Genre Trouble: Composing the Personal in Academic and Public Writing

by

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Abstract

Traditionally, personal knowledge and experience have been excluded from academic writing. This exclusion is motivated by epistemological assumptions within our disciplines and in the broader academy that help to determine how we represent the relationship between researchers and their research. To give the impression of objectivity, researchers have historically limited reference to themselves in their academic writing. However, several social science and humanities disciplines, particularly those with robust qualitative methodologies, have increasingly challenged these traditions. Scholars in these disciplines argue that personal academic writing—writing that explicitly references the author's knowledge and experience—helps to address the difficulties of representing the lives of others in our traditional genres and to innovate in our own intellectual work. I build on this research, focusing particularly on how personal knowledge and experience are composed on the boundaries of the university where academic and public discourses come together.

Using rhetorical genre theory and the narrative paradigm as a framework, I ask the following questions in this dissertation: How do academic genres open or close spaces for personal writing and shape who may access and experiment in these spaces? How do public genres such as online news reports and editorials recontextualize the personal when taking up a research article on climate change? How might personal writing facilitate communication on controversial issues such as climate change? I explore these research questions in four distinct research articles that have been prepared for publication in scholarly peer-reviewed journals.

In Chapter 2, I describe how I have experienced difficulties when writing in particular academic genres. Finding spaces to play in these genres has helped me to ease these difficulties and to negotiate the conflicts and contradictions of the academy. To explore and explain

innovative spaces within genres, I extend Deleuze and Guattari's notion of smooth and striated spaces and tie it to work in rhetorical genre studies. Opening smooth spaces in striated academic genres, I conclude, is not only important for students like me but may also help us better respond to the changing realities of graduate studies and academic work in Canada.

In Chapter 3, I explore how an online news genre system takes up knowledge claims from a research article on climate change over a period of one year. Using insights from rhetorical genre studies, the results show that online news writers predominantly use the news report genre to cover the research findings for 48 hours, after which they predominantly use the news editorial genre to engage these findings. The news report genre uses the press release and the article abstract as intermediary genres, but the news editorial only uses the abstract. In news editorials, the knowledge claims are less qualified and are less personal than in news reports. The switch between genres repositions the scientist, the journalist, and the public epistemologically, a reorientation which favours uptake in news media supporting action against climate change.

In Chapter 4, I use a personal narrative to explore how my Canadian identity has shaped my academic research questions. I begin with a story from my childhood, describing how the stories that I was told and read as a child were never connected to the place where I grew up. These childhood experiences taught me to be both wary and curious about linguistic representation, and these themes have shaped my academic journey, leading ultimately to my interest in using personal narrative to explore the meaning of climate change in the Canadian context.

In Chapter 5, I use personal stories about climate change to explore how we might talk about climate change differently. Due to their local and specific nature, personal stories, I argue, might help us to communicate more successfully about climate change. These characteristics of personal stories complement our mostly scientific understanding of climate change, and

composing and sharing personal climate change stories might provide us with a way to meaningfully rethink our relationship with the world.

The dissertation concludes with some suggestions for further research. I also explore the implications of my analysis for writing and research pedagogy.

Preface

I am the sole author and researcher for all of the papers presented in this dissertation.

Chapter 2 of this dissertation has been published in the January 2018 (Volume 28) issue of the *Canadian Journal for Studies in Discourse and Writing/Rédactologie*, appearing under the title "Scenes from Graduate School: Playing in the Smooth Spaces of Academic Writing."

Chapter 3 is under review at a peer-reviewed journal. It was submitted under the title "How Does an Online News Genre System Take Up Knowledge Claims from a Scientific Research Article on Climate Change?"

Chapter 4 has been accepted for publication at the peer-reviewed journal *Rhetor*. It will appear in 2018 under the title "Waiting to be Found: Research Question and Canadian National Identity in the Borderland."

Chapter 5 has been prepared for submission to a peer-reviewed journal.

Dedication

For Andreas and Kai—who are my everything

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This work was made possible by a dream team of supervisors or "doctor mothers," as Germans call their Ph.D. supervisors. Dr. Katy Campbell, Dr. M. Elizabeth Sargent, and Dr. Margaret Iveson have been mentors and role models for me and have made my doctoral studies one of the most important experiences of my life. Dr. Katy Campbell, who also served as my Master's supervisor, paved the way for my journey into personal academic writing by introducing me to autoethnography and supporting my early research in this area. She also told me that doing a Ph.D. would be a "treat" that I could give myself. I didn't believe her at the time, but I have come to see that she was right: this experience has ended up being a treat, largely due the quality of my supervisory team. Dr. Campbell suggested that I take Dr. Sargent's composition theory class, a suggestion that took me to the next step of this journey. Dr. Sargent opened my eyes to the possibilities of alternative academic writing, and she helped me to understand that my resistance to academic writing was also the symptom of strong interest. Dr. Iveson has guided me thoughtfully and patiently throughout my studies: listening to my follies over a cup of tea and gently pushing me in the right direction when I needed it. She has been a steady advocate for alternative academic research and writing in the Department of Secondary Education, and her clarity on this issue steadied me at times when I doubted the merits of my approach. I am incredibly grateful that I have had the opportunity to work with these scholars.

My fellow students and instructors in education and writing studies consistently inspire and encourage me. I am grateful that I have had the opportunity to get to know Christina Grant, Nicole Day, Karly Coleman, Anna Chilweska, and Jessica Friedrichsen over the last few years. They have made me a better thinker and educator.

Support from the Social Sciences and Humanities Research Council, the University of

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In addition to having a dream team of supervisors, I have been lucky to learn from several talented educators and researchers such as Dr. Lucie Moussu and Dr. Claudia Eppert. Seeds of many of the ideas presented in this dissertation were sown in their classes, and I appreciated the insight that they offered me during my candidacy exam. Other colleagues such as Dr. Sheena Wilson and Dr. Heather Graves, who allowed me to audit her course in Academic Writing, have provided important support as I progressed through my degree.

Nikki Van Dusen and Marliss Weber have always been ready for a glass of wine and a good laugh when I needed it. Maria Rojas has been a rock solid friend—always willing to step in to help when Andreas and I were overwhelmed by the pressures of university life. Estrella Diez Gonzalez and Ignacio Cuenca de Lorenzo are the best neighbours anyone could hope for. I don't know what we would have done without their help and friendship and their children on many occasions.

From far away, Julia Kalbfleisch, my sister from another mother; Sue Bray-Wong and Rachel Bray, my sisters from my mother; and Dr. Deborah Bray Preston, my sister from my grandmother (also known as my aunt), have been steadfast in their support and sense of humour.

Our extended family across North America and in Germany has looked after us and entertained Andreas and Kai as I worked away at this project. It is our turn to host now!

My mother, Judith Bray, instilled a love of language and books in me at a young age, and my father, John Bray, taught me to be unrelentingly curious about the world. They have encouraged me, pushed me, and stood aside when I needed to figure something out on my own. Their love is the foundation of my accomplishments.

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1. Introduction

In January 2011, I found myself taking a course on composition theory. I had tumbled serendipitously into this opportunity: my Master's supervisor, knowing my interest in writing, suggested that I check out the small writing studies department at the University of Alberta. An email and phone call later, I found myself enrolled in a graduate writing studies course, which, as it happened, was just about to begin. I was nervous about what a course about writing might entail: Would I be good enough? Would it be packed with critical theory like my previous graduate courses in literature? Would I be able to handle the course on top of the chaos of my life with a toddler and tenure-tracking husband?

All of these worries were unfounded. Instead, the course was a four-month long revelation. It entranced me from the beginning. I was stunned to learn from Peter Elbow's writing—particularly from his essay "Illiteracy at Oxford and Harvard" (2000)—that writing is hard for all of us, even those of us who love language and books; it is a difficult act of coordination, balanced between creation and distillation and between writer and reader. With some generative writing techniques (freewriting, loop writing, inkshedding), I finally learned to outsmart my know-it-all, bossy-big-sister editor, who is at times helpful but who often ruins the fun of exploration and creation in writing. I found myself adding hearts and exclamation marks in margins as I read texts from Carolyn Matalene (1992), Patricia Nelson Limerick (2005), and Nancy Mairs (2005), all pieces that identified the limitations of academic discourse and described a place for personal writing at the university. These writings often articulated dissatisfactions with academic writing similar to my own, and they gave me hope that a different way of writing might be possible at the university.

By the end of this course, writing became joyful for me again, something that it hadn't been

since my pre-teen years. This course made it possible for me to consider myself a writer and to commit to returning to the university to do a Ph.D. As I explored possible topics for my research, Dr. Sargent—my writing studies instructor—pointed out that I was very interested in academic writing. This observation surprised me. Really surprised me. And yet, as I thought about this, I came to see that Dr. Sargent was absolutely right: I was deeply (viscerally, catastrophically) interested in academic writing.

What Dr. Sargent had seen and I had not was that my long standing troubles with academic writing might, in fact, provide the tension necessary for interesting scholarship. My relationship with academic writing has been problematic since my first Master's degree in Comparative Literature, an experience I discuss in-depth in the second chapter of this dissertation. My issue was basically this: I felt both that that something was missing from academic writing and that I was missing something about academic writing. Put another way, I was deeply resentful of the constraints of academic writing, and I also felt that my inability to work within those constraints meant that I could never be an academic.

This tension dances throughout this dissertation. At its heart lie questions about what types of writing and thinking belong at the university, how we negotiate the boundaries of what belongs and what doesn't, and what it might mean to shift these boundaries. These lines of inquiry are bound, of course, to the deeply personal root of these questions: Do I belong at the university? And if yes, what will the rewards and costs of that belonging be for me?

To explore this tension between what can and cannot be said in academic genres, I examine the nature of the relationship between personal knowledge, experience, and academic work. The rejection of personal knowledge and experience as material for academic writing has its roots in the development of the scientific method and Enlightenment philosophy, which separated the

subjective from the objective and the emotional from the rational. However, in the late 20th century, social science disciplines such as sociology and anthropology experienced a crisis of representation in which they began to explore the limitations of our representation of others and the nature of the relationship between researchers and their research. From this crisis emerged two research methods that integrated personal experience into academic work: autoethnographic scholarship, in which writers explore their own experiences in the context of academic research, and reflexive writing, in which scholars explicitly examine their standpoint and emotional investments in their work (Denzin & Lincoln, 2000). This dissertation draws upon the insights of these perspectives.

In writing studies, scholars such as Bishop (1997), Bizzell (2002), Elbow (1990, 1991, 1995, 2002), Kamler (2001), and Spigelman (2004) also argued that personal experience and personal writing has a place in academic discourse and in the teaching of academic writing. These scholars reject the common criticisms of personal writing—that it obscures the social construction of knowledge, promotes an image of the self as stable and transparent, and reinforces dominant cultural values—arguing that personal writing is a construction of the self designed to fulfill important rhetorical functions, that it is local and situated and is therefore more accessible to a wider audience, and most importantly, that it adds to our knowledge by asking us to think in new ways (Bizzell, 2002). Bizzell (2002) concludes that new forms of academic discourse, including those that include personal experience, "make possible new forms of intellectual work" (p. 5).

In this dissertation, I am interested in how we include personal experience in academic writing, who is allowed to do so, and what the inclusion of personal experience might mean if that writing is on a controversial issue such as climate change. Specifically, I ask the following

questions in this dissertation:

1. How do academic genres open or close spaces for personal writing and shape who may access and experiment in these spaces?

2. How do public genres such as online news reports and editorials recontextualize the personal when taking up a research article on climate change?

3. How might personal writing facilitate communication on controversial issues such as climate change?

This dissertation is a collection of four papers written in the research or journal article format. Each paper is written for an academic journal, and in the order that they are presented in the dissertation, they do represent the development of my thinking on genre, on narrative, and on the place of the personal in academic and public discourse. The second and third chapters in the dissertation explore the first and second research questions, and I deal with the last question in both the fourth and fifth chapters. As interdisciplinary research, my dissertation draws from science and technology studies, communication studies, and education research in addition to writing studies scholarship.

Epistemological Assumptions

Underlying these questions and my inquiries into them are some basic epistemological assumptions. These positions are influenced by new rhetoric, semiotics, postmodernism, and constructivism.

First, this dissertation assumes that language mediates our experience of the physical world and therefore helps to determine how we understand and experience the world. Second, I hold that language is a social phenomenon. For language to be useful, it must be shared, and in this

sharing, we build communities, a process through which we also construct knowledge. Established patterns of language use within a community become discourses, and discourses help both to create our understanding of the world and to perpetuate this understanding. Discourse and its building blocks—words, utterances, genres—help us to establish our individual identities within communities and provide frameworks for behaviour and knowledge. Power is an important dimension of discourse, and our discursive structures often determine who can speak and in which ways. Finally, I assume that there is a physical world beyond language and as physical beings, we sense, perceive, and interact with this world. However, because we share knowledge of this physical world through socially-constructed discourse, our representations of this physical world are always mediated. The physical world exists, but we can never represent it completely or singularly.

I better developed and clarified this last assumption for myself as I wrote my dissertation. The post-structuralist theories that I learned in my first Master's degree in the 1990s were sometimes deterministic and seem to suggest that there was nothing beyond discourse and language. In my thesis for that degree, I explored what might lie outside of language: I was particularly interested in how we come to express physical experience in poetic and discourse-defying ways. When I began to read writing studies scholarship, I found that Perl's (2004) application of Gendlin's "felt sense" to the writing process resonated with my earlier work. For Perl (following from Gendlin), knowledge is embodied and by recognizing our felt sense—a space, a bodily feeling, an itch in our experiences that has not yet been expressed symbolically—we can transform our embodied knowing into words.

Our ability to access these extra-discursive spaces while writing implies that individuals do have some agency to influence the discourses that shape our lives. I acknowledge that it is

difficult to determine the extent and impact of this agency, but it does provide a potential locus for discursive innovation and evidence that writers or interlocutors can recognize discursive boundaries and challenge them. This notion drives my inquiry in this dissertation. In the following four chapters, I explore how we might trouble discursive boundaries in academic discourse through genre innovation or by using particular modes of discourse (specifically narration) in contexts where they are not dominant.

In Chapters 3, 4, and 5 of the dissertation, I deal specifically with discourses around climate change. This inquiry also challenged my assumptions about the relationship between knowledge and our physical world. Our knowledge of climate change has its roots in scientific discourse, and this discourse downplays the role of language in knowledge construction. Bazerman (1988) describes how scientific discourse positions language: "Science tells us about nature; words and numbers are the symbols it uses to tell us…. The only problem is the most practical one of making the symbols precise, unambiguous, univocal, to create a clear one-to-one correspondence between object and symbol" (p. 292). I often noticed that this understanding of language and of the nature of scientific inquiry permeated our discussions about climate change. Although I value and support the scientific conclusions about climate change, these postpositivist assumptions about knowledge construction and the transparency of language were often at odds with my own moderate constructivist perspective. Bazerman (1988) found that when he studied scientific writing, he was often caught between a "constructivist critique" of the rhetorician and the "empiricist project" of science (p. 295). I found myself in a similar bind. I want to argue that science is rhetorical but is also grounded in a legitimate attempt to understand our physical environment. However, to acknowledge the human role in the construction of this knowledge and its rhetorical nature is often seen as an attempt to discount the knowledge itself. I discuss

some of the impacts of this conflict in the fifth chapter of the dissertation.

Theoretical Framework

To draw out and help explain discursive boundaries—how we determine what can or cannot be said in particular contexts—I use two theoretical frameworks, both of which are grounded in writing studies scholarship.

In Chapters 2 and 3 of the dissertation, I ground my work in rhetorical genre theory. Rhetorical genre theory grew from Miller's seminal 1984 paper "Genre as social action," in which she argues that genres are "typified rhetorical actions based in recurrent situations" (p. 159). Miller's work provided a new understanding of genre, one that moved beyond simple a priori classifications of literary and creative works. Subsequent work on rhetorical genre theory established that genres are social (they are the product of communities who use them to accomplish particular purposes), rhetorical (community members can choose how best to use and respond to a genre), historical (they evolve from earlier genres and reflect their influence), and dynamic (they adapt to new situations and new purposes) (Dean, 2008). As tools used by a particular community, genres are always ideological and epistemological: they come to reflect a community's values and power dynamics, and they reflect primary assumptions about how we know the world.

In Chapters 4 and 5 of the dissertation, I examine how stories and narrative genres might affect how the public engages in the issue of climate change. Specifically, I use Fisher's (1984) narrative paradigm to examine how narrative opens up new possibilities of communication. Fisher (1984) argues that there are two paradigms of human communication: narrative and rational. When we communicate within the narrative paradigm, we tell stories to each other in order to establish "good reasons" for behaviour and to create an ideal of a good life. Fisher

(1984) explains, "symbols are created and communicated ultimately as stories meant to give order to human experience and to induce others to dwell in them to establish ways of living in common, in communities in which there is sanction for the story that constitutes one's life" (p. 6).

Climate change is often represented in scientific terms within what Fisher calls the rational world paradigm. This paradigm highlights the roles of experts, logical reasoning, and argumentation. In Chapters 4 and 5, I explore how narrative, and in particular personal narrative, might help to overcome some of the disconnections and misunderstandings about climate change that are tied to the limitations of the rational world paradigm.

Methodology

I use discourse analysis as a methodological guide throughout this dissertation. I analyze rhetorical and language behaviours within the social contexts in which they occur, and I seek to better understand how these behaviours come to influence and interact with our construction of knowledge. I focus on written texts and on the act of writing itself, and I seek to "explore the practices that people engage in to produce texts as well as the ways that writing practices gain their meanings and functions as dynamic elements of specific cultural settings" (Bazerman & Prior, 2004, p. 2). In the second paper, I use a content citation analysis method originally developed by Swales (1986) and later enhanced by Fahnestock (1986) and Tachino (2012). Swales' method closely aligns with the broader aims of discourse analysis, as it attempts to better understand the precise relationship between two texts and their social contexts.

Three of the four research chapters have autoethnographic elements in which I juxtapose my own personal experiences with academic research in related areas. These papers work within Ellis's (2004) framework for autoethnography: They are "research, writing, story, and method

that connect the autobiographical and personal to the cultural, social, and political; … [they] feature concrete action, emotion, embodiment, self-consciousness, and introspection portrayed in dialogue, scenes, characterization, and plot" (p. xix).

These papers are written in a non-traditional hybrid genre, where I combine more traditional academic sections with personal narrative. By using this hybrid genre, I hope to leverage what Spigelman (2004) describes as the surplus of personal academic writing. I use my narratives to add emotional insight and situated experience and to complement the often generalized and abstract nature of academic discourse. This writing is inspired by Richardson and St. Pierre's proposal (2000) that the central imaginary for postmodern texts is the crystal, which "combines symmetry and substance with an infinite variety of shapes, substances, transmutations, multidimensionalities, and angles of approach" (p. 963). As I explain in the second chapter of this dissertation, the hybrid nature of this genre allowed me to negotiate some of the complexities and contradictions of academic research that had impeded me in the past and to integrate the disparate domains of my life, all of which impact and are impacted by my academic work.

The title for my dissertation was inspired by Judith Butler's (1990) important book *Gender Trouble*. In this book, Butler argues that gender is a performative rather than an essential category, and we need to trouble these categories to advance gender equality. My dissertation has a similar disruptive aim. I understand academic writing, genres, and discourse as rhetorical performances grounded in the traditions and purposes of a community, rather than absolute forms that should never change. I hope that by poking and prodding some of the spaces in and around academic writing that I will have exposed both some of what is missing from our current practices and the potential for alternative types of writing to open doors to new types of thinking.

Dissertation Structure

The second chapter of the dissertation, entitled "Scenes from Graduate School: Playing in the Smooth Spaces of Academic Writing," describes my journey as an academic writer and explores my experience in writing Chapters 3 and 4 of the dissertation. I use rhetorical genre theory to explain some of the binds and contradictions that I experienced with academic writing and how writing in alternative genres helped me to resolve some of these issues. I use Deleuze and Guattari's (1987) notion of striated and smooth spaces to describe how genres have both prescribed and innovative sites. Academic genres, I argue, have few smooth, innovative spaces, and as a result, there is little opportunity for innovation, and those opportunities are usually reserved for expert and senior members of the community.

Although I wrote "Scenes from Graduate School" after the papers presented in Chapters 3 and 4, it presents my essential dilemma as an academic writer, a dilemma around which my interest in academic writing is centred. It also helps to explain why the third chapter of the dissertation diverges in style and content from the other three research papers. For this reason, I have placed the "Scenes from Graduate School" paper earlier.

The paper "How Does an Online News Genre System Take Up Knowledge Claims from a Scientific Research Article on Climate Change?" is presented in the third chapter of the dissertation. In this chapter, I use content citation analysis to examine how public genres such as online news reports and news editorials recontextualize the personal when reporting on a research article on climate change. When new and competing genres are introduced into the online news genre system, I found that the patterns of recontextualization also shift. I use this finding to further develop Tachino's (2012) concept of intermediary genres, those genres that help to mediate between two other genres.

The fourth chapter of the dissertation is a paper entitled "Waiting To Be Found: Research Questions and Canadian National Identity in the Borderland." Here, I drew on my previous studies of Canadian literature and national identity, and I connected them to my interest in linguistic representation and climate change. This paper was my initial exploration of the connection between storytelling and climate change, and it sets the stage for the last paper of the dissertation.

The paper "Epiphanies of the Ordinary: Personal Stories of Climate Change" is the fifth and final research chapter of the dissertation. I use personal narratives to show how climate change (and the silence around it) affects my relationships to my family and the world around me. I complement these narratives with academic analysis that discusses the potential of storytelling for climate change communication.

The dissertation concludes with a summary of the ideas presented in the dissertation and some suggestions for further research. I also explore the implications of my analysis for writing pedagogy.

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2. Scenes from Graduate School: Playing in the Smooth Spaces of Academic Writing

Summary

In this essay, I describe how I have experienced difficulties when writing in particular academic genres. Finding spaces to play in these genres has helped me to ease these difficulties and to negotiate the conflicts and contradictions of the academy. To explore and explain innovative spaces within genres, I extend Deleuze and Guattari's notion of smooth and striated spaces and tie it to work in rhetorical genre studies. Opening smooth spaces in striated academic genres, I conclude, is not only important for students like me but may also help us better respond to the changing realities of graduate studies and academic work in Canada. I offer some suggestions as to how writing studies scholarship could support these efforts.

This essay appeared in a special section of the January 2018 (Volume 28) issue of the peer-reviewed journal *Canadian Journal for Studies in Discourse and Writing/Rédactologie,* entitled "Play, Visual Strategies, and Innovative Approaches to Graduate Student Writing Development" and edited by Britt Amell and Cecile Badenhorst. My essay was published under the title "Scenes from Graduate School: Playing in the Smooth Spaces of Academic Writing."

"Writing about a writer's block is better than not writing at all."

—Charles Bukowski, The Last Night of the Earth Poems

Part 1: Initiation

The words dance in the air above me, invisible. I sit still, close my eyes, reach for them. I pull the words through me to my fingers, to my keyboard, to the screen. These words ring with rightness; they reveal the rhythm of the next sentence. As they gather on the screen, my destination starts to emerge: primitive, uncertain. I do not know where I am going; I do not know exactly what I am going to say. But the colours deepen and lines become sharper as I draw closer to this far-off landscape. Words, sentences, shapes of thoughts appear. Writing is an act of faith, I remind myself. I close my eyes and probe for more words, and they sing the world.

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I sit still, eyes closed, and I reach for the words. I fumble, I grasp, I prod. I open my eyes, furrow my brow. The words do not come to me, through me. They fall, clatter on the keyboard, separate, unattached. I struggle to pull them together. I shuffle them around, rewrite sentences, shift paragraphs. I move back and forth between the research articles I'm trying to mimic and my writing. There is no space in this genre to play, I tell myself. So I hold back, tamp down my instinct to pull the words from the air through me, to let the writing find its own shape. I fret because no foggy landscape emerges from the hail of words on my keyboard. Writing is an act of faith, I tell myself. But I have no faith here. I do not trust these words. They are uncertain, entangled in my doubt, disconnected. No, no, no, I say to myself. Writing is an act of persistence. I chip away at the essay. The words fill the page. I do not believe them.

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How do I feel such joy and ease when writing certain pieces and such disconnection and

discomfort when writing others? Why do my strategies to deal with the challenges of writing succeed in one case and fail in another? Why do I identify so profoundly with one type of writing and feel dissatisfied and betrayed by another?

As a writing instructor and PhD Candidate in an interdisciplinary program that includes writing studies, I know that feeling stuck while writing is not unusual, even for advanced academic writers. As Hairston (1986) points out, it is often those of us invested in writing—writing instructors—who experience the most difficulty. We know better than anyone the risks of putting our words to paper; "we expose what we are by writing," as Hairston suggests (p. 63).

Nevertheless, I am disappointed by this latest bout of writing difficulty. I have gone to great lengths to overcome my struggles with academic writing (a doctorate in writing studies!), and I have built a well-stocked—if not overflowing—toolbox for dealing with writing difficulties. Or so I thought. Sadly, however, none of the strategies that have worked for me in the past seemed to ease my suffering as I wrote a chapter of my dissertation. Like the piece that I wrote comfortably, this difficult chapter was one of the four discrete articles that forms my dissertation. This dissertation-by-publication structure allows me to explore my research area—the impact of written genres on climate change communication—from various perspectives while publishing my work in academic journals as I continue to write. Although I worked on and completed both chapters simultaneously, these pieces differed in one important aspect: the academic genre in which I was writing. I suffered while writing a citation content analysis study, and I happily wrote an experimental personal essay on the relationship between my interest in climate change and my Canadian national identity. The citation content analysis examined how a research article on climate change was directly and indirectly quoted in online news articles. This type of research question and method is typically written in the Introduction-Method-Results-and-

Discussion (IMRaD) research article genre, which begins by contextualizing the research question within a discipline or societal issue, moves to a presentation of the form and results of the study, and ends with a return to the broader implications of the research. In contrast, the essay on my research interests and national identity called for no particular structure: I was free as a writer to find an approach to explore this issue. It was precisely this difference in genre, I will argue here, that caused these writing experiences to diverge so significantly.

According to rhetorical genre scholarship, genre is where individual writers meet the community for whom they are writing. This scholarship emphasizes the situational and social nature of genre. In her influential work on genre, Miller (1984) notes that patterned rhetorical behaviours (genres) develop in response to repeated situations. Building on this idea, later research observed that genres aim to achieve the particular goals of interlocutors working together in a community. The research of Bazerman (1988) and Swales (1990), for instance, has explored how academic genres, in particular the academic research article, accomplish the social purposes of the academic community. Because genres are closely tied to a community's purposes (both rhetorical and material), they come to reflect the epistemological stance and power relationships within the group (Devitt, 2004). The worldview of the community is perpetuated, as Berkenkotter and Huckin (1995) argue, through a duality of structure: we use genres to structure our experiences, but they, in turn, will cause us to reproduce experiences structured as we expect. Yet despite this power to perpetuate social structures, genres are also inherently unstable and local: they must be "stabilized-for-now or stabilized-enough" (Schryer, 1994, p. 89) to be recognized by community members, but they must also adapt to local and changing purposes.

When writers encounter a new genre, they must grapple with the hidden historical depths and the precarious stability of these rhetorical patterns of behaviours. While the writer is not without

agency in these circumstances and can make choices about how to engage a particular genre, writers must nevertheless "learn the manners" of the community who uses the genre, and there may be consequences for violating these tacit rules (Freadman, 1987). Invariably, mastering a genre—learning these good manners—is part of integrating into and becoming an expert in a discourse community. Writing, therefore, not only exposes what we are, but it also reveals where we belong (or where we don't).

In the following autobiographical scenes and reflections, I will explore how I have learned (wrestled with, resisted, acquiesced to) the manners of the academic community and its written genres. At each stage of this twenty-year long journey, I have had to negotiate different constellations of the social and linguistic pressures that shape academic genres. These different constellations have either hindered or advanced my graduate school journey as I wrestled with the peculiar bind of academic writing: How could I find a way to assert agency and offer originality while observing the strict genre conventions of the academic communities to which I aspired to belong?

I describe how the first stage of my learning journey—a completed Master's degree and one year of a PhD program in comparative literature in the 1990s—was marked by profound confusion and difficult experiences with academic writing. After I abandoned that first PhD program, I worked in the margins of academia for 15 years, following a different career path but always looking back at the university. It was in this liminal and ambiguous space of my journey that I began to play with my academic writing by mixing personal narrative with critical analysis. In this writing, I worked to open up what I call the "smooth spaces" (nomadic spaces without marked paths) within the "striated spaces" (settled, demarcated spaces) of academic genres. (This typology of internal genre spaces follows philosophers Deleuze and Guattari's analysis (1987) of

these phenomena in other media such as music and textile arts.) For me, writing in the smooth spaces of academic genres gave me a place to play, a liminal place where I could practice "free assimilation, without accommodation" and I could "combine elements of the familiar and defamiliarize them," as Piaget and Turner define play (Turner, 1982, p. 34). This liminal, playful writing helped me to overcome some of the pressure and contradictions of academic work.

In the latest and final stage of my journey, I returned to the university four years ago to complete an interdisciplinary PhD that focuses on writing studies. Here, I have continued to struggle with academic writing: I am drawn to smooth genre spaces, where narrative and analysis are combined, but this type of writing can be marginalized and seen as less serious than the intellectual work conducted in traditional academic genres. The difficult writing experience that I describe at the beginning of this piece occurred when I chose to work in a traditional genre to confirm my membership in the academic community, only to find that my strategies for play were ineffective in this space.

While I recognize that my story is unique, I hope by recounting it I will reveal some of the complexities of graduate student writing and provide insight into the various permutations of the journey from novice to advanced academic writer. By shining light on these complexities, I hope to help other graduate students on this journey. To this end, I conclude this essay with some thoughts on how writing studies scholarship might act upon these insights and further support the development of this smooth space in academic writing, particularly in the face of the changing nature of graduate studies and university work in Canada.

Part 2: Confusion

The strobe light on the dance floor carves up the dancers. Slightly drunk, I watch as the arms,

legs, heads, bodies of some students and a professor in my graduate program are remixed and recombined: a slow-motion Picasso painting. This club, hidden in the back alleys of downtown, is not far from the bookstore where, as a girl, I tenderly held the books in the *Little House on the Prairie* series that I had yet to read. Oddly, it is this love of words and stories that has taken me to this strange place. But, I think to myself, this is not what I thought graduate school would be.

After several years away completing an undergraduate degree and travelling, I'm back in my hometown working on a Master's degree in comparative literature. I did well in my undergraduate degree in linguistics, and my professors had encouraged me to go to graduate school. I had grown tired, however, of the focus on the mechanics of language. I wanted stories back. But I was not prepared for the weight of this degree. Graduate school is dismantling me—I am coming apart.

The dance floor spits out one of my classmates.

"You know, he told me that he really liked your last essay." She tips her head towards our professor. My mumbled response is lost in the noise of the club: I am relieved that my essay has hidden a creeping malaise about what I am learning, that it has concealed the agony of my writing experience. I love the subversion of poststructuralism and deconstruction—the displacement of our notions of a coherent self—but I can't quite rejoice in the radical disconnection of words from the world that the writers of these theories seem to espouse. The texts that we read are dense and seem deliberately obtuse, and our professors strew handfuls of words at us like confetti. What do all these words mean? I ask myself. What do these words have to do with stories?

Still, I do my best to mimic their voices. I practice the dense, almost incomprehensible prose, characteristic, in my mind, of good academic writing. "The subject in process is in a cyclical

movement, not dialectical, propelled by a continuous process of translation between the body's semiosis and the symbolically-constructed linguistic order," I wrote carefully in my essay, shuffling about these words. Do I know what this means? Can I say why this matters?

"He also said he is surprised that you can dance so well," my classmate laughs as she stumbles back under the pulsing lights. She returns to dance wildly with our professor. They are having an affair, the latest in a long string of affairs that this professor has had with his students. The other dancers, my classmates, shift on the dance floor to accommodate this relationship. Staring into my empty glass, I do wonder whether our casual rapport with meaning is not poisoning us. If we believe the self to be manufactured, unstable, ultimately unknowable, does this give us an excuse to behave however we want? If we throw up a wall of words, what can we hide?

I try to tuck away my uncertainties about what I'm learning and about the behaviour that I am witnessing. But standing there in that room of gyrating, fractured dancers, I know that I am in danger of losing something important.

I'm tired of the thumping music and the blurred dancers. As I leave the club, the winter wind blows through the quiet, familiar streets. A piece of garbage is kicked up by the wind and rattles away.

<div align="center">*****</div>

"Every time a student sits down to write for us, he has to invent the university for the occasion," Bartholomae famously wrote (1985, p. 134). Bartholomae uses this insight to explain the difficulties that undergraduate writers experience when learning academic discourse, the language of the academy. Bartholomae's statement, however, also hints at the protean nature of our conception of the university and its authority. It suggests an instability, a mirage onto which

students, faculty, and the public project their conception of human learning and knowledge.

In the first years of my graduate school journey, I imagined the university to be a sacred place, set apart from the ugly uncertainties of human existence. I believed that a graduate degree would grant me the authority of the university, an authority built on the clarity of deeply considered ideas and generalized knowledge. The journey to acquire this authoritative knowledge began in a space and time separated from my previous world. Vaulted classrooms with granite window frames and oak-panelled walls imbued our acts of learning with the sacredness of tradition. From these rooms, I would emerge, I thought, an adult, a rewritten self with clever thoughts and a certain position in this world.

Instead, I found a different invention of the university, one in which human imperfections were all too evident and in which the uncertain and contingent nature of all human knowledge was exposed. The vagaries of the powerful people in that sacred space together with lessons of poststructuralism and deconstruction shattered my worldview. I began to question the teachings of the university as I grew increasingly aware of the disconnection between the words of the academy and its behaviour. Why teach critical theory, which exposes how power unjustly privileges and denies, if you are not prepared to root out abuses of power in your own environment? Why question the traditions and authority of other human institutions—churches and governments—if you do not question the tradition and authority of the university?

Bartholomae (1985) suggests that student writing difficulties often begin with a conflict between the student's own authority and the authority that they must project, and as a result, they feign academic authority using "the voice of a teacher giving a lesson or … the parent giving a lecture at the dinner table" (p. 135). As a graduate student, my conflict was far more nuanced. Unlike Bartholomae's undergraduate writers, I had understood that the manners of the literary

criticism genre required that I position myself in relationship to literature in a particular way: I understood what Dias, Freedman, Medway and Paré (2013) call the "epistemic motive" of the literary criticism essay. I had learned that the literary criticism genre "rests on the quality of the mediating critic's sensibility" and that the "critic's persuasiveness … depends in part on establishing a persona of perceptivity, if not brilliance," as Bazerman (1981) explains in his analysis of literary critic Geoffrey Hartman's writing (p. 377). My problem with academic writing did not lie with a failure to properly project the authority of the literary critic; rather, it lay with my uncertainty about the nature and appropriateness of that authority.

Through the teachings of poststructuralism, I had come to accept that my individual understanding of the world would always be limited and that any academic project must acknowledge these limitations while seeking—always imperfectly—to build a broader, consensual understanding of this world. I became increasingly sensitive to the fact that I could not adequately represent any other person's viewpoint; I could only offer my own and hope my revelations might spark recognition and a small moment of insight about the world. For me, these tiny sparks of resonance are the building blocks of shared understanding. My graduate writing, however, asked that I mask the relationship between my individual perspective and my writing, between my identity as a literary critic and my identity outside the university. I was encouraged to develop an academic voice but how that voice revealed itself was limited by the conventions of the literary criticism essay.

Moreover, I had come to believe, perhaps in response to the subtle nihilism of deconstruction, that my words had to do something: they had to act upon the world in some positive way, even if it were only in my behaviour as an individual. Could literary criticism act upon the world differently, more effectively without the affected brilliant persona of the critic?

Was our cultivation of the persona of the literary critic related to the abuse of power that I had witnessed? Would I be complicit in this abuse if I also adopted that persona?

I could not easily express these doubts in the genres of my discipline. Like many academic genres, the literary criticism genre is a restricted space, with formal features that (often implicitly) delineate what can and cannot be said. These genres are akin to Deleuze and Guattari's (1987) striated spaces. Striated space is sedentary space; it is a settled, urban space that focuses on arrival, rather than the journey. It "intertwines fixed and variable elements, produces an order and succession of distinct form" (p. 478). It "organizes a matter" (p. 479), and it homogenizes: "The more regular the intersection, the tighter the striation, the more homogenous the space tends to become" (p. 488). According to Savin-Badin (2008), striated learning spaces are characterized by the power of the expert; they reflect a "strong sense of authorship, a sense of clear definition, of outcomes, of a point that one is expected to reach" (p. 13). In these spaces, students cannot challenge disciplinary norms, Savin-Badin suggests; they must conform.

The striations of the literary criticism genre placed me in a classic double bind. My experience reflected the two main characteristics of this phenomenon identified by education theorist Engeström (1987): I received "two messages or commands which deny each other" (think critically about the power structures of institutions but don't question the authority and traditions of the university) and I was unable to make a "meta-communicative statement" about this situation (p. 112). Russell (1997) suggests that this double-bind situation is not unusual for students who encounter conflicts between the various communities (activity systems) of which they are a part. "The development (reconstruction) of individual agency and identity means expanding (or refusing to expand) involvement with an activity system…, which requires the

appropriation (and sometimes transformation) of certain of its genres," Russell writes. "As individuals are pulled in different directions," he suggests, "they experience double binds manifest in their writing" (p. 534). For graduate students, these "dogs of genre"—as Paré (2002) calls these conflicts that reveal the cracks in our genres—are particularly troublesome: our graduate writing may determine future employment, must satisfy the needs of several audiences, and demands our presence as scholars. The cost for transgressing academic genres may be significant.

How then could I inscribe my emerging philosophies—my growing ideas about the place of my lived experience in my literary criticism—into my paragraphs, my sentences, my words? Under the weight of this question, my invention of the university crumbled; my graduate writing floundered in this emptiness.

Part 3: Marginalization

I sit at the edge of my dorm room bed, weeping. "I have to quit," I tell him. He is perplexed, his eyebrows lifted in worry. He comes to sit next to me on the bed.

"I don't understand," he says, jabbing my knee with his—hoping, I think, that this silly familiarity would end my tears.

"I have to quit graduate school, the PhD."

"Oooh. Thaaaat."

We are unlikely friends. Him: dark curly hair; irrepressible gait; penchant for leaving anonymous notes in lecture halls claiming that the professor had kidnapped him. Me: dead straight mousy brown hair; glasses far too large for the fashion of the time; penchant for being overly serious and hiding my uncertainty with big words and fancy theories. As the only two

Canadian exchange students living in our residence building in Germany, we have been thrown together by circumstance, but a friendship had grown out of a shared love for music, *Star Trek: The Next Generation*, and German slang.

"What am I going to do? How can I tell my parents? How can I tell my professors?"

"Nancy, you have to do what feels right to you." I nod and sniffle. This is not sophisticated or original advice, but it is what I need to hear. I need to believe I can honour this creeping unease that I have been experiencing. I had first experienced this feeling as I had finished my Master's degree—a twinge, a pull, a resistance. I could ignore it in the rush to finish my degree. However, during my year in Germany, the first year of my PhD program in comparative literature, this feeling has grown and other symptoms have appeared. I am besieged by headaches, I can't concentrate, and I have no motivation to do schoolwork for the first time in my life. Something is wrong.

My friend is a musician. Sitting in the stairwell of our residence building, listening to him sing and play the guitar in harmony with two other musicians has changed me. I see how music is a part of him: it bubbles out of him, unbidden, and it has the power to mesmerize. It follows a deep root, an unknown path. He plays with his music like a juggler; he tosses it into the air in unexpected and surprising ways that transform the cacophony of an Irish pub into a church-like silence.

My friend's relationship with music stands in stark contrast with the writing that I am doing for graduate school: my writing feels constricted and overly rehearsed. I sense that writing is special for me, and I want a relationship with words like my friend has with music. I want to follow the deep root, to play with my words; I want my writing to transform others. But my writing for graduate school is deadened by so many forces: the fear that if I am not clever, my

writing will be insignificant; the belief that I need to write in a distant voice about the literature that I love; an uncertainty about how I could write differently; and the panic that I might fail at graduate school if I tried a different approach.

If I hadn't met my friend and experienced his relationship with music, I probably could have continued in graduate school. But after seeing how he follows his music, I have to ask myself where I would like my writing to go. My writing, I discover, leads away from the university.

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My first graduate career ended with a passionate breakup essay, in which I rashly combined personal narrative, pop culture references, and academic analysis. In this hybrid mash of discourses, I found a way out of the bind of the literacy criticism genre. Inspired by my friend's relationship with music, I wrote with abandon about reading Goethe's *Sorrows of Young Werther,* a story about a love triangle, while experiencing a similar situation in my life. I argued that it was often precisely this entanglement with the reader's own life that made literature such a powerful and meaningful form of human expression. This was the beginning of a transitional, liminal phase of my journey as an academic writer, a phase in which I could freely associate my personal experiences with my academic thought and move beyond the striated spaces of the literary criticism genre and academic writing in general.

My breakup essay concluded with a proud declaration of my intention to leave academia:

> The multiple narratives of this essay, with their varying degrees of credibility, have an honesty that my other essays do not. My autobiographical reflections, which normally have no place in literary criticism, are my untethered voice, and I can no longer pretend that I can write in the pseudoscientific costume necessary to procure the scholarships and grants needed to finance my degree and later my career. (Bray, 1997)

Audaciously, I submitted this piece to an unsuspecting professor, who wrote me a short rejoinder asking me to consider staying in graduate school. It was too late; I could not resolve the

double bind of academic writing in the vaulted classrooms of the university.

As I contemplated a return to graduate studies years later, I found that my doubts about the university were tightly tangled around my relationship to academic writing. There is no question the intellectual and teacher in me feel at home in the idea-decked classrooms of the university. It's my writerly self who is cautious: in my years of absence, I had developed as a writer, and I was uncertain that I could return to the striated spaces of academic genres. Could I find space at the university to write without having to separate my academic thinking and writing from the other parts of my life?

Slowly, I inched myself closer to the dangerous institution, sticking to its peripheries. I completed a part-time professional Master's degree in communication and technology, and I took a course in composition theory. Taking these small steps, I learned that I was not the only person—by far—who suspected that there might be something important and interesting missing in traditional forms of academic writing, a realization that made a return to the university possible for me.

Criticisms of academic writing, I learned, were common. Academics are accused of producing "dreary monographs, tangled paragraphs and impenetrable sentences" (Limerick, 2005, p. 226) and "impersonal, stodgy, jargon-laden, abstract prose" (Sword, 2012, p. 3). These criticisms often highlight the failure of traditional academic genres to engage audiences both internal and external to the university. However, other scholars point out that writing in traditional academic genres also limits our ways of thinking: Making space for alternative forms of academic discourse, they argue, may help us to better explore the nature of our academic work and to make way for new types of scholarship (Behar, 1997/2014 Bizzell, 1999; Ellis, 1995, 2004; Royster, Kirsch, & Bizzell, 2012; Tompkins, 1987; Williamson, 1997).

Anthropologist Clifford Geertz (2009), for example, observes that he cannot fully describe the nature of his work in traditional academic genres: "We lack the language to articulate what takes place when we are in fact at work. There seems to be a genre missing" (p. 119–20). For Behar (1997/2014), also an anthropologist, recovering Geertz's missing genre involves opening spaces in our existing genres where we can acknowledge and explore the confluence of the subjective (internal) and objective (external) nature of our work as researchers. Behar advocates a more personal form of academic work, one in which the researcher follows explicit connections between her or his own experiences and the research undertaken. Behar's appeal for "vulnerable writing" echoes the work of the expressivist movement in writing studies, in which scholars such as Elbow (2000), Murray (1991), and Bishop (1997) argue for the importance of individual expression in the writing process and in the postsecondary writing classroom. Other writing studies scholars such as Spellmeyer (1989) and Bizzell (1999) suggest that transposing and juxtaposing knowledges from different discourses help us to reveal how power obscures the polyvalence of language. As Royster, Kirsch, and Bizzell (2012) point out, this type of scholarship may create space for modes of being, knowing, and speaking beyond those of the dominant Western, white, and male culture.

"Vulnerable writing" (Behar, 1997/2014) or "hybrid academic discourse" (Bizzell, 1999) works against the striations of traditional academic genres: it works in smooth space, which Deleuze and Guattari (1987) juxtapose with striated space. In contrast to sedentary striated space, smooth space is nomadic. It is "in principle infinite, open, and unlimited in every direction…it does not assign fixed and mobile elements but rather distributes a continuous variation" (p. 475-6); smooth space privileges the journey, a journey directed by senses and natural forces—wind, sun, vegetation, noise, sound—rather than a map. According to Deleuze and Guattari, no space is

wholly striated or smooth: these tendencies exist in assemblages such as music, fabric and needlework, mathematics, and art in various relationships and ratios.

This partnership between smooth and striated spaces also exists within genres, I argue. Rhetorical genre scholar Bawarshi (2003) observes, for instance, that some genres, particularly literary genres, have a greater space for transgression and experimentation. Similarly, Medway (2002) suggests that "there are degrees of genreness, from tightly defined (or ossified…) to baggy and indeterminate" (p. 141). Different genres, then, have more or less smooth space, a space where writers may access what Weathers (1980) calls Grammar B, a style characterized by "variegation, synchronicity, discontinuity, ambiguity, and the like" (p. 8). The genre function— as Bawarshi (2003) labels the constitutive and regulative nature of genre—determines to what extent a genre is composed of striated and smooth space and where and how writers can play within the striations. New hybrid genres alter the relationship between the striated and the smooth, creating more smooth space for affective connection and stylistic exploration. By playing in the associative and ambiguous smooth spaces of genres, academic writers can "combine elements of the familiar and defamiliarize them" (Turner, 1982, p. 34) and trouble the distinction between the subjective and the objective, as Behar (1997/2014) calls on us to do.

In addition to determining the ratio between smooth and striated space in a genre, the genre function also regulates access to smooth space. Practicing vulnerable or alternative academic writing places all writers squarely within the sights of a favoured critique of our professors and our colleagues: this writing is too personal. Take, for instance, Bartholomae's (1995) position: he is wary of teaching students personal, expressive genres in the academic classroom; he views personal writing as "an expression of a desire for an institutional space free from institutional pressures, a cultural process free from the influence of culture, a historical moment outside

history, an academic setting free from academic writing" (p. 64). Bartholomae (1995) fears that students in an expressive classroom will not develop a critical stance towards their commonplace ideas of the world: "I find [sentimental realism] a corrupt, if extraordinarily tempting genre. I don't want my students to celebrate what would then become the natural and inevitable details of their lives" (p. 71). Pedagogical prescriptions like Bartholomae's highlight the borderlands between the striated and smooth space, the urban and wild spaces of academic genres.

Despite the risk of criticism, some academics in the humanities (often in anthropology and sociology, but sometimes in other disciplines like English, writing studies, and history) have turned to vulnerable genres to explore the relationship between their lives and their academic work (Ellis, 1995, 2004; Tompkins, 1987; Williamson, 1997). Indeed, sociologist Ellis (2004) has described in detail a research method—autoethnography—which encourages the active exploration of the researcher's experiences. Some of these vulnerable and autoethnographic works have been published in the traditional academic journals and books. However, most of these academics have published their vulnerable writing tentatively after they have attained tenure. These established members of the discourse community—experts in the traditional genres—are given the latitude to play. Applied linguist Bhatia (1997) describes how these privileged discourse community members can use their expertise to play with the constraints of a genre: "Practicing a genre is almost like playing a game, with its own rules and conventions. Established genre participants ... are like skilled players, who succeed by their manipulations and exploitation of genre, rather than a strict compliance with the rules of the game" (p. 25-6).

While some professional genres may allow novices to innovate under certain circumstances (Artemeva, 2005), novice writers who play in the smooth spaces of academic genres risk censure from the academic community because of their inexperience with the rules and conventions of

the traditional genres and their limited status in the discourse community. Doloriert and Sambrook (2009) write, for instance, about the challenges faced by a doctoral candidate who submitted an autoethnographic work for examination. So while it is acceptable for well-established scholars to play with the smooth spaces of traditional academic writing, novice academics may not have this opportunity. Where does this leave novice academics? If vulnerable writing is a privilege of established discourse community members, in which genres can novice academics use smooth space to engage the conflicts and contradictions of the academic experience?

Here, then, was the crux of my dilemma: I am strongly drawn to alternative academic genres that I had discovered during this liminal phase of my academic journey. This scholarship resonates with me; working and writing in this way gave me a place to play, to associate and assimilate academic thinking within the broader landscape of my life. Here, I could access the original thought necessary for good scholarship. However, this type of writing and thinking puts me into the margins of the academy and into a place where my work might be dismissed. Could I negotiate this tension?

Part 4: Reinvention

The attached chairs and desks in the classroom are uncomfortable. We are older graduate students—many of my classmates have worked as educators in the school system for years, and I, too, am returning to graduate school in my middle age. Our older, less streamlined bodies wriggle and fidget like kindergarten students in these chairs. The professor clears his throat at the front of the classroom; our chairs scream against the linoleum floor as we turn our desks to face him.

"Your methodology needs to flow from your research context and purpose—you cannot and should not choose your method first," the professor reminds us as he returns our weekly assignments. I hold back my objections to the professor's statement. I've already asked too many irritating questions in this class: How can I write a literature review interesting to read? What if I want to write an alternative dissertation, using creative nonfiction strategies? Can I write an article-based dissertation like my husband's students in an applied science field? Does your advice to publish six articles during our PhD still apply if I want to be a public intellectual? What should I write if I want to be a public intellectual?

While the professor has been patient and generous in answering my questions, I know that I am just short of becoming the difficult student in this class, the one always poking at the institution's and the professor's sore spots. So I shift silently, uncomfortably in my hard plastic chair.

I've struggled with this course, required for my PhD program and designed to prepare us for the process of doctoral research. This course embodies what I feared about returning full time to the university: a post-positivist approach to research that is politely (but never quite overtly) suspicious of my work. To be honest, I'm surprised to encounter this in my next-to-last course in my degree. I have managed to create a dream doctoral program: an interdisciplinary program in education, writing studies, and communication supported by a thoughtful and kind supervisory team who understand that I'm not going to be a typical student. In contrast to this course, the other classes in my program have reflected a broader perspective on academic research.

"But isn't worldview an important consideration when choosing our methodological approach? And don't we have to think about our personal interests and talents?" Another student voices her objections to the professor's statements.

"I don't think personal preference should come into this. Attachment to a particular methodology or method might limit you from seeing a better approach." Several hands shoot up: a volley of objections. Many of my classmates study with an expert in one particular qualitative method, and they are going to have something to say about the complex interaction between our worldview, our personal talents, methodology, and the world that we want to study. I duck my head, suppressing a smile; I'm happy that I'm not the only one at odds with this material.

Although I do not agree with everything this professor says, I do like him and value his expertise. Listening to him respond to my classmates' dissent, I realize that I am genuinely happy that I have decided to return to the university. I like these discussions; I like what I am reading; I like what I am thinking about. In light of these positive experiences and a more mature understanding of human institutions, my distrust of the university has softened, slowly dissolving in the currents of my thought.

"You know, I like it when you guys argue with me," the professor concludes our discussion amiably. "It means that you are listening and that you care." His collegiality makes me wonder about my own intransigence. Silently, I challenge myself: Maybe you don't always have to resist so ferociously? Maybe you could try another research approach, broaden your horizons? Maybe trying a more traditional form of research will end this persistent defensiveness that you feel and seal your membership in this raucous but engaging community?

And so, I falter.

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When I chose to write a citation content analysis, I set aside my old grievances and applied for membership in the academy. With my citation content analysis, I hoped to prove that I could do the traditional work of the academy; this work would demonstrate, I thought, that my interest

in alternative academic genres did not conceal an inability to write in traditional genres. What I didn't anticipate, perhaps naively, was how writing in the traditional IMRaD genre would impact my writing process and my access to the playful, smooth spaces of academic writing.

During my years on the margins of the academy, I had developed playful writing strategies that blended and combined academic analysis and personal narrative. When I wrote the experimental personal essay on my national identity and research questions, there was enough smooth space to allow my associative, assimilative approach, and this made my writing process joyful. Until I wrote my citation content analysis study, I did not understand how these playful strategies—the access to smooth spaces—had become intrinsic to my writing: they were not outside the final writing product. It was not an invention strategy that I used to generate ideas that would be then trimmed and reduced for a traditional genre. Rather, that play was intellectual work that found expression in those smooth spaces. This hybrid, alternative academic writing had become my "alpha genre," (Bawarshi, 2003, p. 99) and in that genre, with its different proportions of smooth and striated space, my writing flies.

The striations of the IMRaD genre, however, restricted my access to that play space. Like all genres, this traditional research article genre embodies the epistemological assumptions of the community that reads and writes it, and an understanding of symbolic representation is an important part of these assumptions. Bazerman (1988) argues that scientific discourse positions language as straightforward relationship between the signifier and signified: "Science tells us about nature; words and numbers are the symbols it uses to tell us…. The only problem is the most practical one of making the symbols precise, unambiguous, univocal, to create a clear one-to-one correspondence between object and symbol" (p. 292). Because of these underlying assumptions about language, I had to remain alert as I wrote my citation content analysis. I had

to filter out the poetic collision of words, the beat of a staccato sentence, the surprise of an unexpected association. This playful writing had no place, I felt, in the traditional work of the academy. A novice in this genre, I did not have the expertise to challenge these foundational assumptions. As a result, I got stuck in this writing, a difficulty that I ultimately overcame through stubbornness hardened with maturity. This same maturity, however, also prompts me to ask if this was my best scholarship and if the approbation of the broader academy is worth losing access (even temporarily) to those playful spaces in writing.

When we discuss play and creativity in relation to graduate student writing, we often focus on generative writing strategies like writing prompts or freewriting (see, for instance, Badenhorst, Moloney, Rosales, Dyer & Ru, 2014 and Davies Turner & Turner, 2015). We rarely consider how play happens within the smooth spaces of academic genres and how graduate students might access these spaces to resolve some of the conflicts and contradictions of the academy and to advance thinking in their disciplines. We argue that graduate student writing problems should not be framed as deficits (see, for instance, Badenhorst et al., 2014 and Haggis, 2006), but we seldom acknowledge that the strong normative forces of the academy may not lead to the vibrant and effective scholarship and writing we strive to promote; sometimes, student writing difficulties may be different but legitimate modes of thinking clashing with the expressive tools of the academy: smooth space running up against striated space.

Part of our work as writing scholars must therefore be to open new smooth spaces in academic genres—wildernesses of innovation and creativity—and to make these spaces accessible to graduate students, whose professional status is precarious and who can least afford to challenge community norms. This is not merely a question of making room for writerly students like me; we must also realign our writing practices to address the emerging

contradictions and challenges of university work in Canada, many of which directly impact today's graduate students.

Since I began my graduate studies in the 1990s, graduate education in Canada has changed dramatically. While enrolment in PhD programs has increased by almost 70 percent since 2002, the number of traditional tenure track positions in Canada has not. As a result, less than 20% of doctoral graduates find tenure-track positions: these students are the exception, not the norm (Edge & Munro, 2015). Moreover, just as professional outcomes shift for graduate students, universities also now recognize that they must work harder to engage a broader diversity of communities. Earlier models of research communication suggested that we could do so simply by translating our knowledge into lay language for less knowledgeable publics. However, as Myers (2003) points out, this deficit model of research communication is inherently unidirectional and assumes that the ignorant public needs only a simplified explanation of research findings to acquiesce to scientific authority. Public debates about climate change and about the relationship between vaccines and autism have demonstrated the limitations of this approach: our scientifically-oriented and tightly striated genres often do not change minds. Indeed, climate change communication scholars have concluded, like Geertz (2009) and Behar (1997/2014), that we need a new genre to negotiate these divides (Chess & Johnson, 2008; Hulme, 2009; Moser, 2010). Opening up smooth space in academic genres is thus not just about permitting stylistic innovation: it is also about finding ways to overcome these emerging conflicts with and challenges to academic work.

Many Canadian universities have recognized these pressures and are adding extracurricular professional development programs, discussing alternative thesis and dissertation genres to better reflect the new outcomes of graduate programs and exploring better ways to engage communities

(K. Campbell, personal communication). Writing studies scholars are, I believe, in a unique position to help create new writing spaces to support these efforts. To do so, we can build on our existing scholarship on genre, academic, and professional writing in the following ways.

First, we should explore student writing difficulties and community critiques of academic genres as areas of conflict and contradiction that may need to be resolved by opening up new smooth spaces in traditional academic genres or by developing new hybrid genres. Second, we should participate in current university discussions of alternative thesis and dissertation genres at our universities. While these initiatives are helpful—writing a dissertation-by-publication has certainly eased my dissertation journey—they may not acknowledge how the precariousness of graduate writing and prescriptive genres like dissertation preparation courses impact a student's willingness to innovate in research and writing. I entered my doctoral program in an ideal situation to write an alternative dissertation, and yet I bowed to the implicit social pressure of the academic community and chose to write a chapter in a traditional genre. (Fortunately, the hybrid nature of the dissertation-by-publication saved me from wrestling with this genre for the remainder of my dissertation and helped me to negotiate the multiple purposes and audiences of the dissertation that Paré, Starke-Myerring and McAlpine identify (2009).) We need to more thoroughly explore the question of how we can make these emerging genres more advantageous and accessible for the students who wish to write in them. Finally, we should model and share alternative academic writing in all levels of the academy including undergraduate work, graduate work, journal publications, and theses and dissertations. Because the genre function of traditional academic genres currently enforces a hierarchy between novice and expert writing and restricts access to smooth spaces based on this hierarchy, actively working against these limitations may shift the boundary between striated and smooth space in these genres. As a discipline, writing

studies is already home to diverse methodologies and writing genres; other disciplines, however, are less open to this diversity and modelling these possibilities may help to create more smooth space and innovative scholarship within their genres.

"Smooth spaces are not in themselves liberatory," Deleuze and Guattari (1987) warn us. "But the struggle is changed or displaced in them, and life reconstitutes its stakes, confronts new obstacles, invents new spaces, switches adversaries. Never believe that a smooth space will suffice to save us" (p. 500). In other words, opening up these smooth spaces in academic writing will not resolve all of the conflicts and contradictions of academic life or set us loose to write in "[a] space free from institutional pressures, a cultural process free from the influence of culture, a historical moment outside history, and academic setting free from academic writing," as Bartholomae fears that it might (1995, p. 64). Rather, identifying and exploring smooth spaces will force us to acknowledge that academic genres, like universities, are inventions; they are rooted in historical developments, community needs, and community values. As individual writers and as academic communities, we can challenge, revise, rail against, subvert, and play with the limitations of these structures that we have developed. Insightful, creative, helpful scholarship may develop in these spaces as a result.

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3. How Does an Online News Genre System Take Up Knowledge Claims from a Scientific Research Article on Climate Change?

Summary

The Internet has changed who writes about science in the news, how news is written, and how it is distributed. This case study explores how an online news genre system takes up knowledge claims from a research article on climate change over a period of one year. Using insights from Rhetorical Genre Studies, the results show that online news writers predominantly use the news report genre to cover the research findings for 48 hours, after which they predominantly use the news editorial genre to engage these findings. The news report genre uses the press release and the article abstract as intermediary genres, but the news editorial only uses the abstract. In news editorials, the knowledge claims are less qualified and are less personal than in news reports. The switch between genres repositions the scientist, the journalist, and the public epistemologically, a reorientation which favours uptake in news media supporting action against climate change.

This paper is currently under review at a peer-reviewed journal.

Introduction

The news media has traditionally played an important role in the uptake of scientific research knowledge by the public. In the twentieth century, public understanding of important issues such as the causal relationship between cigarette smoking and cancer, the impact of chlorofluorocarbons on the ozone layer, and the implications of genetic cloning was largely mediated by press reports. The print media, in particular, has played a decisive role in this mediation, providing the most comprehensive coverage of scientific research throughout the century (Nelkin, 1995; Nisbet et al., 2002; Petersen, 2001; Tichenor, Donohue, & Olien, 1970).

However, the news industry—and print journalism specifically—have undergone a dramatic transformation in the last three decades. The introduction of the Internet has shifted the speed and mode of news coverage. News is now reported at all hours, and all news outlets must respond to a constant demand for updates in this accelerated 24-hour news cycle. Traditional print publications such as newspapers, magazines, and trade journals have moved online where they now compete with blogs and other social media activity for advertising revenue and audience attention. Online communication allows anyone—professional journalists and private citizens alike—to write and publish reports or opinion pieces about news events, and the news audience can interact directly with these news writers or other audience members. These changes have transformed who communicates about scientific research and how they do so; as a consequence, the role of the science journalist has been dramatically impacted, prompting what Bucchi (2014) calls a "crisis of mediators" (p. 9).

Has this transformed news landscape and the related crisis of mediators changed how scientific knowledge claims are taken up in the news media? This case study explores how online news genres—some remediations of traditional genres, some emerging genres—take up a

scientific research article about climate change over a period of one year. Using insights from Rhetorical Genre Studies, I build on research examining rhetorical strategies used to recontextualize scientific knowledge in the news media and on research tracing the evolution of scientific knowledge over time (Calsamiglia & Lopez Ferrero, 2003; Fahnestock, 1986; Hyland, 2010). I elaborate on Tachino's (2012, 2016) concept of the intermediary genre, and I show how the boundary spanning affordances of two intermediary genres—the press release and the research article abstract—affect how and when particular knowledge claims from a scientific research article are taken up in a changing news genre system.

Mediating Scientific Knowledge in News Genres

Rhetorical Genre Studies: Uptake, Genre Systems, and Intermediary Genres

As a field of study that explores how rhetorical situations, social groups, and broader material contexts shape rhetorical behaviour, Rhetorical Genre Studies (RGS) offers important insight into how written news genres shape the relationship between scientists and the public.

In her foundational work in RGS, Miller (1984) extended the notion of the rhetorical situation, which Bitzer (1968) defined as "a complex of persons, events, objects, relations presenting exigence which strongly invite utterance" (p. 5), to develop a theory of genre. Repeated encounters with similar situations give rise to genres, Miller (1984) argues; genres are "typified rhetorical actions" (p. 159) that help to accomplish a particular purpose in a particular situation. As subsequent RGS research established, this rhetorical purpose is closely connected to social context. For instance, Swales (1990) describes genres as a "class of communicative events" that are named by a "discourse community" and respond to a "shared set of communicative purposes" (p. 45-6). As social constructions, genres come to reflect the

ideologies of the communities who use them, and they need to be stable enough to be recognized but also dynamic enough to adapt to contextual changes that demand new responses. Bazerman's (1988) study of the scientific research article, for instance, showed how this genre reflected the epistemological orientation of the community but also evolved in response to increased professionalization and specialization.

RGS scholars have observed that genres rarely work alone: they work with other genres to accomplish the goals of a community. The "interrelated genres that interact with each other in specific settings" function as a genre system, according to Bazerman (1994, p. 97). Community members must learn to appropriately respond to genres within the system; learning uptake, as Freadman (2003) calls this act, is like learning good manners. It involves "select[ing], defin[ing], or represent[ing]" (Freadman, 2002, p. 48) and anticipating a response to our own utterances: "a text … must represent its partner—previous, current, future, fictional or ideal," Freadman writes (2003, p. 41). We must also learn the correct timing when taking up genres (Dunmire, 2000).

Through uptake, genre systems help to orient individuals within a community. Kill (2006) concludes that when we take up a genre, we align ourselves with a particular subject position (e.g., student or instructor) within a community and activity system (e.g., composition classroom). This subject position and our resulting understanding of our own identities are negotiated through uptake: conversely, how others take up our genre work can reinforce or change our position within a particular context. As we integrate into a discourse community, our uptake of the community's genres becomes habitual.

Positioning oneself in a community while negotiating institutional boundaries is particularly complex: "It is at boundaries drawn by ceremonial and jurisdictional regulations that translation is least automatic and most open to mistake or even to abuse," Freadman (2002) writes (p. 44).

Tachino (2012) points out that some genres—intermediary genres as he calls them—facilitate uptake across institutional borders by mediating between genres, providing "uptake affordances" that may guide members of different communities in "uptake enactments" (Dryer, 2016). Tachino (2012) identifies two types of these intermediary genres: primary and secondary intermediary genres. Tachino (2016) suggests that the press release is an archetypical primary intermediary genre because its main purpose is to mediate between the news event and the news report genre. Secondary intermediary genres, according to Tachino (2012), mediate in ways that are unanticipated and incidental to their primary purpose. For instance, a news report may act as an intermediary genre between the news event and a comedy sketch that satirizes the news event. As Tachino's (2012) study of the uptake of scientific research by legal genres showed, tracing the uptake pathways between source, intermediary, and recipient genres can provide important insight into the relationship between communities.

The News Genre System and the Uptake of Scientific Research

In the Anglo-American tradition, the print news genre system foregrounds three genres, what Hohenberg (1960) calls the "old editorial division" (p. 182). In this genre system, news reports and features are "undiluted records of immediate events written in impersonal style" and editorial genres (also called commentaries, op-eds, or opinion pieces) use an expert voice to "persuade, recommend, and exhort" (Hohenberg, 1960, p. 182). The news editorial is often relegated to a secondary position within this system, traditionally occupying a single page in the newspaper. Ansary and Babaii (2005) label the news editorial genre a "Cinderella genre": it is taken for granted, works in the background, and its value is not acknowledged. As a result, journalism textbooks focus on the report and feature genres and spend much less time on the editorial genre (see, for instance, McKane, 2014 or Scanlan & Craig, 2014). Moreover, scholarly

research on news discourses emphasizes the news report—this emphasis shapes both research that looks at these discourses broadly and research that looks specifically at the uptake of scientific knowledge in news genres.[1]

As the primary genre of the traditional print news genre system, the news report thus reflects and helps to constitute our understanding of the relationship between scientists, journalists, and the public. As a "typified rhetorical action" that responds to recurrent situations (news events), the news report shapes who speaks about news events and how and when they speak about them. In the "routine" trajectory of science communication (Bucchi, 2002; Peters, 1994), the popularization of scientific information in the news media is a final step of a process through which scientific knowledge is consolidated and becomes more certain. This routine coverage often celebrates scientists as problem-solvers, presenting scientific discoveries as certain while enthusiastically exploring their potential applications for society (Fahnestock, 1986; Nelkin, 1995).

Timing considerations determine when scientists are chosen as the most relevant experts in a news report and when their findings move to the background of a story. Fahnestock (1986) argues that scientific issues evolve in the news media according to a particular ordering of concerns. First, news coverage of scientific issues explores what happened and who did it. Second, the coverage shifts to report which explore the nature of the event and any mitigating circumstances. Finally, the news coverage asks what action is called for in response to this issue.

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[1] Research on news editorials is less extensive than that on the news report genre: examples include Ansary & Babaii (2005) and Van Dijk (1998). There is little research on the uptake of scientific knowledge in news editorials.

Calsamiglia and Lopez Ferrero (2003) similarly found that news reports represented expertise differently in different phases of coverage. In the early stages of the coverage of mad cow disease in the Spanish press, for instance, scientific voices dominated in the news, although their claims were often presented generically; in the second stage, individual scientists were identified as experts; in later stages, the voices of political experts were emphasized.

Common rhetorical moves of the news report genre help to position the scientist in relationship to the news event. Journalists often incorporate expert testimony to build credibility (Bell, 1991; Dunwoody, 2014; Nelkin, 1995). When highlighting scientific expertise, the news writer names the expert and describes the expert's institutional positions and accreditations, grounding expertise in personal accomplishments and relationships (Calsamiglia & Lopez Ferrero, 2003; Hyland 2010). The news report genre further personalizes experts by including their voices in direct quotations. While this strategy emphasizes the expert as an individual, it also situates the news writer as a neutral conduit, allowing the writer to distance themselves from news actors and to present several points of view in the same piece (Bell, 1991). Moreover, this approach leaves it to the reader to decide if the expert's claim is valid (Dunwoody, 2008).

However, these typical moves of the news report genre may also help the news writer to misconstrue the nature of the scientific processes and debates. If scientific experts take contradictory positions and journalists cannot determine which position is valid, journalists may resort to juxtaposing competing claims, using balance to represent the conflict (Dunwoody, 2008). Boykoff and Boykoff (2004) found this journalistic norm resulted in biased coverage of climate change when scientific findings and minority positions that questioned these findings were given equal coverage. In other words, this genre feature led to misleading coverage and has fostered public distrust in scientific knowledge claims.

News Genres on the Internet

The Internet has had a dramatic impact on the news industry, changing who writes about news events and how the news is distributed. Traditional journalism has been particularly affected by the introduction of blogging, as news bloggers have adopted journalistic values and practices and compete with news outlets for audiences (Matheson, 2004a).

Matheson (2004b) argues that the influence and adoption of blogging practices by traditional news outlets have resulted in significant epistemological shifts in news coverage. First, he notes that blogging practices reshape the relationship between experts, journalists and readers, establishing a more personal and interactive relationship and creating a role for readers in news production. For science communication, this means that members of the public can write about science news and may challenge scientists publicly (Francl, 2001). Second, news blogging relies on a different type of authority. Unlike traditional news reporting, news blogging builds a web of authority where an article's credibility rests on the ability of the writer to "claim [a] breadth of knowledge, even comprehensiveness" (Matheson, 2004b, p. 456). The layered, non-linear, multimodal affordances of news blogging promote, according to Matheson (2004b), a "journalism of linking rather than pinning things down, … situated within a model of knowledge-as-process rather than knowledge-as-product" (p. 456). The news blog genre may influence the traditional news editorial genre in particular. For instance, a case study by Schiffer (2006) suggests that news editorials were more likely than news reporting to take up news blogs as a credible source.

These epistemological shifts expose the contingent nature of knowledge making and challenge how experts and journalists have traditionally informed laypeople of scientific discoveries. These changes have dramatically impacted the job of science journalist, who, in

order to remain competitive, increasingly takes on a new diversity of roles such as curator, public intellectual, and civic educator in addition to their traditional roles as reporter and watchdog (Fahy & Nisbet, 2011). Despite these adaptations, science journalism clearly remains an "imperilled occupation" (Dunwoody 2014, p. 27). What remains unclear, however, is how this "crisis of mediators" (Bucchi, 2014, p. 9) might affect how scientific knowledge claims are recontextualized by the news media and its written genres, and it is this question that my case study broadly addresses.

Specifically, I ask:

1. How do online news genres take up knowledge claims from an academic research article on climate change?

2. Given the disruption to the traditional mediation systems, how do the potential intermediary genres such as an academic commentary and a press release influence the uptake of the knowledge claims in this online genre system?

Method

Case Study: A Research Article on Climate Change

To observe how an academic knowledge claim is disseminated in this online news environment, I studied the coverage of a research article on climate change over one year. The research article —"The geographical distribution of fossil fuels unused when limiting global warming to 2°C" by Christophe McGlade and Paul Ekins—was published online on January 7, 2015 in the well-known scientific journal *Nature* and examined the most effective ways to use known fossil fuel reserves while limiting global warming to 2°C. It makes six knowledge claims

about how much of our fossil fuel reserves can be used and which global reserves should be used first (see Table 1).

According to *Altmetric*, an analysis service which measures the online impact of academic research, McGlade and Ekins' research article was the most covered article on climate change in 2015 (McSweeney, 2016), and it was the seventh most covered academic article overall that year (*Altmetric – Top 100 Articles – 2015,* n.d.). This extensive coverage by online news media sources allowed me to construct a robust corpus that included the source research text, two potential intermediary texts, and 182 news texts.

KC 1	80% of coal reserves, a half of gas reserves, and a third of oil reserves must remain untouched if we wish to stay under the 2°C limit of global warming.
KC 2	If we use our cheapest fossil fuel resources first, different regions will be able to use different quantities of their resources.
KC 3	Technologies like carbon capture and storage (CCS) will make only a modest difference to these amounts.
KC 4	Fossil fuel reserves in the Arctic cannot be developed, and unconventional oil production cannot increase if we wish to meet the 2 degree C goal.
KC 5	If policy makers want to quickly develop resources in their region, they must trade off with another region.
KC 6	Fossil fuel companies no longer need to invest money in exploration as we already have more fossil fuel resources than we can use.

Table 1: Knowledge Claims in McGlade and Ekins' research article

Potential Intermediary Genres

Two potential intermediary textual genres were included in my analysis. An article by Michael Jakob and Jérome Hilaire that explores the implications of McGlade and Ekins' research

also appeared in the January 2015 issue of *Nature.* In addition, McGlade and Ekins' home institution, the University College of London Institute for Sustainable Resources (UCL), posted a press release on their website announcing the results of the study ("Which Fossil Fuels Must Remain in the Ground to Limit Global Warming," 2015).

Corpus of News Texts

Altmetric found that this source article was mentioned in 102 English-language news articles and 88 English-language blog posts from 7 January 2015 until 6 January 2016, the year following its publication in *Nature*. These online mentions of McGlade and Ekins' article form the basis of my corpus. To ensure that *Altmetric*'s analysis was thorough, I also conducted an online search for McGlade and Ekins' names, the title of the article, and key terms associated with the article using *Google*. Aware that search engine filters may obscure results from news sources or blogs with small audiences and that this might include climate change skeptic blogs, I conducted site-specific searches of 56 of these blogs. McGlade and Ekins' article was mentioned in only one blog post on these sites. Eight additional articles were added to the corpus from these searches.

After eliminating duplicate mentions of an article and articles that were no longer available online, my corpus included 182 news articles and blog posts that mention McGlade and Ekins' article. I should note that I did not eliminate duplicate articles that appeared in different news sources as these reached distinct audiences.

First Step: Sorting by Genre and Focus

Initial examination of the secondary texts revealed that there were several genres of texts within the corpus of news texts and that the differences between these texts were relevant. I

therefore began my analysis by sorting these articles.

In its analysis of the coverage of McGlade and Ekins' article, *Altmetric* classifies the secondary articles as news or blogs; however, this distinction is not as clear as it may seem. For instance, *Altmetric* sometimes classified the same article as both blog and news when it appeared in multiple news sources. It also sometimes lists one news source as both news and blog, and it categorizes the *Huffington Post*—a news aggregator and political blogging site—as news despite the fact that many articles on the site are originally published on personal blogs. Moreover, some articles published by traditional news sources were identified as blog posts in their titles. As a result, *Altmetric*'s distinction between news and blogs is problematic: it does not seem to be tied wholly to news sources or to any distinct formal features of the articles. This fuzziness echoes the academic debate about the generic status of blogs: categorizing blogs as a genre is complicated because the content and purpose of blogs is diverse, and these texts are evolving rapidly as we study them.[2]

However, most of the texts in my corpus did correspond to the "old editorial division" (Hohenberg, 1960) between news genres. All three genres (reports, features, and editorials) appeared in both traditional or newer Internet-oriented news outlets, even those that label themselves blogs. This observation reflects the close historical and functional relationship

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[2] Categorizing blogs by formal features is difficult because of the emergence of very prominent subtypes such as the online diary and the filter blog. Categorization by audience is equally problematic. Cornelius Puschmann (2009), for instance, argues that Swales' notions of discourse community and communicative purpose cannot be applied to online audiences because of the transient and often random engagement of online authors with online readers.

between journalists and bloggers (Matheson, 2004a).

In addition to the traditional news genres, three other news genres took up McGlade and Ekins' research in my corpus: fact-checking articles which debunk claims by politicians and other public figures, talking point articles which provide claims and evidence to support climate change communicators, and news aggregation articles which offer a curated list of news items.

In addition to sorting the texts by genre, I also identified how they positioned McGlade and Ekins' research: some texts foregrounded the research article and its findings; others used it as evidence or background information for reports or editorials on other issues.

Second Step: Identifying Uptake Technique, Uptake Paths, Knowledge Claims, and Modalities

In the second step of my analysis, I identified the tangible traces of the source article—the uptake artefacts in Dryer's (2016) terminology—in the secondary articles and coded them by uptake technique (direct quotation or indirect mention), uptake paths, knowledge claims, and modalities used to qualify the artefacts. I classified these uptake artefacts according to the typology of statements developed by Latour and Woolgar (1986). According to this typology, scientific statements range from speculations (Type 1) to taken-for-granted facts (Type 5). Statement types 2 and 3 are qualified by modalities that draw attention to the social context of the finding such as the name of the scientist or the date of the study. Once these traces had been coded, I determined whether they originated from the research article, the commentary article in *Nature*, or the UCL press release and which knowledge claim from the research article that they represented. Finally, I conducted a close reading of the corpus, paying particular attention to what was not said or what might be absent from the coverage of McGlade and Ekins' research.

This coding strategy was inspired by Swales' (1986) work on citation content analysis,

Fahnestock's (1986) exploration of the recontextualization in popular genres, and Tachino's (2012) study of uptake, all of which used similar approaches.

Results

In the first year after its publication, McGlade and Ekins' research article was taken up in two distinct phases, which overlap during a transition period. The first phase covers the 48 hours after the publication and press release; a transition period occurs between the first two days and before the beginning of the second month of coverage; and the final phase covers the remainder of the first year of the news coverage (see Table 2). The first and last phases are clearly distinguished by the dominance of one news genre (the news report in the first and the news editorial in the last), the switch between foregrounding the research article as news and using it as background and contextual information for other stories, and a corresponding epistemological shift in which the knowledge claims of McGlade and Ekins' article are described with fewer modalities, moving them closer to the status of fact. I discuss the progression between the two main phases of coverage in further detail below.

	Phase 1 (07-09 Jan 2015)	Transition Phase (10 Jan 2015- 06 Feb 2015)	Phase 2 (07 Feb 2015- 06 Jan 2016)	Grand Total	% of Corpus
Report Foreground	33	7	1	41	22.5%
Editorial Foreground	3	5	0	8	4.4%
Talking Points Foreground	1	0	0	1	0.5%
Total- Foreground	37	12	1	50	27.5%
Editorial Background	1	18	52	71	39.0%
Report Background	1	3	36	40	22.0%
Feature Background	0	0	7	7	3.8%
Fact Check Background	0	2	4	6	3.3%
News Aggregation Background	1	1	3	5	2.7%
Talking Points Background	0	2	1	3	1.6%
Total- Background	3	26	103	132	72.5%
Grand Total	40	38	104	182	100.0%
% of Corpus	22.0%	20.9%	57.1%	100.0%	

Table 2. News Genre by Publication Date

Phase 1: The Research Article as News

   News reports foregrounding the research article. News reports appear predominantly in the first phase of coverage of McGlade and Ekins' research and sporadically in the transition phase (see Table 2). This is unsurprising given this genre's strong reliance on timing.

   These news reports describe McGlade and Ekins' research in the most detail. They highlight the study's main findings (usually KC 1) in the lead paragraph, a structure shared with the popularization texts studied by Hyland (2010) and Luzón (2013). They use several modalities (date of publication, scientists' names, the scientists' home institution, name of the journal where the research appeared) when recontextualizing the claims from the research article, but they were more likely than the other genres to recontextualize claims with references to other scientific findings and to the methods used by the researchers (see Table 3). About half of the foregrounding news reports used these two modalities: this finding is at odds with other studies of popularization (Dunwoody, 2008; Fahnestock, 1986; Hyland, 2010; Luzón, 2013). Moreover, the majority of news reports in my corpus did not fall into the balance as bias trap identified by Boykoff and Boykoff (2004). Later research by Boykoff (2012) suggested that this balance-as-bias pattern was waning in climate change coverage—a conclusion supported by my corpus.

	Scientific context	Describe methods	Date of research (including new)	Journal name	Institution or funder name	Scientists' names
Report Foreground	17	22	38	40	39	37
Editorial Foreground	4	3	7	8	5	5
Talking Points Foreground	1	1	1	1	0	0
Editorial Background	6	4	57	60	30	34
Report Background	0	1	35	30	27	23
Feature Background	0	0	7	7	3	3
Fact Check Background	2	0	5	5	4	3
News Aggregation Background	0	0	3	5	3	2
Talking Points Background	0	0	2	2	0	0
Total	30	31	155	158	111	107

Table 3. News Genre by Modalities

Just less than half of the foregrounding news reports (46.3%) use the research article as a source for direct quotations, pulling most frequently from the body of the research article to support KC 1 in particular (see Table 4). The fact that the body of the article is located behind the journal's pay wall and costs money to view suggests that the news reporting is financially supported at this stage. Genres in later stages of coverage rely on the cost-free abstract for direct quotations.

	DQ from Academic Commentary	DQ from Press Release	DQ from Source Article Abstract	DQ from Source Article Body	DQ from Source Article Conclusion
Report Foreground	4	19	7	13	4
Editorial Foreground	0	0	2	3	2
Talking Points Foreground	0	1	1	1	0
Editorial Background	0	0	13	9	2
Report Background	0	1	7	2	0
Feature Background	0	0	5	0	0
Fact Check Background	0	0	0	0	0
News Aggregation Background	0	0	1	0	0
Talking Points Background	0	0	0	0	0
Total	4	21	36	28	8

Table 4. News Genre by Source of Direct Quotation (DQ)

News reports which foregrounded McGlade and Ekins' research were the majority of texts in the corpus to explicitly take up the targeted intermediary genres: the academic commentary article and press release. Only four news reports included direct quotations from the academic commentary (see Table 4), and none of these quotations engaged the primary knowledge claims of the source article but were used instead to provide additional expert perspectives on the findings, a feature often included in this genre (Van Dijk, 2013).

About half of the foregrounding news reports (19 texts or 46.3%) quote the UCL press release. Four of 182 (2%) secondary articles copied and published the entire press release for

their readers, but the majority of news reports use the press release as a source of direct

quotations from the study's authors. These quotes from McGlade and Ekins carried knowledge

claims KC 5 and KC 6, and they are the most important sources of these two knowledge claims

in the corpus. Because the press release is only taken up by the foregrounding news report genre,

the scientists' quotations and their related knowledge claims are not disseminated widely after

the first phase of the coverage (see Table 5).

	KC1	KC2	KC3	KC4	KC5	KC6
Report Foreground	41	38	18	27	24	17
Editorial Foreground	6	2	1	4	3	2
Talking Points Foreground	1	1	1	1	1	0
Editorial Background	50	13	7	28	2	3
Report Background	25	11	2	14	6	2
Feature Background	2	0	0	5	0	0
Fact Check Background	6	2	0	1	0	0
News Aggregation Background	3	1	0	0	0	0
Talking Points Background	0	1	0	3	0	0
Total	134	69	29	83	36	24

Table 5. News Genre by Knowledge Claims

News editorials foregrounding the research article. Three foregrounding news editorial

articles appear on the day after the initial coverage, and five more appear in the first month after

the research article's publication. These articles frame the research by McGlade and Ekins as the

issue to be addressed in the text, mirroring a common pattern in the news editorial genre which often uses a current news story as its starting point (Ansary & Babaii, 2005; Rystrom, 2004). The news report genre may act as an incidental intermediary genre between the news event and the news editorial. Three of foregrounding news editorials in my corpus mention a news report about the research in the *Guardian*, a UK newspaper with an audience of over a million daily readers (theguardian.com, 2010), and this report likely helped to drive later coverage of McGlade and Ekins' research.

The foregrounding news editorial articles highlight the main findings of the research (KC 1) and the research article's claim that drilling for oil in the Arctic is "incommensurate with efforts to limit average global warming to 2 °C" (KC 4), using a variety of modalities to present the research (see Table 3). These articles rely exclusively on the research article for direct quotations, pulling them from the abstract, body, and conclusion of the article (see Table 4).

Although these eight foregrounding editorial articles represent a small proportion of the corpus, they include a disproportionate number of the articles taking a negative position towards McGlade and Ekins' research article (3 out of the 5). Two of the three objections to the research are based on the policy implications of McGlade and Ekins' findings: the *Telegraph* and blog *Junk Science* both suggest that implications of McGlade and Ekins' findings are controversial or unreasonable. These pieces use rhetorical strategies to highlight the social context in which the research occurred and thereby frame the findings in Type 2 statements with pronounced modalities. For instance, the editorial in the *Telegraph*, a UK newspaper with a daily readership of over nine million (Newsworks, 2015), calls the McGlade and Ekins' research article a "controversial paper," accuses it of "scaremongering," and overstates the scope of the paper (1).

(1) According to a team of respected researchers at University College London's Institute for

Sustainable Resources, we may all need to abandon our cars, switch off our electric lights and turn off the central heating urgently to avoid the kind of environmental catastrophe that has provided the plot for many of Hollywood's best-selling blockbuster disaster movies. (Critchlow, 2015)

Similarly, the blog *Junk Science* concludes that the implications of the research reflect a religious inclination for sacrifice (2).

(2) I'm sure squawking moral suasion from the *Guardian* will have a great effect on China, India and the developing world. The article cites research showing geographic distribution of unburnable fuel… So, we can control the climate if we make the appropriate sacrifices. It seems we haven't changed much over the years." [This second sentence hyperlinks to an article in the *Guardian* about Incan child sacrifice.] (Greene, 2015)

In contrast to these texts, the third editorial objects to the McGlade and Ekins' research on methodological grounds, providing a detailed argument to suggest that their analysis has some flaws (Hone, 2015).

Other genres foregrounding the research article. Only one emerging genre—a talking points brief—covered McGlade and Ekins' research in the first and transition phases of the coverage (Table 2). The brief with talking points includes a summary of McGlade and Ekins' research, provides key messages about the research, and suggests actions that readers might take in order to disseminate the findings such as sharing the link to the research article or the *Guardian* article. The brief quotes from the research article and covers all but the last knowledge claim (KC 6) (see Table 5).

Phase 2: The Research Article as Background

News editorials using the research article as supporting evidence. News editorial texts that used McGlade and Ekins' research to support a position on another issue represented the largest group of texts in my corpus (71 texts or 39% of the corpus) (Table 2). These articles use the research findings, particularly the main finding (KC 1) and the claim about incommensurability of Arctic drilling with climate goals (KC 4), as supporting evidence against the expansion of the Keystone XL pipeline, Shell's drilling in the Arctic Ocean, the continued investment in fossil fuel companies and technologies, among other things (Table 5). In other words, mentions of McGlade and Ekins' research move from the primary position in the article into the secondary argumentation section that is typical of editorial texts (Ansary & Babaii, 2005). Typically, these articles mention the McGlade and Ekins research only briefly: the discussion of the research is, on average, about 7% of the total word count. These articles did not quote from the press release or academic commentary; instead, these articles used the research article and its abstract as a preferred source for direct quotations.

These news editorial texts are more likely than other genres to use impersonal modalities such as the date of the research publication and the name of the journal to qualify the research findings (see Table 3). For instance, this text (3) attributes authorship of the study to the journal and hyperlinks the first nominal phrase to the research article.

(3) A seminal 2015 study by scientific journal *Nature* put a number on the amount of carbon dioxide (CO_2) we can further emit to give us a 50-50 chance of averting the two-degree Celsius mark: 1,100 giga tonnes (GT) between 2011 and 2050. ["Seminal 2015 study by scientific journal *Nature*" is hyperlinked.] (Kumar, 2015)

Some texts used hyperlinks without other contextualizing details to express a modality. For instance, in an editorial published on September 22, 2015, the news editorial writer hyperlinked

the phrase "we know perfectly well" to the research article in *Nature* in the following statement (4):

(4) We know perfectly well what we can burn and what has to stay in the ground. (van Oosten, 2015)

In contrast to these examples, one of the two critical articles in this category used a highly personal modality to frame McGlade and Ekins' findings as Type 2 statements (5).

(5) So to be entirely clear here for any reporters reading this article: the IPCC does not say that 85% of our oil sands have to be left in the ground to meet the 2°C goal. Two mid-level academics from the University College of London are making that demand. So when an activist says that the 85% number is from the IPCC, the correct response is (in keeping with the origin of the two authors): "bullocks"… (King, 2015)

News reports using the research article as context. Twenty-two percent of the corpus included news reports, which used McGlade and Ekins' research article as context for stories on new news events. These articles typically mention the research findings in the bottom half of the article and, like the news editorials in this phase of coverage, most often highlighted the research's main findings (KC 1) and the implications for Arctic drilling (KC 4). This pattern suggests that these two knowledge claims may persist in any future news coverage as other knowledge claims fall away (see Table 5).

Some of these news reports used the research article's abstract as a source for direct quotations, and one article used the press release to take up the research findings (Table 3). Modalities like the scientific context and a description of the research methodology that were present in this genre in the first stage of the coverage disappear in this second stage.

Nevertheless, the news reports continue to use a wider variety of modalities than the news editorials in this stage, suggesting that the news report genre continues to value these modalities as context details.

In this second phase of coverage, seven news features were published that used the McGlade and Ekins' research as context for larger and more emotive pieces on issues such as the impact of climate change on the Arctic (Table 2). Like the news reports in this phase, these news features highlighted KC 1 and KC 4 (Table 5), described the research with a wider variety of modalities than news editorials, and used the research article abstract as a source for direct quotations (Table 4).

Other genres using the research article as context or evidence. Three additional genres representing a small number of texts (14 or 7.7% of the corpus) cover the McGlade and Ekins' research in the final phase of coverage examined in my case study: fact-checking articles, news aggregation texts, and talking points briefs (Table 2).

The fact-checking articles originated on Factcheck.org, a site devoted to "reduc[ing] the level of deception and confusion in U.S. politics" (Factcheck.org, n.d.). This site used McGlade and Ekins' work to counter statements made by politicians and other public figures about climate change. For instance, the research findings added additional context to support a refutation of presidential candidate Rick Santorum's claims that U.S. policies will have no impact on CO_2 emissions.

Some news aggregation texts provided limited information about McGlade and Ekins' research (its title and a hyperlink), while others summarized the research briefly using modalities such as the date, journal name, scientists' names, and their institution. One text quoted from the abstract. Both the fact checking texts and the news aggregation texts highlighted the main

knowledge claim of the research article (KC 1) (Tables 3, 4, 5).

The talking points brief used McGlade and Ekins' research as supporting evidence for other arguments such as the need for Canada to reduce carbon dioxide emissions. These briefs use limited modalities such as the journal name and study date to frame these statements (Table 3).

Discussion

The emerging importance of news editorial in the recontextualization of scientific research has two important implications. First, it changes the balance within the news genre system, exposing the limitations of the traditional intermediary genre of the press release while increasing the importance of the research abstract as intermediary genre and providing exigence for new genres to emerge. Second, it transforms who writes the news, whose voices are heard in the news coverage, and how news readers are positioned with respect to knowledge claims by scientists.

A Changing Genre System

Targeted and incidental intermediary genres. The uptake of the first paragraph (abstract) of the research article and the press release through direct quotations gives us insight into how genres create successful uptake affordances and become intermediary genres.

The concept of the boundary object helps to highlight the distinctions between the uptake affordances of the research article abstract and the press release. According to Star and Griesemer (1989), a boundary object is a scientific object—a classification, a chart, or concept— that is understood in two different social contexts and which may help to mediate between these contexts. These objects are "plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites"

(p. 393). In my study, direct quotations from the abstract of the research article functioned as boundary objects by successfully mediating between the university and journalistic contexts. These passages are recognizable to both working scientists and to the news audience as statements of scientific results and they can pass as recontextualized scientific language.

This successful boundary spanning effect likely has to do with the generic status of the abstract. According to Tachino's (2012) terminology, it functions as a secondary intermediary genre as its primary purpose is not to mediate between the research article and news genres but to summarize the research presented in the article. However, some inherent flexibility in this genre resulted in its successful uptake by multiple genres in multiple contexts. Indeed, I would argue that the label secondary intermediary genre does not capture the fact that this genre presented the most flexible and most successful uptake affordances in my study. I propose that these genres be called *incidental intermediary genres*, a term which does not obscure their potential success.

The uptake affordances of the press release—a genre that Tachino (2016) calls the archetypical intermediary genre—offer much less flexibility and adaptability than those of the research abstract. In my study, the press release is only taken up directly by journalists writing news reports. I propose that these genres be called *targeted intermediary genres,* as their uptake affordances target one particular recipient genre.

The uptake of the direct quotations from the authors of the study offers evidence of the limited force of the press release as an intermediary genre. These quotations do not function as boundary objects in the same way that the direct quotations from the abstract do. These quotations have little relevance in science genres and can only be taken up in a news report genre in the initial phase of news coverage; they are not taken up into the news editorial genre. These

direct quotations are, in fact, merely *quasi-boundary objects*, functioning only in a limited context and direction.

Emerging exigence and new genres. Traditional news outlets now compete with bloggers who have remediated the news editorial genre for their own. This competition has likely contributed to the increase of editorials in my corpus, as traditional news outlets struggle to stay relevant. However, Bruns (2012) warns the "blogification" of news media may lead to "an overabundance of mere commentary (or worse, pure gossip) that no longer has much basis in the facts, as any news stories which would provide those facts are increasingly drowned out by incessant speculation, interpretation, and agitation" (n.p.). Indeed, opinion and editorial writing is not expected to attain the same standards of balance and objectivity that shape the news report genre. News outlets regularly add a disclaimer to editorial pieces, which states that the opinions presented are only those of the commentator and not those of the news outlet.

The shift in the news genre system creates the exigence for online talking point briefs—which help those writing editorial pieces by providing resources for commentary articles—and for fact-checking articles—which assess the claims of public commentators and opinion-makers.

Epistemological Changes in News Coverage

The shift from news reporting to news editorial is epistemologically meaningful. The news report genre is characterized by the presence of several voices, voices of news actors or experts. Implicitly, the news report genre suggests that establishing what is known is a consensual process, a process of weighing different opinions and voices and drawing a conclusion after this process. This plurality of voices gives readers the opportunity to agree or disagree with any one of these voices and to draw conclusions about the event and its relevance. In contrast, the news editorial genre positions the commentator as the expert and attempts to persuade a reader of a

particular point of view and a particular course of action by virtue of this expertise. While the commentator's expertise may be derived from his or her position in an institution as it was in traditional news media practices, in the age of the Internet, expertise—and the credibility derived from this expertise—may also be based on personal interests and affiliations. By using rhetorical strategies that help to define group identity and boundaries, the news commentator implicitly asks the reader to identify with the writer. The undertone of many news editorial pieces suggests that those who agree with the editorial are superior to those who do not. This strategy often turns on the labelling and demonization of another group: environmentalists, corporations, conservatives, liberals, Big Oil, Big Green. This type of news editorial clearly pulls readers in, but it also pushes readers out, namely those readers whose worldview does not align with that of the commentator. As rhetorician Kenneth Burke (Burke, 1950) writes, "…to begin with "identification" is … to confront the implications of division" (p. 22).

This rhetoric of identification coupled with the affordances of the Internet—fast and easy information sharing—magnifies the speed and implication of division. Traditional news media audience networks formed around a single information source, a local newspaper for instance, and the audience members had little opportunity to share information. On the Internet, members of an audience network may begin to share information with each other, and these "subject groupies" can become polarized issue networks where two distinct groups form and share among their members but not with groups that share an opposing worldview (Kozinets, 2015). Polarized issue networks form around controversial issues such as climate change, and rhetorically, these networks begin to operate as antagonistic discourse coalitions who vie for discursive hegemony, an effect observed by Smart (2011) in his study of the climate change debate.

In my case study, the formation of a polarized issue network around climate change meant

that there was limited discussion of McGlade and Ekins' findings in news sources and by commentators who did not already agree with the need to follow a carbon budget and limit the development of fossil fuel reserves. For the most part, it was ignored by news sources and news commentators who hold worldviews that are incompatible with the study's findings. In other words, the uptake of the research findings was limited by the polarized issue network and its attendant discourse coalition, and any uptake affordances and boundary objects in the source and intermediary genres could not effectively permeate this division.

Conclusion

This case study focused on the uptake of a well-publicized research article on a controversial issue, and the patterns of uptake observed here may be limited to this particular case study. Nevertheless, this case study has implications for knowledge mobilization efforts. While the press release's uptake impact may be limited, it does offer a model of a targeted intermediary genre that can successfully transmit messages into a recipient genre. The success of this uptake affordance resulted from a clear understanding of the formal requirements of the recipient genre: in this case, the need for quotations from news actors or experts. By carefully analyzing the needs of the writers of news editorials, public relations professionals and university knowledge brokers may be able to develop an additional targeted intermediary genre that interfaces better with this changing news genre ecology.

Overcoming discursive divides on controversial issues such as climate change, however, will likely require dramatically different rhetorical approaches than the current set of research and news genres allow. More research on the uptake of research articles by the news editorial genre would certainly be the first step to better understanding how genre influences the dynamics of this divide.

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4. Waiting to Be Found: Research Questions and Canadian National Identity in the Borderland

Summary

In this article, I use a personal narrative to explore how my Canadian identity has shaped my academic research questions. I begin with a story from my childhood, describing how the stories that I was told and read as a child were never connected to the place where I grew up. The stories were always about other places, and the stories about my place—a suburb in Ontario—were obscured. Playing hide and go seek in the forest at the edge of my suburban neighbour, I would disappear into the landscape and dream of the stories that the land might hold. These childhood experiences taught me to be both wary and curious about linguistic representation, and these themes have shaped my academic journey, leading ultimately to my interest in using personal narrative to explore the meaning of climate change in the Canadian context.

This essay will appear in 2018 in the peer-reviewed journal *Rhetor*.

Waiting to Be Found

"Ready or not. Here I come!" The seeker walks past my hiding spot, and I pull myself smaller against the base of a maple tree. I love this place—a forest oasis not far from my suburban house in London, Ontario. With my sisters and other neighbourhood children, I often sneak across suburban backyards to break into this forest—the borderland that separates the city and our suburb from open fields and apple orchards. Laced with swamps and maple trees, the forest is a place of rich adventure: a tree house built from shipping pallets and inhabited by alien beer-drinking teenagers, a swamp full of putrid, stagnant water that we dare ourselves to cross, games of hide-and-seek among the softly chattering leaves.

Sitting as still as I can, I'm quickly lost in the space of waiting. My hands sift through the loamy dirt of the forest floor; a cicada's buzz presses up against the distant drone of a lawnmower and the shrieks of children playing in a backyard swimming pool. I breathe in the green forest air, and stories of this place float down to me on dappled light and spinning maple keys.

This world—my childhood world—is named for other places and other people's heroes: our house stands on Chaucer Road in London, Ontario; I play in a park next to the Thames River; and my mother buys my sisters and me lollipops in the Covent Garden Market. The books on the shelves of our local library tell tales of pioneering families carving out homesteads in unforgiving American landscapes, British children searching for the Holy Grail in modern day England, and American children chasing after their lost father on dark planets. The best stories, it seems, happen elsewhere. My own world is a soft echo, unworthy of original names, its own heroes, and the colourful, shiny hard covers of a library book.

But these are not the stories that I imagine now, waiting among the dancing trees. My hands

on the dirt, my back against cool grey bark, I see an Iroquoian child, quiet and attentive, watching a doe and her fawn step carefully through the forest. I see a European surveyor, mosquito-stung and sweat-laden, leaning against my maple tree to carve a blaze into its bark, a sign for the next European who stumbles through this forest. I see a farmer's wife, hungry and cold, pushing her way through driving wet snow to the small house whose foundation we found on the far side of the trees.

My imagined stories thrill me, but they are unsettled and unsettling. I do not understand my connection to this place. I do not know its other names, its heroes, or its stories. These stories have been flattened, bulldozed over, wiped clean, when my suburb was built. My house, my friends' houses, the streets, my school: they do not come from this soil. This forest has no name in my world.

"Olly, olly. All come free," the seeker calls.

The forest breaks open: children appear between trees and cheer jubilantly for their success. Like me, they have not been found. I stand, shake off the untold stories, and run to join the others, the forest floor crackling beneath my feet.

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Where do our research questions come from? How do they find us? How do we find them? How does the peculiar alchemy of our personal calling, our time, and our place set us upon our intellectual quests as academics?

It seems generous to call my intellectual work a quest: my academic career path meanders like the mud-tinted Thames River that ran through my childhood. I have three university degrees in three disciplines (a B.A. in Linguistics and German, an M.A. in Comparative Literature, and an M.A. in Communication and Technology), and now, in my late forties, I'm working on my

fourth: a Ph.D. in Education and Writing Studies. I have written academically on the acquisition of relative clauses by English-speaking children, the feminine sublime in East German and Canadian literature, the relationship between Internet genealogy and motherhood, and my son's struggle to learn how to write using a pencil. I suspect that there is no obvious plot running through this work beyond a lack of perseverance, a deficit that pulls me between devastating boredom and all-consuming fascination. And yet I'd like to write another story here. In this story, these disparate scenes of my work orbit around a single theme, a theme often explored by thinkers who share my lifetime and my life place. Like so many Canadians—particularly white settler Canadians—I have a deeply uncertain relationship with the place in which I live, and this uncertainty is woven throughout my intellectual work.

Several important Canadian scholars have commented on this troubled relationship to place. Northrup Frye, the well-known Canadian literary critic, muses that our national sensibility "is less perplexed by the question 'Who am I?' than by some such riddle as 'Where is here?'" (1971, p. 23). Our national novelist Margaret Atwood (1972/1996) picks up this theme, writing that settler Canadians are effectively lost in our own country:

> [W]hen you are here and don't know where you are because you've misplaced your
>
> landmarks or bearings, then you need not be an exile or madman: you are simply lost ...
>
> Canada is an unknown territory for the people who live in it ... I'm talking about Canada as a
>
> state of mind, as the space you inhabit not just with your body but with your head. It's that
>
> kind of space in which we find ourselves lost. (p. 18)

> More recently, philosopher John Ralston Saul (2009) suggests, "many Canadians—
>
> francophone, anglophone—across the country are confused about their direction, uncertain of the
>
> meaning of their place in this place" (loc. 483).

The uncertainty of place that has shaped my intellectual quest is most often expressed as a worried distrust of linguistic representation. When you grow up in a world where foreign names and stories are imposed on your home, you learn to suspect any simple notion of the relationship between language and nature. You come to understand that the space between the fundamental elements of the linguistic sign—the signifier and the signified—is a rich borderland like the unnamed forest of my childhood. It holds untold stories, stories lost through colonization, class, culture, and power struggles, and the unspeakable work of survival in a place where nature is formidable.

Seen through this lens, my intellectual quest comes into focus. My academic work coalesces around some key questions: How do words and stories connect us to the world? Whose stories get told? What happens when we tell untold stories? What stories are untellable? My early undergraduate work in linguistics set the stage for this inquiry: it was there that I learned to see linguistic representation as act to be dismantled for study. The linguistic sign undone, the importance of the boundary between spoken and unspoken became clear, and I moved towards a closer examination of what wasn't said. Understanding nationhood against the darkness of the unsaid drew me to post-war German authors like Christa Wolf. As a Canadian, I recognized the problem of defining a society primarily by what cannot or should not be said. Negotiating the unspeakable—the sublime—was the common ground upon which I could compare works of post-modern German and Canadian literature in my first Master's thesis.

In contrast to this theoretical work, my second Master's project was an attempt to resurrect the stories that might bind me to this place: to speak aloud what had been lost. I connected my experiences as a new mother to finding the lost story of a mother in my family tree, a woman who died young and whose own daughter knew nothing about her mother's life or her pioneer

roots in Canada. Uncovering and articulating this story was a struggle much like my son's experience of learning to write his own name; I recounted this journey in a later paper that explored how our material world—our writing tools in particular—shapes the process of writing our stories. These exercises in storytelling led me to consider how telling forgotten, lost, or ignored stories—the borderland stories—empowers connection and how narrative might act as a bridge between the academy and other communities.

The potential of narrative to reconfigure and draw out the relevance of knowledge produced at the university steered me to my current Ph.D. work. My dissertation explores how knowledge of climate change is communicated in the public sphere; in particular, I am looking at how narrative and personal experience might play a role in this communication. There is growing evidence that we must find new ways to talk about climate change; research has shown that explaining climate change with facts and data does not convince people of its potential threats. Climate change scientists are beginning to acknowledge that narrative may be an important mode for speaking about climate change, a mode in which we can reforge the bond between humans and our natural world (Chess & Johnson, 2008; Hulme, 2009; Moser, 2010).

However, the story of climate change is a difficult one to tell. Climate change makes explicit our complicated connection to this place, to the Earth. It forces us to acknowledge our humility—our place as only one species on the planet—and our importance—our power as a species to damage and destroy nature. Communicating climate change exposes the frailty of imposed stories which have no foundation in the soil, and it asks us to acknowledge the borderland stories of our civilization: the cost of our lifestyles, the potential penalties for refusing to change.

The fierce debate about climate change in North America pits those who want to tell this

story against those do who don't. These competing stories push forward against each, always striving for what Graham Smart (2016) labels "discursive hegemony" (loc. 3925). Rhetorician Jim Corder (1985) argues that when we are confronted by narratives that challenge our own, our very being is threatened. Corder asks, "How can we expect another to change when we are ourselves that other's contending narrative" (p. 19)? Telling stories about climate change, particularly in North America, is very much a battle of contending narratives about our place in this world.

How then can we approach these competing stories about climate change without an either-or, all-or-nothing duel for dominance? How can we discuss our relationship to nature and explore the threats of climate change without zealous dogmatism and automated talking points? It is upon these questions that my dissertation work turns, and I would like to think that these questions—as entangled with hope and idealism as they are—are inextricably tied to my lifetime and life place, to my experience as a Canadian in the 21st century. My Canadian identity can never be just one story: the borderland between the stories that I tell and the place in which I live is inherently generative. It points not only to our insignificance —the weight of stories not told—but also to our potential—new stories that might be told. John Ralston Saul (2009) offers us one such new story, suggesting that Canadians must acknowledge that the philosophical foundations of our society come from indigenous cultures: "[Our nation] is a non- racial idea of civilization, and non-linear, even non-rational. It is based on the idea of an inclusive circle that expands and gradually adapts as new people join us," he writes (loc. 172). This is a new way of thinking about Canada, but it also hints at a new way of thinking of the borderland that I have written about here. Perhaps it is not the space between—between suburbs and open fields, between the silent north and the screaming south, between nature and language —but it is a space within. It is

the space within our circle where the work of expansion and adaptation take place. Perhaps it is not so much that we are lost in this place, as Margaret Atwood suggests, but rather that we are perpetually reaching into ourselves and into this place for new orientation. We cannot be found because we have not settled. And it is by dwelling here, in this unsettled place, that I hope that I might find new ways to tell stories about climate change and our relationship to the world around us.

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CHAPTER 5

5. Epiphanies of the Ordinary: Personal Stories of Climate Change

Summary

In this essay, I use personal stories about climate change to explore how we might talk about climate change differently. I examine some of the reasons for our reticence around this complex issue; climate change exposes our cognitive shortcomings, tribal instincts, and our unwillingness or inability to change our behaviours meaningfully. Our silence around climate change is also linked to who we are and what we might stand to lose if the world changes. When we are deeply invested in our position in the world, we resist stories and arguments that might threaten our worldview. Personal stories, I argue, might help us to bypass some of our inability to communicate meaningfully about climate change due to their local and specific nature. These characteristics of personal stories complement our mostly scientific understanding of climate change, and composing and sharing personal climate change stories might provide us with a way to meaningfully rethink our relationship with the world.

This essay is being prepared for submission to a peer-reviewed journal.

Stories save your life. And stories are your life. We are our stories; stories that can be both prison and the crowbar to break open the door of that prison. We make stories to save ourselves or to trap ourselves or others–stories that lift us up or smash us against the stone wall of our own limits and fears. Liberation is always in part a storytelling process: breaking stories, breaking silences, making new stories.

— Rebecca Solnit, The Mother of All Questions, 2017

A Magical Time and Place

Summer 2016. The warm, humid breeze from Lake Huron rattles absentmindedly through our tents, the oak trees wave lazily in afternoon sun, the cicadas drone, the squirrels natter as they chase each other above our campsites. My sisters and I have recreated our childhood adventures for our own children: this multi-family camping trip is inspired by the days spent on our wooded property outside of the city and our extended camping trips throughout Ontario. Just like we did on our childhood adventures, our children run wild, tethered to us only by hunger. They have disappeared into a heady, beguiling world of play: their imaginations drunk on the magic of the endless sand dunes and oak savannah that separate our campsites from the beach.

The adults sit in camping chairs around a blackened fire pit, the half-burnt remains of last night's failed roast marshmallows and hotdogs caught in its grill. My father is much like he was on our childhood camping adventures: baseball cap, cut-off jeans, tube socks, irrepressible energy even at 75. He clutches a sweaty can of Labatt's Canadian and holds court, cracking jokes, reminiscing, sharing random facts from the prodigious library of his mind. My mother, sisters, and I corral his conversational detours, knock back his tangents, make fun of his exuberant excesses. My brothers-in-law add to these swirling conversations carefully, not quite able to follow the course of these family discussions, their well-worn paths obvious to us but invisible to others.

"Mommmmmmmm!"

The children crash through the forest back into the campsite.

"We're thirsty and hungry!" Through the alchemy of the forest, the lake breeze, and their imaginations, the five voices have merged into one.

Cooler lids clatter, pop cans hiss, plastic wrappers crackle. The circle around the fire pit dissolves and then reforms, expanded to make room for the children, who tell us—rapid fire—of their exploration.

"We saw a huge snake. Vinnie scared it off."

"The big piece of driftwood is not on the beach any more, but we found that big fossil again."

"And there are a lot more windmills around here now."

"Oh, those stupid windmills," my father interjects.

I freeze.

"What do you mean, stupid windmills?" I ask, although I am quite sure that I know exactly what he means. I have spent the last six months forcing myself to read about climate change: the science, the politics, the comments on social media. I am raw with this new knowledge. I am shaken, fragile, and impatient with the slow pace of our transition away from fossil fuels. In this state, I forget that I cannot discuss politics with my father: it is the radioactive, Chernobyl-wasteland, go-only-to-die zone of our family conversations.

"We do have to move to renewable energy," I continue. "Those windmills are a good first step."

My mother and sisters exchange looks and retreat quietly away from the conversation, nuclear explosion imminent.

I remind my father that my husband, a scientist who works on climate change but who is absent from this trip, has explained the scientific research to him.

"Well, those climate models are wrong, and those windmills are a waste of money."

"Read the more recent science. The models have been steadily getting better. Besides, their estimates could also be too conservative: the margin of error could swing the other way. Why would we want to risk these kids' futures?" I point to the children who are quiet now, sensing the danger in this conversation.

"Don't hide bad science behind that rhetoric. Carbon dioxide is no pollutant," he grumbles.

I stomp off in furious, desperate tears. If my father—a well-educated, intelligent man, an engineer whose career was built on understanding scientific thinking—can dismiss the consensus of climate scientists, one of whom is his respected son-in-law, then what hope do we have?

My 10-year-old son follows me to our tent across the road. He is surprised to see me so angry and upset.

"Mama," he asks, "Is Grandpa one of the 10% of people who don't believe in climate change?" I laugh through my tears: he has been listening too closely to his parents' conversations about their work. From his worried face, I can see that he is pulled between his love for me and his adoration of his grandfather, with whom he shares a particular genius for building.

I free him from his conflicted loyalties: "It's okay. We disagree with the people we love sometimes. Now, go see if your cousins want to go to the beach." He runs off, relieved and reanimated.

I sit down at the empty picnic table next to our tent, wrestling with my fears for this world. The birds sing; the trees move in the wind; a mosquito buzzes around my face; an ant crawls over my bare foot. I push away my grief, shove my despair into silence, and force myself to stand and make my way back to my family around the fire pit. I don't want to ruin this magical time and place for the children.

Stories of Climate Change

This is a story of climate change. It is a story about silence and denial, tempered with fear and disagreement. It is a story of family members who, despite shared life experiences, come to see humanity's place in the world in different ways, ways that profoundly affect how we engage with the issue of climate change and potential solutions to it. It is a story about how some of us grapple with climate change, while others ignore it, actively deny it, or languish in uncertainty and doubt.

This is also my story. It is the story of how I was raised in a middle-class, conservative suburb in Southwestern Ontario, a world in which environmental conservation and preservation were never discussed, and how I came to think and care about these issues. This is not a dramatic conversion story: there was no moment in which I suddenly came to see the sins of my suburban lifestyle and embraced a new environmentally-conscious way of living. Rather, this is the story of a long, drawn-out, still-on-going wrestling match, in which I have worked to connect my habits—rooted in my suburban past and the Canadian culture in which I was raised—to their impacts on the world around me. It is a story about how I have struggled to trace and dismantle my basic understanding of my relationship to nature and to the planet.

It is this struggle and its connection to the ways in which we discuss (or don't discuss) climate change as a society that I would like to explore in this essay. This exploration tells of key moments in my struggle to understand climate change and broader environmental issues in relation to my own life, and it puts these "epiphanies of the ordinary," as James Joyce calls the particulars of our stories (quoted in Bruner 1986), together with the broader difficulties of speaking about climate change in our communities. I pick up on the observations of climate

change scholars such as James Hoggan and Grania Litwin (2016), Mike Hulme (2009), and Susanne Moser (2010), who suggest that we need to tell stories about climate change, rather than focusing on communicating data, information, or abstract policy directions, a strategy which does little to convince people of the urgency to act (Chess & Johnson, 2008; Moser, 2010). How should we tell these stories? How will these stories disrupt our other narratives of climate change, narratives that pull us towards the status quo? How might these stories connect our personal experiences—laden as they are with affect and ambiguity—to the generalized and depersonalized scientific knowledge that informs most of our understanding of climate change? What happens when we make climate change a personal story? These are the provocations at the heart of this essay.

Little House in the Suburb

Spring 1974. I am four-years old. I scramble up the mud hill in our backyard, laughing, yelling, gasping for air. My two sisters chase me, their younger, shorter legs at a disadvantage against the grasping mud. One step from the summit, my foot springs free from its boot, and I waver, my victory suddenly uncertain. The spring wind claims the plastic grocery bag wrapped around my foot; the wind is indifferent to my mother's remedy for my leaky Minnie Mouse rubber boots.

"I'm the king of the castle, and you're the dirty rascal," I shout, my white sock sacrificed for the last step to victory.

"No, you, you the dirty wascal," one of my younger sisters yells back. Her toddler logic protects her from the sting of this loss.

I survey my captured land: The backyards between the two rows of houses are not finished,

and my mud world stretches from my hill along a shallow valley between ten houses. Jelly rolls of sod are stacked beside each house: pyramids of green and brown spirals ready to tame this mess that drives my mother mad. Once the machines have finished shaping our yards, the sod will be unrolled and the mud hill will be gone forever.

The sod will lie like a blanket over this soil; it will seal away the other histories of this place, pave over them with soft grass. It will help to bury the stories of the original inhabitants of this land and will vanquish the farm fields that once stood here, broken and cultivated by settlers from England in the nineteenth century. It will transform my undomesticated mud world into lawns with swimming pools, wobbly swing sets, and chain link fences. My sisters and I will turn cartwheels on its grass, our bare feet tickled, and we will lie on its soft, cool green to escape the pressing humidity of Ontario summers. The sod will fill in the empty places between the newly built houses of our suburb and will complete a story over a hundred years in the telling. This remade land, these new houses with their linoleum and shag carpet floors, their two-car garages, their sparkling swimming pools, promise a life without the weight of history and the discomforts of survival in this place. This is it: this is the culmination of my settler ancestors' dreams for their children and their grandchildren. It is promise and prosperity fulfilled.

My four-year-old self knows nothing of the near-fulfilled ambitions of my parents or grandparents or my immigrant ancestors; I know only that I love the rawness of this non-quite-finished place, its violence married to hope. I love the mud hill; I love that my longer legs mean that I can always beat my sisters to the top, that I am always the king of the castle. It is in this place that my four-year-old self, conqueror and savage of the mud, will hold my three-year-old neighbour's head in a puddle and attempt to drown her. She will lose a silver bracelet in the puddle, a gift given to her by her grandmother. The silver bracelet, together with my memory of

this event, will be forever lost and buried under the sod, a gift to my glorious mud world. My neighbour will become a life-long friend, and we will come to laugh when she reminds of me of this incident that I have forgotten but she never has. My memory of the mud world lingers, however—a vague recollection of the messy, primal, uncertain place beneath my childhood.

How Do We Tell this Story?

We don't like to tell the story of climate change in North America: it lurks beneath our green, manicured lawns, mostly silent. Indeed, the majority of Americans have rarely or never discussed climate change with their family or friends (Maibach, Leiserowitz, Rosenthal, Roser-Renouf & Cutler, 2016). Climate change, like religion and money, is not a topic of conversation for polite society.

Why is it hard for us to talk about climate change? The silence is not a reflection of a lack of concern (Maibach et al., 2016); in fact, the majority of Canadians and Americans say that they are concerned about global warming (Marlon, Howe, Mildenberger, & Leiserowitz, 2016; The Environics Institute, 2017). The peculiarities and complexities of climate change, however, bedevil us. Scholars have labelled climate change a "wicked problem," a problem so unique that it defies singular and rational solutions (Hulme, 2009) and a "hyper object," something so large it confounds our ability to perceive it (Morton, 2012). It is an issue that strikes at our individual and societal Achilles' heel; it reveals our cognitive shortcomings, our tribal instincts, and our inability to change our deeply engrained behaviours.

In the past, humans survived by focussing on local and contemporary threats, and our brains evolved in this context. As a result, the global scope of climate change is difficult for us to comprehend (Gifford, 2011). It seems like a distant problem that will happen in a different time

and place, and we believe it will not affect us personally. We believe that climate change will happen to future generations and to plants and animals (Maibach et al., 2016), and we consistently discount the risk that climate change poses to our own lives (Gifford, 2011). In addition, it is difficult for us to perceive the contemporary and local effects of climate change because this means paying attention to our surroundings in new or forgotten ways. It means paying attention to our invisible greenhouse gas emissions, to changes in weather over multiple seasons, and to the behaviour of plants and animals. Our modern, urban lifestyles, which isolate us from our physical environments, protect us from noticing how we are changing the world (Moser, 2010). We are psychologically and financially invested in these lifestyles and solutions to climate change may require adjustments to behaviours that support our standard of living. We often resist these changes (together with the idea of climate change itself) in favour of the comfortable status quo (Gifford, 2011).

When we do hear or talk about climate change, the ways in which we do may help to create and reinforce our cognitive blind spots. We are more likely to hear more about climate change from the news media than from people we know (Maibach et al., 2016). The genres in which we most often discuss climate change—news reports, news editorials, scientific research articles— operate in what rhetorician Walter Fisher (1984, 1985a, 1985b, 1994) calls the rational world paradigm or what psychologist Jerome Bruner (1991, 1986) calls the paradigmatic or logico-scientific mode of thinking. Within this framework, we assume that humans are rational, that the world can be understood through logical analysis, and that argument and deliberation are the primary modes of human communication. This rational world paradigm highlights the role of the expert, and as a consequence, the news media often represents climate change as a discussion or debate between scientific experts (Boykoff, 2012). In his analysis of the public debate over

nuclear armament, Fisher (1984) notes that "only experts can argue with experts and their arguments—while public—cannot be rationally questioned" (p. 13). When discussions on moral issues are framed in rational and scientific terms and experts have diverging opinions, the public has no way of participating in the debate or determining which expert may be right.

The divergence between the public's perception and the scientific expert consensus on climate change has demonstrated that providing the public with expert testimony, technical information, and data has not been enough to convince them of the danger that climate change poses and the need for action (Chess & Johnson, 2008; Moser, 2010). The decontextualized knowledge of the expert does little to engage the human difficulties of confronting climate change; it does not address the limitations of our moral conceptual systems and our primary narratives about the world. As Hoggan and Litwin (2016) point out, "Mistaken ideas about the power of facts not only leave the public unmoved, but they can also trigger antagonism and contribute to polarization and ineffective advocacy" (p. 174). It is to address this limitation that Hoggan and Litwin (2016), Hulme (2009), and Moser (2010) suggest that we must develop new foundational narratives, mythologies which restore the emotional, cultural, and ethical to our understanding of climate change.

The suggestion that narrative may be a more successful way to communicate about climate change aligns with the work of Fisher and Bruner, who conclude that there is a form of reasoning beyond the rational world paradigm. Both Fisher and Bruner argue that there are two "distinctive ways of ordering experience, of constructing reality" (Bruner, 1986, loc. 146) and that the narrative paradigm represents an equally important mode of communication. In the narrative paradigm, in contrast to the rational world paradigm, human communication is seen as "stories competing with other stories constituted by good reasons, as being rational when [the stories]

satisfy the demands of narrative probability and fidelity, and as inevitably moral inducements" (Fisher, 1984, p. 2). These stories that we tell "strive to put … timeless miracles into the particular of experience, and to locate the experience in time and place" as Bruner writes (1986, loc. 179); they compel us through "suggestion and identification" according to Fisher (1984). Because the narrative paradigm of thought is one that is accessible without expertise, moral public arguments in this paradigm place experts and nonexperts on the same level playing field: members of the public can assess the moral implications of a story as well as an expert might. Experts become storytellers rather than authorities, and the "audience is not a group of observers but are active participants in the meaning-formation of the story" (Fisher, 1984, p. 12).

The narrative paradigm does not negate the rational, logico-scientific paradigm but works in parallel with it. It acknowledges that values and good reasons can be transmitted through narrative and not only through deliberation and argumentation (Fisher, 1989). For both Fisher and Bruner, these two modes of thinking are complementary but irreducible to each other. Bruner (1986) argues that "efforts to reduce one mode to the other or to ignore one at the expense of the other inevitably fails to capture the rich diversity of thought" (Bruner, 1986, loc. 147).

Using narrative to enrich the existing discussions about climate change could therefore help us to overcome our cognitive shortcomings and to change our engagement with the issue. Moser (2010) and Hulme (2009) agree that our climate change narratives should be foundational stories—myths. Moser writes, "it may be one of the greatest challenges to climate communication to help people navigate [the] complexities, and—maybe in new dialogic forms—jointly develop compelling narratives (call them worldview, meaning-giving stories, or modern mythologies) that allow people to see their place in the context of humanity's and the Earth's

common fate" (Moser, 2010, p. 36)

Hulme (2009) is more specific about what these modern mythologies should entail. He proposes four mobilizing narratives or mythologies of climate change: lamenting Eden, presaging Apocalypse, constructing Babel, and celebrating Jubilee. The lamenting Eden narrative mourns the loss of our inferiority to nature. Climate was the last refuge of nature, Hulme argues, which we believed we could not influence. The narrative that presages the Apocalypse runs throughout many environmental discourses and can be traced to Rachel Carson's seminal work on the environment *The Silent Spring*. This myth reflects our primal fears of uncertainty and the unknown future but also compels us to act. The third myth—constructing Babel—is closely related to presaging Apocalypse. The myth of constructing Babel asks us to consider how our responses to climate change rely on our hubris, our modern certainty that science and technology will allow us to remedy this issue and that we will ultimately come to understand and dominate the climate. Finally, the myth of celebrating Jubilee allows us to connect our instinct for justice and the issue of climate change. The environmental movement often aligns itself with other social justice campaigns and demands justice for those most affected by climate change: these actions reflect the myth of celebrating Jubilee by highlighting our instinct for justice. This myth offers hope to counteract the despair of the myth of presaging the Apocalypse.

Hulme suggests that these myths about climate change already circulate in some form, but by offering them visibility they may help us to seek agreement and have discussions about climate change in different ways. He argues that "climate change thus becomes a mirror into which we can look and see exposed both our individual selves and our collective societies. We can use the stories we tell about climate change—the myths we construct—to rethink the ways in which we

connect our cultural, spiritual and material pursuits" (p. 357).

How will these stories engage and challenge our existing foundational myths? Moser (2010) and Hulme (2009) do not answer this question. Fisher (1984), however, points out that stories often have the same limitations as arguments; stories may be rejected if they challenge our identities in particular ways. Fisher observes, "If a story denies a person's self-conception, it does not matter what it says about the world. In the instance of protest, the rival factions' stories deny each other in respect to self-conceptions and the world. The only way to bridge this gap, if it can be bridged through discourse, is by telling stories that do not negate the self-conceptions people hold of themselves" (p. 14). For stories about climate change to be effective, therefore, they must engage our old stories delicately in order to be accepted.

Beneath the Green

Spring 1994. The world tilts as our bus descends into the open pit mine. I close my eyes, waiting for even ground. I'm exhausted on this third day of our tour of the former East Germany A group of foreign students studying in the former West Germany, we are learning about the changes that have happened here since German reunification. An American exchange student and I stayed up late talking with our host family in this small city close to the Polish border. In their tiny apartment, our host family told us of their changing world: despair at growing unemployment tempered with hope for an improved life. They bemoan the snobbery of their new West German compatriots: "They think that they are better than us with their Volkswagens and BMWs, but the Wessis are happy to have our coal." "You'll see tomorrow," they tell us, explaining that the brown coal industry drives their region's economy.

Our bus levels out as we reach the bottom of the brown coal mine. Our group surges from the

bus into an unearthly, uncanny world. We are in an immense crater, surrounded by large machinery with wheels taller than any human. The dusty, terraced walls of the pit hide any traces of the world above. We are on the moon, a distant planet, an alternate universe. There are no birds to sing, no green and yellow fields to dance in the wind, no steady hum of the nearby city. In their absence, the machinery screams at the Earth: it groans like a wraith as it rips at the brown coal.

"Whoa," says my American friend, but I cannot respond. I am shaken into silence by this underworld.

Our guide stands in front of us and beams: "As an engineer, I am so proud of this." He gestures at the machinery and the mine before us. "Those windmills," he says, referring to the meager crop of windmills that we passed on our way into the mine, "they produce a small fraction of this energy. They'll never replace this."

The guide's delight in this alien world wallops me, sends me spiralling into doubt. I am no environmentalist—my father's derision of the movement is too fresh a lesson. No, I am the wasteful North American who uses the clothes dryer instead of hanging my clothes to dry like my German roommates. I am the one who forgets to bring cloth shopping bags to the grocery. I pay for plastic ones and hide them in my room because I have no idea how to get rid of them—I have better mastered German grammar than I have their complex recycling system.

But here, at the bottom of the brown coal mine, I am deeply unsettled. I feel no pride in this place where colours and sounds of our world have been stripped away: the screeching of the giant machinery fills me sorrow and confusion instead. This can't be right, I think. Do we do this in Canada? We can't be doing this in Canada. Is this what we are doing to our world?

Our tour leader calls us back to the bus, reminding us that we have a long drive to our next

destination—the famous Spreewald—where we will punt through natural canals that wind through an ancient pine forest.

"Try the Spreewald pickles!" our cheerful guide yells as the bus doors close and the bus turns to return us to the world above.

Who Are You in this Story?

The stories that we tell ourselves about the world are born in the places that we live and are given to us by the people we love. According to Fisher (1984), these first stories help us to hone our narrative judgment and reasoning: we acquire our narrative skills as we are socialized into our communities. Through stories, Fisher (1984) argues, we learn to understand human behaviour and what constitutes a good life. This learning does not happen through deliberation or debate as it does in the rational world paradigm; rather, it is oblique: stories suggest how we might represent our world and as listeners and readers, we may identify with and accept this suggestion (Bruner, 1991; Fisher, 1984). The stories we accept become the foundation of our worldview; they help us to organize our experiences and our memories (Bruner, 1991) and to produce and practice "good reasons" for our behaviour (Fisher, 1985b).

As we learn how to interpret our world meaningfully through narrative, we enter into the stories of those who came before us and those who live in our time and place. We reshape and revise our stories about the world as we grow older, and we will leave these stories behind for others to enter into (Fisher, 1984). In the communities to which we belong, stories accrue to become histories, cultures, and traditions (Bruner, 1991), which together with the peculiarities of our biographies and our characters, determine which stories we enter, which stories we accept, and which stories we will leave behind (Fisher, 1994).

Any stories that we will tell about climate change will interact with the other stories in our lives, and they will be greatly influenced by the histories, cultures, and traditions of the communities to which we belong. Our attitudes towards climate change are often determined by where we live in the world and by our gender, our race, and our political views. Those of us who emit the most carbon dioxide—people living in the US, Canada, Australia, and Russia—are the least likely to be concerned about the impact of these emissions (Wike, 2016). In the United States, conservative white men are less concerned about climate change than women, people of colour, and those people who identify as progressives or liberal (Dunlap & McCright, 2008; Heath & Gifford, 2006; McCright, 2010; McCright & Dunlap, 2011).

Cognitive linguist George Lakoff (2014, 2016) explains that our political orientations are linked to two basic moral conceptual systems or frames—the Nurturant Parent and the Strict Father models. The stories that we tell within these frames inform our political beliefs and shape our attitudes towards the environment and climate change. Lakoff argues that individuals often use both models, sometimes in different contexts or situations, to understand morality but the major political divide in North America stems principally from their divergence. The Nurturant Parent model—the frame for American liberal and progressive thinking—holds that the family unit should be centred on love, empathy, and nurturance. Parents should be supportive and caring with their children and expect that children will become empathetic, caring community members because of their support. In this worldview, we are stewards of nature and we must nurture, protect, and enhance the natural environment. Solutions to climate change must be reached through cooperation, caring for our natural world, and empathy for those who are more affected than we are. For liberal thinkers, environmental regulation reflects an understanding of nature as a shared commons (Lakoff, 2016).

In contrast, the conservative Strict Father model mirrors the structure of the traditional nuclear family, where the father is responsible for providing and making decisions for his family. This model is hierarchical: men have moral authority over women and children, white people over people of colour, and rich people over poor ones. It is the strict father's responsibility to set rules that teach children to behave properly. With strict rules, a child will learn self-control and become an upstanding citizen. Within the Strict Father frame, humans hold dominion over nature: nature is a wild animal to be tamed and a mechanical system and resource to be figured out and used. Environmental regulation that impedes access to natural resources and denies human authority over nature is therefore immoral in this worldview (Lakoff, 2016).

As conservative white men disproportionately hold positions of power within our economic system, they are the most invested in preserving the status quo, a status quo which is often framed by the Strict Father model and which is deeply threatened by the implications of climate change (McCright & Dunlap, 2011). McCright and Dunlap (2011) argue that the deliberate efforts of the fossil fuel industry, conservative think tanks and media to discredit climate change science, arguments often taken up by conservative elites, exacerbate this "conservative white male" effect and drive a higher level of climate change denial in this group. To deny climate change or to discount its risk has become part of the identity of many conservative white males, and education, facts, or information do little to shake their foundational stories about the world.

When we encounter new stories about the world, we test them against other stories from our lives that we believe to be true; if these new stories cannot be aligned with the old, we will likely reject them. To accept them would require us to alter our position in the world, to reconstruct our group membership and to realign our understanding of how we relate to the physical world around us. "Sometimes another narrative impinges upon ours, or thunders around and down into

our narratives," rhetorician Jim Corder writes. "We can't build this other into our narratives without harm to the tales we have been telling. This other is a narrative in another world; it is disruptive, shocking, initially at least incomprehensible, and … threatening" (1985, p. 18). Climate change thunders down upon all of us, particularly those of us in the developed Western world, but its implications are particularly difficult to contemplate within worldviews such as the conservative Strict Father model.

Our worldviews, our accrued stories about the world, justify our position—our privileges and powers—in the world, and stories about climate change often challenge us to reassess what constitutes good reasons and good living. How then can we tell meaningful, valuable, vulnerable stories about climate change when these stories threaten the worldview of people who we love and care about? "What can free us from the apparent hopelessness … of narratives that come bluntly up against each other?" Corder (1985) asks. "Can the text of one narrative become the text of another narrative without sacrifice?" (p. 25).

A Humiliated World

Winter 2016. "We must almost be at the end of the trail," I say as I recap the water bottle. We have been skiing for two hours, our ski strides synchronized against the snow.

My husband and I stand alone on the ski track: fresh snow has calmed the world. The pine trees move awkwardly in the cold air, their branches heavy, pregnant, with snow. The frozen sunlight flickers lazily across the endless white trail in front of us. The mountains surround us, composed and regal, against the blue sky.

These mountains always lure me, draw me to them. I breathe in their empty air, free from the commotion of humanity. In their shadows, I am insignificant, humbled, a guest in their realm.

Their avalanches, hidden crevasses, or surprise landslides could claim us at a whim. Between the quiet and the danger, I exhale my modern life and dissolve into this place. Here, I am nothing. What a precious relief.

But now I have learned my mountains' secret. It jumped out at me from an unexpected place: an article on our university's news page. Speaking of the world's glaciers, a scientist at our university stated: "The results that we have indicate that after 2050, pretty much everything will be gone except at the highest elevations—And that's in the Rockies as well."

The glaciers in these mountains, my mountains, are disappearing, their waters running towards the cities and the farmers' fields faster than the ice can be replaced. Our adult son, our grandchildren, our great-grandchildren will stand before mountains that are stripped naked and littered with rock-strewn paths, the humiliated remains of once formidable glaciers.

After I read the article on the university's homepage, I decided I could no longer afford to ignore climate change. I forced myself to read about it, to stare at it, to not avert my gaze. Looking directly at climate change precipitated a twisted mystical experience. I wandered through my daily life in a daze, counting all of the ways in which I am reliant on fossil fuels, seeing for the first time the deep connective tissue of modern life. The elevators of our high-rise apartment, the street lights, the trucks that deliver to our favourite restaurant, the airplanes that take us to our families in Ontario, Germany, and New Zealand. The car that drives us to the mountains, the stoves that heat the food to keep us warm while we ski, the heaters that keep our hotel room warm. What would I give up? What will I have to give up? What will our son have to give up?

For weeks after this experience, I lay awake at night, imagining summers without rain, dry prairie springs even drier, winters without snow. I imagined our son's life: humanity scrambling

to put out forest fires, to reconstruct shorelines, to adapt to extreme weather. I imagined a life less certain as economic and food production systems groan and creak under the weight of the changes. In those sleepless hours, I contemplated what I could change and how I could help, and I mourned for the time when I didn't have to think about the fragility of our world.

To speak of my fears for the changing world, to give voice to my confusion about my role in the story of climate change, to mention this now to my husband before these inscrutable, untouchable mountains, seems impossible. Words feel too big and too little, too dramatic and too insignificant. So we stand together quietly, wordlessly on the ski trail, breathing in the cold air.

I hand the water bottle back to my husband.

"Onwards?" I ask.

"Onwards."

We grab our poles and snap our boots back into our bindings. You must write about climate change, I think to myself, as we reclaim our rhythm on the trail. You must write this place, I think. Write the glaciers. Write of the past that brought us here. Write of the futures that might be.

This is Your Story

The story of climate change begins with science. It begins with an understanding of the world that is tied to numbers, measurement, systematic observations, and generalizable findings. This scientific information is communicated in particular genres to other scientists—conference presentations, the scientific research article, science textbooks—genres which, in turn, are taken up by other public genres, some of which like the news report and editorial, also rely upon the rational world paradigm with its emphasis on logic and argumentation. At the centre of this work

on climate change, and the rational world paradigm in which it is most often represented, is the philosophical division between objectivity and subjectivity. In order for a scientific fact to be considered objective, any trace of the material circumstances of its production (the messy humanity of scientific research) is forgotten or denied—"the result of the construction of a fact is that it appears unconstructed by anyone," as sociologists Bruno Latour and Steve Woolgar assert (1986, p. 240).

Scientific research must therefore represent climate change in impersonal ways; the human context of the construction of these scientific facts—with their attendant cultural and ethical values—is stripped away to assert objectivity. Indeed, concerted efforts by self-interested fossil fuel industries to attack this scientific knowledge often highlight the human circumstances of its production: in the rational world paradigm, to demonstrate the social construction of scientific knowledge is to undermine it (Hulme, 2009; Latour & Woolgar, 1986, Oreskes & Conway, 2012).

According to scientist and philosopher Michael Polanyi (1958/1997), however, this division between objectivity and subjectivity, and the priority given to objective, rational knowledge in Western cultures, is deeply problematic. Polanyi argues that all knowing is personal: we cannot stand outside the universe to know it; rather, we participate in it personally, and any knowledge that we have must arise from personal judgments and intellectual passions born of this participation. To ignore the personal dimension of scientific knowledge is, according to Polanyi, to make scientific knowledge impossible. Polanyi argues that we must acknowledge the value of emotion and particularly passion in our intellectual work, suggesting that "[Science] must claim that certain emotions are right; and if it can make good such a claim, it will not only save itself but sustain by its example the whole system of cultural life of which it forms part" (p. 140). He

concludes:

> This self-contradiction [that ignores the role of personal knowledge in science] stems from a misguided intellectual passion—a passion for achieving absolutely impersonal knowledge which, being unable to recognize any persons, presents us with a picture of the universe in which we ourselves are absent. In such a universe there is no one capable of creating and upholding scientific values; hence there is no science. (p. 149)

Anthropologist Ruth Behar (1996/2014) picks up a similar line of argument, exploring the role of the personal in her field. Behar describes the situation of Kay Redfield Jamison, a professor of psychiatry, who revealed publicly that she suffers from manic-depression. Jamison struggled with the revelation, worried that it would compromise her reputation and credibility. "If science makes it possible for the unspeakable to be spoken, if science opens borders previously closed, why is Jamison so anxious about her revelations?" Behar asks (p. 12). Behar acknowledges that there "there is no clear and easy route by which to confront the self who observes" (p. 12), but she prescribes a vulnerable, personal genre of academic writing to overcome the limitations of the division between the subjective and objective. In this vulnerable writing, we should open up about the emotional impacts of our efforts to understand the world: This writing is "loss, mourning, the longing for memory, the desire to enter into the world and having no idea how to do it, the fear of observing too coldly or distractedly or raggedly, the rage of cowardice, the insight that is always arriving too late, …a sense of the utter uselessness of writing anything and yet the burning desire to write something" (p. 3).

When we tell stories of ourselves, particularly as academics, we trouble the distinction between the objective and the subjective, the researcher and the research. With personal stories, we connect ourselves—our bodies, our language, our identities, our other stories—to our time and place: narratives, unlike arguments, are always bound to the local and the particular (Bruner,

1991; Fisher, 1984). Our personal stories restore our personal knowledge and our values and emotions to our understanding of the world; they restore our presence to the universe. To tell effective stories about climate change, therefore, is not merely about the types of stories we choose to tell but also about how we locate the teller in the telling. In the narrative paradigm, unlike in the rational world paradigm, to tell of personal experiences is often to tell good stories, stories that make sense and ring true.

Writing studies scholar Candace Spigelman (2004) suggests that personal writing brings surplus to our understanding of the world by providing "useful contradictions, contribut[ing] to more complicated meanings, and … provok[ing] greater insight" than one type of discourse would alone (p. 3). Often this surplus comes from the act of telling our own stories. It is in the act of (re)telling our stories that we come to see how our relationship to the world is mediated through language and is therefore rhetorical. Barbara Kamler (2001) argues that "writing about the self becomes an invitation to identify, analyse, and critique, to understand the discursive practices that construct the sense of self—which in turn offer possibilities for change" (p. 3). When we (re)tell our stories, we also open them up; we make space for new tellings and new ways of understanding the world.

By (re)telling our stories, we learn that our identities are provisional and precarious, and in that uncertain space, we can learn to make space for others whose narratives threaten our own. As Corder writes, "We can learn to dispense with what we imagined was absolute truth and to pursue the reality of things only partially knowable. We can learn to keep adding pieces of knowledge here, to keep rearranging pieces over yonder, to keep standing back and turning to see how things look elsewhere. We can learn that our narrative/argument doesn't exist except as it is composed" (p. 28-9). In exploring our own vulnerabilities, fears, and denial, we create an

opening that may help us to bypass the instinctive, identity-affirming rejection of those whose worldview does not align with our own.

Composition theorist Jane Danielewicz (2008) describes how two students in her personal writing class wrote competing narratives about their relationship to religion: one student wrote about how she rejected her family's strict religious teachings, and another wrote of her conversion to the same religion. In the "contact zone" of the writing classroom, in which various forms of personal writing were explored, the two students came to an understanding and appreciation of the other's story and left that classroom as friends. "When you write vulnerably, others respond vulnerably," Behar concludes about the power of personal writing (p. 16).

The important stories that we need to compose and tell about climate change, I believe, are our own stories. They are the stories that, through their telling, may help us to understand how we have come to see and not see the world around us. They force us to locate climate change in our place and time and to better observe the changes in the world around us. They help us to excavate our silence about climate change and to our address our fear and despair. And they may help us to find some common ground with those who do not share our worldview.

Both writing and telling these stories is important. In (re)writing our stories, we take our own silences to task, and we dismantle and reconstruct our own relationship to climate change. This is not easy work—the silences cling like burrs. We must also tell others these hard-won stories: speak of them in coffee shops with colleagues, share them over board games with friends, post them on the Internet, and publish them where we can. Our personal stories gain power in their telling: they open a space for other personal climate change stories while offering new ways to think about our relationship to our world.

In telling my own stories of climate change—the stories that I have presented here—I came to

better understand what is hidden in the silent places of my life, what is buried under the suburban sod. All of these silences were born, I believe, from the earliest one, in which I learned as a child that our world could be remade for our benefit and that the costs of that remaking were best left unstated, forgotten, or ignored. These silences are ultimately disconnections; they are wedged between the world and me. Until I started to (re)write this world for myself, these silences often left me without the original stories of the land in which I was born and raised and without a sense of how I impact the world in which I live. The silences have carved out empty spaces in the important relationships in my life, silences often filled with confusion and despair.

The cost of this silence is, of course, becoming too great for me and for all of us. As a wicked problem with complex and contradictory elements, climate change demands what Hulme (2009) calls "clumsy" solutions. Clumsy solutions are neither elegant nor optimal; rather, they "demand … multiple values, multiple frameworks and multiple voices be harnessed together" (p. 338). Telling our personal stories about climate change cannot and should not replace the scientific work on this issue, and any stories about climate change—personal or not—may still be rejected by those whose identities are deeply impacted by its implications. Telling our personal stories may, however, help us to develop and better represent a multitude of values, frameworks, and voices to add to our discussions about climate change. They may help us to create new stories from the silences and the tales that we have learned not to tell.

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6. Conclusion

A Spectrum, Not a Simple Binary

When we discuss the personal in academic writing, we often set it in opposition to impersonal, author-evacuated writing. In this binary pair, it is the personal that is marked as different or transgressive; the impersonal is configured as the unmarked or normal value. However, I want to emphasize that we use many strategies to configure the personal in texts: this is not a simple dualism. Genres are rarely wholly impersonal or wholly personal: the personal is incorporated in genres though stylistic features like pronoun use, bylines, authorial stance, and autobiographical details; the impersonal is supported by the passive voice, nominalizations, and features that highlight institutional membership and link to collective systems of knowledge. On the most impersonal end of the spectrum is anonymous transactional writing (government or technical writing) that reflects few obvious traces of the author or the author's experience in the text. (Because people write texts, truly impersonal texts cannot exist. Machine-generated writing may come the closest to purely impersonal writing, but even this writing is the product of a human programmer.) On the most personal end of the spectrum are personal narratives—those in which we disclose specific details about our lives. All academic genres fall between the two ends of this spectrum.

While we often classify the traditional scientific research article as an impersonal genre, it does include some traces of the author(s). This writing may be author-evacuated writing, but it is not anonymous writing. Scientific research articles include authors' names, their institutions, their contact information, and personal acknowledgements. Some disciplines may sanction particular uses for the personal pronouns within these articles. As I found in Chapter 3, these traces of the personal may be recontextualized and embellished when the article is taken up by

other genres that have different orientations to the personal such as the news report or the news editorial. Indeed, in the case of climate change research, the ethos of the scientific research (and by extension its credibility) is often challenged by impugning its author (Oreskes & Conway, 2012) who is made visible by virtue of these traces. By calling attention to the human production of scientific knowledge—its human authorship—climate change skeptics have increased doubt about the validity of the science (Oreskes & Conway, 2012; Schneider 2010). In Latour and Woolgar's typology (1986), the climate skeptics have impeded the movement of this knowledge into the status of fact; personalizing knowledge claims causes them to remain as qualified and uncertain scientific statements and prevents them from shedding the modalities and qualifications to become taken-for-granted facts.

When I contemplate these climate change debates and the importance of ad hominem attacks on climate change researchers to discredit their science, I'm struck by the prescience of Michael Polanyi's (1958/1997) warning that our desire for wholly impersonal science will lead to a devaluing of science itself. By failing to acknowledge and explore the necessary personal basis of all knowledge, including scientific knowledge, and the rhetorical construction of the personal and impersonal in scientific genres, we have exposed our scientific work to a particular form of attack that plays on the very constraints we have constructed within our epistemological and genre systems. It is only possible to criticize our personal involvement in the production of knowledge in a system that devalues or obscures that involvement. The dualisms personal-impersonal, emotional-rational, subjective-objective help to fuel the climate change debate.

Our entrenched approaches to science may have contributed to the increasing distrust of science in North America observed by sociologist Gordon Gauchat (2012). In turn, the increasing distrust of science may be the exigence behind emerging genres such as personal

climate change testimonials, in which scientists discuss their personal passion for science and the evidence of climate change that they have seen with their own eyes (see, for example, the website *More Than Scientists* (morethanscientists.org)). Analyzing this emerging genre—this lateral shift to a genre strategy and to the narrative paradigm—would certainly be an important addition to our understanding of how the personal is constructed in academic discourse.

The Personal Beyond the Academy

Knowing how much or how little to reveal of ourselves as author affects the ethos of our writing: these are some of the good manners that we must learn when we take up a genre. When we are too personal in impersonal genres, we are asking for smooth spaces in places where there may be none or where we, as novice members of a community, cannot access them. The ethos of our writing may suffer should we have the bad manners to reveal too much.

Academics who write personally often fear that we may be admonished by other community members or have our reputations sullied. Ruth Behar (2014) discusses how she and other academics have struggled with the fear that writing explicitly about themselves would compromise their reputations. Jane Hindman (2001) echoes this sense of trepidation at the publication of her personal story in an academic journal. In her work on mixed academic genres, Patricia Bizzell (2002) describes the controversy that occurred when prominent historian Joel Williamson (1997) published his personal reflections on the issue of race relations in the American South. Significantly, Williamson's writing was published together with its peer reviews and other commentary: these additional pieces signal the discomfort of the editor in publishing a piece that defied genre conventions. In Chapter 2, I showed how I also wrestled with these constraints on the personal in academic writing: I felt strongly that I had to prove myself in a traditional genre in order to validate my non-traditional work that did include more

personal details.

These examples demonstrate how the genre function helps to regulate how much of the personal we can reveal in academic genres and how we anticipate our discourse community's reaction to our bad manners when we take up genres in disruptive ways. The ethos of our writing depends on getting our balance right in the genres that we take up.

When we deliberately choose to have bad manners in a genre—to take it up in unsanctioned ways—we challenge its epistemological foundations and call into question the position of experts within our communities. Joseph Harris' (1997) criticism of personal academic writing reacts to this challenge of expertise: "There seems something peculiar about downplaying a sense of 'mastery' through calling attention to one's self" (p. 52). This disruption of expertise and of the related power relations within our communities has, of course, been the purpose of much of personal academic writing in anthropology and in writing studies. Hiding in the blind spots of our genres and our epistemologies are often troubling contradictions or stories of oppression and injustice; poking and prodding at these blind spots can help us to expose the limitations in the ways we understand the world. My work in Chapters 2, 4, and 5 certainly draws upon the disruptive potential of being too personal in genres that call for a different type of configuration of the author in the text.

However, constraints on the personal do not always extend beyond the academy, even in genres that operate in the rational world paradigm such as news reports and news editorials. As I found in Chapter 3 of this dissertation, when these genres take up academic genres, they recontextualize the personal, and in doing so, they may shift the centre of expertise and authority away from the scientist to the news writer. This shift reveals something about how genres reflect a community's epistemological orientation and how they help to construct expertise. Online

news editorials offer an interesting example of this phenomenon as they sometimes derive their credibility from the position of the writer within a networked community bound only by a shared worldview. An expert in these communities is someone who can adeptly negotiate these networks and amplify their own voice. In online communities and online genres like blogs (and blog-like news editorials), the personal, in particular the construction of the relationship of authors to their material, helps to guide readers through the overwhelming flow of information available on the Internet, and this skill is a pillar of expertise in this context. The configuration of the author in the writing becomes a structure through which we make sense of the information available to us in the digital age.

Within this context, the personal is not a disruption. In fact, in these contexts, using academic discourse may be what is considered bad manners. For example, in an article that appeared in the *Atlantic*, Ian Bogost (2013) used philosopher Slavoj Žižek's theory of the parallax gap to argue that the purpose of McDonald's McRib sandwich was to make the McNugget seem normal. One commenter pointed out the transgressive nature of this article, suggesting "just as food items made from pork innards should be labelled as such, so should Web articles containing citations to Žižek and Lacan. For the same reason" (roac, 2013). Good manners in the academy may be bad manners elsewhere.

As academics are pushed to engage more successfully with the communities impacted by their research, it is increasingly important that we acknowledge the rhetorical nature of academic genres and discourse. These linguistic forms serve particular purposes for particular communities, but when we want to achieve other goals in other communities, we have to learn new rules. Better understanding how communities outside academia take up our research in their genres may help us to learn how to do so. This process of uptake may reveal important contrasts

in how the two communities understand the world, and how genres reconfigure the personal may provide noteworthy indications of how the two communities construct knowledge and expertise.

The Limitations of the Personal

Like Deleuze and Guattari's (1987) smooth spaces, the personal is not in itself liberatory. Genres that emphasize the personal may become as restrictive as those that emphasize the impersonal. Harris (1997), for instance, notes that personal narratives in writing studies have striking similarities: "They tend to draw on a familiar repertoire of images and events … and to make a limited set of points: the personal is political, the importance of teaching, the need to live with uncertainty, the need to connect theory to practice, stories are how we understand the world" (p. 50-1).

Similarly, Judy Segal (2007) describes the constraining form and characteristics of the personal breast cancer narrative. To be sanctioned, breast cancer narratives must reflect this community consensus about what it means to suffer from this disease. There are blind spots in that narrative—blind spots about the uncertainty of cancer, our powerlessness against its outcome, the role of environmental carcinogens—and when we write in these blind spots, our ethos is called into question. Segal recounts several incidents where women have unintentionally disrupted this narrative, only to be told that they needed to have a better attitude. For instance, she tells of Barbara Ehrenreich's experience on a message board for women suffering from breast cancer. On these message boards, Ehrenreich advocated for a political response to the issue of breast cancer, and she specifically pointed to the potential role of environmental carcinogens in the disease. Her posts met with disapproval and censure because they did not reflect the sanctioned understanding of the disease as an individual battle that is won or lost through determination and a positive attitude. The smooth space of the breast cancer narrative is

restricted and policed: violations are called out and violators may be forced out of the communities where these narratives circulate.

Reconfiguring the personal in impersonal genres will not alone save us. Personally-oriented genres may become standardized within academic communities, and these genres may too come to silence important knowledge and difference. Disruption that is too successful can become a norm: the centripetal force of discourse will push it towards standardization (Bakhtin & Holquist, 2014). To be clear, I do not wish to suggest here that we should not disrupt or challenge the problematic elements of academic discourse. However, we need to remain aware that genres solidify and in that solidification, they always leave something out.

The disruptive value of the personal therefore lies in its historical and social context. Segal's work shows the limitations of personal breast cancer narratives; however, I suspect that if we were to trace the history of this genre, we would find that its earlier manifestations were more varied and transgressive and served to expose a previous blind spot in public discourse. In the case of climate change, the predominant genres currently promote impersonal, abstract forms of knowledge, and this makes it difficult for us to place ourselves within this issue. As I concluded in Chapter 5, writing and sharing personal narratives about climate change could help us to enrich and multiply the ways we understand our relationship to our planet. Here, again, I'm appealing to Richardson and St. Pierre's (2000) notion of texts as crystals, which "combine symmetry and substance with an infinite variety of shapes, substances, transmutations, multidimensionalities, and angles of approach" (p. 963). Without many different types of understanding and writing about climate change, we struggle to connect to it and act on the issue. When we only value one type of knowledge, one type of discourse, or one type of genre, our understanding of the world is skewed, and we may find ourselves stuck in rhetorical impasses.

This is the true danger of instinctively rejecting transgressive genres and other bad genre manners in the academy.

What Shall We Teach?

As a doctoral student, I spent a lot of time thinking about the purpose and form of my dissertation project. Throughout this process, it became apparent to me that if I wanted the final written format of my dissertation to include personal writing or alternative academic discourse, I could not follow some of the standard approaches to dissertation writing. I could not see how I could write research questions, choose a methodology, create a research plan, and yet still write in the way that I wanted. Parts of this process seemed to impede or divert my vision before I had even started writing.

When we ask students to write research questions at the very beginning of a project, we are also telling them something about the nature of academic research: we are telling them successful research answers the questions are formulated before writing and research take place and that we move from question to answer in a straightforward and linear manner. I do appreciate that this structure does help students to find their way through complicated projects, and it can be a productive heuristic in many cases. I have followed this structure in places in this dissertation, particularly in Chapter 3. However, in other places of the dissertation, I have returned to another approach, an approach more familiar to me as a writer. When I write—and I acknowledge that this might simply be my own writing process—I begin with a loose thread and see what unravels when I pull on it. I have a vague sense of the topic, a loose collection of ideas, a subtle itch that tells me that there is something interesting here. This is not unlike what Peter Elbow (1985) describes as the "palpable itch" or "sense of felt problem" that binds together a finished text (p. 296). This itch leads me to an uncertain place, a place that might need to be

drawn in words. It is a provocation rather than an explicitly articulated question: it is a decision to dwell on a topic and see how I might come to understand it through writing. I write, I think, I look at the world, I read, I think, and I write. My research question may appear at any point in this process: sometimes, I do not truly understand what I am writing about until I am almost done. This writing process, I came to see, was a methodology in itself.

Humanities disciplines like English, cultural studies, and writing studies are likely more comfortable with the notion of writing—or my process of writing—as a methodology. Rhetorician James Jasinski (2001) calls this process abduction: it is a "back and forth tacking movement between text and concept or concepts that are being investigated simultaneously" (p. 256). In the Faculty of Education—my home department during my degree—I did feel the pinch of interdisciplinary tension on this issue. There was an epistemological conflict between the humanities and social sciences orientations in Education, and this was reflected in their different perspectives on the nature of the relationship between researchers and their research. My abductive writing-centred approach is deliberately personal, whether or not I include personal details in my writing. It highlights associations and observations from my own standpoint although they may not be labelled as such. The social sciences focus more on known and regularized methodologies: patterns and shapes that help us to fit our work into the larger disciplinary puzzles.

This conflict was, of course, the subject of Chapter 2 in my dissertation. However, what I want to draw out more precisely here is that while the heuristics for doctoral and academic research we offer to students may be helpful for many, they also may shut down innovation before it has a chance to get off the ground. Our good intentions may hinder creative academic thinking, and we may need to carefully consider our pedagogical goals, especially as we start to

explore alternative forms for theses and dissertations. Students who follow typical dissertation research processes are likely to end up with typical dissertations.

Here again, I am returning to the tension between structured, determined (striated) and unstructured, undetermined (smooth) approaches to writing and thinking. I witness this tension again and again in my own teaching and writing. Recently, one of my students came to me and told me how much trouble she had writing an assignment that was highly structured. I was, of course, the instructor who had created the highly structured assignment with which she was having difficulty. The irony was not lost on me.

However, like instructors who had tried to help me through the dissertation process with heuristics and plans and timelines, I was well intentioned. My well-structured assignment is part of a large lecture-style course that I teach, and I attempt to control the complexity of this teaching environment with particular assignment structures and heuristics. In my teaching evaluations for this same class, another student complained I should not include creativity as an evaluation criterion for a different assignment in the course: a research paper. Research papers are not supposed to be creative, the student wrote with indignation. This is the push and pull of smooth and striated space.

Rhetorical genre theory has helped me to better understand this tension in writing. Genre is where the individual writer meets the standardized forms of their communities. By better understanding these meeting places, we can better explain when writers have freedom to resist and when they do not, how they might resist, and what the consequences might be. Rhetorical genre theory helps us to tease out where writers do have agency but also how genre and epistemological systems help to motivate and direct our actions. As Anis Barwashi (2003) writes, "Genres exist at the intersection between the writer as agent of his or her actions and the

writer as agent on behalf of already existing social motives" (p. 92).

It is rhetorical genre theory that has led me to believe that, as a writing instructor, I need to teach my students both to write particular genres and as well as to try to find the right genres for rhetorical situations on their own. The first type of writing requires genre and rhetorical analysis and learning by imitation. This writing pays special attention to the norms of the community and teaches the students, I hope, some basic manners in these genres. These manners include learning how to present ourselves as authors—how to compose the personal—in rhetorically effective ways.

The second type of writing calls for sensing and exploring. Here the focus is less on what the discourse community might want or what a genre might need to do, but more on how the students as individual writers might experiment and let the writing go where it needs to go. This is writing that, as M. Elizabeth Sargent (2005) puts it, "create[s] an oasis, a place of rest, for your mind" where students can find the "organizational energy" of the text themselves (p. 285-6). This writing may include more personal details than traditional academic discourse, but this is a choice that students may make based on their own understanding of what is at stake in the piece. This second type of writing does not exist in a genre-less or context-less space, but it gives the students less structure in hopes that they might find smooth spaces in which to play.

As For Me…

Before I stumbled into the composition theory class and into the discipline of writing studies, I was a confused part-time Master's student in communication and technology. I completed this degree in the haze of this confusion: I was dissatisfied my job with the federal government, and I was unclear about where my career should go. My Master's supervisor, Dr. Campbell, suggested that completing a PhD would be a treat that I could give myself. In my personal writing at that

time, I compared the university to Azkaban, the prison in the Harry Potter series where Dementors feed on the souls of the prisoners. I felt that return to the university full-time would be like returning to an abusive relationship. While dramatic, this comparison conveys the terror that I felt at the thought of the university: it felt like a dangerous place for me. "Treat" seemed like the wrong word indeed.

In retrospect, I have come to see that my experience in my first Master's program almost irreparably shattered my trust in the university. My professor's serial affairs with his students, the indifference of the institution to these transgressions, together with my inability to articulate something important about my love for language and literature all contributed to this near-fatal blow to my academic career.

Although several positive experiences and the lure of learning helped me overcome my fears, I have spent most of my doctoral studies untangling why I feel threatened in particular places within academia. This is often a visceral reaction, a physical pulling away from an idea or a person. While it is difficult to pinpoint the origins of my fears, at their heart was a sense that I would be asked to conform in an unacceptable way, that I would unknowingly become someone who I didn't want to be. Perhaps my insistence on personal writing is a buffer against this fear. In those unsanctioned written spaces—the smooth spaces—I can fight back against the pull of the collective, a collective whose ugly side I have witnessed. The smooth spaces offer a place where I can work out how my academic work relates to the world around me and what the world around me means to my academic research. In this writing, I can hold the contradictions of my intellectual work and personal life together, integrated and entwined. It reflects the messiness of my academic work more authentically, and this is important to me. For the most part, I have found limited resistance to and abundant acceptance of my work. Perhaps now I can put some of

my complaints about the university to rest. I have learned that there are many Dumbledores here, too.

In the end, it has been such a wonderful treat to read, listen, and think about the connections between our words, our writing, and our world. My life is richer for this experience (figuratively, definitely not literally!), and I am deeply grateful to have reclaimed the university as a place that I want to be.

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