to gain velocity while transitioning out of a change of direction or while skating backward. Prevailing consensus within the hockey community knows that without perfect crossovers, an athlete cannot excel as a hockey player. Ideal crossovers are smooth, graceful, and powerful, executed under the following conditions outlined by Youth Hockey Review (2014):

1. Lock your ankles and form a 45° angle with the ice for maximum power.

A simpler way to think about this is to rotate your skate so that it's half way between upright and flat on its side on the ice. This is the position that generates maximum edge power.

2. Focus on a dual stride motion—the “stride push” and the “X-push.”

The “stride push” is performed with the outside leg and mirrors the motion of a forward stride with leg locked at full extension and a strong toe-flick at the end of the stride.

The “X-push” is performed with the inside leg. It also requires full leg extension with a strong toe-flick at the end of the stride. But feels very un-natural and can take quite some time to learn.

3. Bend your knees deeply.

Never stand tall in your turns. Standing upright with straight legs prevents a skater from being able to comfortably and fully extend their “X-push” underneath the gliding leg.

Your knees should be deeply bent and butt low to the ice for power and balance.

4. Carve the edges into the ice rather than simply gliding on them.

... [hold] each push—both the “stride push” then the “X-push” for 3 seconds each as a drill to improve technique.

Coaches and players should listen to the ice for the sound of their skates carving hard into the ice. Often players will be strong on the inside-edge of their glide (outer) leg but soft (weak) on the outside-edge of their inside leg (“X-push”).

5. Maintain a level upper body for stronger balance.

Young players frequently tilt the inside shoulder (the shoulder facing inside the crossover turn) down toward the ice. The result is routinely a fall, or “blow-out,” as the edge gives way to the player’s body weight.

Crossovers are disciplined. They are controlled and follow a specific, known, and knowable pattern. Crossovers are the appropriation of a bodily potentiality to a performed and required skill. Executing a crossover is formulated as a representation of hockey skill, managed by a prior body known through contemporary processes of epistemological representationalism.

Conceptualizing crossovers this way is predicated on a separability between motion and the body: a hockey-body does/performs crossovers.

Touching with Barad, what are crossovers? If traditional conceptions of causality and linearity, as outlined in this canonical description of crossing over, are troubled, what happens in the moment of a crossover? If my legs are made to matter as legs only in patterns of intra-activity, what becomes of and within a crossover? The following data-body experiments with a crossover-hockey-body that is not governed by linear, knowable crossovers but instead crosses over with performative, iterative, and materially agential crossovers.



(BARAD, 2006, P. 22)

Amid an agential realist ontology, causality plays out as a “dynamic and ever-changing topology” (Barad, 2007, p. 177) as “phenomena are forever being reenfolded and reformed” (p. 177). As such, “intra-actions are constraining but not determining” (p. 177); linearity is never assured. One performance of a crossover-hockey-body might be the event of ice holding tight to a steel skate blade, making the digging force of the skate against the ice matter as a sound wave. Crossing over is present in the becoming-perceptible of this noise, such that this momentary hockey-body is entangled with the other atomic agencies of the matter of skates, ice, boards, snow, and shoulders as well as the material-discursive conditions that make this assemblage perceptible as both a body and motion. If we grant that a body is at work in the motion of crossing over, as well as in the intra-activity of this motion with the matters of hockey-bodies, crossing over can be seen as active and dynamic in this performance of a hockey-body. There is no causal agent in crossing over. An agential realist ontology would posit that it is only in their mutual constitution that any hockey-body, crossing over, motion, and arms come to matter as a crossover-hockey-body. Crossovers become loaded with potentiality and matter as the matters of a hockey-body; they are made perceptible as the matters of a hockey-body, while a hockey-body iteratively makes crossovers matter. A crossover-hockey-body matters as both a body and crossing over: Motion and corporeality matter as each other.

Hockey-bodies don't own or possess crossovers. Rather, because “agency is a matter of intra-activity . . . an enactment, not something that someone or something has” (Barad, 2007, p. 178), the moment of intra-action that makes crossing over matter can be conceptualized as another series of cuts and performances. Without the flux of mattering, the performance of crossing over might be altered, as would the material-discursive conditions that make such a transfer of momentum perceptible. If an ear, an elbow, or a scoreboard were differentially

marked in this moment, both the hockey-body that materializes and the instant of intra-action that is crossing over would matter in a differential way, in consort with an iterative refiguring of the material-discursive conditions that enact the intra-action as perceptible. Crossovers are no longer bounded by the linear steps typically associated with a crossing over. As crossing over emerges in intra-activity, “the notion of intra-actions constitutes a reworking of the traditional notion of causality” (Barad, 2003, p. 815). Synchrony is neither a condition nor a necessary characteristic of crossing over. Rather, diachronic patterns matter as and with crossover-hockey-bodies. In this way, a novel performance of crossing over would be patterned, disrupting the presumed linear causality associated with dominant arrangements of crossovers.

Crossovers are ontologically entangled: They are the momentary matterings of material motion. Crossovers are iterative, because “intra-actions cut ‘things’ together and apart . . . [crossover-hockey-bodies] are not enacted from the outside, nor are they ever enacted once and for all” (Barad, 2007, p. 179). Instead, crossovers are in continual intra-action, always marking and making hockey-bodies. Crossovers are the phenomena of motion and corporeality, moving-physicality, wherein an “agential cut enacts a resolution within the phenomenon of the inherent ontological . . . indeterminacy” (p. 140); no longer is the performance of a hockey-body centred on a (controlled) body, but crossovers are enacted in creative and unpredictable intra-actions. Imagining crossovers as intra-activity acts to disrupt the presumed linearity inherent in crossover-hockey-bodies, making hockey-bodies differentially perceptible.

Practice(ing) and Smoothier Spacetime-mattering

First, start with free ice time—maybe three minutes with no pucks as the chatty, slow-dressing stragglers make their way onto the ice, time to work individually on the fundamentals of skating. Crossing over, gliding, shooting-the-duck, maybe some coach-directed stretching. Then

pucks are added and a horseshoe drill starts: passing, receiving, low shots on the goalie. Everyone gets warmed up. A whistle blows, an assistant coach gathers all the pucks in a net, and the head coach leads a conditioning drill. Lining up on one goal line, it starts with a sprint, then a jump over each line with sprints in between. Then more conditioning, more skating the full length of the ice. One knee down, drop to both knees, backward, pivots, no sticks, then with pucks. Whistle. Red marker hits the coach's board, drawing a mini-mockup of the next drill—a puck possession drill with lots of shooting: shoot by the hashmarks, no dekes allowed. Another whistle and it's a breakout drill. There's been struggles with getting the puck out of one end and that will be remedied by 12 minutes of trying out different scenarios. No, angle your skates correctly this time, the puck must be picked up on the boards or that team will never be beat. Then, its time for a bag skate. Blue line and back. Red line and back. Far blue line and back. Over and over. Practice wraps up with baseball, a fast-paced drill with lots of passing, shooting, and strategy. Quick off the ice, the Zamboni gate is opening.

Free fundamentals, warm-up, conditioning, individual puck-possession skills, team strategy and systems, conditioning to exhaustion, fast-paced and high-reward game (to deemphasize the highly competition-driven nature of the previous 50 minutes). The tried and true Hockey-Canada-mandated format of a well-planned practice is omnipresent in this engagement. Skill building? Check. Hockey sense? Check. Fitness? Check. Fun? Oh right—that too. This practice exerts its intensive potentiality to enact an ice session that is entirely linear, predictable, and ascribed to a predetermined framework of temporality(ies).

If, as Barad (2007) asserts, “intra-actions are the dynamics through which temporality and spatiality are produced” (p. 179), then thinking with hockey practice while foregrounding data-bodies can trouble the traditional boundaries of physicality as well as its spatial and

temporal orientation. As hockey-bodies traverse the ice in the flurry of practice, phenomena are originally and forever ontologically entangled, thus “human bodies, like all other bodies, are not entities with inherent boundaries and properties but phenomena that acquire specific boundaries and properties through the open-ended dynamics of intra-activity” (Barad, 2007, p. 172). Practice too, as a phenomenal assemblage, is not made nor strictly able to perform the traditional temporalities of a hockey player. Hockey-bodies do more than fast and slow, forward and backward, stationary and acceleration; they are also made of and make more than these temporalities. Practice matters with temporalities and spatialities that are injected with the difference made with fundamentals, puck possession, and bag skates.

Crossovers matter as both motion and corporeality, productively stripped of any traditional notion of linear causality. Crossovers matter as we think with practice to imagine a practice that performs spacetime-matterings made with differential practice temporalities. Spacetime-mattering is a fractured and patterned assemblage of mattering, whereby “causal structures are stabilized and destabilized [not] . . . in space and time but . . . in the making of spacetime itself. It is through specific agential intra-actions that a differential sense of being is enacted in the ongoing ebb and flow of agency” (Barad, 2007, p. 140). Agential matter comes to matter through differential patterns of mattering that make phenomena matter, while also making matter, space, and time matter in the ongoing reconfigurings of all matter. Spacetime-mattering matters through an “intra-play of continuity and discontinuity, determinacy and indeterminacy, possibility and impossibility” (Barad, 2007, p. 182); as such, practice is a spacetime-mattering. The momentary temporal and spatial conditions invoked in practice are not only those made in a contemporary practice configuration; they also come to matter in that they are porous and

“[teeter] on the cusp” (p. 182) of dissolving into differentially indeterminate motions, corporealities, speeds, and sequences: matterings.

Conceptualizing practice as spacetime-mattering, practice becomes a “boundary-drawing practice” (Barad, 2007, p. 140), where spatiality and temporality matter differently and intentionally to produce iterative and creative spaces, temporalities, matters, and chronology-latitude-bodies. Amid this fluctuating material practice, bordering speeds and locales in accordance with traditional rules of separate space and matter is no longer sufficient. Both hockey-bodies and the velocities and locations they perform physically strain the boundaries of spacetime(s) within the hockey-body assemblage they bring into being, while also challenging the borders of the body that such a pattern of mattering is meant to encase. Motion and position become just as contested as the bodies iteratively produced in their mattering.

If ontological indeterminacy is the flavour of matter, it stands that it is through the agential cuts at play within any moment during/with practice that spacetime-mattering might participate in the cuts that make a body perceptible with motion. In this way, a skating-hockey-body is no longer conceptualized as moving quickly. A body is not doing motion. Rather, bodies are motion, heavy-slow-quadriceps, as spacetime-mattering(s) come to matter. Well-patterned, conventional agential cuts that mark speed as something performed by a human are disrupted, as the matterings that constitute body-motion-location-matterings enter into a differential pattern of intra-activity with the spacetime-mattering that constitutes this performance of a hockey-body. In this disruption, motion is no longer a body moving slowly or quickly. Within the differential patterns of mattering that enact a hockey-body, differential spacetime-matterings matter with differential descriptions or languaging made with this spacetime-mattering. Words are part of the agential phenomenal moment that is a stride or a parallel stop, iteratively made in the dynamism

of a hockey-body. The agential play of spacetime-mattering with a practice-skating-hockey-body foregrounds how the meaning and practice of mattering (spacetime-mattering—motion, location, body) in any moment is “not [a] human-based activit[y] but [a] specific material (re)configur[ing] of the world through which boundaries, properties, and meanings are differentially enacted” (Barad, 2007, p. 183).

“You can glide smoothlier.” Smoothlier isn’t in a contemporary dictionary or a canonical hockey coaching manual. But in a practice moment for a hockey-body, smoothlier is a body: A hockey-body makes and is made of smoothlier. Smoothlier isn’t motion, it isn’t space, it isn’t discursive, and it isn’t matter. Smoothlier is a “local determinacy” (Barad, 2007, p. 348), a spacetime-mattering. Smoothlier comes to matter as a material-discursive performance that strains the limits of the dominant pattern of agential cuts and language that sustain the material-discursive conditions of hockey and its accompanying bodily practices. Smoothlier is disobedient and productive; it is a spacetime-mattering that fractures any traditional notion of the body or motion.

Barad (2007) argues that “it is when the body doesn’t work—when the body ‘breaks down’” (p. 158) that the leaky nature of its created borders becomes apparent. Smoothlier is a breaking down. Smoothlier makes clear that the traditional separation of space, time, and matter dissolves into spacetime-mattering in a patterned moment of practice mattering. Spacetime-matter can be seen to exert its inherent dynamism through a myriad of intra-actions, such that the body it performs is no longer consistent with the dominant intra-activity that creates an ideal spatiotemporal body or traditional performed motion. Smoothlier trips traditional patterns of mattering, performing a novel environment in which material-discursive constraints might be configured differently because a hockey-body matters as/of spacetime-mattering. The data-body

below is an experiment with smoothier hockey-bodies. It is made of part of a Hockey Canada PeeWee practice plan (Hockey Canada, 2014a) that represents a traditional bounded, anthropocentric hockey-body, and it performs a material-discursive body that matters as a differential performance of spacetimemattering.

PEE WEE LEVEL PRACTICE PLAN

1 OF 2

- Session Objective(s)
1. Refine skating & puck control skills
 2. Refine principles of offensive attack
 3. Review and refine offensive tactics

8 min

3 LINE WARM-UP

- Players line up in 3 groups to allow for 3 wide passes.
- Players execute a series of puck control / passing / receiving skills.
- Spotting a puck.
- Passing give and go from a stationary partner.
- Passing give and go with a transition skate, receiving the pass while skating backwards.



KEY EXECUTION POINTS

- Puck control with head up and two hands on stick
- Eye contact between passer and receiver
- Communication
- Receiver presents a target
- Spot pass to be optionless

8 min

AGILITY 8'S EXCHANGE

- O1 skates a figure 8 (square to O2. O2 repeats when O1 is finished). Repeat each).
- Add a puck for each pair to repeat the sequence using a short pass from O1 to O2 at the bottom of the figure 8.
- Goalies execute this drill too.



KEY EXECUTION POINTS

- Puck control
- Communication

Smoothie

8 min

- © initiates with a shot on goal (a puck the goalie can handle).
- O1 and O2 jump into the zone to support the goalie who passes to the outlet man on the boards.
- O1 and O2 attack 2 on 0.
- Vary the drill by adding a forward or one or two defenders.



KEY EXECUTION POINTS

- Communicate
- Attack with speed
- Timing
- Patience moderate
- Execute net drives

racing - careful - fast - stop - stutter - strong - flat - verticalish - smooth - reckless - grippy - slow - calm - bounc - backward - sticky

elbows - explosively - stall - surprising - crossover - bump - slippery - bounc - control - anxious - explosive

Smoothlier is an experiment, a doing, an ongoing reconfiguration. Smoothlier is not a thing, it is not a motion, and it is not a discrete act. Smoothlier very carefully does “not disentangle the phenomena into independent subsystems” (Barad, 2007, p. 348) but instead enacts a dramatic smoothlier-hockey-body where movement discursively crosses over with materiality, positionality, and liminality.

Mattering with an Agential Realist Ethico-Onto-Epistem-ology

If our (intra) actions matter, Barad (2007) insists, if “each one reconfigures the world in its becoming—and yet they never leave us; they are sedimented into our becoming, they become us” (p. 394), then intra-acting is an ontologically ethical process. The originary entanglement of all matter brings about an agential realist “ethico-onto-epistem-ology” (p. 185), by which Barad means that all matter is continually implicated in the cuts that perform (hockey)-bodies and is therefore accountable to the bodies that are enacted, or excluded, amid the material-discursive conditions of a continually enfolding world and body. In this way, what we come to know as any body is continually re-marked as a body by the matter that makes any body—the material “stuff” of corporeality enacts material-discursive cuts that mark corporeality knowable as corporeality.

An ethico-onto-epistem-ology carefully leaves the myopathy of conventional modes of ethics, wherein one encounters and does unto an “other,” to foreground a messy, busy, profoundly and always intra-active and intradependent milieu of mattering, whereby to matter at all is to already be practicing ethics. Such a canonical conception of ethics is profoundly anthropocentric, rooted in a conception of matter as docile, inert, and stable (Alaimo, 2010). The body is conceptualized as similarly mundane because traditional ethical analyses focus almost “exclusively on how various bodies have been discursively produced, which casts the body as passive, plastic matter” (p. 3). Amid the flux of mattering with accountability exists an “ethics

lurking in an idiomatic definition of matter” (Alaimo, 2010, p. 2), where “the becoming of the world is a deeply ethical matter” (Barad, 2007, p. 185) and all matter, and the etchings it enacts on bodies, is “part of the world-body space in its dynamic structuration” (Barad, 2007, p. 185). Mattering in an ethical manner demands that we take seriously any/our engagements with agential matter and foregrounds our ethical accountability in the production and practices of bodies and embodiment. To be ethical is to imagine the matter of the world, including bodies, as active, agential, and ethical as it iteratively marks and re-marks itself. The vast practices and processes of ethical mattering and intra-acting are injected with overwhelming difference from the ethics of a traditional Euro-Western anthropocentric array of ethical behaviour because bodies, communication, and mattering are originally and always ethical events. Within a dynamic web of intra-activity and perceptibility, a maze nourished by the agential play of all phenomena, where to matter at all is to depend on the patterns of mattering and cuts enacted by all/any other phenomena, “corporeal generosity” (Hird, 2009, p. 77)—the debt that any body owes all other bodies—foregrounds the inescapable ethical complexities of mattering. Elbows, skates, and breath become intricately and always ethical through their continual and iterative activity in an agential realist collection of accountability(ies).

When bodies are composed of an originally ethical relation to all other phenomena and bodies, many questions emerge surrounding how we might orient bodies and embodiments in such a way as to enact productive, liminal, and ethical patterns of mattering and bodies. An ethico-onto-epistem-ology, while different from dominant patterns of understanding ethics, is always threaded through with canonical ethical orientations. While I work to think with a quantum agential realist ethic throughout the experiments in this work, the scaffolding of a governing Euro-Western ethic is also always present. As such, before inhabiting-with some

questions that an ethico-onto-epistem-ology demands of bodies and embodiment, I will make clear the process and considerations related to contemporary ethical concerns that played a role in the creation of and experimentation contained in this project.

Considerations of the university ethics process.

This project has passed a review by the Human Research Ethics Board at the University of Victoria. I encountered no changes related to the recruitment and research processes outlined in the informed consent documents (Appendix E, Appendix F) reviewed and signed by athletes and their guardians.

As made clear to both athletes and their guardians in recruitment and consent form materials (Appendix E, Appendix F), all participation in this research was completely voluntary. Guardians signed informed consent forms prior to the inclusion of their athletes as athlete-participants. Athletes also signed a consent form. Throughout the research process, guardian review and (dis)approval of images signalled ongoing consent. At the beginning of each group discussion, athlete-participants were asked if they wished to continue participating in the research. After agreeing to participate, both athletes and their guardians could withdraw at any time without any consequences or any explanation. It was made clear to guardians and athlete-participants that if either a guardian or an athlete wished to withdraw, the athlete's participation in the project would end and all images of the athlete-participant and their contributions to discussions would be destroyed and excluded from any analysis or dissemination. None of the five participants or their families revoked their consent to participate during the course of this research.

Risks to participants were minimal, as outlined in Appendices E and F. Athletes were provided with pizza and juice at all discussions and, if requested, high-quality copies of images were given to athletes and their guardians.

As outlined in informed consent forms (Appendix E, Appendix F), athletes and guardians were informed that anonymity would not be maintained during this research. A discussion explaining anonymity and confidentiality to athletes and parents took place, and athletes asked many questions to clarify their understanding of anonymity. Anonymity could not be maintained due to the group nature of discussions and the use of images in the project. While limited contextual information is given surrounding the location of this research, it is possible that athlete-participants will be identifiable to those who know them.

Confidentiality, due to similar considerations related to anonymity, could also not be maintained. In addition to the limited contextual information given and nonidentifiable jerseys worn in images, all athlete-participants assumed a pseudonym, and the group selected a pseudonym for the team. Participants were told that images would remain unattributed to any specific athlete-participant. During the writing process, I elected not to use the pseudonyms. The image review process by guardians and athlete-participants enabled the removal of any image that participants did not wish to have shared publicly. Guardians did not have access to transcripts of group discussions. Guardians can only see discussion data that has been anonymized in this document.

All images and electronic data are stored in a password-protected file on my computer. They have been backed up on an external hard drive which is stored in a locked box at my home. All hard-copy documents associated with the research will be stored in this locked box. All data will be stored until October 1, 2017. It will then be destroyed.

Ethical mattering(s).

Attending to the ontological indeterminacy of matter raises various questions related to bodies and embodiment: How might the above entanglement with a stratified ethical process matter in the experimental embodiment(s) I interrogate in this project? How might inhabiting-with bodies made of an ethico-onto-epistem-ology orient sporting bodies and the bodies they are in intra-action with? How do informed consent forms and picture-containing emails matter as affective loyalty—and how might experimental embodiment(s) matter with affective loyalties? How might we be accountable to nonhuman and posthuman enactments of bodies and the performances of bodies and embodiment this might make perceptible? How can we understand the affective potential of corporeality in sport? How might we reorient our mattering if we wish to participate in enacting a differential affective hockey-body or data-body? What hockey-bodies, or any bodies, emerge when we consider the ontological inseparability of the phenomena that bring into being the material-discursive conditions that make sport or embodiment intelligible?

The string of questions above is not meant to be exhaustive or conclusive. Rather, it is a momentary engagement with some wonderings stemming from the above experiments as they intra-act within an ethico-onto-epistem-ology.

Considering the entanglements that are marked as perceptible through an ethico-onto-epistem-ology, it seems necessary to consider the nonhuman, the more-than-human, matterings of hockey-bodies. In the above experiments, I have engaged with the human as a hockey-body, which often included what is traditionally understood as nonhuman, such as ice and gloves, in a way that considered any hockey-body to always be made of many materialities and material-discursive matterings. In these engagements, drawing a firm distinction between elbows and

pucks, for example, has not been generative nor meaningful thus far. In fact, I have been working to imagine with theorists who often see no utility in carving out such material distinctions and think instead with the affective potentiality, enfolding processes, entanglements, production, microbial epistemologies, and material agencies of the world and the bodies such a world makes perceptible.

Next I think with Alaimo (2010) to foreground the nonhuman as it composes and disrupts hockey-bodies, where considering the more than human is a practice of ethics, of justice, and corporeality is “trans-corporeality” (p. 2) and the “human is always enmeshed with the more-than-human world” (p. 2).

Transcorporeal Snow-Ice

To touch with Alaimo (2010) is to be injected with “the immediacy and potency of all that the ostensibly bounded human subject would like to disavow” (p. 5); to riddle from a place where “‘the environment’ is not located somewhere out there, but is always the very substance of ourselves” (p. 4). Transcorporeality is the movement of all phenomena, everything, across nature, where nature is made of the intra-activity and continual relations of exchange amid all matter. Any body is porous and to bracket a body becomes a futile practice because all membranes become threaded through with the holes of all other borders until transcorporeal exchange becomes the communicative currency of any transcorporeal body. Touching with transcorporeality and ontologically porous bodies “entails a rather disconcerting sense of being immersed within incalculable, interconnected material agencies that erode even our most sophisticated modes of understanding” (p. 17).

I won't steal the ice. Ice has been present before and always in this portfolio of experiments that is my thesis. Ice is an anchor, a limb, and a launch point of a hockey-body; it's

a chilly ankle and a bumpy puck. Ice is the crystallized performance of strong water molecules, uniquely marked by the stiff steel of the skate blades it cups. Ice is the Zamboni it brings into being, the thin coat of water that replaces its scraped and snowy surface. The fluffy, mismatched piles of abrasive snow that ice piles upon itself, made perceptible through the skate blades that skim ice's fragile surface, are transcorporeal movement. Snow is transit, exchange, and speed. Snow is a nature-culture, a material-discursive network, both a "site of the direct application of [agency—water, pressure, scraping] . . . [and] permeable sites that are forever transformed by the substance and forces . . . that penetrate them" (Alaimo, 2010, p. 30). Similar to bodies that are marked amid an ethical-onto-epistem-ology, snow is iteratively nourished by ice, marked perceptible by ice while also marking ice as perceptible. Snow, ice, and movement are transcorporeal motion, where even naming ice as distinctive from the snow it matters with is a fractured and transient act of mattering.

Alaimo (2010) inhabits-with transcorporeality at a point of terrifying discomfort, where the fleshy human body is "substantially coextensive" (p. 125) with the risky, poisonous, and hybrid vitality of nature. Transcorporeality is intentionally and productively murky, touching a "chemically reactive" (p. 114) body that is contaminated by coextensive environmental agencies. Any body is no longer pure or protected by its own (permeable) material limits, but rather is oriented toward an immanent flux of contaminants and nature-agencies. Transcorporeality is precarious, but not always in a dangerous way. Perilous exchanges might chisel at traditional "humanness," but such an exchange might be productive. Transcorporeality is both an ethic of warning and an ethic of communicative and iterative potentiality. How might hockey-bodies be made of and destroyed by the transcorporeal transit of agential matterings? If snow is the transit

of transcorporeal matterings, how is snow troublesome and productive in the process and performance of a hockey-body?

“When you’re gliding on smooth ice you’re not catching a bunch of bumps, you’re just going.”

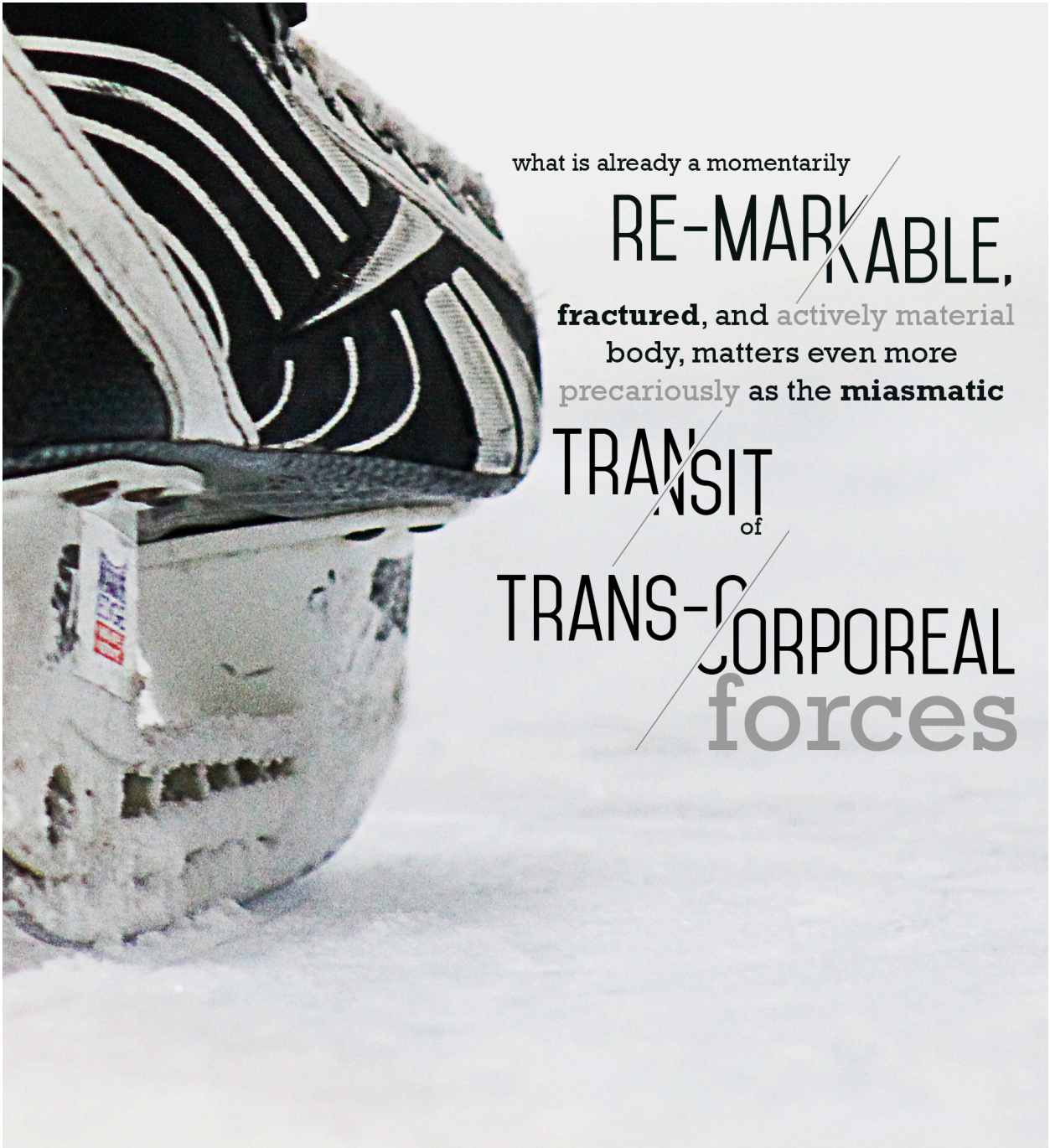
“It’s okay ice. It’s not horrible, but it’s not perfect. It’s ice.”

“It works.”

Frozen, soft, wet, cold, fluffy, and slippery—“matter is agency here, an agency that transforms the very stuff of the human” (Alaimo, 2010, p. 154). Snow makes ice as ice piles snow upon itself, and the matters that make a hockey-body perceptible as such are agential matters that are “permeable, emergent beings, reliant upon the others within and outside our porous borders” (p. 156). In this moment, a hockey-body requires each configuration of snow as it matters on ice. A hockey-body becomes more than a thigh-helmet-heart-snow-puck assemblage and matters as a moment of transcorporeal materiality(ies). This iterative hockey-body relies with and makes snow. It is the material action of scraping the ice and the crystallized fluff that leaps from ice and clings to skate blades. It is the snow that sticks to socks, plastering shins with a creative pattern of chilly cottony matter. Snow is the moving farcicality of boundary making, the transcorporeal mattering of a hockey-body.

With Alaimo (2010), the material agencies that Barad foregrounds matter completely to the perceptibility of a hockey-body while that body always matters as more than matter, becoming iteratively and importantly made of transcorporeal matter, matter that knows no boundaries and enacts a “material world that is never merely an external place but always the very substance of ourselves and others” (Alaimo, 2010, p. 158). Alaimo touches with Barad, burrowing into the agential snow that iteratively makes ice, building on ontological entanglement

and making matter matter as environmental interchange, as discursive porosity, as the intangible uncertainty of interconnection. If the material-discursive hockey-body is momentarily performed by material agencies with Barad, such a body becomes even more the stuff of transcorporeal snow with Alaimo, making perceptible a hockey-body as snow, where boundaries become absurd and accountable and hockey-snow-bodies are “always already posthuman” (p. 158).



what is already a momentarily

RE-MARKABLE,

fractured, and actively material
body, matters even more
precariously as the miasmatic

TRANSIT
of

TRANS-CORPOREAL
forces

Momentary Local Embodiments

With Barad, the flavour of embodiment is riddled with ontological entanglement, where any momentary embodiment is made perceptible by the patterned and surprising cuts enacted by material-discursive agencies. Agential realism articulates an “epistemological-ontological-ethical framework” (Barad, 2007, p. 26) in which any body is always implicated in the enactment of all other bodies. Embodiment(s) are always iteratively intra-actively coconstituted because material agencies make matter matter through the iterative cuts they make in the enactment of any body. Touching with Barad, “even the very atoms that make up the biological body come to matter” (Barad, 2003, p. 810) in the enactment of bodies. As such, embodiments are made of the quantum intra-activity of agential atoms and are never an ontologically solidified process or material-discursive enactment.

Embodiment is made of our intra-activity in an agential realist flux of material-discursive phenomena, where any embodiment is accountable to the marks left on bodies that it produces and intra-acts with. As such, embodiment is an ethical moment, made of the iterative ambiguity of the ontological inseparability of phenomena. Touching with Barad again, embodiments are ethico-onto-epistem-ological performances of material-discursive phenomena, whereby “differential patterns of mattering” (2007, p. 206) draw momentary (intentional and fractured) boundaries with and of matter, making “specific material (re)configurings of the world . . . come to matter” (p. 206). Embodiment matters as a performatively ethical process of marking and materializing differential bodies, made perceptible with uniquely iterative patterns of mattering.

Muddling with the momentarily perceptible boundaries of bodies that matter in an agential realist world, Alaimo (2010) riddles with embodiments that are always coextensive with material environments, such that any border becomes porous, fractured, and incongruous. If

transcorporeal flows become the intra-active currency of mattering, to border materiality forecloses on the fluctuating communicative potentialities of matter. Embodiment is far from a story of bracketing, as to think with bodily borders severs any embodiment from the creativity and connectivity of material agencies. Alaimo articulates a transcorporeal embodiment where to matter as a body is to matter as the transit of transcorporeal forces in which “nature is always as close as one’s own skin—perhaps even closer” (2010, p. 2). Embodiment(s) are always transcorporeal, always made of far more than material-discursive skin and bone.

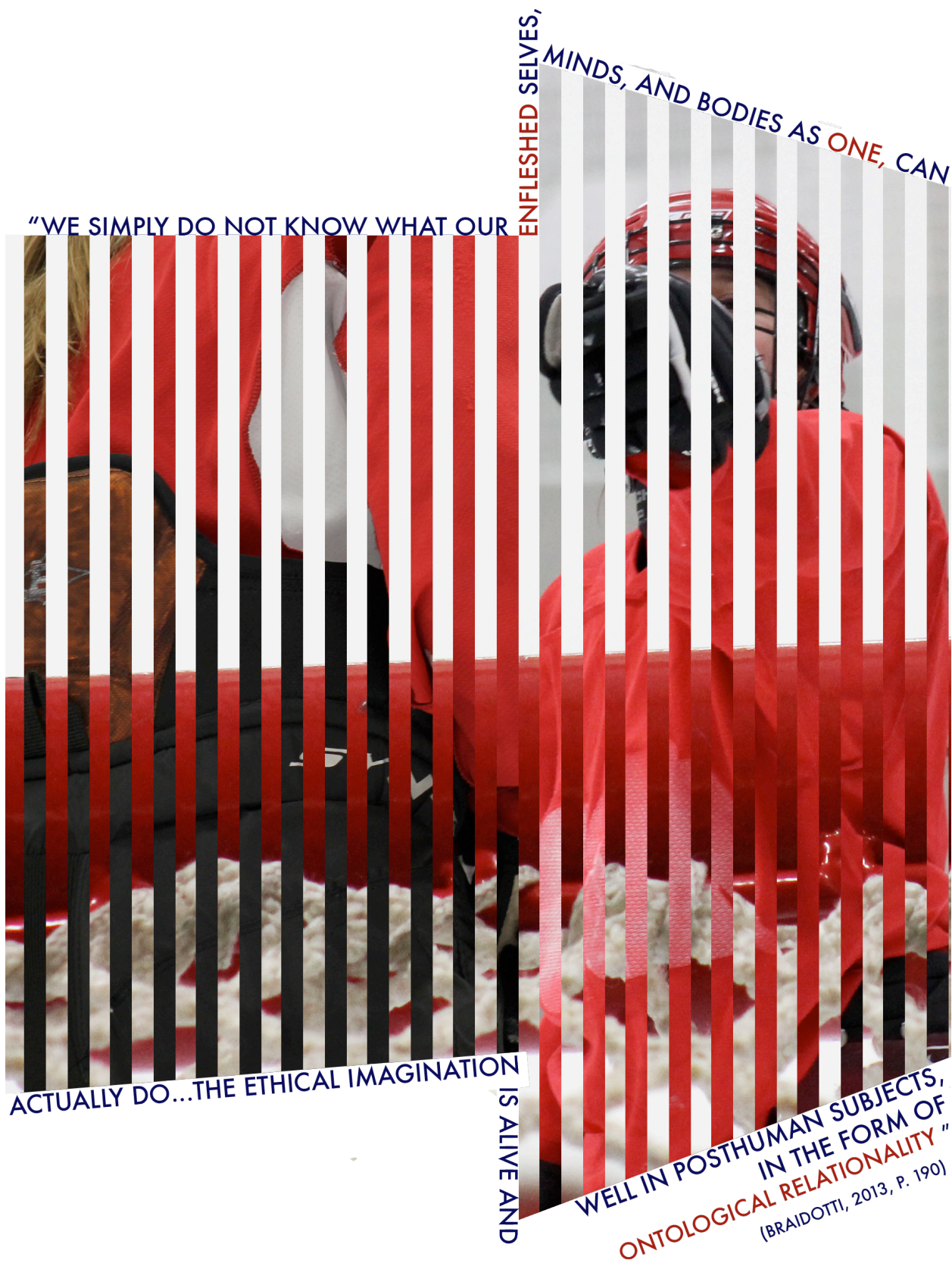
Infiltrating the riddle of embodiment with the matterings of Barad and Alaimo highlights an ontologically entangled and porous body inhabited and performed by and amid a flux of material agencies. Such a response to embodiment gestures toward the posthuman, the more-than-human matterings of embodiment.

Holding to the posthuman matterings of embodiment, I now turn to Braidotti (2013) as she thinks with an emergent critically materialist articulation of embodiment, an embodiment always injected with polycentric hybridity and nomadism.

Four Within Five: Tripping Chaotic Post-Human Embodiments

Exploding with the artificial but powerful prescribed mythology that sustains anthropocentric truths about “what is ‘human’ about humanity” (Braidotti, 2013, p. 13), the same structural tradition that holds the centrality, solidity, and external reality of the human body, Braidotti (2013) heaves forward a “matter-realist” (p. 57) ontology that “strikes the human and his/her heart” (p. 57) and infuses the riddle of embodiment with a profoundly posthuman charisma. Braidotti locates a “nature-culture continuum in the very embodied structure of the extended self” (p. 65), cleaving open an ontological fissure on which the “displacement of anthropocentrism and the recognition of trans-species solidarity on the basis of our being environmentally based” (p. 67) becomes an ethical process as any body becomes “embodied, embedded, and in symbiosis with other species” (p. 67). Bodies become ontologically attuned to and composed of

the roar which lies on the other side of the urbane, civilized veneer that allows for bounded identities and efficient social interaction . . . the Spinozist indicator of the raw cosmic energy that underscores the making of civilizations, societies, and their subjects. [A] vitalist materialism . . . that helps us make sense of that external dimension, which in fact enfolds within the subject as the interlaized score of cosmic vibrations. (p. 56)



"WE SIMPLY DO NOT KNOW WHAT OUR

ENFLESHED SELVES,
MINDS, AND BODIES AS ONE, CAN

ACTUALLY DO...THE ETHICAL IMAGINATION

IS ALIVE AND

WELL IN POSTHUMAN SUBJECTS,
IN THE FORM OF
ONTOLOGICAL RELATIONALITY"
(BRAIDOTTI, 2013, P. 190)

Posthuman bodies and embodiments are ontologically collective. Rooted in nomadic subjectivities, “the posthuman nomadic subject is materialist and vitalist, embodied and embedded—it is firmly located somewhere” (Braidotti, 2013, p. 188)—a relational, immanent, and emergent somewhere, a somewhere made of the ontologically intra-active becomings of a material world. If, as Braidotti (2013) suggests, any embodiment is “shot through with relational linkages of the contaminating/viral kind which inter-connect to a variety of others” (p. 193), any posthuman body is always connective, always made in an iterative energy that explodes any bracketing of the “human” or “body” such that any body is only local, a local threaded through with history and affirmation. Such a formation of a body is not utopian, but rather is fraught through and made of the contested material-vitalist politics of a contemporary world. Ridding with Braidotti, the posthuman is not about dissolving troubled and troubling conceptions of the human and humanism into an always positively productive ideal world of egalitarianism. Instead, bodies are the matter of trouble, the critical, intensive, affective assemblage(s) of “encounters that shatter the flat repetition of the protocols of institutional reason” (Braidotti, 2013, p. 169).

Posthuman hockey-bodies are more than a realization that a “hockey-body” is not the stable, bounded body of Euro-Western imaginaries, more than a connected assemblage of ears, gloves, ice, and breath. Ontologically posthuman hockey-bodies respond to the question of what a body can do with another question and another question, until the retort to such a question becomes so profoundly riddled with potentiality and liminality that any answer is terrifyingly momentary. Posthuman hockey-bodies scramble amid “heteronomy and multi-faced relationality, instead of autonomy and self-referential disciplinary purity” (Braidotti, 2013, p. 144), until hockey-bodies become enthusiastically unpredictable and disruptive. Braidotti (2013) thinks with the destructive and violent potentialities of posthuman bodies, exhaustively

emphasizing how any posthuman body is made of far more disobedient potentialities than utopian intensities. Such a body is not necessarily evil, but is dangerous—a danger that can be productive, assuming that any other body is able to engage the speeds and temporalities of such a body as iterative, as nomadic, and as emergent. A snarled absolute, intensive corporeal difference becomes the currency of bodies until “it is the intelligence of radically immanent flesh that states with every single breath that the life in you is not marked by any master signifier and it most certainly does not bear your name” (p. 138).

Kevlar, goal-line technology, pucks inhabited by microchips, concussion-proof helmets, breathable compression spandex: the language of hockey-bodies is continually mediated and colonized by increasingly nonhuman natures. Decker in white and black stripes, lungs contract and carbon dioxide is exhaled into a mass-produced black plastic whistle. Sound waves traverse a carefully constructed arena, smacking into the advertising-splattered gates of capitalism, the same boards that delimit the ecosystem within which ice can crystallize. Mattering with the pitch of a whistle, skates dig into ice and snow jumps upward, ponytails pause, and galvanized rubber pucks pause. A scapula lifts in tandem with rage and an irate stick smashes downward as the ice receives its anger. “Tripping” echoes through an arena, hitting the cinderblock walls, performed by the snow that sticks to the socks that tumbled onto the ice, and the aggressively anxious gnashing of teeth on a mouthguard made of the stuff of a concussion research apparatus. Do hockey-bodies matter here? How? Where? Why?

Hockey-bodies materialize as an “in-between that is plugged into and connected to a variety of possible sources and forces” (Braidotti, 2013, p. 139), mattering as an ontologically nomadic collective. In the moment of tripping, bracketing a body becomes even more absurd, a fleeting attempt to hold to the comfortingly ancient nodes of anthropocentrism. As the whistle

blows and tripping is made, tripping performs bodies that are “simultaneously more abstract and more materially embedded” (Braidotti, 2013, p. 139). Tripping makes a moment of “ascetic dissolution” (p. 136) of hockey-bodies, and where to draw lines between a stick and ice, tripper and tripee, rule and puck becomes increasingly challenging and entangled. Shin pads grab at stick shafts, ice calls to knees, order meets motion, and fitness slashes at discipline. Active with advertising, helmets, production, water, research, consumption, parents, knees, and histories, tripping is “the moment of its merging with the web of human forces that frame him/her, the cosmos as a while” (p. 136). Tripping is chaos and chaosmos, the becoming-imperceptible of a bounded hockey-body. Tripped-hockey-bodies are “always too much for the specific slab of enfleshed existence that constitutes single subjects” (p. 130) as hockey-bodies become a collective moment, a synthesis of material-discursive inhuman and corporeal motion. Why bother bracketing bodies when brackets themselves are a tripping, and when to matter instead with the intensive potentialities of tripping is also to answer the question of a body’s affective ability with trip after trip after trip?

Momentary Local Embodiments

Posthuman embodiments mark the collective nature of embodiments, where to be embodied is to be local in a locality that is materially discursive, historical, and nomadic. Embodiments are always inhuman, always made of ontological relationality. Embodiment becomes a communal moment of mattering with a plenitude of posthuman forces, where species integrity and hierarchy dissolve into a commutability of all nature-culture bodies. With Braidotti (2013), embodiment floods into the ontological space that is cleaved open when conventional epistemological structures break and humanism is troubled. Here, embodiment is a becoming-

imperceptible of a vitalist matter-realist formation of affect and relationality, where a body is ontologically nomadic and momentary.

Braidotti touches with Barad (2007) in imagining with an originary monoist ontology, where connectivity and intra-action are the inventive phenomena of bodies. Vital energies are agential, compassionate, and cautionary, active amid and in the making of a chaotic embodiment(s), where “chaos is not chaotic, but it rather contains the infinite expanse of all virtual forces” (Braidotti, 2013, p. 86). These posthuman embodiments also riddle with Deleuze and Guattari, touching the complexities of nomadic beings and the continual becoming-inhuman of contemporary bodily formations. Building on the nomadic body already experimented with above, a posthuman embodiment with Braidotti (2013) replaces a body that might be represented or archetypal with experimental bodies that are “also spectral: the body doubles up as the potential corpse it has always been and is represented as a self-replicating system that is caught in a[n] . . . economy of endless circulation” (p. 118). Here, an affective body is always iterative, touching Deleuze and Guattari with quantum energies. Transcorporeality, as with Alaimo (2010), is an ontological facet of embodiment in any posthuman embodiment because to perform any embodiment is to perform a body that is made of intersecting materialities that do not obey the borders of anthropocentrism. The affective potentiality of an embodiment is the intra-active potentiality of numerous material agencies, all iteratively made of transcorporeal matterings.

If, as Braidotti (2013) suggests, “living ‘just a life’ therefore is a project, not given, because there is nothing natural or automatic about it” (p. 134), posthuman embodiment becomes rooted in a material-vitalist body of banished boundaries, where cosmic energy makes and destroys bodies and to “know” a body is to forget its disruptively productive potential as a matter that escapes human colonization. Tripping is a becoming-embodied, a posthuman embodiment.

Tripping is made of material-discursive transcorporeal agencies that perform intensively local bodies made of a “generative notion of complexity . . . [wherein] there is always already a relation to an affective, interactive entity endowed with intelligent flesh and an embodied mind: ontological relationality” (p. 100).

Chapter 5. Riddled Embodiment(s)

To think of these limits—both in our habits of thought and in our experiences of the world—instead as continuously produced through material-discursive intra-actions, through collisions and swerves, and producing multiple, simultaneous realities, it becomes possible to believe that futures might be rendered and honored otherwise. (McCoy, 2012, p. 770)

Experimenting with the claim that “we know nothing about a body until we know what it can do, in other words, what its affects are, how they can or cannot enter into composition with other affects, with the affects of another body” (Deleuze & Guattari, 1987, p. 257) riddles with a body that is multiply performative and iteratively active within the fractured, material-discursive, and transcorporeal matters of a productive, emplaced, and enfolded world. Carefully touching with the liminal flux of material wonderings that ask what Buchanan (1997) calls the “Spinozist question: what can a body do?” (p. 74), while also radically throwing this question into an arena with smoother borders so that we might interrogate what embodiment(s) can do might foreground the body’s vast potentialities. This thesis inaugurated itself on a question of bodies and embodiment, wondering if it might not be the question of a body’s affective capabilities that creates space for experimentation, but if instead we might riddle with what embodiment(s) might do. Inhabiting-with Deleuze and Guattari’s inquiry into corporeal potentiality, infusing it with an intra-active, collective character, this thesis interrogated questions of what embodiment(s) do and how bodies might be embodied. By experimenting with the contested ambiguity of the body, I worked to imagine with the entangled queries of “what can a body do” and “what can embodiment(s) do,” messily mattering with differentially perceptible possibilities for embodiment(s). Thinking with the enfolded, entangled, and emplaced local hockey-bodies of

female adolescent athletes, experiments carefully articulated various local embodiments while also attempting to work through the riddle of embodiment. The orienting intent of this project was not to formulate a hygienic, epistemologically secure theory of embodiment, but to cautiously elucidate productively imperfect, inadequate, “indistinct and ... slippery [embodiments] without trying to grasp and hold them tight” (McCoy, 2012, p. 769).

Quantum touch purposefully plays amid an agential realist ethico-onto-epistem-ology (Barad, 2007) as diffractively entangled material agencies concurrently produce and trouble a posthuman matter-realist ontology (Braidotti, 2013). A methodological orientation made of ontologically indeterminate spacetime-mattering flows with the viscous tenacity of cartographic accuracy, transdisciplinarity, non-linearity, defamiliarization, and zigzagging (Braidotti, 2013). Bringing into touch a posthuman ontology, one originally ontologically inseparable from the ethico-onto-epistem-ology of Barad, slashes the hegemonic certainty of an anthropocentric body, pitching ankles, helmets, ice, and ponytails into an incredibly productive and precarious space for vigilant experimentation with the matters of embodiment(s). As the final section in the experimental sequence of this thesis, what follows is intended to matter not as a manifest conclusion, wherein a project finishes by succinctly drawing itself to a point of definitive termination, but as a retouch, a touching-again, with the experiments and data-bodies that have been engaged, such that this project threads itself through itself and intentionally avoids a final bracketing of its matterings from the material potentialities of bodies and embodiments.

What Can a Body Do in/as Momentary Local Embodiments

After thinking with various theorists to imagine how bodies might come to matter amid differential material-discursive conditions and potentialities, I paused to articulate what embodiments might be, do, be made of, or create in these moments. Touching with each of these

sections and the data-bodies that might matter in each of these experiments, I now draw these imaginings together, ridding with the question of what embodiment(s) might do. Holding to this project's methodological orientation, I diffract differential embodiments that I have experimentally articulated above through each other, initially presenting fragments of these embodiments as excerpts and then thinking with the excerpts to imagine how they might matter collectively in response to questions of what embodiments might do. As with the process of this thesis, I write with a physics of fractured, tentative, and momentarily entangled embodiments that are not meant to be final, certain, or epistemologically dictatorial.

Materially Consequential Alterity C-Cut Embodiments

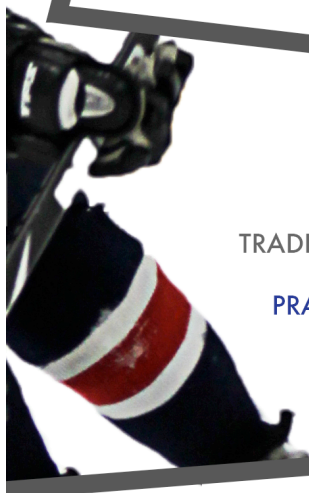
CH. 2

WE MIGHT POSIT A BODY THAT "KNOWS NOTHING OF DIFFERENCES IN LEVEL, ORDERS OF MAGNITUDE, OR DISTANCES . . . OF THE DIFFERENCE BETWEEN THE ARTIFICIAL AND THE NATURAL . . . [OR] THE DISTINCTION BETWEEN CONTENTS AND EXPRESSIONS"
(DELEUZE & GUATTARI, 1987, P. 69)



CH. 4

CROSSOVERS MATTER AS BOTH MOTION AND CORPOREALITY, PRODUCTIVELY STRIPPED OF ANY TRADITIONAL NOTION OF LINEAR CAUSALITY. CROSSOVERS MATTER AS WE THINK WITH PRACTICE TO IMAGINE A PRACTICE THAT PERFORMS SPACETIMEMATTERINGS MADE WITH DIFFERENTIAL PRACTICE TEMPORALITIES



CH. 4

EMBODIMENT IS FAR FROM A STORY OF BRACKETING BECAUSE TO THINK WITH BODILY BORDERS SEVERS ANY EMBODIMENT FROM THE CREATIVITY AND CONNECTIVITY OF MATERIAL AGENCIES. ALAIMO ARTICULATES A TRANSCORPOREAL EMBODIMENT, WHERE TO MATTER AS A BODY IS TO MATTER AS THE TRANSIT OF TRANSCORPOREAL FORCES... EMBODIMENT(S) ARE ALWAYS TRANSCORPOREAL, ALWAYS MADE OF FAR MORE THAN MATERIAL-DISCURSIVE SKIN AND BONE.



CH. 2
WITHIN
3

ICE, AIR, VELCRO, GLOVE-HANDS, AND HAIR-STICKS BECOME CONNECTED WITH AND IMPLICATED AS A HOCKEY-BODY COMES TO BE PRACTICED. THE ANTHROPOCENTRIC BRACKETS DRAWN AROUND BODIES, LIMITING THEIR SCOPE TO SKIN AND BONES, DISSOLVES... BODIES ARE FILLED WITH AN IMMANENT "SERIES OF PROCESSES, ORGANS, FLOWS, ENERGIES, CORPOREAL SUBSTANCES AND INCORPOREAL EVENTS, INTENSITIES, [AND] DURATIONS" (GROSZ, 1993, P. 170).



CH. 3

IN THIS SENSE, BODIES ARE LIMINAL PERFORMATIVITY, LIMITED ONLY BY THE FIELD OF PRACTICES IN WHICH THEY MIGHT PARTICIPATE. THE SINGULARITIES OF STINKY HANDS, BRACKETED FACES, AND EQUIPMENT-BODY RELATIONS DISSOLVE INTO A VAST LANDSCAPE OF PERFORMANCE. BODIES ARE COMPOSED IN AND OF "DISCORD, TENSION, CONTRAST, MULTIPLICITY, INTERDEPENDENCE, COEXISTENCE, DISTRIBUTION, INCLUSION, ENACTMENT, PRACTICE, INQUIRY" (MOL, 2002, P. 181).



Embodiment makes material consequences. Touching with the five fragments above, we might think with an embodiment that is the performativity of material consequences, where consequences are injected with the stuff of bodily potentiality. To border any body is to begin to name the material ramifications of such a body, and embodiment becomes the performance of any border by the material agencies that animate its composition. Embodiment becomes a practice of consequences, where material cuts iteratively come to matter, performed amid a pattern of causality that is far from linear. Exuberant energies of phenomena actively matter as marks on bodies, and it is embodiments that begin to formulate the patterns and paths of mattering that phenomena might animate as they come to perform bodies. With Barad and Mol, material performativity becomes a speaking of embodiment, as embodiment might be the transcorporeal, always fractured and viscous cuts that bring any body into perceptibility as a body. Embodiment matters here as the insistently material import(s) of phenomena as they matter as bodies. Embodiment is iterative, mattering as the phenomena that matter as the cyclically ruptured matters of embodiments.

The borders of bodies are made in the spacetime mattering that they make matter and that matters in their flesh. The boundaries of bodies become a touch with alterity and potentiality, where embodiment is ontologically the transit of transcorporeal forces. Here, the material consequences of bodies are made of posthuman, nonhuman, transcorporeal material agencies. Embodiment is material flux and motion, and embodiment matters through the cuts it makes on bodies. If embodiment is the mattering of material consequences, this mattering is not an ephemeral process nor a linear sequence, but a performative moment of cuts that matter deeply as bodies.

Ridding with the performative potentiality of an embodiment that is about materially consequential cuts that matter in the making of bodies, where any matter is threaded through with the stuff of alterity, embodiment becomes-with material-discursive performances of alterity. Embodiment(s) are the material consequences of patterned phenomena, but are also the consistent touch of alterity in those matters. Transit, flux, and a profound engagement with alteritous potentiality are the makings of this embodiment. Embodiment touches with immanence, while also touching real material consequences that both delimit and inject a body with potentiality. Embodiment(s) might be fractured from the disciplinary machines that matter in their composition, but embodiments are also C-cuts, where the well-patterned territorializations of bodies scrape the otherwise of alterity. C-cuts perform diffractive matterings and embodiment(s) are the consequences and matterings of these C-cuts.

Embodiments are the performative potentialities of movement that becomes corporeal, C-cuts that are made of consequences, and transitory differences that matter as the performative discord of bodies. Embodiment(s), as the riddled material consequences of performative matters, touches-with the alterity of movement and matter. In such an imagining of embodiment(s), the immanent potentiality and danger of transcorporeal borders, the fleshy and fissured fragile boundaries made in an iterative spacetimemattering that makes them obsolete, is injected with the multiply performed matterings of agential matter. Embodiment is and can do the performative material consequences of C-cuts with alterity.

Embodiment(s) Screaming as (not only) Interfering Flesh



Embodiment matters as and with biological bodies. Biological bodies are more than the structured dictates of a Euro-Western biologic wherein knowability, linearity, and discipline mark the aspect of a body. Biology is animated as the active, transient, and agential intra-action of nature and culture, where a nature/culture distinction becomes productively archaic. Touching with the above data-body fragments, embodiment(s) are fleshy, atomic, and corporeal. Embodiment is the mattering of bone, wherein bone is productively communicative and nomadic, mattering in a temporality injected with difference and potentiality. Flesh is not containment and inhibition is not skin. Instead, productive and multiply materially performed biologies rouse embodiments, mattering iteratively as embodiments. Flesh interferes with the traditionally formulated hierarchical borders and limits of embodiment, until embodiments are the performative screams of agential matters nourished by liminality.

Touching Kirby with Mol with Deleuze and Guattari with the despotic impositions of Pronger's fascist bodies, embodiment is riddled with manifestly chiasmatic matters. Embodiment is the riddled response to a nature/culture divide, where material-discursive nature-cultures matter with an embodiment that is an enigmatic response to the matters of a nonmetaphoric but tangibly intangible communicative and collaged body.

Embodiments might escape human perceptibility (where human is a transitory and fractured exercise in labelling), mattering as microbial performances of agency wherein "our blood can race at the mere sight of someone" (Kirby, 2011, p. 64) Kirby (2011) asks: "Can blood see? Does the retina organize and narrativize light and energy into significance? Does energy remember?" (p. 64). Embodiments are sensorial liminality, where bodies speak with a language of material potentiality. Connectivity becomes skin and hearing is nomadic and multiple. Embodiment(s) are the re-markable material and performative disruptions to bodies made in the

colonial, Euro-Western milieu of privileging the anthropocentric. Embodiment(s) perform anatomy, where muscle is the vocal interference of microbial languages and embodiment flows with fascia as a performance of the contaminated limits and transient matters of bodies.

Epistemologically Responsible Embodiment(s)

When motion and corporeality perform and matter (as) embodiment(s), when alteritous C-cuts mark with material consequences of bodily performativity, embodiment might matter as an ethical moment. As such, embodiments might be always productively trapped in relation to ethics as an ethico-onto-epistem-ology makes embodiments, energizing the phenomenal intensities that perform embodiments. Embodiments are an ethical process. Embodiments are questions of ethics. If mattering is an iterative cocreation or comarking, all matter is reliant and indebted to any matter, and because of this relationality, to matter at all demands ethical accountability. To materialize or make matter (as) any body is to matter as/with the entangled matterings of all other bodies: To experiment with embodiments is to matter in a web of ethical accountabilities.

While embodiments demand an ethical relationality within phenomenal matterings, embodiments are not inherently ethical: To matter is not to be innately ethical. Rather, embodiments foreground an ethical responsibility, where to think with embodiments is to be onto-epistemologically responsible to embodiments. When imagining with embodiments, we must engage with the entangled ethical moments of embodiments, such that we might inhabit with the enfolding demands of ethical, agential matterings. To matter is to be made of the stuff of ethics, but to matter is not always to be ethical.

A BODY IS NOT DOING MOTION. RATHER, **BODIES ARE MOTION**, HEAVY-SLOW-QUADRICEPS, AS SPACETIMEMATTERING(S) COME TO MATTER. WELL-PATTERNED, CONVENTIONAL AGENTIAL CUTS THAT MARK SPEED AS SOMETHING PERFORMED BY A HUMAN ARE DISRUPTED, AS THE MATTERINGS THAT CONSTITUTE **BODY-MOTION-LOCATION-MATTERINGS** ENTER INTO A DIFFERENTIAL PATTERN OF INTRA-ACTIVITY

CH. 4

ATOMIC BIOLOGY BECOMES ONTOLOGICAL AND IS "NEITHER LACKING OR PRIMORDIAL, BUT RATHER A PLENTITUDE OF POSSIBILITIES, A **CACOPHONY OF CONVERS(AT)ION**" (KIRBY, 2011, P. 88)...

THE ESSENTIALISM ATTRIBUTED TO TRADITIONAL ATHLETICISM BECOMES "VULNERABLE TO THE ACCIDENT OF REWRITING ITSELF" (KIRBY, 1997, P. 98) AS **BIOLOGY BECOMES A CREATIVE SCRIBBLING** THAT MATTERS AS THE SPORTING-BODY

CH. 3 WITHIN 4

TOUCH IS ALL EMBODIMENTS WITH THE SAME FORCE BY WHICH IT IS ANY EMBODIMENT. IN THIS WAY, "THEORIZING, A FORM OF EXPERIMENTING, IS ABOUT **BEING IN TOUCH**" (BARAD, 2012, P. 207).

CH. 1

EMBODIMENT IS MADE OF OUR INTRA-ACTIVITY IN AN AGENTIAL REALIST FLUX OF MATERIAL-DISCURSIVE PHENOMENA, WHERE **ANY EMBODIMENT IS ACCOUNTABLE** TO THE MARKS LEFT ON BODIES THAT IT PRODUCES AND INTRA-ACTS WITH.

EMBODIMENT IS AN ALWAYS ETHICAL MOMENT, MADE OF THE **ITERATIVE AMBIGUITY** OF THE ONTOLOGICAL INSEPARABILITY OF PHENOMENA.

CH. 4

CH.4

SMOOTHLIER ISN'T IN A CONTEMPORARY DICTIONARY OR A CANONICAL HOCKEY COACHING MANUAL. BUT IN A PRACTICE MOMENT FOR A HOCKEY-BODY, **SMOOTHLIER IS A BODY**: A HOCKEY-BODY MAKES AND IS MADE OF SMOOTHLIER. SMOOTHLIER ISN'T MOTION, IT ISN'T SPACE, IT ISN'T DISCURSIVE, AND IT ISN'T MATTER. SMOOTHLIER IS A "LOCAL DETERMINACY" (BARAD, 2007, P. 348), A SPACETIMEMATTERING.

Smoothlier might be an ethical embodiment. Smoothlier is a local hockey-body; an embodiment of smoothlier performs a body. Smoothlier is material-discursive nature-culture(s) mattering in an iterative spacetime-mattering with agential phenomena. Smoothlier works with ethical responsibility, making-perceptible a material moment of disobedience that operates as ethico-onto-epistemologically accountable. Ontological inseparability performs smoothlier and smoothlier works hard to tug at the dictates of dominant, territorialized agential cuts.

In ridding with embodiments, embodiments are ontological moments with ethics. Spacetime-matterings matter as and with embodiments, where to touch an embodiment is to touch with spacetime-matterings that flee (human) perceptibility and touch with the liminal potentiality of a body made of multiple agential fluctuations that are made of screaming relations of entanglement.

Riddling Hockey-Bodies

Hockey and hockey-(data)-bodies serve as an important tool and ground for experimentation in this project. Hockey speaks itself into experiments with embodiments, not as a singular, solid conceptual social phenomenon but as iterative phenomena, as the re-markable, material-discursive, intra-active, posthuman, and transcorporeal matterings of hockey and hockey-bodies. A hockey-body becomes multiply perceptible amid an actively fluctuating space of experimentation, mattering as a molar formula by which Euro-Western culture might conceptualize a body, as a touch-hearing and smell-skating body, or a moment of porously congealed and transient bordering with/of agential flows. Hockey-bodies matter, in this work, only in intra-action, not as a firm theoretical boundary. Hockey-bodies are made in and with embodiments, not as a product of embodiment(s), but as an iterative mattering in the embodiment(s) that might be made possible. Hockey-bodies riddle with the question of what

embodiment(s) can do, muddling this wondering not with an answer but with potentialities, liminality, alterity, and marks on bodies.

Touching with hockey-bodies and the densely complex embodiments shared by athlete participants, I do not aim to put forth any firm best-practice recommendations on how we, as a hockey or child and youth care community, might inhabit-with hockey-bodies. Rather, I hope to foreground a material-discursive milieu in which we might intra-act with hockey-bodies that can be surprising, productive, and dangerous—a hockey-body that escapes human perceptibility, agentially performative in embodiments that are not completely knowable, controllable, or biological. What happens, what bodies are thrown into flux, if we think-with a hockey-body made of astounding and unpredictable biologies, whereby microbial agencies and bodies without organs skate together? When hockey-bodies diffract with re-markable biologies made in hinterlands of order and disorder, with embedded and nomadic materialities, and through symbiotic temporalities and patterned causalities that are profoundly non-linear, what can hockey-bodies do? If a coach approaches practice without imagining the hockey-bodies on the ice to be commodities to order and train through a series of set teaching recommendations, and instead inhabits-with quantum, immanent, and re-markable hockey-bodies, what does practice become and how might hockey-bodies matter differently?

The data-body below engages some of these wonderings, touching-with all of the data-bodies in these experiments, as well as the more formulated, structured, and disciplined hockey-body of the Euro-Western sporting apparatus and its confederates of femininity and adolescence, to disrupt some traditional recommendations for hockey coaches. The series of recommendations in the “coaching checklist” that participates in this data-body come from the *Minor Hockey Development Guide: Skill Development Model* (Hockey Canada, 2014b) and specifically aims to

address the empirical-research-based coaching philosophy that Hockey Canada considers to be best practice (p. 18). All minor hockey coaches in Canada are encouraged to consult the Hockey Canada literature and incorporate it into their team ethos. While these recommendations are intended to be directed toward coaches, the following data-body does not prescribe to any hierarchical distinction between coach and player and might be productively disruptive for any hockey-body or body affected with/of/by a hockey-body. Diffractive disruptions, not truth nor any notion of best practice, mark the intention of this data-body.



MINOR HOCKEY ASSOCIATIONS

Associations de hockey mineur

4. Things to Consider – Coaches Checklist

- Did you set goals and objectives for the practice? *WHAT IS A COACH? WHO IS A COACH? WHAT HOCKEY-BODIES CAN BE COACHED?*
- Do your drills have a specific purpose and meet the goals of the practice? *HOW IMPORTANT ARE "AGE" AND "SKILL"? IF BODIES AREN'T ALWAYS GOVERNED BY LINEARITY, WHAT ARE GOALS? WHO/WHAT DEFINES/DETERMINES PURPOSE?*
- Are your drills suitable to the age and skill level of your players?
- Does your practice have general progressions from individual skills to team play? *WHAT IS THE DIFFERENCE THAT MATTERS BETWEEN INDIVIDUAL AND TEAM?*
- Are your drills applicable to the skills used in games?
- Do you teach new skills and drills early in the practice? *WHO AND WHAT 'TEACHES' HOCKEY-BODIES? HOW? WHY?*
- Do your drills challenge the skill level of the players? *HOW DOES 'ACTIVE' MATTER? WHAT IS 'ACTIVE' IN HOCKEY-BODIES?*
- Do you keep all players active including the goaltenders? *WHEN/HOW ARE HOCKEY BODIES NOT ACTIVE?*
- Do you give clear and concise instructions? *HOW MIGHT CLARITY AND BREVITY LIMIT HOCKEY-BODIES?*
- Do you have the attention of your athletes when you speak to them? *WHO/WHAT CAN SPEAK IN HOCKEY?*
- Do you explain and demonstrate skills and drills clearly?
- Do you inform your assistant coaches and use effectively? Did you keep them active in all drills? *IF ICE ISN'T INERT, HOW MIGHT ICE MATTER IN HOCKEY?*
- Did you use the entire ice surface available to you? (Full or half ice)
- Do you observe, evaluate and give feedback throughout the practice? *CAN SMOOTHIER BE OBSERVED OR EVALUATED?*
- Do you keep the drills effective, competitive, active and challenging? *HOW DOES 'EFFECTIVE' OR 'COMPETITIVE' MATTER?*
- Are you positive and upbeat? *DO HOCKEY-BODIES HAVE TO BE POSITIVE? WHAT IS UPBEAT?*
- Do you greet the players by their first names before practice? *HOW ARE PLAYERS DIFFERENT FROM ANY HOCKEY-BODY?*
- Do you include a warm-up and cool down in each practice? *DOES A COACH/PLAYER DISTINCTION MATTER?*
- Do you include a fun drill in each practice? *HOW DOES FUN MATTER? WHAT IS FUN?*
- Do you stop drills when general error or a lack of effort is apparent? *HOW DO HOCKEY-BODIES 'DO' ERROR? HOW DO ERROR, SKILL, EFFORT, AND MAGIC MATTER?*
- Do you do your conditioning drills at or near the end of practice?
- Do you speak to players as a group at the end of practice about the practice, upcoming games or general information? *WHAT MATTERS AS SKILL? HOW IS SKILL PERFORMED IN A HOCKEY-BODY?*
- Do you allow time for players to work on / practice specific skills individually?
- Do you communicate individually with each of your players throughout practice?
- Do you emphasize fun? *HOW DO HOCKEY-BODIES COMMUNICATE? HOW ARE HOCKEY-BODIES COMMUNICATIVE? HOW DOES COMMUNICATION MATTER IN HOCKEY/HOCKEY-BODIES?*



MINOR HOCKEY ASSOCIATIONS

Associations de hockey mineur

Quantum Autopsies and Experimental Embodiment(s)

Performativity, mess, re-markability, nomadic transience, intra-activity, post-sport, potentiality, ethics, microbes, busy material-discursive agencies, biologies, transcorporeality, and experimentation matter in and as embodiment(s). Confining a body or embodiment to a prison of commodification, certainty, and essentialized biology becomes a highly violent strategy of limitation and control, locking bodies in a congealed hold of stratified molar knowledges and practices. Embodiments are a mattering amid an ethico-onto-epistem-ology, where active bodies are entangled in the chaos of indeterminate ethical accountability. As such, embodiments might be experimental, always momentary engagements with corporeality and the more than human. Touching with these embodiments, what can embodiments do? How can embodiments matter?

Embodiments are / can do touching; embodiments are / can do diffraction; embodiments are / can do experiments. Embodiments are / can do riddling. Embodiments do not need to be an answer, but can matter intensely as a response. Mattering and performativity are entangled, and to parse the potentiality of bodies into categories of “can do” and “are” becomes a practice in drawing borders that are permeable, fractured, and made of transcorporeal flows that purposefully and radically tear into any bracketing of a body. Embodiments can be momentary and bodies can be transient. Embodiments are quantum, a body without organs littered with messy microbial generousities.

Smoothlier blood flows with arteries, ice clutches steel skates, elbows touch a molar femininity, pulling at its stratified fingers made of colonial dictates as they struggle to clutch the C-cutting movements of sturdy hips and the re-markable snow-ice made with a hockey-body. Ponytails swing, making movement with corporeality as typing fingers touch ontologically entangled crossovers and multiply mattering anaerobic thresholds disrupt with forceful

quadriceps and temporalities threaded through with the tremulousness of adolescence. Malleable arm-glove-skin-sweat assemblages smack well-patterned marks of penalties and competition, entangling moments of limitation with material potentialities. Embodiments matter as quantum touch, as diffraction, as a moment infiltrated with posthuman matter-realism and atomic agential-materialism, where Barad and Braidotti language a body fluent in the discontinuous screaming of touch-yelling, quiet-smelling, and impatient-sight, an entangled spacetime-mattering made with the ethico-onto-epistem-ology of a body that matters as a profoundly relevant, viscous, leaky, material-discursive mattering—an embodiment(s) where “we are already practicing physics” (Kirby, 2012, p. 204).

Embodiments matter as accountabilities within an ethico-onto-epistemology, whereby “an ethical relation to radical alterity is to another that is, also, me” (Kirby, 1997, p. 95): Embodiment(s) is/are ethical relationality. How any body intra-acts with embodiments and bodies matters as and to microbes, arms, ice, and hockey. Embodiments are cautionary, threaded through with the molar forces of containment that canonically bracket the anthropocentric body, but embodiments also exuberantly proclaim material-discursive potentiality and astonishment. Embodiments matter as a complicatedly porous limits, whereby “it is in the [body without organs] that the organs enter into relations of composition called the organism. The [body without organs] howls: they’ve made me an organism! They’ve wrongfully folded me! They’ve stolen my body” (Deleuze & Guattari, 1987, p. 159). Embodiments are not utopic, made purely of the stuff of positivity, but acrimoniously material. Inhabiting-with our always ethical mattering gestures strongly toward the need for coaches, athletes, guardians, child and youth care practitioners—in fact, any material-discursive entity that participates in embodiments—to continually think through and with the complexities of hockey-bodies and any body(ies) and to

tangle with the productive re-markability of matter so that we might begin to imagine the vast potentiality inherent to agential matterings and the myriad materializations of bodies might be made perceptible.

Iteratively riddling with experimental, re-markable, transitory, and ontologically entangled embodiments, embodiment demands thorough engagements with its material consequences and epistemological responsibilities. No longer can even a snow-drenched skate be approached as singular; rather, it is re-markable because the matters that enact its material-discursive perceptibility are in iterative flux, continually performing the indeterminacy that is ice, motion, hockey, body, me, you—agential matter. Bodies matter. As a relentlessly re-markable “specific slab of en fleshed existence” (Braidotti, 2013, p. 131), embodiments materialize, practice porosity, matter with transcorporeal flows and canonical scientific apparatus, assemble as nomadic matters, touch with alterity and violence, read snow-ice, and scream with a curious language of muscular performativity. Contaminated, reflexive, atomic, and chiasmatic, bodies are iteratively performative, “implicated in the very ontology of what [they are] looking at” (Kirby, 2011, p. 133). As we engage with embodiments, we matter the iterative importance of bodies. Marks are left on bodies and zigzagging material agencies inhabit non-linear memories and temporalities. Touching with generously ethical bodily materialities, bodies “are neither pure cause nor pure effect but part of the world in its open-ended becoming” (Barad, 2006, p. 25). Bodies matter. Radical liminality and nomadic biologies paint with a body, smoothlier permeates flesh with speed, tangled ponytails and touching, typing fingers corrode bodily permanence. Hearing hockey is to touch the fragrance of hockey-bodies, and:

"WE ARE ALL ABLE TO PERFORM AUTOPSY"
(ALDERSEY-WILLIAMS, 2003, P. 15)



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Appendix A: Introduction and Permission Letter to Hockey Association

Friday, October 19, 2012

[Hockey Association]

[Address]

To [President]:

My name is Nicole Land, and I am a graduate student in the School of Child and Youth Care at the University of Victoria. I am also a former hockey player, having played eight seasons with Girls Hockey Calgary. As part of my Master of Arts degree, I will be completing a research thesis in which I hope to engage with adolescent female hockey players. Through this research, I aim to work with athletes to imagine how their sporting bodies might be conceptualized outside of traditional Canadian understandings, such as those that emphasize training, discipline, competition, or biology. In doing this, my goal is to consider how adolescent female athletes might be seen as creative and productive sport participants.

Through a process mediated by the head coach of a female PeeWee or Bantam [City] Minor Hockey Association team, I will recruit four to six athlete-participants between the ages of 11 and 15. With consent from both athlete-participants and their guardians, I will capture images of athlete-participants during team practices, as well as engage athletes in two conversations surrounding their embodied experience as adolescent female hockey players. The entire research process will take place around five team practice sessions, and there will be two opportunities for athlete-participants and guardians to review images. After data has been collected, I will draw upon various contemporary theorists to explore how female adolescent sporting bodies are performed, contested, multiple, and creative.

I am looking to obtain approval from the [City] Minor Hockey Association to begin researching with a female hockey team in the league, starting in October 2012. This project has passed a review by the Human Research Ethics Board at the University of Victoria.

Thank you very much for your time, and please do not hesitate to contact me if I can provide any further information necessary for your approval review process.

Nicole Land
MA Student, School of Child and Youth Care
University of Victoria
403-969-5263
nland@uvic.ca

Appendix B: Invitation to Coaches

October 31, 2012

Dear Coaches,

My name is Nicole Land, and I am a graduate student in the School of Child and Youth Care at the University of Victoria. I am also a former hockey player, having played eight seasons with Girls Hockey Calgary. As part of my Master of Arts degree, I will be completing a research thesis in which I hope to work with adolescent female hockey players. Through this research, I aim to work with athletes to appreciate how their bodies might be understood outside of traditional Canadian understandings, such as those that emphasize training, discipline, competition, or biology. In doing this, my goal is to consider how adolescent female athletes might be seen as creative and productive sport participants.

I hope to recruit four to six athlete-participants from the [City] Minor Hockey Association and would like your permission to recruit participants from your team. With your approval, I would be working with athlete-participants over five practices, which I hope to select with your assistance. At the first session, I would meet with interested athletes and guardians to discuss my research, answer any questions, and obtain signed consent forms. At session two, I would be on the ice at practice photographing athlete-participants. During session three, either before or after practice, athlete-participants and I would meet to review the images and discuss the photographs. Following this, during session four, I would again take photographs of athlete-participants during practice. Finally, for session five, I would meet again with athletes to continue our discussion.

This research has been approved by the Human Research Ethics Board at the University of Victoria, as well as the [City] Minor Hockey Association. Further, while I would need to be on the ice during team practices, I will make every effort to not photograph in ways that disrupt practice.

If you are interested in having some athletes on your team participate in this investigation, or if you have any further questions, please contact me. If you choose to participate, the next steps in the research process include designating five practices that I can attend. I will then send you a package with invitation letters for both athletes and participants, for you to forward on to guardians on your team.

I look forward to hearing from you and being involved with the [Team Name]. Thank you very much for your time, and please do not hesitate to contact me if you have any questions.

Nicole Land
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403-969-5263
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Appendix C: Letter to Athletes

November 22, 2012

Hello [Team Name] Players:

My name is Nicole Land, and I am a graduate student in the School of Child and Youth Care at the University of Victoria. I am also a former hockey player, having played eight seasons with Girls Hockey Calgary. As part of my school program, I am doing a research thesis involving female hockey players who are between 11 and 15 years old.

Right now, in Canada, teenaged female athletes are usually talked about using words like training, discipline, competition, winning, or biological terms, like building muscle or being more fit. The goal of my research is to write about ways that female athletic bodies might be understood differently than these common ways. I want to work with four to six hockey players on your team to imagine how your athletic body might be creative or unique, or just not quite fit with the ways Canadians frequently talk about athletes.

If you are interested in participating, I would like to meet with you and your parents after your game this Sunday to answer any questions you might have about the research. I will then give you a consent form to sign if you are interested. After that, I will come to team practice on Monday, December 3rd and take pictures of those of you who choose to participate. You would then have the opportunity then review these images with your parents to make sure that you are willing to share them. Then, we will meet before or after practice on Friday, December 7th with your teammates who also choose to participate, to go through the images and talk about your experiences with them. I might ask you questions like “what happens when you think about this image?” Then, I will take pictures at a practice after Christmas, you will review them, and we will meet a final time and discuss these pictures after another practice.

I will be audio recording our discussions, so that I can type them up and use them as data in my research. I will also be including images in my final document, which means that people who see my research might be able to recognize you. After I have all my data, I will use different academic theories to explore what you have told me.

I need permission from both you and your parents for you to participate. If at any time, either of you want to stop participating, your data will not be included in my thesis.

If you and your parents are interested in you participating, please get them to contact me and I will send them an informed consent form to pass on to you. This form has more information about the discussions we will have, how I will use images of you and the things you say during conversations, and outlines the steps I will take to protect your privacy. After reviewing this form, you and your parents can choose if you want participate in this research study. We will then meet on Sunday, November 25th to answer any questions you might have.

If you are not interested in participating, I will not take any pictures of you and you will not take part in group discussions. If you have any questions, you can email or call me, and you are

welcome to come to the meeting on Sunday.

Thank you very much, and please let me know if you have any questions.

Nicole Land
MA Student, School of Child and Youth Care
University of Victoria
403-969-5263
nland@uvic.ca

Appendix D: Letter to Guardians

November 22, 2012

Hello Guardians of [Team Name] Athletes:

My name is Nicole Land, and I am a graduate student in the School of Child and Youth Care at the University of Victoria. I am also a former hockey player, having played eight seasons with Girls Hockey Calgary. As part of my Master of Arts degree, I will be completing a research thesis in which I hope to work with adolescent female hockey players. Through this research, I aim to work with athletes to see how their athletic bodies might be understood outside of traditional Canadian understandings, like those that emphasize training, discipline, competition, or biology. In doing this, my goal is to consider how adolescent female athletes might be seen as creative and productive sport participants.

I hope to recruit four to six athlete-participants and would like to invite your athlete to be involved. I will be working with athlete-participants over five ice times. On Sunday, November 25th after your game, I will meet with interested athletes and guardians to discuss my research, answer any questions, and obtain signed consent forms from both you and your athlete if you wish to participate. On Monday, December 3rd I will be on the ice at practice photographing athlete-participants. Following this, images of each athlete-participant will be sent to you and your athlete-participant for review. Only images approved by both you and your athlete-participant will become data. On Friday, December 7th, either before or after practice, athlete-participants and I will meet to review the images and discuss their embodied experiences related to the photographs. This discussion will take between 60 and 90 minutes. Following this, at a practice after Christmas, I will again take photographs of athlete-participants, which will then be reviewed by guardians and athletes. Finally, at another ice time after this, I will meet again with athletes to continue our discussion about their embodied experiences.

It is necessary that interested athletes are present on November 25th, December 3rd, and/or the final photographing session, and December 7th, and/or the final discussion session, for a total of at least one photographing session and one discussion. Attendance at all sessions is preferred. You and/or your athlete may withdraw participation at any time.

After data has been collected, I will draw upon various contemporary theorists to explore how female adolescent sporting bodies are contested, multiple, and creative.

If both you and your athlete are interested in participating, please contact me for additional important information for your review. If you are not interested in having your athlete participate, they will not be included in any images and will not take part in discussions. If you have any additional concerns about my research with the team, you can contact me via email or phone, and you are welcome to attend the meeting on November 25th after the game.

Thank you very much for your time, and please do not hesitate to contact me if you have any questions.

Nicole Land
MA Student, School of Child and Youth Care
University of Victoria
403-969-5263
nland@uvic.ca

Appendix E: Athlete Consent Form

What Can a Body Do? Exploring Female Adolescent Sporting Bodies

Athlete Informed Consent Form

You are invited to participate in a study entitled “What Can a Body Do? Exploring Female Adolescent Sporting Bodies” that is being conducted by Nicole Land. This research is being undertaken as part of a research requirement for a Master of Arts in Child and Youth Care at the University of Victoria.

The researcher, Nicole Land is a graduate student in the department of Child and Youth Care at the University of Victoria. You may contact me if you have further questions. I can be reached at 403-969-5263 or nland@uvic.ca.

Dr. Veronica Pacini-Ketchabaw is supervising this research and you may contact her at 250-721-6478 or vpacnik@uvic.ca if you have any concerns about this study.

Research Objectives

Right now, in Canada, teenage female athletes are usually talked about using words like training, discipline, competition, winning, or biological terms, like building muscle or being more fit. The goal of my research is to appreciate how female athletic bodies might be understood differently than these common ways. I want to work with you to imagine how your sporting body might be creative or unique, or not quite fit with the ways we usually talk about female athletes.

Importance of this Research

Many of the words we usually use to talk about female athletes, such as focusing on winning or gaining muscle, are extremely popular—we see them everywhere, including at sports stores, in advertisements, in school, and in magazines. Sometimes, these ways of understanding female athletes are so popular that we think of them as the only, or the best, way to think about female athletes. This research aims to focus on how we might research, think, or be active in our sweaty, feeling, and moving body. By paying attention to female athlete’s bodies, I hope to learn more about what athletic females and their muscles, bones, and senses can do. I want to present how athletic females and their bodies might do things that aren’t always included in the usual ways we understand and talk about female athletes.

Participants: Female Adolescent Athletes

You have been invited to participate in this exploration because as an 11-15 year old athlete, you play sports while influenced by many other factors. These might include ideas of what it is to be a girl, to be a teen, and to be an athlete; especially a female hockey player. As you are active among so many different ideas, researchers can gain a lot of knowledge by hearing about your embodied experiences.

Voluntary Participation

Your participation in this research must be completely voluntary. If you decide to participate, you may withdraw at any time without any consequences or any explanation. If either yourself,

or your guardian, wishes to withdraw your participation, you will no longer be an athlete-participant.

If you withdraw from the study, all images of you will be destroyed and will not be included in any analysis or dissemination (when the data gets shown to the public). If the images were used in group discussion, that discussion can still be included as data, although anything that clearly describes you will be removed (for example, referring to a sticker on your helmet). All words spoken/transcribed (typed up from the recording) by you will be deleted from transcripts.

Participant Involvement

If both you and your guardian agree to voluntarily participate in this research, your involvement will take place over five sessions. A detailed outline of each session, called “outline of Sessions for Athlete-Participants” is attached at the end of this document. You must be present at the initial meeting, and at least one photographing and one discussion session. If we meet before practice, you will have adequate time to get dressed so that you can be on the ice on time.

- Session one will be an initial meeting with you and your guardian where I will explain the research, distribute copies of the consent form, and answer any questions you may have. If you choose to become a participant, you and your guardian will sign the consent form at this time.
- During session two, I will photograph you and the other athlete-participants at practice.
- After session two, you and your guardian will be emailed all images of you that I wish to include as data. You and your guardian will then review and approve images or ask for images to be deleted. Your response to this email will indicate that you want to continue participating in this research.
- Session three will be a 60-90 minute group discussion regarding these images.
- During session four I will again photograph you and the other athlete-participants at practice.
- You and your guardian will again review pictures of you and approve or disapprove of them.
- Finally, I will meet with you and the other athlete-participants for a 60-90 minute group discussion about the images.

Ongoing Consent to Participate

This informed consent form will be signed by you prior to the start of this research. Your guardian will also sign a consent form, agreeing that you can be part of this research. Throughout the research process, you and your guardian’s review and dis/approval of images will signal ongoing consent, and these emails will be printed and documented. At the beginning of group discussions, I will ask you if wish to continue participating in this research. You will have the chance to verbally consent before we continue the discussion.

Inconveniences

Participation in this research is not expected to cause any inconvenience to you, aside from the time required for image review and group discussions.

Risks

This exploration poses minimal risk for athlete-participants. That means that the risk is no higher

than the risk you would assume in your usual hockey participation. As discussions occur in small groups, there is potential that you might feel embarrassed or uncomfortable. Before each group discussion, I will speak with all athlete-participants about respecting the privacy of each other. You should say only what you feel comfortable sharing. If you feel uncomfortable during discussions, please feel free to ask for a break. As well, after conversations, feel free to check in with me and let me know how you are feeling. I might ask you if the conversation was comfortable for you. If you don't want to discuss with me, or if you are feeling overwhelmed after you leave the arena, you can call the Children's Help Line at 310-1234.

There are further risks related to the use of pictures, because photographs of you will be made public when I share my thesis and this data. I will only write that I have researched with a team in British Columbia, and I will also ask that you wear a blank practice jersey or turn your jersey inside out. This makes it harder to identify you. However, there is potential that those who know you will be able to identify you, as things like your helmet and stick might be recognizable.

If I take pictures around the arena, such as of the stands or scoreboard, I will not use these images if they have distinctive information, like an address, that might make it easier for someone to identify your team.

The final thesis paper, containing pictures of you, will be visible online through the University of Victoria, and future publications and presentations stemming from this research may use images in various academic situations. When you and your guardian review images, you will be helping to reduce the risk associated with using images. There is more discussion of image use in the Anonymity and Confidentiality sections.

Benefits

By taking part in types of conversations about athletic bodies that are uncommon in Canadian culture, you might have a chance to think about your body in different ways. This may benefit you by letting you see hockey, your body, and sport through a unique lens, giving you something to reflect on when you practice being a female adolescent hockey player.

Learning about unique ways that we can think about physicality and being active is important in Canada right now, as more and more youth and adults stop moving their bodies and playing sport. Many theorists believe this happens because people are frustrated with the typical ways bodies and athletes are understood, and so thinking about new ways to approach these terms might give us different ways to be active.

Finally, this research will contribute to a growing collection of theoretical and feminist writing that uses various theories to think about sport and recreation.

Compensation

You will be provided with snacks during group discussions. Additionally, you will be provided with digital copies of any images of yourself upon request. You will also be emailed a summary of my thesis once it is finished, and if you would like, I can also send my complete thesis document.

Anonymity

Anonymity means that no one, including the researcher, is able to associate discussion responses

or images with individual athlete-participants. This will not be maintained during this research- I will know who is in which image and who said what during discussions. As well, other athlete-participants will be aware of what you say during conversations. Discussions at the onset of each conversation will make clear the need to respect the privacy of everyone, so that nothing we talk about gets shared outside of the discussion. It is also important that we limit discussion of those outside of the research, including teammates and coaches.

Further, anonymity cannot be protected due to image use. People who already know you might be able to identify pictures of you.

Confidentiality

Confidentiality means the protection of the identity of athlete-participants, so that no one knows who you are, as well as the protection, access, control and security of all data related to you. As anonymity will not be protected, confidentiality will also not be maintained. However, efforts will be made to reduce the risk associated with the use of image data.

You will assume a pseudonym, which is a name you get to pick that you will be referred to by when I write up the research. You will also collectively select a pseudonym for the team. No pseudonym will be linked to any image; for example, if you pick “Yellow” as a pseudonym, no image of you will be called “Yellow skating”. Further, the image review process by you and your guardian will enable you to remove any image that you do not wish to have shared publicly. As such, you should carefully consider each image before approval.

All images and electronic data will be stored in a password protected file on the researcher’s computer. They will be backed up on an external hard drive, which will be stored in a locked box at the researcher’s home. All hard copy documents associated with the research will be stored in this locked box.

Nothing that you share during discussions will be shared with your guardian or coach. They will not have access to transcripts to see what you have said. Guardians will only be able to read what you have said in my final thesis, after you have been assigned a pseudonym and your contributions have been written up within the outcomes of this research.

It is important that you are aware that if you disclose any intent to harm yourself or others, or if you disclose that anyone is harming you, I am required by law to inform child protective services at the Ministry of Children and Family Development.

Disposal of Data

All data will be stored until October 1, 2017. It will then be destroyed.

Dissemination (Sharing) of Data

Data will be used to complete my Master of Arts thesis. This document will be available online through the University of Victoria. Additionally, future academic publications and presentations may be created based on the data collected. This data will only be used by the researcher and can be revisited by the researcher until it’s deletion on October 1, 2017. This data will not be used for commercial reasons.

A final thesis summary will also be distributed directly to you and your guardian via their email addresses. You can also request to receive a digital copy of my entire thesis document.

Contacts

Please contact Nicole Land at 403-969-5263 or nland@uvic.ca with any questions or concerns.

Dr. Veronica Pacini-Ketchabaw is supervising this research and you may contact her at 250-721-6478 or vpacini@uvic.ca if you have any additional concerns about this study.

In addition, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Human Research Ethics Office at the University of Victoria at 250-472-4545 or ethics@uvic.ca.

Consent to Participate

Your signature below indicates that you understand the above conditions of participation in this study and that you have had the opportunity to have your questions answered by the researcher.

Please initial: Photos may be taken of me for:

Analysis and dissemination _____

Name of Athlete-Participant

Signature

Date

A copy of this consent will be left with you and a copy will be taken by the researcher.

Outline of Sessions for Athlete-Participants

If both you and your guardian agree to voluntarily participate in this research, your involvement will take place over five sessions. The following section discusses what will take place and is required of you each session.

Sunday, November 25th: Initial Meeting

First, I will meet with you and your guardian, as well as other interested teammates and their guardians. At this time I will verbally explain the research, distribute copies of the consent form, and answer any questions you may have. If you choose to become a participant, you and your guardian will sign the consent form at this time.

Monday, December 3rd: Photographing at Practice

I will be on the ice with you during practice. I will take photographs of you focusing on various parts of your body and equipment, as well as the arena.

December 4th to December 6th: Image Review by You and Your Guardian

I will review all images and select 20-30 images, which will each be assigned a number. This number will be on the picture and will be what the file is called. I will then email your guardian all the images of you. Please look over these pictures with your guardian. These images should be reviewed by both you and your guardian to ensure that you find them appropriate to be included as data in this research. You can request that any images be removed, and they will be permanently deleted as data.

Your guardian will respond in an email with the numbers of images you wish to approve or disapprove. This email will be printed out and documented as ongoing consent. You will have at least three days to review these images.

If I have not heard back from you and your guardian, I will send a reminder email on December 6th. If you and your guardian do not review the images and respond via email, none of the images of you will be discussed. If you do get to review them before our next discussion (session five), we might talk about those pictures then.

Friday, December 7th: First Discussion

I will meet with you and the other athlete-participants to discuss your embodied experience related to approximately 10 of the approved images. Before we start, I will talk a bit about the research and check in to make sure you still want to participate. Then, we will review images to make sure that they are all still approved by you, and some images may be deleted if you wish. Next, we will talk about the images. You will be asked questions such as “what happens when you look at this image?” or “what does your body do when you see this picture?” I will not ask you any questions about your coaches or teammates, or your skills as a hockey player. I encourage you to focus on your own embodied experience, which means paying attention to your own body.

This discussion will take between 60 and 90 minutes, and it will be audio recorded and transcribed (typed up) to be used as data.

To be Designated after Christmas: Photographing at Practice

I will again photograph during team practice.

After Session Three: Image Review by You and Your Guardian

You will again review images with your guardian. The process will be the same as previously- all images will be numbered and you and your guardian will choose which images you want to approve or have deleted. Again, please make sure that you carefully check each image over.

Your guardian will respond in an email with the numbers of images you wish to approve or disapprove. This email will be printed out and documented as ongoing consent. You will have at least three days to review these images.

If I have not heard back from you and your guardian, I will send a reminder email. If you and your guardian do not review the images and respond via email, none of the images of you will be discussed or included as data.

To be Designated after Christmas: Second Discussion

Finally, I will meet with you and the other athlete-participants again to discuss your embodied experiences related to the images. Like before, I will check for your consent and we will review images before we discuss.

This session will be audio recorded and transcribed, and will take between 60 and 90 minutes.

You must be present at the initial meeting, and at least one photographing and one discussion session. If we meet before practice, you will have adequate time to get dressed so that you can be on the ice on time.

Appendix F: Guardian Consent Form

What Can a Body Do? Exploring Female Adolescent Sporting Bodies

Guardian Informed Consent Form

Your athlete is invited to participate in a study entitled “What Can a Body Do? Exploring Female Adolescent Sporting Bodies” that is being conducted by Nicole Land. This research is being undertaken as part of a research requirement for a Master of Arts in Child and Youth Care at the University of Victoria.

The researcher, Nicole Land is a graduate student in the department of Child and Youth Care at the University of Victoria. You may contact me if you have further questions. I can be reached at 403-969-5263 or nland@uvic.ca.

Dr. Veronica Pacini-Ketchabaw is supervising this research and you may contact her at 250-721-6478 or vpacnik@uvic.ca if you have any concerns about this study.

Research Objectives

This research aims to explore understandings of the female adolescent athlete, with a specific emphasis on embodiment. Embodiment involves focusing on the physical and moving bodies of athletes. Utilizing both photographic images of athletes and the materials involved in their sporting practice, as well as small group discussions based on these images, I hope to present how there may not be only one definition of a “female adolescent athlete,” such as popular Canadian definitions which label female athletes as competitive, muscular, or feminine might lead us to believe. Rather, I hope to explore how female adolescent athletes and their bodies may be quite a rich and complicated event, as their embodied experiences might be creative, changing, and complex.

Importance of this Research

In contemporary Canadian society, much of the popular language surrounding female adolescent athletes uses terms such as training, discipline, competition, or biology when referring to adolescent female athletes. It has been argued that understanding athletic bodies in this way limits their potential to act as creative or productive. This research aims to complicate these popular understandings of female adolescent athletes and explore how female adolescent athletes and their bodies might be understood as complicated, multiple, or creative.

Participants: Female Adolescent Athletes

Your athlete has been invited to participate in this exploration as adolescent female hockey players are located amid highly conflicting and contested understandings of adolescence, femininity, athleticism, and hockey. This puts your athlete in a unique location to engage with her own athletic body.

Voluntary Participation

Your athlete’s participation in this research must be completely voluntary. If you agree to their participation, either one of you may withdraw at any time without any consequences or any explanation. If either yourself, as a guardian, or an athlete-participant wishes to withdraw, the

athlete-participant will no longer be a participant.

If an athlete-participant withdraws from the study, all images of the athlete-participant will be destroyed and will not be included in any analysis or dissemination. If the images were used in group discussion, the subsequent discussion may still be included as data, although any overtly identifiable references to the former athlete-participant will not be used (for example, referring to a sticker on someone's helmet). All words spoken by this athlete-participant will be deleted from transcripts.

Participant Involvement

If both you and your athlete agree to voluntarily participate in this research, involvement will take place over five sessions. A detailed outline of each session, called "Outline of Sessions for Guardians" is attached at the end of this document. Athlete-participants must be present at a minimum of one discussion and one photographing session.

- Session one will be an initial meeting with you and your athlete-participant where I will explain the research, distribute copies of the consent form, and answer any questions you may have. If you and your athlete wish to participate, you will sign the consent form at this time.
- During session two, I will photograph athlete-participants at practice.
- After session two, you will be emailed all images of your athlete-participant that I wish to include as data. You and your athlete-participant will then review and approve images or ask for images to be deleted. Your response to this email will indicate that you and your athlete-participant want to continue participating in this research.
- Session three will be a 60-90 minute group discussion regarding the images with athlete-participants.
- During session four, I will again photograph athlete-participants at practice.
- You and your athlete-participant will again review pictures of your athlete-participant and approve or disapprove them.
- Finally, I will meet with athlete-participants for a 60-90 minute group discussion regarding the images.

Ongoing Consent to Participate

This informed consent form will be signed by guardians prior to the inclusion of their athletes as athlete-participants. Athletes will also sign a consent form. Throughout the research process, guardian review and (dis)approval of images will signal ongoing consent. At the beginning of group discussions, athlete-participants will be asked if they wish to continue participating in this research.

Inconveniences

Participation in this research is not expected to cause any inconvenience to you or your athlete, aside from the time required for image review and group discussions.

Risks

This exploration poses minimal risk for athlete-participants. As discussions occur in small groups, there is potential that athlete-participants might feel embarrassed or experience social pressure. Before each group discussion, I will speak with athlete-participants about respecting

the privacy of all athlete-participants, as well as reiterate that athlete-participants should say only what they feel comfortable sharing. I will check in with athlete-participants throughout discussions to ensure they feel comfortable, and will follow up after conversations with any athlete-participants who seem bothered. As well, athlete-participants will be provided with a crisis support phone number they can call if they need additional support.

There are further risks related to image collection, as photographs of athlete-participants will be made visible through data dissemination. While little context will be given regarding the location of athlete-participants, and athlete-participants will wear either blank jerseys or turn their jerseys inside out while images are being taken, there is potential that those who know athlete-participants will be able to identify them through these photographs.

If I take pictures around the arena, such as of the stands or scoreboard, I will not use these images if they have distinctive information, like an address, that might make it easier for someone to identify your team.

Images will be included in the dissemination of the data. Final thesis papers will be visible online through the University of Victoria, and future publications and presentations stemming from this research may use images in various academic contexts. Efforts will be taken to minimize the risk associated with the use of identifiable images, such as the review process by guardians and athlete-participants, as well as additional measures outlined in the Anonymity and Confidentiality sections below.

Benefits

Through engaging in conversations surrounding their embodied experience, athlete-participants will have the opportunity to explore their physicality, as well as their understandings of athleticism and “performing” athlete. This might act to make them more conscious of their athletic experience and participation, potentially encouraging them to explore creative ways to be an athlete.

Further, exploring novel ways in which one can understand the adolescent female athlete might encourage society to interact with physicality and athleticism beyond dominant understandings such as competition, discipline, and training. Interacting with physical activity in novel ways is especially important at a time when sedentary lifestyles proliferate in Canadian culture.

Finally, this exploration can contribute to a growing body of contemporary theoretical feminist investigations within the sport and recreation literature.

Compensation

Athlete-participants will be provided with snacks and juice during group discussions. Additionally, athlete-participants will be provided with digital copies of any images of themselves upon request. You and your athlete-participant will also be emailed a summary of my thesis once it is finished, and if you would like, I can also send my complete thesis document.

Anonymity

Anonymity, which means that no one, including the researcher, is able to associate discussion responses or images with individual athlete-participants, will not be maintained during this research. Due to the group nature of discussions, other athlete-participants will be aware of what

their peers disclose during conversations. Discussions at the onset of each conversation will make clear the need to respect the privacy of all athlete-participants.

Further, anonymity cannot be protected due to image use. As previously explained, while limited contextual information will be given surrounding the location of this research, it is possible that athlete-participants will be identifiable to those who know them. If I take pictures around the arena, such as of the stands or scoreboard, I will not use these images if they have distinctive information, like an address, that might make it easier for someone to identify the team or athlete-participants.

Confidentiality

Confidentiality means the protection of the identity of athlete-participants, as well as the protection, access, control and security of all data related to them. As anonymity will not be protected, confidentiality will also **not** be protected. However, further efforts will be made to reduce the risk associated with the use of image data.

In addition to the limited context and non-identifiable jerseys that will be worn, all athlete-participants will assume a pseudonym, and they will also select a pseudonym for the team. No pseudonym will be linked to any image; for example, no image will be called “Pseudonym A skating.” Instead, images will remain unattributed to any specific athlete-participant. Further, the image review process by guardians and athlete-participants will enable the removal of any image that you and your athlete-participant do not wish to have shared publicly. As such, you should carefully consider each image before approval.

All images and electronic data will be stored in a password protected file on the researcher’s computer. They will be backed up on an external hard drive, which will be stored in a locked box at the researcher’s home. All hard copy documents associated with the research will be stored in this locked box.

Guardians will not have access to transcripts of group discussions. As well, I will not discuss anything shared during conversations with guardians. Guardians will be able to see data that has been collected once it has been anonymized in my final thesis documents. This acts to protect the confidentiality of athlete-participants.

It is important that you are aware that if athlete-participants disclose any intent to harm themselves or others, or if they disclose that anyone is harming them, I am required by law to inform child protective services at the Ministry of Children and Family Development.

Disposal of Data

All data will be stored until October 1, 2017. It will then be destroyed.

Dissemination of Data Exploration

Data will be used to complete my Master of Arts thesis. This document will be available online through the University of Victoria. Additionally, future academic publications and presentations may be created based on the data collected. This data will only be used by the researcher and can

be revisited by the researcher until it's deletion on October 1, 2017. This data will not be used for commercial reasons.

Final thesis summaries will also be distributed directly to athlete-participants and their guardians via the guardian's email addresses.

Contacts

Please contact Nicole Land at 403-969-5263 or nland@uvic.ca with any questions or concerns.

Dr. Veronica Pacini-Ketchabaw is supervising this research and you may contact her at 250-721-6478 or vpacini@uvic.ca if you have any additional concerns about this study.

In addition, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Human Research Ethics Office at the University of Victoria at 250-472-4545 or ethics@uvic.ca.

Consent to Participate

Your signature below indicates that you understand the above conditions of participation in this study and that you have had the opportunity to have your questions answered by the researcher.

Please initial if you consent:

Photos may be taken of my athlete-participant for:

Analysis and dissemination _____

Name of Athlete-Participant

Name of Guardian

Guardian Signature

Date

Preferred Email Address

A copy of this consent will be left with you, and a copy will be taken by the researcher.

Outline of Sessions for Guardians

If both you and your athlete agree to voluntarily participate in this research, involvement will take place over five sessions. The following section discusses what will take place and is required of you and your athlete-participant each session.

Sunday, November 25th: Initial Meeting

First, I will meet with you and your athlete-participant as well as other interested teammates and their guardians. At this time I will verbally explain the research, distribute copies of the consent form, and answer any questions you may have. If you and your athlete wish for them to participate, you will sign the consent form at this time.

Monday, December 3rd: Photographing at Practice

I will be on the ice with during practice. I will take photographs of athlete-participants focusing on various parts of their body and equipment, as well as the arena.

December 4th-6th: Image Review by You and Your Athlete-Participant

I will review all images and select 20-30 images, which will each be assigned a number. This number will be on the picture and will be what the file is called. I will then email you all the images of your athlete-participant. Please look over these pictures with your athlete-participant. These images should be reviewed by both you and your athlete-participant to ensure that you both find them appropriate to be included as data in this research. You can request that any images be removed, and they will be permanently deleted as data.

I then ask that you respond in an email with the numbers of images you and your athlete-participant wish to approve or disapprove. This email will be printed out and documented as ongoing consent. You will have at least three days to review these images.

If I have not heard back from you and your athlete-participant, I will send a reminder email on December 6th. If you and your athlete-participant do not review the images and respond via email, none of the images of you will be discussed. If you do get to review them before the second discussion (session five), they may be included in this conversation.

Friday, December 7th: First Discussion with Athlete-Participants

I will meet with athlete-participants to discuss their embodied experience related to approximately 10 of the approved images. Before we start, I will talk a bit about the research and check in to make sure they still want to participate. Then, we will review images to make sure that they are all still approved by athlete-participants, and some images may be deleted if they wish. Next, we will talk about the images. They will be asked questions such as “what happens when you look at this image?”, or “what does your body do when you see this picture?”. I will not ask athlete-participants any overt questions about their coaches or teammates, or about their skills as a hockey player.

This discussion will take between 60 and 90 minutes, and it will be audio recorded and transcribed.

To be Designated after Christmas: Photographing at Practice

I will again photograph during team practice.

After Session Four: Image Review by You and Your Athlete-Participant

You will again review images with your athlete-participant. The process will be the same as previously- all images will be numbered and you and your athlete-participant will choose which images you want to approve or have deleted. Again, please make sure that you carefully check each image over.

I ask that you respond in an email with the numbers of images you wish to approve or disapprove. This email will be printed out and documented as ongoing consent. You will have at least three days to review these images.

If I have not heard back from you and athlete-participant, I will send a reminder email. If you and your athlete-participant do not review the images and respond via email, none of the images of your athlete-participant will be discussed or included as data.

To be Designated after Christmas: Second Discussion

Finally, I will meet with athlete-participants again to discuss their embodied experiences related to the images. Like before, I will check for their consent and we will review images before the discussion begins.

This session will be audio recorded and transcribed, and will take between 60 and 90 minutes.

Athlete-participants and guardians must be present at the initial meeting. Athlete-participants must attend at least one photographing and one discussion session. All discussions will take place outside of practice time. If discussions occur before practice, athlete-participants will have adequate time to be prepared for practice.

Appendix G: Team Information Letter

December 2, 2012

Dear [Team Name] Players and Guardians:

Thank you for your time and patience as I research with your team. As you are aware, I had distributed a letter inviting athletes from your team to participate in a research study that I am completing for my Masters thesis. At this point, I have four to six participants and am ready to commence my research.

I will be on the ice during practice on Monday, December 3rd and again at a practice in January. I will also be meeting with athlete-participants twice to discuss their embodied experiences as athletes.

I want to reiterate that I will only be photographing athlete-participants who have signed consent forms. No other members of your team will be included in any images, in any way. While the focus of discussions is on the embodied experiences of athlete-participants, in the event that any reference to coaches or teammates emerges in conversations, such statements will be completely anonymized, or will not be included, in data dissemination. No players who are not athlete-participants will be identifiable or overtly discussed in data collection or dissemination.

If you would like to receive a summary or complete copy of my thesis upon completion, please contact me and I will be happy to pass one on.

If you have any questions or concerns in regards to my research involvement with your team, please do not hesitate to contact me.

Thank you very much, and I wish to thank you again for the opportunity to research with your team.

Nicole Land
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Appendix H: Final Thesis Summary for Participants and Guardians

