

FRENCH FAMILIES, PAPER FACTS: GENETICS, WRITING, AND INTIMATE HISTORIES

by

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ABSTRACT

FRENCH FAMILIES, PAPER FACTS: GENETICS, WRITING, AND INTIMATE HISTORIES

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Biogenetics dominates contemporary discussions—scientific, media, and in everyday talk—about the origins of diseases, ethnicities, tribes, and nations. This dissertation sheds light on the dynamics—of affect, history, memory, and bureaucracies—that shape and animate biogenetic explanations. The dissertation builds on fine-grained fieldwork at genomic databases, genealogical registries, family history societies, and medical clinics in Quebec to illuminate the conceptions of family, heredity, and human difference—often intertwined—that are defining analytic boundaries and the acceptance and use of evidence within medical genetics. The dissertation focuses on the multiple trajectories of a particular form of medical genetic evidence, the Catholic Church vital record. The Catholic Church mandated personal data record-taking during the Counter Reformation and, as a result, historically Catholic European countries and their numerous African, Asian, and American colonies have some of the most comprehensive catalogues of historic birth and marriage information in the world. Geneticists and medical researchers in Quebec use these records to infer *long durée* family genealogies and then deduce the

origins of “French diseases.” The dissertation investigates the clinical, experimental, and historiographic rationales that sustain their genealogical conclusions and etiological explanations, as well as the rationales sustaining explanations of those who oppose them. The dissertation unearths the exigencies—from colonial French Church writing strictures to laboratory infrastructures—of how medical workers, genealogists, and people beyond the purview of health, medicine, and genealogy delineate families, risk, and race. In looking at how written cultures, colonial histories, family practices, and feelings about the past play a role in the production of genetic knowledge, the dissertation broadens the scope of traditional scholarly investigations of race and medicine. Many of these investigations, working within a Foucauldian rubric, have focused narrowly on constraints placed on consciousness by domineering state and social power structures. In contrast, this dissertation illustrates how diverse investments in ancestors and pragmatic choices about evidence also shape the styles of reasoning about family, heredity, and human groups that animate biogenetic worlds.

CHAPTER 1  
INTRODUCTION—FORMS OF EXPLANATION AT GENETIC FRONTIERS

The 16-year old boy had had a straightforward birth. In 1972, his mother recalled no complications during pregnancy. By her account, he began to walk and talk at a standard age. His parents said they first noticed a problem when he was six and could not lace his shoes. On attempting to extract coins or a knife from his pocket, he also could not recognize them by feel and would tear out the lining. At 11, he injured his foot and failed to notice that it was bleeding. His parents later noted swelling and redness in his heel. They put him on crutches for three or four months. When a blackish discharge oozed from his second toe they then alerted the doctor, who in turn informed the leader of a medical study underway at the Mayo Clinic in Rochester, Minnesota.<sup>1</sup> They admitted their son to the clinic and he was diagnosed with a severe impairment of all modes of sensation in his hands and feet. Unable to detect and avoid burns, cuts, and sores, the boy had developed infections. Other children identified and diagnosed around the same time had been forced to amputate. The families were all from the Lanaudière region in southeastern Quebec, clustered on a sliver of farmland on the southern bank of the St. Lawrence River.

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<sup>1</sup> Ohta, Michiya, Ralph D. Ellefson, Edward H. Lambert, and Peter-James Dyck. 1973. Hereditary Sensory Neuropathy Type II: Clinical, Electrophysiological, Histologic and Biochemical Studies of a Quebec Kinship. *Archives of Neurology* 29:23-37.

I accompanied Dr. Gilles Brisson of Saint Justine hospital in Montreal on a trip to collect DNA from a sample of Lanaudière residents in the summer of 2007. Brisson was in the midst of a study that aimed to identify the origins of unique mutations in a gene that he believed was responsible for the high prevalence of this disease in French-Canadians. He had diagnosed the disease as a hereditary sensory neuropathy, a disorder in which the neurosystem progressively degenerates, starting with a loss of feeling in the hands and feet. Brisson believed the disease in Quebec was one of about six different known types of the disorder, a type called HSN-II. He drove with a team of laboratory staff to St. Thomas, a tiny village appended to the eastern side of the regional capital, Joliette. A laboratory coordinator had assembled forty-five St. Thomas inhabitants, mostly tobacco farmers, in the school gymnasium. The room looked out onto a cemetery—a puzzle of old and new headstones—and the small village Church. In the 17<sup>th</sup> and 18<sup>th</sup> centuries, St. Thomas was at a crossroads between French parish and Iroquois land. Brisson told me he believed the village families had been isolated in the area for centuries, with the Iroquois settlements acting as a barrier to outside contact.<sup>2</sup>

Brisson had previously overseen several studies of Leber disease, another neurological disorder with high incidence rates in Quebec. These studies marked the first time that a specific individual had been identified as responsible for a genetic mutation.<sup>3</sup> Along with a team of U.S. and Canadian geneticists, Brisson traced Leber's in Quebec to a 17<sup>th</sup> century French immigrant from central Paris named

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<sup>2</sup> Unpublished information about Brisson and his field project is based on fieldwork conducted in Montreal and Lanaudière, QC in July and August, 2007.

<sup>3</sup> Perreault, Matthieu. 2005. *La Généalogie au Secours de la Génétique* (Genealogy to the Rescue of Genetics). La Presse, August 19.

Catherine Suret.<sup>4</sup> A ship record put Suret's arrival in the French North American colonies at 1669, identifying her as a “Daughter of Louis XIV.” In the 1670s, the King had offered female orphans money to emigrate to New France so that male settlers would have European wives. In letters back to France, some Catholic clergy manning colonial missionary posts had claimed that native women were unable to maintain piety even after converting and so unfit to marry. The crown sent the women in several shipments that docked at Quebec and Trois Rivières, labeling them the “King's Daughters.” Ecclesiastical records show that Suret married a French-German farmer and fur trader named Nicolas Fasche in 1670, moved to a village outside of Quebec City, the capital, and had ten children. By Dr. Brisson’s calculations, up to six of those children carried the genes for the disease, passing it to twelve successive generations of French-Canadians.

For HSN-II, Brisson planned to locate a genealogical source by correlating physiological and DNA data with 12-15 generation family trees for each person in the St. Thomas sample. In the gymnasium, Brisson deployed two students to test participants’ feet for sensitivity to hot and cold at one end of the room. He sent another two to test participants’ fingers for sensitivity to touch at the other end. In the center, he sat with his assistant, cheek swabs, consent forms, and genealogy charts. The cheek swabs were to collect saliva from which they then would extract each person's DNA. The genealogy charts were ascending branching vertical lines with blanks for the names, dates, and places of birth of parents, grandparents and

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<sup>4</sup> For more on this, see: Laberge, Anne-Marie, Michèle Jomphe, Louis Houde, Hélène Vézina, Marc Tremblay, Bertrand Desjardins, Damian Labuda, Marc St-Hilaire, Carol Macmillan, Eric A. Shoubridge, and Bernard Brais. 2005. A “Fille du Roy” Introduced the T14484C Leber’s Hereditary Optic Neuropathy Mutation in French-Canadians. *American Journal of Human Genetics* 77(2):313-317.

further back generations. A local assistant had given the form out days earlier to some people at the gym, telling them to rummage for old birth records, talk to relatives, and consult the local priest to find the data. Others had come to the gym clutching Church records or homemade trees—plucked from an old shoebox or dismounted from a picture frame on the wall—and sat filling out the form at Dr. Brisson's side. Using the names, dates, and locations on each form, Brisson and his staff planned to chart the connections between biochemical compositions (the DNA sample), physiological measurements (sensitivity tests the students were collecting at either side of the room), and family history.

Based on a previous field visit, Brisson had so far traced the sufferers of the HSN-II disorder back to the French province of Brittany, where many people in Quebec believe their ancestors lived before migrating across the Atlantic in the 1600s. Brisson had sent letters to neurologists in Rennes, the region's capital, inquiring as to whether there were any current or recent diagnoses of HSN-II or a disorder with similar symptoms there. He had also asked a historian to look in medical records archived at the Rennes library for any evidence the disease had surfaced there in the 1600s. Brisson was looking for clues that might medically link early modern or contemporary Rennes families to French migrants to Canada. The historian had found one entry of interest in a 17<sup>th</sup> century doctor's notepad. The recorded symptoms were strikingly similar to those in current day Lanaudière. The name of the French patient could not yet be linked to French emigrants to Canada. Brisson said he presumed that if the patient were investigated further, a genealogical connection would be made.

Brisson's certainty of the genealogical and genetic origins of HSN-II and other Quebec diseases in France is not uncommon among his colleagues in Quebec, across Canada and in the United States. Most histories of Quebec point to a past where French settlers huddled in enclaves on the frigid landscape of the Canadian wilderness. Many historians argue that these hamlets lived in reproductive isolation for generations, perpetuating a select group of French blood lines on Canadian soil.<sup>5</sup> Studies like those of Dr. Brisson both rely on and substantiate these histories with genetic and genealogical evidence that points to pure French origins for most French-Canadians, particularly sick French-Canadians. In linking HSN-II to Brittany, Brisson had started with pain (of the affected children) and strung a line connecting it to heredity (the innerworkings of cells), and then to specific ancestors, a nation (France), and an early modern migration (from France to the Atlantic colonies). In the context of the historical consensus about the origins of the French population in North America, this explanation made perfect sense.

In Ottawa, the Canadian capital, and on Indian Reserves in Quebec and in the Canadian West, a small, disconnected smattering of genealogists and historians have charged that Quebec histories for the most part erase the past presence of mixing between French and natives. Brisson's studies, while not explicitly engaging with these arguments, disproved any suspicion of such heterogeneity. They solved both genetic and historiographical problems. In fact, the studies were historiographical as much as they were genetic. They affirmed historical truths about the way French families used to live on the frontier. They enfolded medical explanations in familiar

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<sup>5</sup> The formative example is Groulx, Lionel. 1938. *La naissance d'une race* (Birth of a Race). Montreal: Granger Frères.



historical refrains. In the St. Thomas gymnasium, as Brisson's staff were preparing to leave, a woman had come late to hand in her family chart. She said two of her brothers, both in their 50s, were ill. One had an amputated leg. She had filled out the family tree as far as her grandparents. Further up the chart were the spaces where her memory had faded. She pointed to the empty line and gestured up. "They came from Charolles." Charolles is a village in the Bourgogne region in central France. Many genealogists have teased out paper trails that lead back to Charolles and surrounding towns for French-Canadian families. "They are the ones who brought it. The Gagnons." Like Brisson, she had used ideas about the French-Canadian past to explain a medical problem. Later, she told me, "When they became ill, I knew we must have been marrying only among ourselves." She was also, in reverse, using a medical problem to narrate the past.<sup>6</sup>

In this dissertation, I look at medical laboratories, health clinics, patient associations, family history societies, and self-identified Indian genealogists and I explore how conceptions of history, genealogy, and human difference are being influenced by and brought to bear on genetics and disease at this historical moment, in the early 21<sup>st</sup> century. This is a moment when, unlike fifteen years ago, genetic research is being offered as a panacea to problems ranging from crime to miscarriage; when genetic treatments and tests are being commercialized, packaged and distributed in healthcare systems; and when genetic data are being used to define ethnic, racial, religious, linguistic and social groups such as castes, clans, and tribes.

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<sup>6</sup> Throughout the dissertation, I change names and merge details about the histories and situations of different interlocutors in order to obscure the identities of specific individuals whose voices appear in the text.

Many people believe genetics can help us define the messy boundaries and unclear etiologies of diseases, nations, and ethnicities that no science could conclusively define before. Yet, prefigured conceptions of disease, nations, and ethnicity—often intertwined—are also defining the analytic boundaries, assumptions, and acceptance and use of genetic evidence. How do laboratory scientists and patients understand human difference in the purview of genetic projects? How do genetic projects affect, incorporate, ignore or resolve political and social disputes about human, national, ethnic, or family origins? How can a discussion about an amputation invoke visions of the past, claims for or against European ancestry, and a sense of belonging and place? Genetics has brought these things together and I would like to take them apart.

I set out on this study with an interest in biogenetic discourses about human difference and a discomfort with critical renderings of this scientific domain. I found the literature within sociology, history, and anthropology tended to characterize diverse developments surrounding genetics within the ambit of “biopower” or “biopolitics,” concepts inspired by the writing and lectures of Michel Foucault that are now deployed in studies of medicine at such a level of generality that they “describe everything but analyse nothing.”<sup>7</sup> These studies posed the everyday theories of racial difference that scientists evoke as coherent products of omniscient power structures—often a vaguely-described modern state or neoliberal political and

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<sup>7</sup> Rabinow, Paul and Nikolas Rose. 2003. Thoughts on the Concept of Biopower. [http://www.molsci.org/research/publications\\_pdf/Rose\\_Rabinow\\_Biopower\\_Today.pdf](http://www.molsci.org/research/publications_pdf/Rose_Rabinow_Biopower_Today.pdf). Accessed June 11, 2007.

economic system.<sup>8</sup> As Sherry Ortner observed in 1984 of the broader movement within anthropology toward Marxist-Weberian-influenced practice theory, contemporary ethnographies often view these power structures (including scientists) “rather darkly,” verging on the precipice of polemic in tone and argumentative structure.<sup>9</sup> By choosing to focus on how relations of inequality and domination structure classificatory systems in the laboratory, studies of genetics have left out the possibility of feelings, rationales, and evidentiary choices that may exist outside of (not just with or against) the “system” or state’s sphere of influence. Scientists, and the laboratories in which they work, emerge from the texts of these studies as *tabulae rasae*, animated only by the disciplinary discourse of power.<sup>10</sup> What might feelings, rationales, or choices look like if we allow for the possibility that they are sometimes and in some ways something other than the product of power and discourse? Could we, in making such an allowance, provide portraits of agency and intentionality that take what Norbert Elias called the more “round” view of science, scientists, and their dynamic engagements with the world?<sup>11</sup>

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<sup>8</sup> For example: Fullwiley, Duana. 2007. The Molecularization of Race: Institutionalizing Racial Difference in Pharmacogenetics Practice. *Science as Culture* 16(1):1-30; Duster, Troy. 1990. *Backdoor to Eugenics*. London/New York: Routledge; Rose, Nikolas. 2008. *The Politics of Life Itself: Biomedicine, Power, and Subjectivity in the 21<sup>st</sup> Century*. Princeton: Princeton University Press; Samerski, Silja. 2007. The ‘Decision Trap’: How Genetic Counselling Transforms Pregnant Women into Managers of Foetal Risk Profiles. In Kelley Hannah-Moffat and Pat O’Malley, eds. Pp. 55-74. *Gendered Risks*. New York: Routledge.

<sup>9</sup> Ortner, Sherry B. 1984. Theory in Anthropology since the Sixties. In *Culture/Power/History: A Reader in Contemporary Social Theory*. Nicholas B. Dirks, Geoff Eley, and Sherry B. Ortner, eds. Pp. 372-411. Princeton: Princeton University Press, Pp. 391.

<sup>10</sup> Terence Turner has made a similar critique of Foucault’s own depiction of bodies: Turner, Terence. 1994. Bodies and Anti-bodies: Flesh and Fetish in Contemporary Social Theory. In Thomas C. Csordas, ed. Pp. 27-47. *Embodiment and Experience: The Existential Ground of Culture and Self*. Cambridge: Cambridge University Press.

<sup>11</sup> Elias, Norbert. 1982. Scientific Establishments. In *Scientific Establishments and Hierarchies*, N. Elias, R. Whitley, and H.G. Martins, eds. Pp. 1-69. Dordrecht: Riedel Publishers; Margaret Lock and Nancy Scheper-Hughes have also fruitfully considered the problem of how to bridge Foucauldian explanations with other forms of interpretation: Scheper-Hughes, Nancy and Margaret M. Lock. 1987. The Mindful Body: A Prolegomenon to Future Work in Medical Anthropology. *Medical Anthropology Quarterly* 1(1):6-41.

Many ethnographies of biomedicine and genetics also tend to separate the laboratory out from society, studying the effect of one on the other rather than the constant, dynamic interchange that I believe in fact actually transpires between the two. Ethnographies of genetics tend to fall into one of two categories. One group of anthropologists has cross-culturally examined how biomedical genetics has been perceived and received by patients and healthcare professionals.<sup>12</sup> A second group has studied the laboratories and corporations where genetic research is directed and produced.<sup>13</sup> Within anthropology, Emily Martin was one of the first to critique the caricature evinced by this ethnographic logic of “science as a citidel” from which knowledge emanates and is then taken up by various social groups.<sup>14</sup> Sheila Jasanoff has already coined the term “co-production” to describe the way science and society mutually create scientific facts.<sup>15</sup> My own research—from the ethnographic data collection design to anthropological analysis—contends that genetic knowledge simultaneously, interactively emerges at both sites. That is the impetus behind my emphasis in this project on observing family history societies and understanding the world of genealogists. My aim is to capture the understandings about heredity, difference, and relatedness that are being trafficked into, out from, and around and within the laboratory all at once.

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<sup>12</sup> For example: Nelkin, Dorothy. 1996. The Social Dynamics of Genetic Testing: The Case of Fragile-X. *Medical Anthropology Quarterly* 10:537-550; Rapp, Rayna. 1988. Chromosomes and Communication: The Discourse of Genetic Counseling. *Medical Anthropology Quarterly* 2: 143-157; Schaffer, R., Kuczynski K., & Skinner, D. 2008. Producing Genetic Knowledge and Citizenship through the Internet: Mothers, Pediatric Genetics, and Cybermedicine. *Sociology of Health and Illness* 30(1):145-159.

<sup>13</sup> For example: M'Charek, Amade. 2005. *The Human Genome Diversity Project: An Ethnography of Scientific Practice*. Cambridge: Cambridge University Press, 2005; Rabinow, Paul. 2002. *French DNA: Trouble in Purgatory*. Chicago: University of Chicago Press.

<sup>14</sup> Martin, Emily. 1998. Anthropology and the Cultural Study of Science. *Science, Technology & Human Values* 23(1):24-44.

<sup>15</sup> Jasanoff, Sheila. 2004. Ordering Knowledge, Ordering Society. *In States of Knowledge: The Co-production of Science and Social Order*. S. Jasanoff, ed. Pp. 1-32. London/New York: Routledge.

In Quebec, I set out to look at how ideas about relatedness, heredity, and belonging are converging to remake racial boundaries both inside and outside of the laboratory. My desire to construe scientists as more than laboratory creatures—as people with lives that are rich with experience, memories, and connections that penetrate their various worlds—was sometimes thwarted. My relationship with many scientific researchers (a hierarchically ordered relationship between graduate student and research professor) often imposed a professional limit on our ability to build ethnographic rapport, a circumstance that is in many ways particular to STS doctoral research. However, my fieldwork with graduate students, in public archives with genealogists, and with people across Quebec who buy, read, and circulate genealogies provided a rich body of material that in some ways compensated for that lack. When I could not gain full access to the people who designed genetic experiments, I often switched my attention to the artifacts by which they were surrounded—the laboratory instruments, software, libraries, and documents they used to make meaning out of genetic material. This bore out a principal insight that this dissertation brings to our understanding of genetic knowledge: about the place of early modern bureaucratic records in contemporary epidemiological analysis. My aim with this research was and continues to be to make the evidentiary logic and ideological assumptions underlying biogenetic fact-making—especially the making of facts about race and disease—more visible.

*Human Difference, History, and Biology in Quebec*

In Quebec, the parameters that have defined belonging and non-belonging in groups variably defined—by language, color, form of worship and type of faith,

costume, residential quarter, or type of job—share some characteristics with parts of the United States. Like the United States, the province was founded by European settlers and developed under an imperial regime that aspired to equality but endorsed slavery, that traded with aboriginals but displaced and disenfranchised them, and that has, most recently, become a global destination for immigrants. Like the rest of North America and many countries in the European Union, Quebec is grappling with how to accommodate a growing number of people who have arrived from distant and different places. These changes have provoked popular movements and political activism for and against immigration as well as a wave of academic work attempting to reformulate models of Canadian and Quebec multiculturalism. Like political theorists and civic activists in the United States, France, Sweden, Italy and other nations, these scholars have focused on questions about how to pursue, define, or reject tolerance, assimilation, cultural rights, and cultural recognition for ethnic minorities.

However, belonging and non-belonging also have some particular resonances in Quebec, and Canada at large. France has special importance in Quebec, where language and culture movements intended to celebrate the French heritage of the province—a self-defined ethnic and linguistic minority within Canada and North America—have shaped the education, healthcare, tax, transportation, and legal systems. The French first came to the New World in the 1500s. Like many European monarchs, the French King Francis I sent explorers to seek trade routes to the Orient and Pacific. They created links with Algonquin and Iroquois tribes and established the first settlements along the St. Lawrence River and the Western plains, in Florida and North Carolina, in the Mississippi Valley and throughout the Great Lakes. After

the French defeat in the Seven Year's War—the “French and Indian War” in the colonies—these territories were split between the British and Spanish. Quebec and Louisiana territories continued to maintain links to France. Unlike Louisiana, where French custom, codes, and language began to recede after Thomas Jefferson negotiated its American purchase in 1803, Quebec maintained jurisdiction over the regulation of law, family, language, and various cultural domains. Even after British conquest in 1763 and inclusion in the Canadian dominion in 1867, Quebec legislators introduced the Napoleonic code, developed deep commercial and intellectual ties to France, and hastened the founding of French universities and bureaucracies in the mainland French image.

The Quebec government has consistently chosen to legislate in favor of the strict protection of French language and has valorized and guarded certain customs as quintessentially French-Canadian. In the 1920s, Franz Boas and Edward Sapir collaborated with the French-Canadian folklorist Marius Barbeau and the American Ethnological Society to complete the first recordings of French-Canadian songs and stories. They generated a folkloric canon that provincial administrations in the 1950s and 1960s heralded as the essence of French-Canadian culture and used to legitimize claims to cultural and political independence from Canada. Successive laws since the 1960s have mandated that immigrants learn French and that businesses hire French-speakers and use French for official documents, signs, labels, and storefront displays. The provincial government offers subsidies to French speakers who migrate or pursue higher education in Quebec and incentives to English speakers to learn French. Successive political administrations have also funded architectural, arts, education, and agricultural industries to promote French-Canadian history and

custom, whether through the production of regional cheese and cider, the preservation of buildings, or the exhibition of rural costume and relics. Many immigrants to Quebec come from former French colonies or francophone countries in Africa and Asia. The vast majority of people outside of the capital, Montreal, use French for daily living. Language, food, art, architecture, and various other aesthetic dimensions of daily life (often posed as “French vs. Anglo”) are major axes along which many people and most political apparatuses plot out human difference.

Nineteenth and twentieth century debates about Quebec sovereignty charged this linguistic divide with explicit racial and ethnic resonances. In 1838, Britain sent John George Lambert, the Earl of Durham, to Quebec (the territory was then formally known as Lower Canada) to report on the political, social, and economic status of French and English Canadians. Lambert’s report, now often labeled the Durham Report, painted a picture of the French as a backward “race” that might only be uplifted through assimilation with the “superior” “Anglo-Saxons.”<sup>16</sup> In the 1920s, Lionel Groulx, a priest and prominent French-Canadian sovereigntist, wrote a now famous call-to-arms for French nationalists in Canada, *The Birth of a Race (La Naissance d'une race)*.<sup>17</sup> One historian of Canada has suggested that Groulx’s conception of the French-Canadians as a race and of French-British tension in North America as a racial confrontation was inspired by Joseph Arthur Comte de Gobineau.<sup>18</sup> Gobineau was the nineteenth century French racial theorist whose four-volume *Essay on the Inequality of Human Races (l’Essai sur l’inégalité des raices humaines)*

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<sup>16</sup> Lucas, C.P. ed. 1912. Lord Durham’s Report on the Affairs of British North America. Oxford: Clarendon Press.

<sup>17</sup> Groulx, 1919

<sup>18</sup> Wade, Mason. 1968. The French-Canadians, 1760–1967. New York: St. Martin’s Press. Vol. II, Pp. 867.



(1853) had aroused the admiration of American anti-abolitionists and Turn of the Century German anti-Semites.<sup>19</sup> In contemporary Quebec, politicians and social activists regularly invoke language practices to imply essential biological and historical distinctions (and to delineate the civil rights of various groups), a point to which I will return in more detail in Chapter 5 of this dissertation.

Quebec and Canada also have a unique *long durée* history of race relations. Indians, or Canadian aboriginals, play a major role in this history. French authorities placed aboriginals in Quebec in reserves under the jurisdiction of the Catholic Church starting in the 1600s. Reserves were an urban phenomenon, appended to the margins of the main city or big towns, and natives were thus part of weekly, if not daily, off-reserve native and non-native life. Yet, while natives and non-natives lived side-by-side, the Canadian legal system determined legal status in ways that ultimately polarized these groups. In 1869, the Canadian Parliament passed legislation called the Gradual Enfranchisement Act which stipulated that any Indian woman who married a white man would lose her legal Indian status. The law turned sex between whites and natives into a problem. In cases of intermarriage between status Indians and whites, husbands' and fathers' status began to determine the status of women and children after the law passed. Indian women who married a white man had to relinquish status. White women who married an Indian man attained status. This had the effect of “making Indian women legally 'white' and white women

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<sup>19</sup> *Gobineaus Rassenwerk: Aktenstücke und Betrachtungen zur Geschichte und Kritik des L'Essai sur l'inégalité des races humaines*, L. Schemann, Stuttgart: E. Hauff, 1910, by Gobineau's most prominent supporter in Germany, Ludwig Schemann, reprints many of the letters between Gobineau and Wagner and Gobineau and the American anti-abolitionist Josiah Nott.

legally 'Indian.'"<sup>20</sup> Canadian Indian legislation encouraged the marriage of status Indians to other status Indians and non-Indians to non-Indians. The government placed endogamy—the marriage of individuals within their family, tribe, or group—at the heart of status. Eight years later, the 1876 Indian Act dictated that only officially recognized Indians could live in Indian reserves in Canada. Indian agents employed by the government created the first register of legal Indians, fanning out across Canada and using judgments about the skin color, lifestyle, and language preferences, in addition to genealogy, of claimants to place them on or off the rolls. Combined, these two laws altered the landscape and social fabric of Canadian life. Between 1876 and 1985, twenty-five thousand people left the reserves due to a loss of legal Indian status.<sup>21</sup> The reserves began to spatially reflect the legal categories of difference that had determined Indian and non-Indian.

In the United States, laws have determined native status according to blood quantum and allow tribes themselves to play an ultimate role in status determinations. The U.S. 1887 Dawes Act required individuals to prove 50% blood quantum to gain official Indian status. Later, the level was lowered to 25%. Yet, tribes have the final say in accepting members and status is not a *de facto* or *ipso facto* requirement for residence on the reservation. In practice, many tribal councils evaluate the degree to which a claimant is integrated in the tribal community in seeking to make determinations of status. People with blood quantum well below even 10% have been admitted based on other criteria such as long-term residence

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<sup>20</sup> Lawrence, Bonita. 2003. Gender, Race, and the Regulation of Native Identity in Canada and the United States: An Overview. *Hypatia* 18(2): 8.

<sup>21</sup> Lawrence 2003, Pp. 13.

and close social ties with recognized Native Americans and native associations.<sup>22</sup> The U.S. laws have allowed for various permutations of cultural, ancestral, and residential situations while Canadian legislation has generated two categories of difference that divided people into a series of polar opposites that were presumed to be tautological.

This characterization of Canadian Indian classifications as “polarizing” seems counterintuitive since it is only in Canada, and not the United States, that the “Metis”—mixed descendants of natives and Europeans—are a federally recognized aboriginal category. It would seem that mixture is enshrined in, rather than overlooked by, Canadian law and society. Yet, the Metis category, rather than a generalized feature of Canadian jurisprudence, is a particular characteristic of the history of European settlement and trade in the Canadian West. Metis, rather than a blanket appellation intended to apply to anyone claiming mixed descent, is more often narrowly construed within Canadian law and scholarship as a term relevant mainly to the Saskatchewan, Albertan, and Manitoban descendants and consociates of the nineteenth century settlers of a territory called Rupert’s Land. From 1670 to 1870, the British-chartered Hudson’s Bay Company owned and administered Rupert’s Land, a settlement on the northern watershed of the Red River that was occupied by several thousand people of mixed Cree, Ojibwa, Saulteaux, French Canadian, Scottish, and English descent. A French Metis-led rebellion against the new, English-dominated Canadian Confederate government in the 1870s led to the recognition of “Metis” as a legal group category. The fact that the “Metis” category emerged in the context of these specific geographic and historical coordinates is the

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<sup>22</sup> See: Strong, Pauline Turner and Barrik Van Winkle. 1996. “Indian Blood”: Reflections on the Reckoning and Refiguring of Native North American Identity. *Cultural Anthropology* 11(4):547-576.

subject of lively discussion in Canadian aboriginal studies. In the case of Quebec, the Metis term—in either a legal or everyday social sense—is not part of local parlance. This is something that the historian Olivia Dickason has argued is a result of the assimilation policies of the French colonial regime.<sup>23</sup> In contrast with the Western Canadian provinces, the government policy in New France was to “assimilate any mixed-bloods into French culture,” a point which I will take up in this dissertation in Chapter 2.<sup>24</sup> The academic geography of Canadian Metis studies reflects this East-West geopolitical difference. With the exception of Dickason’s work and several studies by two scholars at the *École des Hautes Études en Sciences Sociales* in Paris, the entire scope of scholarship on mixed marriage between French, English, and natives in Canada treats only the Western provinces and every Metis studies center is located, similarly, in the West.<sup>25</sup>

Outside of the case of the Metis, which is politically and historically exceptional, a person in Canada, and especially in Quebec, is either Indian or not, native or settler, aboriginal or white. Part of what this dissertation will show is that when Quebec scholars—including historians, geneticists, and anthropologists—turned their gaze to native and non-native behavior and biology in the 1960s and after, they often replicated these opposed categories of difference, the assumptions about

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<sup>23</sup> Dickason, Olive Patricia. 1985. From ‘One Nation’ in the Northeast to ‘New Nation’ in the Northwest: A Look at the Emergence of the Métis. *In* J. Peterson and J. S.H. Brown, eds. Pp. 19-33. *The New Peoples: Being and Becoming Métis in North America*. Lincoln: University of Nebraska Press.

<sup>24</sup> Pannekoek, Frits. 2001. Metis Studies: The Development of a Field and New Directions. *In* Fritz Pannekoek, ed. Pp. 111-128. *From Rupert's Land to Canada: Essays in Honour of John E. Forster*, Edmonton: University of Alberta Press, Pp. 113.

<sup>25</sup> Havard, Gilles. 2003. *Empire et métissages: Indiens et Français dans le Pays d'en Haut, 1660-1715* (Empire and Metissage: French and Indian in Upper Canada). Paris: Septentrion/PUPS, contains some selections on Eastern métis alliances, though the focus of the book is the Canadian West.

intermarriage embedded in them, and the many manufactured polarities related to residence and lifestyle that they embody.

*Genealogy, Genetics, and Belonging*

My aim in this dissertation is to use genetics to look at histories of human difference in Canada while also exploring the very formulation of these histories through the lens of genetics. In doing so, I want to unearth new contours of how biology and medicine play a role in authoritative definitions of human groups, often called races, ethnicities, clusters, clines or populations; to reveal how medical diagnosis is making and remaking parameters of belonging and non-belonging; and to demonstrate how the politics of history are being brought to bear on, and are influenced by, medical genetics.

Canada and Quebec have aggressively invested in medical genomics in the last decade—allocating hundreds of millions of dollars to build laboratories, purchase equipment, train graduate students, and support teams at McGill University, the Université de Montréal, Université Laval, and in the state university system to do research on the genetics of both common and rare disease. The Canadian federal government began investing in genomics in the 1990s as part of a broader agenda aimed at developing the “knowledge” sector of the Canadian economy, which has long been focused on manufacturing and extractive industries such as hydropower, mining, and aircraft assembly. Quebec has commanded most of this medical genomics investment, as opposed to other Canadian provinces, because McGill University geneticists had already etched out a formidable reputation as leaders in large-scale, cutting edge genomic research. Quebec is host to a medical genetic

research infrastructure of unprecedented size in North America, in terms of size of public investment. It is also home to one of the largest medical DNA and genetic genealogical databanks in the world.

DNA databanks are physical repositories of human tissue, saliva, or blood—ranging from hundreds to several hundred thousand people—that medical researchers use for experiments and research. Most researchers agree that having access to such databanks drastically improves the credibility and quality of experiments and conclusions. Geneticists are trying to discover associations between physiological, hereditary, and behavioral characteristics and the DNA composition of individuals in order to theorize possible genetic causes of disease. The larger the number of people they are able to study, the more they can test the validity of a certain association, the more variants of a single association they can detect, and the more credence they can lend to any claim of an association. People who lead and work for national health authorities or private institutions that are pursuing ambitious medical genetics agendas usually articulate this as the rationale for developing large, hi-tech DNA databanks. To date, large-scale state-supported medical DNA databanks exist only in a handful of places other than Quebec. The United Kingdom, Sweden, Latvia, Estonia, Iceland, Finland, Norway and Latvia were among the first wave of nations to develop them. Germany, India, the United States, Singapore, and China are among the nations that are now discussing or in the process of considering proposals to erect one.

An important feature of these databanks and the medical genetic research infrastructures that have developed around them is that they incorporate large-scale family history projects—scientific institutes operating under the auspices of medical

genetics that develop region- and nation-wide genealogies for correlation with DNA and medical data. DNA samples are only advantageous if they are accompanied by crucial contextual data about each source individual. Genealogical databases are considered a critical component of such context. Which components of a genetic sequence might have been inherited? What known medical conditions did the participant have? What is the possible link between the two? Like Dr. Brisson, many see family history as the key to uncovering how genetic traits that cause disease pass down between generations, where and in whom traits originate, and, the hope is, how to prevent further generations from passing on or developing disease in the future. “A family medical history can serve as a ‘substitute’ genetic test to help your doctor interpret the history of disease in your family and identify patterns that may be relevant to your own health” according to the Mayo Clinic.<sup>26</sup> The U.S. Surgeon General, Centers for Disease Control, and American Medical Association initiated major campaigns in 2005 to educate the public about the medical benefit of gathering family history. They encourage patients to turn to informal family trees and search personal or public archives to assemble lineages to “explain genetic disease.”<sup>27</sup>

Family history data collection is not a new practice in medicine. In the early nineteenth century, a growing number of physicians linked physiological conditions to characteristics somehow transmitted from parents—something that animal breeders had long accepted and the folk saying “like begets like” had already long

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<sup>26</sup> Mayo Clinic, <http://www.mayoclinic.com/health/medical-history/HQ01707>, Accessed September 22, 2008.

<sup>27</sup> American Medical Association, <http://www.ama-assn.org/ama/pub/category/2380.html>, Accessed June 24, 2008; Gwinn, Marta, Sara Bedrosian, Denae Ottmann and Muin J. Khoury. 2005. *Genomics and Population Health 2005*. Atlanta: Centers for Disease Control and Prevention and the Office of Genomics and Disease Prevention, Pp.11-13.

suggested. In a sixty-volume *Dictionnaire des Sciences Médicales* published from 1812-1820, the French physician Antoine Petit stated that the etiologies of some conditions could be traced to something called “hérédité” which involves particular states of the body constitution that are transmitted to children from parents and create an “organic disposition” to exhibit a particular trait or effect.<sup>28</sup> There was debate in nineteenth-century Britain about whether “heredity” had any relationship to disease. Biologists posited a dichotomy between “stable” and “unstable” traits. Stable traits were inherited from parents and maintained the typological continuity of a particular species. Unstable characteristics were rarely inherited and produced variations from the type, such as disease. Some physicians (e.g. Thomas Huxley, Karl Ernst von Baer) posited that, in contrast to heredity, all individuals are born with the same constitution, after which disease develops in relation to behavior and environment. Other physicians, most notably Erasmus Darwin (Charles Darwin’s grandfather) vehemently contested this view, arguing that inherited traits were intimately connected to disease states.<sup>29</sup>

By WWI, several statisticians and biologists who believed family history was the key to predicting human physiology and development had risen to prominence in medicine and biology. Francis Galton, Karl Pearson, and Leonard Darwin, British pioneers in the international eugenics movement, believed it was possible to build stronger, healthier, and more intelligent populations by selecting and pairing certain people as mates, or preventing some people they deemed undesirable from

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<sup>28</sup> López-Béltran, Carlos. 2004. In the Cradle of Heredity: French Physicians and L’Hérédité Naturelle in the Early 19<sup>th</sup> Century. *Journal of the History of Biology* 37(1): 48.

<sup>29</sup> See: Parnes, Ohad S. On the Shoulders of Generations: The New Epistemology of Heredity in the Nineteenth Century. *In Heredity Produced: At the Crossroads of Biology, Politics and Culture, 1500-1870*. Staffan Müller-Wille and Hans-Jörg Rheinberger, eds. Pp. 138-156. Cambridge, Ma.: MIT Press.



reproducing at all. They meticulously studied the effect of family histories on human abilities and, in doing so, they brought family history data collection to the center of medical practice. In the twentieth century, family history mapping became a standard practice in clinical medicine. The science of heredity morphed into the emerging field of human genetics. When North American medical researchers began to focus on genetics in the 1950s, family history took on even greater importance in medical explanations of disease.

With the initiation of large-scale medical genetic investigations and databanks, family histories are now being undertaken on an unprecedented scale. With these genetic projects, biological science has explicitly taken over the writing of human, and specifically reproductive history. The first national population-wide DNA databank, established in Iceland beginning in 1998, consisted of three sub-databanks: a DNA collection, an archive of medical tests and records, and a consolidated census and parish records database intended to supply family histories for the Icelandic population. Bioserve Lifesciences, North America's largest commercial DNA repository, has 120,000 biological samples accompanied by detailed family histories. From the perspective of an anthropologist, genetic projects like these afford a special opportunity to explore precisely how genetics is playing a role in the way people render and give meaning to histories of marriage, intimacy, and family-making.

Family history has never been just about medicine. In places from Singapore to Romania, politicians, governments, social activists, and the people they rule or represent have defined the boundaries of racial, ethnic, historical, or religious belonging by including or excluding certain people from families. In post-Soviet Tajikistan, the cultural ministry claims that Tajiks descend from Alexander the Great

and are thereby linked by blood and genealogy to ancient Greek and Persian civilizations.<sup>30</sup> In Israel in the 1990s, the judiciary, legislature, and hospital system limited the kinds of women who could gain access to in vitro fertilization to those whose children the law and religious authorities would consider legitimate Jews (married Jewish women).<sup>31</sup> Many scholars have examined how shaping and defining families often involves broader politics of groups and their formation, limits, representation, and meaning.<sup>32</sup> As the Quebec case will show, medical genetic databases that document families—in how they are made, disseminated, and used—are also places where ideas about human origins and belonging are at work.

In Quebec, the foundations of a province-wide medical genetic family history database were laid in 1967. That year, the directors of the demography department at the Université de Montréal began a multi-million dollar initiative to consolidate North American French Catholic Church registers into a digital family history database. The Church registers were a compendium of all of the births, marriages, and burials ordained by four centuries of priests in French North America. The directors had found they could piece together multi-branched genealogies, going back as much as 500 years, by tracking the inscriptions on birth and marriage records that indicated presiding relatives, such as parents, cousins, aunts, and uncles, at the time of an event, such as a baptism, marriage, or burial. They developed the database to support

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<sup>30</sup> Observed during three months of fieldwork in Dushanbe, Tajikistan, June-August 2005, with government organizers of the 2006 Year of the Aryan, an event planned to celebrate Tajikistan's Persian heritage.

<sup>31</sup> Kohli-Laven, Nina. 2003. Regulating Conception in the Jewish State: Women's Citizenship and State Responses to the New Reproductive Technologies in Israel. *In* Women and Gender in the Middle East and the Islamic World Today, Sherifa Zuhur, ed. Berkeley, California: University of California Digital Press/Center for International and Area Studies.

<sup>32</sup> See: Jolly, Margaret and Kalpana Ram, eds. 2001. *Borders of Being: Citizenship, Fertility, and Sexuality in Asia and the Pacific*. Ann Arbor: University of Michigan Press; Ginsburg, Faye D. and Rayna Rapp, eds. 1995. *Conceiving the New World Order: The Global Politics of Reproduction*. Berkeley: University of California Press.

demographic research on the history of the French in Canada but were able to raise money for the project by arguing that the data could aid geneticists in the search for origins of hereditary disease.<sup>33</sup>

Successive cohorts of demography graduate students entered the Church data, first on punch-cards and then into computers, throughout the 1970s and 1980s. The directors also brought in volunteers from local genealogical societies to collaborate with the students. They hired computer engineers who developed software that configured the data and data searches. The database allows someone to search by name for all of the relatives in a certain genealogy or to bring up an entire 12-15 generation list of family relationships. In 1993, the database was brought under the umbrella of a genetic epidemiology research institute at the Université de Québec à Chicoutimi. The leader of that institute hired demographers and support staff to complete the data-entry up to the present day. The first entry in the database is a marriage from 1597 and the last entry is supposed to be births, marriages, and burials in twenty-first century Quebec. The database was renamed BALSAC (not an acronym) and, though it is still under construction, it is now available in its incomplete form to a continental network of over 3,000 medical researchers and clinicians, including Dr. Brisson. Doctors and geneticists like Brisson turn to the database to verify genealogies for participants in their research and then track the distribution, origin, and location of specific disease alleles within contemporary Canada. In 2006, the database was formally incorporated into Quebec's population-wide DNA databank, CartaGENE. These genealogies are shaping how people explain bodies in

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<sup>33</sup> Charbonneau, Hubert and Jacques Légaré. 1967. *La démographie historique au Canada (Historical Demography in Canada)*. Recherches sociographiques (Sociological Research) Series, Vol. VIII, No. 2. Quebec: Les Presses de l'Université Laval.

pain and predict prevalence rates for disease. People both within and beyond the purview of health and medical institutions often articulate the causes of rare and complex diseases—asthma, breast cancer, hypertension—in relation to these family trees.

In this dissertation, I explore how genealogies in Quebec genetics are animating a certain history of racial difference. I focus on how Quebec medical researchers are using genealogies to draw boundaries between French-Canadian and North American aboriginal groups. Many contend that these two groups formed families, lived, and worshipped together across early North America. Medical researchers and clinicians in Quebec are producing genealogies that presume, in contrast, that French-Canadians and aboriginal tribes were separate and almost always “married-in.” Like Brisson, they often pose these groups as divided—by geography, custom, language, and commerce. They also link French-Canadians to French ancestors and meticulously research biological paths leading back to illnesses in early modern France. How did the configuration of human difference into discrete ethno-racial groups come to be as it is in genetic genealogies in Quebec? My aim is to unearth the exigencies—from colonial French Church writing strictures to medical database infrastructures—of how medical research and diagnoses are making these racial parameters. I look at the ways of seeing and thinking about belonging that circulate in information infrastructures, medical institutions, and social life, together producing families, written records, and DNA as analytical objects and forms of evidence in the study of “French disease.” What are the investments of all of those institutions and the people who work within and against them in history, human difference, and ideas about belonging in our society? What ideas about human

behavior and belonging in the past and present are being manipulated, standardized, and imported into their accounts of what counts as data and an explanation?

Quebec is a particularly challenging place to consider these questions. Across universities, institutions, and in daily life, people treat regional French nationalist movements that have long dominated social life as a pan-explanation—the supposed generative cause of everything, including ideas and practices surrounding race. It would be easy to limit any explanation of ethnicized genealogies—genealogies that divide a society into French-Canadian and native units—in Quebec genetics to some statement that ‘racial difference is being remade in the laboratory under the auspices of a nation-building project.’ The emergence of these genealogies in Quebec population genetics, indeed, depended on medical research infrastructures that have developed under the authority of a separatist minority nationalist government. Yet, equally, the crafting of these genealogies has been conditional on other dynamics: the convergence of population-thinking in global genetics with colonial written culture, the legacy of French colonial racial typologies in the Church archive, contemporary ways of reading old records, and accepted methods in global genetics for inferring ancestry from genealogy. This is not a dissertation that tells the story of science as an outgrowth of nationalist politics.<sup>34</sup> Here, I trace how a written archive of Church records—along with the documentary culture, Catholic politics, and overlays of religion, language, race, and nation of the French colonial civilizing mission—is being converted into a medical genomic database. I focus on moments, places, and

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<sup>34</sup> Katherine Verdery has written in some detail about the tendency in a great deal of social analysis to use nationalism as a form of explanation, arguing for accounts that “lodge agency back in human beings, constrained by social structures.” Verdery, Katherine. 1993. Whither “nation” and “nationalism”? *Daedalus* 122(3):37-45.

people who are part of that conversion. I wrestle with how, in the transposition of a set of socio-historical products (a colonial archive) into natural facts (medical evidence), people are perceiving human difference and history.

This Quebec case can bring specific new insights to bear on the study of genetics, history, materiality and society: about how religion has become bound up in the way people medicalize ancestry; about how ideologies about language have influenced genetic configurations of human difference; and, in particular, about how cultures of bureaucratic and ecclesiastical writing intersect with cultures of science. Several anthropologists have chronicled the facticity, density, and social consequences of written bureaucratic records. Ann Stoler has shown how archived colonial records were part of institutional structures that tried to control what could and should be known by selectively preserving information.<sup>35</sup> Matthew Hull has described written records as agents in their own right whose material structure, graphic organization, distribution, reading and interpretation collectively mediate communication and shape consociation.<sup>36</sup> The idea advanced in this dissertation that records resulting from decisions rolled out by an early modern Church and colonial regime have consequences for genetic knowledge is something new. It brings the insights of earlier work—about the way record-keeping bureaucracies reflected classificatory practices of colonial regimes and the way records’ material form shapes their uses and effects—to bear on a topic (genetics) whose historical and material dimensions are usually more narrowly construed (as linked to histories of eugenics

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<sup>35</sup> Stoler, Ann. 2002. Colonial Archives and the Arts of Governance. *Archival Science* 2:87-109.

<sup>36</sup> Hull, Matthew. 2003. The File: Agency, Authority, and Autography in an Islamabad Bureaucracy. *Language & Communication* 23: 287-314; Also see: Riles, Annelise. 2006. Introduction. *In* Annelise Riles, ed. *Documents: Artifacts of Modern Knowledge*. Ann Arbor, MI: University of Michigan Press.

and medicine, as materially shaped by modern biomedical technologies and techniques).

I began my fieldwork at BALSAC and stretched out from there: to the doctors, patients, and community activists who use it; the priests, genealogists, historical demographers, and graduate students who created it; and historians and various genealogists who oppose it. BALSAC is a repository of demographic facts about the history of French people in North America. Yet, it is also a form of historical narrative, embedded with scientific arguments about how French people in North America came to be connected, both to each other and to the land on which they had settled. BALSAC's journey from records to evidence to fact—its crafting of demographic and genetic conclusions—sheds light on how evidentiary norms interact with forces of history, historiography, and the dynamics of scientific institutions to create histories and explain bodies in pain.<sup>37</sup> Those who generated and depended on the BALSAC data etched out the parameters of their analytic objects—the French-Canadian population—based on their perception of historical truths—in this case about the French in-marriage of their ancestors. The objects they created contained visions of geography and genealogy that dictated parameters of racial belonging. These scientists animated a logic of racial and religious difference. I hope to shed light on how history has shaped this logic—its rules of method, proof, and evidence—while simultaneously being shaped by it.

Tracking the demographic evidence that BALSAC created, from how it was unearthed from the Church record to how it was applied to medical problems,

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<sup>37</sup> For other dimensions of how medical issues are intertwined with political appropriations and popular representations of suffering and pain, see: Kleinman, Arthur, Veena Das, and Margaret Lock, eds. 1997. *Social Suffering*. Berkeley: University of California Press.

turned up a series of reciprocal effects; places where questions of evidence, history, social dynamics, and the biology of disease were all at stake or were simultaneously resolved. Whether history had created a certain “culture of science” and logic of racial classification or whether a certain “culture of science” and racial logic had generated history were never clear. Were these categories even apt? Derrida argued that we have no language which is alien to the “form, logic, and implicit postulations” of the theories that we seek to destroy.<sup>38</sup> Within the constraints of the language available to me, I pose my main question this way: How is the history of attitudes toward human difference and belonging shaping contemporary medical explanations of disease; how, conversely, are these contemporary scientific explanations of disease shaping authoritative histories of human difference and belonging?

### *Population Models and Genealogical Explanation*

How are Quebec health and medical researchers defining French-Canadian and aboriginal “populations”? In doing so, what kinds of genealogical evidence are they marshalling and why? Populations and genealogies are two modes of representation that are intimately inter-related. Of all of the modes of description to emerge in contemporary genomics, the “population,” in particular, has been one of the most prominent—global in its reach, influencing experimental frameworks both incremental and broad, and giving rise to new areas of inquiry upon which entire genetic subfields are now based. What is a population in genetics? Early geneticists

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<sup>38</sup> Derrida, Jacques. 1970. Structure, Sign, and Play in the Discourse of the Human Sciences. *In* The Languages of Criticism and the Sciences of Man: The Structuralist Controversy. Richard Macksey and Eugene Donato, eds., Pp. 247-265. Baltimore: John’s Hopkins University Press, Pp. 250.



proposed that individuals can be amalgamated and divided into groups based on shared common biological characteristics that are due to mating and genealogical ties. Ernst Mayr, a key figure in the development of evolutionary biology in the twentieth century, characterized populations as follows:

“Under ideal conditions a population consists of a small group of individuals clearly separated from other individuals of the species by a physical barrier. Examples of such isolated populations would be those on islands in the sea, or in the oases of the desert, or on mountain tops, and the like.”<sup>39</sup>

The population idea incorporates a particular set of genealogical understandings about families, relatedness, and belonging: the idea that people reproduce within the bounds of delineated groups over series of generations; the idea that people pass on traits to their descendants, maintaining the distinctive qualities of the group. In fact, these genealogical relations are what make—what are constitutive of—a “population.” Population thinking incorporates a theory of intimacy and sex that sees human beings as each a member of a reproductive isolate. Genealogies define the parameters and fix the boundaries of the population unit. Genetic research everywhere is constrained, often in different ways, by the embedded organizing principles and assumptions that accompany such thinking. Several studies in history, philosophy, and anthropology have begun to look at the effects of these constraints in the United States and Britain. Jenny Reardon, Jennifer Hamilton, Amade M’Charek and Lisa Gannett have shown how the European and American scientists behind two large-scale international genetic projects, the Human Genome Diversity Project and HapMap, have split the globe into self-contained, supposedly endogamous, isolated

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<sup>39</sup> Mayr, Ernst. 1942. *Systematics and the Origin of Species*. New York: Columbia. Pp. 27.

groups using the population rubric.<sup>40</sup> In Quebec, medical genetic researchers investigating diseases in the “French-Canadian population” are implicitly postulating multi-generational in-group genealogical ties between French immigrants to Canada by assuming such a clearly delineated, ethnically homogenous population even exists. One of the main arguments of this dissertation will be that the heuristic baggage of population thinking in global genetics converged with historical and cultural forces in Quebec to generate particular questions about disease.

In this dissertation, I am concerned with how scientists are drawing *the lines that define populations* according to racial or ethnic logics.<sup>41</sup> The basic premise of population-thinking in health and medical research is that meaningful inferences about the cause of disease can be drawn from the study of who is affected by certain diseases and what the shared characteristics of these individuals are when taken as a group. The social epidemiologist Geoffrey Rose wrote in 1985 of the importance of studying rates of disease incidence across groups:

“I find it increasingly helpful to distinguish two kinds of aetiological question. The first seeks the causes of cases, and the second seeks the causes of incidence. ‘Why do some individuals have hypertension?’ is a quite different question from ‘Why do some populations have much hypertension, whilst in others it is rare?’ The questions require different types of study, and they have different answers.”<sup>42</sup>

Rose’s insight became the bedrock of entire fields of health research that continue to investigate the broad environmental, biological, and psycho-social contexts that lead

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<sup>40</sup> Reardon, Jenny. 2005. *Race to the Finish: Identity and Governance in an Age of Genomics*. Princeton: Princeton University Press; Gannett, Lisa. 2003. Racism and Human Genome Diversity Research: The Ethical Limits of "Population Thinking". *Proceedings of the Philosophy of Science Association* 68(3):479-492; Hamilton, Jennifer A. 2008. Revitalizing Difference in the HapMap: Race and Contemporary Human Genetic Variation Research. *Journal of Law, Medicine, and Ethics* 36(3):471-477. M’Charek 2005.

<sup>41</sup> Lemon, Alaina. 2002. “Without a ‘Concept’?: Race as Discursive Practice. *Slavic Review* 61(1):54-61.

<sup>42</sup> Rose, Geoffrey. 2001. Sick Individuals and Sick Populations. *International Journal of Epidemiology* 30(3):427-432.

to the prevalence of disorders in certain places and “populations” (e.g. colorectal cancer in males, lung cancer in smokers). Many health and medical researchers have since productively applied statistical theories to the design of prevention programs.<sup>43</sup> Though some scholars have critiqued the analytics underlying this type of population-thinking (the focus on frequencies, the practice of drawing inferences about groups from samples, and the focus on proportional relationships between variables), the problems I seek to highlight are not with these premises.<sup>44</sup>

The term “population” is not a biological term alone. People across the social and natural sciences, from epidemiology to psychology, frequently use it to label human groups—whether they are talking about “population blocs,” “population spreads,” “population stability” or population-wide rates. Populations have, in a sense, been anthropomorphized into entities in-and-of themselves—more than the mere amalgamation of individuals but, rather, expressions on a broad scale of sets of typologies that have their own unique force. In Ancient Rome, *Populus* referred to the portion of citizens who possessed political power in the senate. The related verb *populari* referred to the ravaging or devastation of groups of people or a place. In Elizabethan England, when the word “population” was used, it was with a similar meaning of devastation or ruin.<sup>45</sup> Writers used population in the context of descriptions of the “effusion of innocent blood,” “the ruining of ample regions,”

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<sup>43</sup> For a discussion that seeks to sift out the advantages of statistical studies of health from the eugenicist origins of health statistics frameworks, see: Bookstein, Fred L. 1995. *Utopian Skeletons in the Biometric Closet*. Series of Occasional Papers. Ann Arbor : University of Michigan, Institute for the Humanities.

<sup>44</sup> For critiques of population-thinking, population-level statistics, and the probability-thinking that is implicit in population models, see: Le Bras, Hervé and Sandrine Bertieaux, eds. 2000. *L'invention des populations (The Invention of Populations)*. Paris: Odile Jacob; Hacking, Ian. 1976. *The Logic of Statistical Inference*. Cambridge University Press; Hacking, Ian. 1991. *The Taming of Chance*. Cambridge University Press, especially Pp. 47-54, 105-114.

<sup>45</sup> Le Bras, Hervé. 2000. *Peuples et populations (Peoples and Populations)*. In Hervé le Bras and Sandrine Bertieaux, eds. Pp. 9.

and “the wasting, destroying, robbing and spoiling of a people.”<sup>46</sup> They often wrote about population as the inverse of depopulation. In the 18<sup>th</sup> century, the Baron de Montesquieu and David Hume publicized “depopulation” in England and France. Hume’s lengthiest essay in his *Political Discourses* was a measured rejection of the growing perception in England that “populousness” was waning. He articulated population as a group of people within the bounded political geography of territorial national and state units. Around the same time, Thomas Malthus, an intellectual founder of modern demography who influenced biological, anthropological, and economic theory, depicted population as an animate power that “exerts itself.” Malthus wrote in 1803, “Population, could it be supplied with food, would go on with unexhausted vigour.”<sup>47</sup> Malthus spread the notion of population as a force. In the 1830s, the Belgian statistician Adolphe Quetelet sought to discern general laws of nature and development from statistical data about “populations,” laying the foundation for modern statistics. For Quetelet, the large-scale regularities revealed by population data were instantiated in a hypothetical “average man,” *l’homme moyen*. The average man was the “imaginary sum total of all possible average human relationships.”<sup>48</sup>

The earliest uses of the term population in genetics were among British and U.S. evolutionary biologists. In the 1880s, Gregor Mendel had found through experiments with peas and honeybees that parents pass certain hereditary characteristics to their offspring, some of which are expressed at higher rates than

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<sup>46</sup> “population, n., v.” OED Online. Oxford University Press. Accessed December 2005.

<sup>47</sup> Malthus, Thomas R. 1992. *Essay on the principle of population, or, A view of its past and present effects on human happiness: with an Inquiry into our Prospects respecting the future removal or mitigation of the evils which it occasions*, Selected & Introduced by Donald Winch. Cambridge University Press. Pp. 17.

<sup>48</sup> Ariew, André. 2005. Rethinking Darwin’s ‘Population Thinking.’ Paper presented at the Department of History and Philosophy of Science, Cambridge University, United Kingdom, February 21, Pp. 2.

others. Karl Pearson, the University of London statistician and eugenicist, published a paper in 1904 trying to bring Mendel's insights to bear on humans, marrying Mendelian mathematics of inheritance with statistical models of how entire human groups mate. Pearson and his colleagues modeled shifts in the mean population-level expression of certain traits (e.g. tallness) that might happen over time due to population-wide mating preferences (theorizing, for example, that if women prefer tall men then those men will reproduce more often than short men, leading to a taller overall population). Charles Darwin had proposed in 1859 that certain people have a greater chance of reproducing because they have greater access to the opposite sex (his theory of "sexual selection").<sup>49</sup> Pearson and his colleagues reformulated this theory in the language of statistics (probabilities, means, frequencies, and distributions) in order to predict the transmission of physical traits in successive generations in large, reproductively bounded groups. They founded *Biometrika*, a journal devoted to the statistical study of heredity. They actively pursued and promoted research on the population-wide distribution and transmission of inherited traits—a field that grew into the contemporary discipline of population genetics. Population geneticists in the 1970s, 1980s, and beyond began to focus, in particular, on how to define populations and, then, how to characterize the genetic variations between populations in order to explain human diversity. Researchers who tried specifically to characterize how genetic differences between populations cause varying degrees of susceptibility to different disease created the field of medical genetics. Contemporary geneticists often explain an individual organism's

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<sup>49</sup> Darwin first introduced the theory of sexual selection in *On the Origin of Species* in 1859 and later returned to it in detail in *The Descent of Man and Selection in Relation to Sex* (1871).

characteristics with reference to the populations to which the organism is believed to belong. Many have ceded populations causal primacy in genetic explanations, subsuming individual differences into population differences.

Of some interest, when biologists first began to develop the population model they by and large consciously regarded it as an ideal type, useful for building theories and for measuring the distribution of physical traits in actual human groups. The first wave of evolutionary biologists and statisticians who worked with population-based models appear to have not taken it for granted that such populations existed in nature. Ernst Mayr wrote in 1942, “the ‘population’ is more or less an abstraction because there is a considerable interchange of individuals between neighboring populations, owing to the absence of incompleteness of physical barriers.”<sup>50</sup> Similarly, Pearson had expressed consciousness in the early 1900s that the Mendelian populations in his research were simply models with which to construct statistical predictions.<sup>51</sup>

In the 1950s in the United States, the new terrain of microscopic knowledge about human difference being charted by molecular genetics renewed disputes over the biological basis of race. At that time, the population concept gained new currency. Columbia University population geneticist Theodosius Dobzhansky had argued in 1961 that distinct sub-special human groups—which many called “races”—exist. University of Michigan physical anthropologists Frank Livingstone and Loring Brace countered that the observed distribution of genetic differences between humans did not support the division of human beings into even the most

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<sup>50</sup> Mayr 1942, Pp. 27.

<sup>51</sup> Gannett, Lisa. 2003. Making Populations: Bounding Genes in Space and in Time. *Philosophy of Science* 70(5):989.

fluid of groups.<sup>52</sup> “There are no races, only clines,” Livingstone declared, arguing that human differences shifted in subtle gradients within and across continents.<sup>53</sup> Livingstone’s claim was an attack on nineteenth century race biology, which had posed biology as destiny and human beings as divided into different inferior and superior racial groups. Dobzhansky used the language and analytics of “population” in response to Livingstone and Brace. Dobzhansky legitimized bounded racial groups as biological facts while escaping from the rhetoric of the problematic science of the past. He wrote, “Races may be defined as Mendelian populations of a species which differ in the frequencies of one or more genetic variants.”<sup>54</sup> Dobzhansky configured racial difference as populational difference—as governed by frequencies that indicate reproductive and genetic boundaries between groups.<sup>55</sup>

In the process, Mendelian populations moved from models to facts. The possibility of other ways of seeing the world disappeared in many spheres of population and medical genetics. Numerous subsequent geneticists embarked on studies seeking to define how to characterize the boundaries between human groups based on observed genetic frequencies—were populations clustered together on continents; did they have amorphous boundaries that changed across space in rising and descending clines? Some explicitly threw out the requirement that populations be discrete, reproductive isolates. Yet, the bounded population concept remained a powerful organizing principal for much of their work. It was the presumed

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<sup>52</sup> Brace, C. L. 1964. On the Race Concept. *Current Anthropology* 5: 313-314.

<sup>53</sup> Livingstone, Frank. 1962. On the Non-Existence of Human Races [And replies by T. Dobzhansky]. *Current Anthropology* 3: 281.

<sup>54</sup> Dobzhansky, T. 1951. *Genetics and the Origin of Species*. New York: Columbia University Press. Pp. 138.

<sup>55</sup> For a detailed discussion of this move from “race” to “population” see Reardon 2004.

observable baseline against which all instances of reproductive mixing could be gauged or compared. Luciano Cavalli-Sforza, a dominant figure in population genetics since the 1980s, wrote with two colleagues in 1994:

The classification into races has proved to be a futile exercise. . . . All populations or population clusters overlap when single genes are considered.<sup>56</sup>

They had shifted away from race and, they argued, were shifting away from the notion of discrete human groups, and yet their argument was trapped by the language and conceptual architecture of discrete groups: they wrote that people may genetically “overlap” but they implied these people were first part of bounded—whether tightly or loosely—units (populations). Other researchers—and sometimes the same researchers at other times—explicitly maintained the emphasis on reproductive isolation and discrete groupings. The Human Genome Diversity Project, a large international population genetic project that Cavalli-Sforza co-initiated in 1991, focused squarely on “population isolates.”<sup>57</sup>

Anthropology has played a role in generating and supporting these demarcations, something to which I will return in more detail in my concluding chapter. Early twentieth century precursors of contemporary field anthropology divided the world into isolated biological and social units. The two Cambridge University expeditions to the Torres Straits in 1904 and 1905 that provided the template for field anthropology approached the world as if it was divided into human

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<sup>56</sup> Cavalli-Sforza, L.L., A. Piazza, and P. Menozzi. 1994. *History and Geography of Human Genes*. Princeton: Princeton University Press.

<sup>57</sup> Peltonen, Leena, Aarno Palotio, and Kenneth Lange. 2000. Use of Population Isolates for Mapping Complex Traits. *Nature Reviews Genetics* 1:182-190 is just one example of how the “population isolate” has been taken up as a key concept in population and medical genetics.



islands.<sup>58</sup> Social anthropologists like Bronislaw Malinowski and E.E. Evans-Pritchard demarcated fluid societies as sharply discrete groups. Some prominent anthropologists made pointed statements undermining this practice: in the 1920s and 1930s Franz Boas questioned the theory of racial essences that bolstered Nazi German and American anti-immigrationist fears of cultural others; Claude Lévi-Strauss touched on the inherent heterogeneity and permeability of social worlds in his description of the concept of “open systems”; Dell Hymes wrote his provocative 1967 article on “Defining the Concept of Tribe,” offering evidence that language, biological makeup, and cultural norms do not coincide in delineated human units. Yet, certain strains of “island thinking” persisted. In the 1940s, the anthropologist Georges Peter Murdock created a large database at Yale University of cultural, economic, and behavioral characteristics such as settlement, marriage, and inheritance patterns in different societies—sometimes called “culture areas” and always presumed to be bounded entities. Geneticists at the Human Genome Diversity Project such as Cavalli-Sforza turned to the database, called the Human Relations Area Files, in the 1990s to guide their definitions and sampling strategy for African “populations.” The HGDP researchers acknowledged that “neither in the present or past is there any simple correlation between ethnicity, language, and gene pool,” but proceeded to constitute and define bounded groups for their research based on cultural and linguistic divisions that had been documented in Murdock’s database.<sup>59</sup>

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<sup>58</sup> Kuklick, Henrika. 1996. *Islands in the Pacific: Darwinian Biogeography and British Anthropology*. *American Ethnologist* 23(3):611-638.

<sup>59</sup> Braun, Lyndy, and Evelyn Hammonds. 2008. *Race, Populations, and Genomics: Africa as Laboratory*. *Social Science and Medicine* 67(10):1580-1588.

This architecture of difference and classification—posing human groups as reproductively bounded and clearly demarcated—shaped the field of medical genetics. Researchers investigating the genetics of common diseases have used populations to classify units of individual human beings in their experiments and observations. They have embarked on studies in order to discover population-level genetic differences and began by demarcating which groups count as populations then collecting and comparing DNA from statistical samples of each group as they have defined and constituted it. There is a circularity to this approach that largely remains uncriticized within medicine. Commercial forces have recently produced new entrenchments of such population-thinking. Pharmaceutical companies looking for new markets oriented experimental infrastructures toward the “African-American population” in the early 2000s in order to develop the drug BiDil for specific U.S. consumer categories (in this case, “self-identified African-Americans.”)<sup>60</sup> Drug companies assumed that the genetics of presumed populations could offer insights into how to provide healthcare and medicine to individuals. They treated the individual as relevant only insofar as he could be viewed through the lens of his appropriate population. In this and other areas of medical genetics, the population concept that Ernst Mayr outlined in the 1940s has assumed great practical explanatory force. This dissertation will explore how, in Quebec, geneticists regularly refer to the “French-Canadian population” as a descriptor, model, and even mode of explanation for certain diseases. They have drawn on the explanatory force of

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<sup>60</sup> Kahn, Jonathan. 2008. Exploiting Race in Drug Development: BiDil's Interim Model of Pharmacogenomics. *Social Studies of Science* 38(5):737-758.

population thinking, built on the historical precedents that legitimized it, and modified and applied it in the context of their unique circumstances and concerns.

### *Evidence and Explanation*

Part of what makes the Quebec context—as well as other Roman Catholic contexts—unique is the kinds of evidence geneticists there depend on to draw their conclusions about how people mated and produced families in the past. The Catholic Church mandated and standardized personal data record-taking in the 16<sup>th</sup> century and, as a result, historically Catholic countries such as Spain, France, Italy and their various Asian, African, and American colonies have some of the most comprehensive birth and marriage registries in the world. It is not uncommon in these countries for genetic projects to form partnerships with historians and demographers who specialize in the transcription specifically of these old records. The church records are almost unilaterally referred to in genetics, demography, and health literatures as a precious resource for the reconstruction of genetic disease pathways. In Quebec, the history of the Catholic Church and people's attitudes toward its bureaucratic productions have enhanced this reverence for the registries as sources. People's predisposition toward the Catholic data—the tendency to regard that data as evidence and discard other kinds of data as marginalia—plays a major role in how models and questions are being formulated and then answered in demography and then genetics laboratories, a topic to which I will return in Chapter Three of this dissertation.

How do choices about evidence change the kinds of models and explanations scientists offer? Observations and data can often provide evidence for multiple

models and explanations of a particular phenomenon. If a physician is presented with a patient who has high cortisol levels, for example, his clinical interests often determine how he determines which data are relevant to understanding the causes. Cortisol is a steroid hormone that regulates metabolism and the body's response to inflammation and stress. A geriatrician who specializes in studying the physical processes of aging may focus on test data that show a lifetime increase in cortisol. A physiologist who researches the human circadian system may select data that show an increase in cortisol within the past 24 hours. A stress specialist may look immediately to data that show numerous spikes of different magnitudes in cortisol levels over several consecutive 24-hour periods, delineating each as discrete instances of cortisol secretion related to pointed stressful events.<sup>61</sup> All of these patterns may be credible ways to characterize the patient's condition. All that has changed between them is how the explanatory problem at hand was posed and, accordingly, which data points were turned into key observations. Each person had a different idea of what he was trying to explain which led to variations in assessments of what counted as evidence and what did not. Each rendering of what counted as evidence, equally, had the effect of further streamlining the final explanation, lending credence to the initial hypothesis. "Facts make a theory, but it takes a theory to make facts."<sup>62</sup>

In the history of genetics, the most significant example of this is the way that American and Soviet scientists used the same datasets for decades to arrive at opposed conclusions about the mechanisms of heredity. In answer to the question

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<sup>61</sup> I owe this example to McAllister, James. 2007. Model Selection and the Multiplicity of Patterns in Empirical Data. *Philosophy of Science* 74(5): 884-894.

<sup>62</sup> Lewontin, Richard. 1991. On the Natural Sciences. *In Questions of Evidence: Proof, Practice, and Persuasion Across the Disciplines*. James Chandler, Arnold I. Davidson, and Harry Harootunian, eds. Pp. 478-491. Chicago: University of Chicago Press. Pp. 485.

“What generates the characteristics of organisms,” pre- and post-war Soviet biologists used studies of central and eastern Russian fruits to argue that organisms adapt to external environmental conditions. American molecular biologists depicted such theories as shameless pandering to Soviet ideology: “[They] believe that it is possible by man's intervention to force any form of animal or plant to change...Their government can now say that the superior political and physical environment of the Soviet Union...confers upon its people a superior heredity.”<sup>63</sup> American post-war biology had begun to develop contrasting claims that organisms develop and change according to the instructions lodged in a heritable, unalterable genotype, a perspective that some have called the Mendelian-Weismannian synthesis. In response to Soviet claims that macaroni wheat could be changed to bread wheat, American biologists charged that the preponderance of bread wheat in the Soviet macaroni crop after four years was due to cross-crop contamination. In response to Soviet claims that tubers grew differently when cut off from their parent trees, American biologists claimed that, though that may be, the tubers' offspring replicated the form of the original parents, indicating genetic continuity rather than acquired transformations. Each group selected different aspects of the same observations to provide evidence for different ideological claims. As Richard Lewontin has noted, American biologists after WWII exacerbated this ideological polarity with the USSR to the extent that they consigned any data that suggested alternatives to the footnotes of scientific papers. Data from American scientists that might have confirmed some

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<sup>63</sup> Leone, Charles A. 1952. Genetics: Lysenko versus Mendel. *Transactions of the Kansas Academy of Science* 55(4):6.

limited Soviet claims became “decommissioned battleships of a past scientific war.”<sup>64</sup> Observations that did not fit into the reigning theories became forms of non-evidence.

In demography and population genetics in Quebec, the situation is similar. Scientists pose the very problems they seek to solve, the very questions they seek to answer, in ways that are informed by predispositions to certain forms of evidence and certain models. Their questions place certain types of constraints—for instance, certain kinds of temporal and geographical order—on the kinds of data that are relevant to their experiments before their analysis has even begun. They often formulated their question like this: Which French ancestors are responsible for current-day diseases? Which French families married in the early colony? What are the distributions of certain traits in the French-Canadian population? They turned to the Church records because those records present themselves—in their successive lists of French names—as the most comprehensive list of personal data about French immigrants and French-Canadians available. This turn to the records then led them to pursue certain more specific styles of inquiry: they asked ‘how do we fully reconstruct the church sources in order to make sure we have all of the facts’; ‘how do we convert the written record into numerical, population-level frequencies and rates’; how do we aggregate, tabulate and segment all of the marriages, all of the births, and all of the deaths by type’?

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<sup>64</sup> Lewontin 1991, Pp. 488; Also see: Kremenstov, Nikolai. 2000. Lysenkoism in Europe: Export-Import of the Soviet Model. *In Academia in Upheaval: Origins, Transfers, and Transformations of the Communist Academic Regime in Russia and East Central Europe*, Michael David-Fox and Gyorgy Peteri, eds., Pp. 179-202. New York: Garland Press.

Genealogists outside of these institutions, working on their own in national archives or on native reserves, sometimes used different sources, started with different questions, and ended up with different concerns. Some asked, “How do I find out which native families were related to certain French families,” and vice versa. They sometimes rejected the church records, which they saw as bound up in the politics of the colonial civilizing mission, prone to “whitewashing” Indians with francophone names. They concocted webs of bureaucratic documents culled from the civil authorities and looked to diaries and letters, using these to pose webs of interconnection between French and native groups. Their evidence foreclosed the question, ‘which French families married in the early colony?’ and the proposition of a homogenous, closed “French-Canadian population.” Their concerns were about the relative validity of various sources and different ways of interpreting race and biology in the documents. Sometimes, they used church records, not as evidence in arguments about which French families married, but as proof of the erasure of Indians from the written culture of the colonial regime. They probed Catholic sources, rather than for names that they could turn into biological facts, for counter-narratives—reading against “the archival grain”<sup>65</sup>—that might raise new questions about biology, relatedness, and ancestry in Quebec’s white French-speaking community.

One of the peculiarities of rendering the past through the use of Catholic Church records is that Anglican Canadians are mostly absent from resulting reconstructed families. During my fieldwork, one genealogist recounted for me

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<sup>65</sup> Stoler, Ann Laura. 2009. *Along the Archival Grain: Epistemic Anxieties and Colonial Common Sense*. Princeton: Princeton University Press.

(Chapter Four, Pp. 129) how his father, a French Catholic, had “changed religions” in 1940s Quebec in order to get a job as a teacher in a nearby Anglican school. He had also changed his name from a French name to an English name. “We went into the Protestant records after that,” he said of his brothers and sisters, who were baptized and married in Quebec’s Anglican Church. The Anglican and Catholic records absorbed individuals who traversed the English-French divide as members of one or the other category—reducing their multiple attachments and histories with both groups by assigning them pure English or French identities within the records. Focusing as it does on the ways people use records within Quebec demography and genetics (and they mainly use Catholic records), this dissertation leaves the question of how the Anglican records may complicate geneticists’ picture of French endogamy (by introducing evidence of French-English intermarriage) unanswered. This circumstance is another indication of how choices about evidence and archive influence the production of historical and biological knowledge.

One of the conceits of this dissertation is that theories of explanation and evidence mediate the influence of ideology on conclusions, whether historical or scientific. The case study I describe here demonstrates that scientific conclusions are not effects of ideology but, rather, the result of dynamics of cause and effect where ideology exerts control over conclusions in more fine-grained ways—through evidentiary norms and choices of model and inquiry. The anthropologist Marshall Sahlins has written at length about how different observations are cast as evidence for certain explanations, not in the crafting of explanations in science, but in history. “What are the structural and situational conditions by which now totalities, now



individuals are empowered as history makers?”<sup>66</sup> How and why do different historians choose to identify certain people or certain collectives—states, cities, social classes—as the agents of change and how do they periodize those changes? Erik Olin Wright has noted that Marxists and neo-Weberians have often identified different actors as responsible for capitalist state policies, mostly due to the kinds of temporal periodizations of evidence that were ideologically important to them. They were asking different questions and “both parties could be correct about their respective explananda.”<sup>67</sup>

At BALSAC, demography and genealogies were forms of knowledge-making that required evidentiary procedures, rules and standards for determining proof, and, to a certain extent, a mixture of opportunistic, pragmatic, and culturally and academically conditioned choices about which evidence to trust. Scientists used and trusted Church records. Their everyday conversations about how to structure genealogies were about how to use the records to validate facts. The questions they were concerned with were whether various ways of distinguishing cases from controls or how various periodizations and geographic divisions of Church record data would affect the validity of conclusions. The difference between their work and the work of historians, however, is that while historians often openly recognize their choices (if not explicitly in a discussion about the philosophical framing of an argument then through subtleties of language) they pursued observation and explanation under the

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<sup>66</sup> Sahlin, Marshall. 2004. *Apologies to Thucydides: Understanding History as Culture and Vice Versa*. Chicago: University of Chicago Press. Pp. 127.

<sup>67</sup> Olin Wright, Erik, Andrew Levine, and Elliott Sober. 1992. *Reconstructing Marxism: Essays on Explanation and the Theory of History*. London and New York: Verso. Pp. 134.

banner of “discovery,” a term that cloaks the many choices that have tended toward a certain data point under a veil of inevitability.<sup>68</sup>

In my research, I have sought to peer beneath that veil in order to explore the model choices that demographers, geneticists, and genealogists at BALSAC and in Quebec are making. The question that truly interested me—and a question of general importance for social scientists who study science—was “how does context influence scientific questions?” What are people asking? What are people hoping to explain? What modes of description and systems of classification do their questions both rest on and bring into being? I wanted to focus on the forms of intuition, the political pressures, institutional positions, and individual stances that led to scientific conclusions. I was most interested in what precisely everyone took for granted at particular moments in particular places and what, conversely, was up for debate. What had various people identified as areas of inquiry and what had they designated as areas of already known fact? Accordingly, what types of criteria did different people use to evaluate the utility, credibility, and effects of various types of evidence on their arguments? Lastly, what were the effects of pursuing certain designated inquiries? I concentrated on how people posed their questions and marshaled and applied data to answer them. I wanted to explore the different forces that bring a certain trajectory of scientific thought into being; to understand how science might be interacting with and influencing cultural and historical forces even while it was

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<sup>68</sup> Much of this is due to different norms and expectations in science journals for how results should be framed and communicated. See: Holmes, F.L. 1987. *Scientific Writing and Scientific Discovery*. *Isis* 78(292):220-235; Also see: Poovey, Mary. 1998. *The Modern Fact, the Problem of Induction, and Questions of Method*. Pp. 7-14. *In A History of the Modern Fact: Problems of Knowledge in the Sciences*. Chicago: University of Chicago Press.

being shaped by them; and to get into the intricacies of how a group of scientists crafted an argument, in order to craft my own.

I begin this dissertation in the demography lab and with the politics of race and religious conversion in *ancien régime* France and colonial French North America—tracking the contrasts in how race was written into ecclesiastical records and how, today, it is read from them (Ch. 2). I then turn to the records themselves: their intimate connection to the way French administrations and bureaucrats posed themselves, often messianically, as a besieged minority collective within Canada; contemporary interpretations of them across and beyond scientific domains through the prism of post-messianic French-Canadian historiographies (Ch. 3). From there, I look specifically at how geneticists have used these archives—and the histories, historiographies, and sociological tensions that produced them—to create natural facts (Ch. 4 and Ch. 5). I look at the popular genetic practice of using surnames to infer biological ancestry. I examine the transposition of historiographies of colonial settler societies into genetic theories of the “frontier.” I then track how these regimes of knowledge and inquiry have shaped the concerns of clinicians, patients, and health authorities—supporting certain etiological explanations while foreclosing the possibility of others (Ch. 6).

Quebec is a place where ancestors infuse every day life. Their names are proffered as evidence for political claims, longed for, fretted over, argued about, spent on, paid for, workshopped, blamed and evoked in conversations as well as the signs of restaurants, shops, urban boulevards, corporations, and buildings. This study shows how a longing for history and an investment in science have brought both new and old meanings to bear on the way people connect to one another through ancestors. In doing so, it shows how

people's ideas about origins, race, and descent are formed—and formative. Many scientists and policy makers have heralded genetics as an advanced millennial practice that brings new empiricism and objectivity to the study of human variation and typologies. They hold that older sciences like phrenology made pronouncements about the geographic origins of different human groups based on subjective judgments about blood and bones.<sup>69</sup> This study examines the analytical investments of the new science of human difference—its root metaphors, its relationship to both new and old constellations of political, historical, and social forces, and its influence on perceptions of how people are related, in the present and in the past.

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<sup>69</sup> For studies of eugenic projects in the Canadian context, see: McLaren, Angus. 1990. *Our Own Master Race: Eugenics in Canada, 1885-1945*. Toronto: McClelland and Stewart; Normandin, Sebastian. 1998. *Eugenics, McGill and the Catholic Church in Montreal and Quebec, 1890-1942*. *Canadian Bulletin of Medical History* 15(1):59-86.

CHAPTER 2  
FROM ONE CONGREGATION TO TWO RACES

In the 1980s in Quebec, doctors and medical researchers at the three largest French language universities—Laval, Université de Montréal, and the Université de Québec system—reinvigorated French-Canadian historical studies with a series of publications on the population history of the province. Quebec was undergoing drastic political and social changes. A popular three-decades-old French nationalist movement had reshaped education, arts, language policies, and civil society. For decades, Quebec had been an English-dominated province whose elite caricatured French as the brogue of a politically inept, working class, rural hinterland. In the 1960s, a French nationalist movement successfully overthrew the “English” political establishment. Its leaders set about transforming the province into a vibrant, politically and culturally independent French society in North America. In this context, a generation of medical researchers began to turn their gaze inward towards the regional health problems of the French-speaking population. By the 1980s, new laboratory equipment, advances in medical detection technologies, and the expansion of health services to more rural and distant inhabitants of the provincial territory had led local paediatricians to detect clusters of cases of six rare childhood diseases—two metabolic diseases (lactic acidosis, tyrosinemia), two neurological diseases (Charlevoix-Saguenay spastic ataxia, sensorimotor neuropathy), a cholesterol disorder (familial hypercholesterolemia) and a rare form of muscular dystrophy (Steinert’s disease). Medical researchers began to focus on these newly detected

diseases and the regional sub-populations where they had been found. At the time, the field of genetics was changing on a global scale, turning toward population history in order to find patterns in the way diseases spread and travel from one generation to the next.<sup>70</sup> Quebec researchers followed this trend. In order to study the transmission of hereditary disease in the province, they researched demographic data on historic Canadian migration and marriage patterns.

These researchers were not all working together but they showed remarkable consensus about French North American history. They delivered their findings in just over twenty articles published in international genetics and biology journals from 1991 to 1995. They held that “the French-Canadian population arose from a small...sample of the French population,” that had migrated to New France from the Atlantic seaports and outskirts of Paris in the 17<sup>th</sup> century. They described how the original 8,500 French immigrants settled in the fertile valleys flanking the St. Lawrence River, farmed, and inter-married for nine generations. “Linguistic and religious barriers discouraged admixture of French-Canadians.” Admixture is a genetic term that is used to describe population mixing, such as between natives and French or French and British settlers. They posed these early agricultural groups as the ancestral root of the current day French-Canadian population. They divided both past and present Quebec into French (labeled “French speaking,” “French-Canadian” or “French-originating”) and non-French (everyone else). “The population may be seen as a core surrounded by a fringe of immigrants and their descendants; core individuals’ children also belong to the core.”<sup>71</sup>

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<sup>70</sup> See: Adams, Julia. 1990. Introduction: Genetics and Demography and Historical Information. In *Convergent Issues in Genetics and Demography*. Julia Adams, David A. Lam, Albert I. Hermalin, and Peter E. Smouse, eds. Pp. 3-13. New York: Oxford University Press.

<sup>71</sup> Heyer, Evelyn and Alain Gagnon. 2001. “Intergenerational Correlation of Effective Family Size in Early Québec.” *Human Biology* 13 (5): 646. [645-659]

Numerous scientists conducted genetic studies that supported these claims, looking in particular at the Saguenay-Lac-Saint-Jean, Charlevoix, and Mauricie regions, vast expanses of forest and mountains above the major cities of Quebec and Montreal. Through reconstructed family genealogies, they inferred that the residents of these regions were by and large the intact, direct descendants of the original French settler population that came to Quebec in the 1600s and 1700s. They used the genealogies to pinpoint specific geographical and familial origins of Quebec diseases.

In an article in *Clinical Genetics* in 1995, five medical geneticists from Montreal's St. Justine hospital and the Université de Montréal summarized some of this genetic work on the history of the Quebec population and took care to address admixture involving the French population. They mentioned the well-documented period of intermarriage between French-Catholic settlers and Irish-Catholic migrants who came to Quebec between 1846 and 1851 after the Great Potato Famine. They then touched on the French expansion West:

“In the eighteenth and early nineteenth centuries, French-Canadian explorers penetrated the heart of North America, followed by [further French-Canadians] engaged in the fur trade. Some mingled with native populations. In the late nineteenth and early twentieth centuries, between 500,000 and 900,000 French-Canadians emigrated to New England in search of employment. The 2000 U.S. census estimates that over 2.3 million Americans report having French-Canadian ancestry.”<sup>72</sup>

The geneticists argued that French settlers exported their genetics to populations beyond Quebec but remained biologically homogenous in New France. “Despite increasing...urbanization, mobility, and immigration...[the original founders] remain a vital...component of medical genetics in Quebec.” These geneticists, and countless

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<sup>72</sup> Laberge, A.M., J. Michaud, A. Richter, E. Lemyre, M. Lambert, and B. Brais. 2005. Population History and its Impact on Medical Genetics in Quebec. *Clinical Genetics* 68(4):289.

others, characterize many diseases in Quebec—both rare disorders detected in the 1970s and more common conditions like breast cancer—as “French” effects of the original founder population.

They have all turned to historical demographers working with Church records to support these claims. The first demographers to substantiate these claims were at the Université de Montréal. In the 1960s, two demography professors established a new program for research in historical demography and secured funding from the Canadian Institutes for Health Research to transcribe and enter data from Church records into a computer database. They began to collect the ecclesiastical records, which were archived at the National Library and, in many cases, still lodged in parishes across the province. In 1972, the demographers then began to enter names, dates, locations, and familial relationships gleaned from the Church records onto punch cards. The project still has an office in the Université de Montréal demography department and graduate students continue to work with the Church data, now in what they call the “linking” phase. They are going back through the individual entries from each record, which come up on screen as typed lines listing the birth, marriages, and death for a particular person, and linking them into families. The families are one-page, two-generation digital lists of parents and their children, with their dates of birth, marriage, and death.



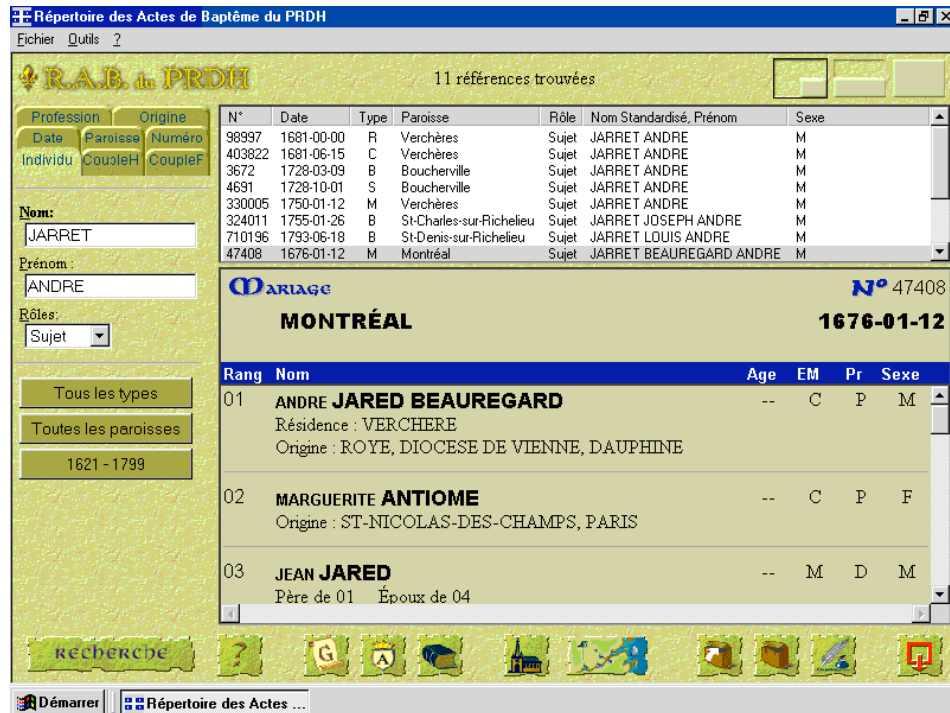


Fig. 2.1. DIGITAL FAMILY FILE. Sample of a search page and family file from the Université de Montréal genealogy database representing one family. Number “01” and “02” are two marital partners, numbers “03” and “04” (not shown) are witnesses to the marriage, often parents of the spouses. Further numbers are usually children of the partners 01 and 02 and their own respective spouses. Image Courtesy of French-Canadian Genealogical Society.

The initial data-entry for records from the 1500s to 1750 was completed at the Université de Montréal in the 1980s. At that point, a consortium of genetic epidemiology departments at three other universities—McGill, Laval, and the Université de Québec à Chicoutimi, in the Saguenay-Lac-Saint-Jean region—secured the funds to take over data-entry and linkage. This was the consortium that would later be renamed BALSAC and moved squarely to Chicoutimi. The consortium struck an agreement with the Université de Montréal demographers to share responsibility and credit for the data-entry and resulting database. The Université de Montréal demographers became responsible for data-entry and linkage from the 1500s to 1799. In practice, they worked with records that stretch into the 1850s since some parents and children’s lives spanned the turn of the

century. The genetic epidemiology consortium in Chicoutimi took over responsibility for data-entry and linkage from 1799 to the present day. The consortium developed software that enabled the conversion of the single page lists of two-generation families in Montreal into multi-generation, branching family trees. By 1987, the merged database from the two projects included 660,000 baptism, marriage, and burial records that had been “reconstituted” into 125,000 families. Two Montreal demographers wrote, “The genealogical links between individuals have been identified, making it possible to reconstruct the genealogies of most individuals...in the present or past.”<sup>73</sup>

When I arrived at the Université de Montréal demography department in September, 2006, five graduate students had been employed to comb through a list of “unlinked” individuals in the database, as well as maps and historical dictionaries, in order to find the right families with whom to connect them. The records, whether because of data-entry typos, illegibilities in the original records, or unexplained data inconsistencies in dates, places, or names, had not yet been linked into a family file. In some cases, individuals had death records with dates that preceded their birth records. In other cases there were multiple birth, marriage, or death records for a person with the same name and origins—e.g. three marriages between 1776 and 1778 for a woman by the name of Marie-Christine Payeur in St. Anne de Beaupré. This led to questions about whether there had been one, two, or several similarly named individuals at the same time in the same town (and then to further questions, if there had been several, about which one belonged in which family, since, for example, there were several Payeur families in St. Anne). Often, the staff turned to scans of the original Church records, plodding

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<sup>73</sup> Gradie, Margaret and Danielle Gauvreau. 1987. Migration and Hereditary Disease in the Saguenay Population of Eastern Québec. *International Migration Review* 21(3):600.

through the cursive script of parish priests looking for a date, name, or detail that would bring some sense to a particular case. “We are doing the detective work,” one of the staff, a master’s student in demography, explained. “We have a lot of resources,” she gestured to the stacks of genealogical encyclopedias of Quebec and historical monographs on early Quebec towns, “and we also have our intuition. You get a feel for the data when you’ve worked with it enough.”<sup>74</sup>

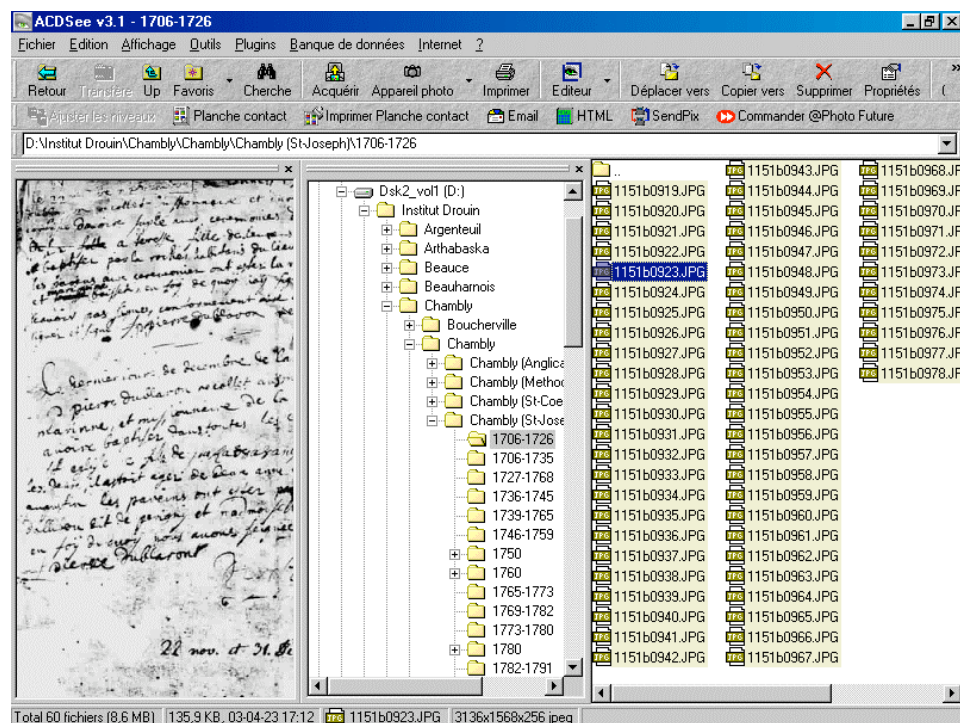


Fig. 2.2. DIGITAL CHURCH RECORD. Screen shot of a sample of a scanned Church record (left) from the digital library of scanned records researchers use at the Université de Montréal. The library was assembled by the Institut Drouin, Montreal, QC. Image Courtesy of French-Canadian Genealogical Society.

What kind of feel for the data did they have? What forms had their intuition taken? What were the choices they were making as they sought to piece together fragments of old ecclesiastical text into families and then genealogies for genetics? What,

<sup>74</sup> All names of graduate student staff have been changed from the original.

also, about the records themselves—digital scans from bound reams of old parchment on which priests catalogued the names of their parishioners? Ideas about racial categories were central to record-taking and family-making practices in early French North America.<sup>75</sup> French priests in North America often integrated the registries of French and natives, a practice linked to the assimilationist tendencies of the *ancien régime*'s civilizing mission in the Americas. In French colonies in Asia and Africa, French citizens and natives were often routed through parallel but separate bureaucratic administrations, resulting in separate personal data archives, in line with the then colonial aversion to assimilation and mixing between the two groups.<sup>76</sup> In contrast, in early modern North America, the civilizational aim of the colonial wing of the *ancien régime* was assimilation via Catholic conversion—seen as moral, religious, national, and familial all at once. Are the old records themselves encoded by the racial logic of moral, religious, national, and familial assimilation, though the actual data they contain are a seemingly simple catalogue of individual and family names?

Demographers in the database office at the Université de Montréal in 2006 were interpreting names and inferring lineages according to signs of race and ethnicity they perceived in the written records, such as the way a written name sounded (“French-sounding” or foreign-sounding) or was spelled. By bringing one set of racial logics (their reading of names for race) to records that had been written according to yet another set of racial logics (shaped by the colonial civilizing process), they were eliciting family trees

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<sup>75</sup> For many fine-grained examples of how records regulated group belonging and reproductive boundaries elsewhere in the French empire, see: Stoler, Ann. 1992. *Sexual Affronts and Racial Frontiers: European Identities and the Cultural Politics of Exclusion in Colonial Southeast Asia*. *Comparative Studies in Society and History* 34(3): 514-551; Stoler, Ann. 2002. *Colonial Archives and the Arts of Governance*. *Archival Science* 2: 87-109.

<sup>76</sup> See: Saada, Emmanuelle. 2002. *The Empire of Law: Dignity, Prestige, and Domination in the “Colonial Situation.”* *French Politics, Culture, and Society* 20(2): 109.

from dense overlays of historical, historiographical, moral, national, and political meaning (records, interpretations of records, ideas about writing, race, family, politics of belonging, nationality, and nativity). What specifically were those layers and how did they intersect in the form of the family trees? What kinds of histories, politics, and family, national, and racial categories had brought these trees into being—though it seemed as though the trees were merely the outcome of a simple transfer of information from old records to a digital database. What kinds of relationships were these records being used to represent and establish vis-à-vis demography and genetics? The demographers were bringing early modern and contemporary social and political dynamics into conversation and then animating that encounter in the form of the family tree. Which social and political dynamics were at stake and what did that encounter look like?

*Names, Biology, Ancestry, and Reading Race in the Records*

I sat one morning in March with a data-enterer named Aimée who was looking at the digital scan of an original Church burial record for a child named Joseph Belanger. The boy died at age 7 in 1743 in a village near Quebec City. The priest had written the name of his father and mother in cursive in the register and indexed the entry with an “S” for *sepulture* (human burial). The record is in the official mission register for the Huron reserve at Loretteville. The name appears in the register under the heading, “whites.”<sup>77</sup> The French explorer Jacques Cartier sailed inland on the St. Lawrence to Loretteville in 1535. The government of Quebec has deemed the area a National Historic Site, erecting a museum that commemorates Cartier’s voyage and the first Jesuit missions in Quebec

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<sup>77</sup> Parish Registers, XVII-XIX Century, National Archives of Quebec, Montreal. (Registre de hurons de Loretteville, Roll #4604). Original: “blancs.”

through salvaged letters and artifacts. The Jesuits established the Lorette mission around 1667. Current day Loretteville was incorporated as a formal town in 1947 and is now a small residential suburb of 13,000 people on the Saint-Charles ten miles from downtown Quebec City.

I asked Aimée, “Why are there non-natives in the Lorette mission register?” and she replied, “There were French settlements close by.” Until the late 1800s, natives and non-natives worshipped together in the same congregation at Loretteville. The parish had been set up to serve both groups. The mostly Huron settlements were referred to under the banner of Young Lorette while the mostly French-inhabited clusters were called Old Lorette. In 1904, the Quebec government and clerical authorities then established a separate Church and municipality with its own register for the Hurons. In 1986, the Government of Canada incorporated land on which the Huron settlement was located as an official Indian Reserve named Wendake.<sup>78</sup> Given this history, it is surprising that many people today believe that the two groups have always lived apart. European tourists now visit the reserve and chapel in the summer, eating Brissoned buffalo meat at the Wendake Grill and purchasing native arts and crafts at stands next to the church. Tribal guides describe how Hurons subsisted through centuries on the cultivation of squash and corn and by unfurling beaver skins along the floors of long houses to stay warm on winter nights. They recreate for visitors a world in which whites are largely absent. In Montreal at a 2006 conference convened to discuss aboriginal rights in Quebec, a Université de

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<sup>78</sup> Bélanger, Pauline. 1990. Inventaire des registres paroissiaux catholiques du Québec 1621-1876. Université de Montréal/Programme de Recherche en Démographie Historique; Village des Hurons, Wendake (Legal Surveys Division, Historical Review). Nd. Ottawa: Canadian-U.S. International Boundary Commission, [www.internationalboundarycommission.org](http://www.internationalboundarycommission.org), Accessed on June 10, 2007.

Montréal doctoral researcher presenting her new study of Wendake implied the Hurons there had only recently come into contact with French-Canadians.<sup>79</sup>

Unlike in the United States, in Quebec people do not claim Indian roots, ancestry, or “blood” in order to seek prestige, inspire awe, or suggest deep and multi-generational historical ties to the continent. The anthropologists Pauline Turner Strong and Barrick Van Winkle have noted that in the United States, “the power of a drop of ‘Indian blood’—if no more than a drop—is to enhance, ennoble, naturalize, and legitimate.”<sup>80</sup> In every day life in the 20<sup>th</sup> and 21<sup>st</sup> century U.S., talk about native ancestors is one way that people have often marked themselves as having prestigious ties to first-wave immigrants to early America (Puritans, Quakers, Mayflower passengers). They use personal narratives about native blood (a great-great-great Mattabesic grandmother who grew up fishing carp on the Connecticut) to place their families and genealogies closer to the colonial settler founders. In contrast, in Quebec, any question aimed at a self-identified French Quebecker about Indian ancestors during my fieldwork (and I posed the question to nearly all of the hundreds of people I encountered in my three years there) elicited repulsion, disavowals, and confusion: “No Indian blood here,” “All from Bretagne,” “not one of those families,” “pure Québécois.” Was this aversion to histories of contact somehow linked to the tendency in Quebec social science to presume a historical separation?

Numerous studies have examined French-Native family relationships in colonial Louisiana yet very few studies—perhaps numbering the fingers on one hand—have

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<sup>79</sup> Iankova, Katia. 2006. La territorialité urbaine de Wendake, née du choc du cultures (Wendake’s Urban Territoriality, Born of Culture Clash). Paper presented at Le territoire et les autochtones, Université de Québec à Montréal, Montreal, September 21.

<sup>80</sup> Strong and Van Winkle, 1996, Pp. 552.

suggested or looked squarely at evidence of French-Native family relationships elsewhere in French North America, including early Canada and especially in Quebec. Some people have noted this lack of scholarship studying histories of native and French contact. In early 2007, I went to a conference on French colonial history at the Université de Montréal that several historians had organized to reassess scholarship on the French Atlantic world. A historian from the University of Grenoble named Cécile Vidal presented a paper in which she emphasized the absence of Amerindian narratives from French Atlantic history. Vidal has written a historical study of early French Canada that broaches the subject of French-Native mixing, looking at families that emerged after generations of intermarriage between fur traders and Indian women. Many of these families identified themselves as “Metis,” a French-derived word for mixed that is now a formal native category recognized by Canada’s Bureau for Northern and Indian Affairs.<sup>81</sup> “We speak often of a white America and a black America, but we speak less of a so-called red America and look little at what that America has to do with French people and France,” Vidal said in her closing remarks.<sup>82</sup> In the discussion following the talk, a student asked Vidal why ‘red America’ is absent and Vidal said French nationalists were responsible.

Whether or not French nationalists are implicated, the sense that Indians and French had separate histories is in fact something with which both “sides” are complicit. Indians on reserves such as Wendake also actively advocate for a separate history. This may be because reserve Indians rationally understand that the only way to win land

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<sup>81</sup> Havard, Gilles, and Cécile Vidal. 2003. *Histoire de l'Amérique Française* [History of New France]. Paris: Éditions Flammarion.

<sup>82</sup> Vidal, Cécile, 2006. *Perspectives sur l'atlantique français de l'intérieur nord-américain* (The French Atlantic as Seen From the North-American Interior). French Atlantic History Group Workshop I, Université de Montréal, Montreal, QC, September 28.



claims within the Canadian legal system is to argue that they have lived in continuity as a cultural island, marrying each other and subsisting for centuries against a distant backdrop of French then British invasions. Canada's Indian affairs office requires groups claiming aboriginal land rights to demonstrate that they have continuously and exclusively occupied an area. Indian Affairs administrators judging claims have emphasized the need for evidence that the tribe did not mix with non-native neighbours. Indeed, U.S. and Canadian case law shows that tribes who reveal their land, livelihoods, and genealogies have been enmeshed with European lives usually lose claims. The Mashpees of Cape Cod, for instance, lost a 1970s land claim because tribe members had intermarried and assimilated with neighbouring whites, becoming "culturally...as well as physically estranged from their heritage" according to the court, bringing into legal question the existence of a bounded Mashpee tribe to begin with.<sup>83</sup> In Australia, federal courts have placed more or less similar constraints on aboriginal groups seeking property.<sup>84</sup> In Canada, claimants are supposed to prove the land they seek is made from fragments of earth on which "Amerindians were the only occupants."<sup>85</sup> A separate history is an indirect means to validating any such claim.

The Indians at Wendake and other reserves may also envision a separate history because that is the only way for their daily life to make sense. One of the insights of Henry Lefebvre's philosophical work and much of the writing about space that came after

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<sup>83</sup> Stolzenberg, Nomi. 2002. The Culture of Property. *In* Engaging Cultural Differences: The Multicultural Challenge in Liberal Democracies. Richard Shweder, Martha Minow, and Hazel Rose Markus, eds. Pp. 184. New York: Russell Sage Foundation; James Clifford has written about the trial: Clifford, James. 1988. "Identity at Mashpee." *In* The Predicament of Culture: Twentieth-Century Ethnography, Literature, and Art. Cambridge: Harvard University Press.

<sup>84</sup> See: Povinelli, Elizabeth. 2002. *The Cunning of Recognition: Indigenous Alterities and the Making of Australian Multiculturalism*. Durham, NC: Duke University Press.

<sup>85</sup> La Chaire de Recherche du Canada sur la question territoriale autochtone lettre d'information (Canada Research Chair on the Aboriginal Land Question Newsletter), Université du Québec à Montréal, 1(3):2.

it was that people make symbolic use of spaces and places in ways that are congruous with existing social formations and collective memories. The now separate “Indian” spaces and structures that inhabit reserve land make it seem like the category “Indian” must have always existed. Looking to the cemetery headstones half-submerged in earth next to the original chapel, a woman on a street in the reserve once told me, “our ancestors are buried there.” “Are there any French?” I had asked. “No,” she laughed. “*Our* ancestors.” The names on the stones are French and mixed French and native. Louise Moreau. Serge Oeshemanuepe. Agathe Oenronron. For the woman who pointed me there, French and Indian had always been them and us—two categories of people separated over centuries and by different, though adjacent, settlements and ways of life.

However, there is evidence that suggests Wendake and Loretteville were the site of an integrated, mixed French-Huron community before the twentieth century. In 2003, a genealogist in St. Foy, Qc. Named Serge Goudreau did a study of the Hurons of Lorette. From a 1754 land sale contract, Goudreau found that the then chief, Ondiarate, was the son of a Huron man and a French woman named Geneviève Andhechonniak. Andhechonniak had been adopted by the Hurons in the 1730s. Ondiarate was married by a Jesuit missionary to a French-Huron woman named Véronique Tehonatsenhong in 1767. Ondiarate had a brother from the same parents named Sebastien Sarenhes who married a mixed French-Huron woman. Tracking back and forth between the notary and the Church register, Goudreau made a series of connections between Ondiarate’s extended family, ten neighbouring French clans, and an Anglican-born Catholic convert named Zacharie Hotesse (née Otis). It seemed that most people had double names: one French and one native, depending on the register. Pierre Tehoronhiong and Louise Aouendaes were elsewhere Pierre Romain and Louise Duchesneau. Francois-Xavier

Otsistaru was Francois Simon. Augustin Hokandoron was Augustin Picard. Nicolas Hannehoutata was Nicolas Jacques, taking his father's first name as his surname. Simon Teennontaxen was Simone Hélène, after his mother Hélène Skachiaares' first name. It appeared that "many French-Canadian women had been integrated by marriage into the Huron community at Lorette."<sup>86</sup>

Loretteville presents a problem for both French and native renderings of Canadian history. Many people say: It is so easy to tell an Indian in the present—where she lives, what history she identifies as her own, and the color of her skin all lead to an answer, both on and off the reserve. The Huron chief at Loretteville in 1915 felt obliged to explain why the color of his skin was not "Huron," suggesting the extent to which skin was an accepted index of Indian-ness at that time. "My face no longer has the color of those that my ancestors had, but I feel always the heat of Huron blood in my veins."<sup>87</sup> In the Université de Montréal demography department, I had asked Aimée, "How do you know a native?" She replied, "They look native." By this, she explained she also meant skin and facial features were the key signs.<sup>88</sup> The task of identifying Indians became more difficult for her when she looked to the past. There are no bodies on which to base conclusions. The body of evidence is restricted to records. I asked, "How do you know a native in the records? You can't see them," and she replied, "You know one by his

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<sup>86</sup> Goudreau, Serge. 2003. Un chef huron du village du Lorette. (A Huron Chief of the Village of Lorette). *Memoires de la Société Généalogique Canadienne-Française* (Memos of the French-Canadian Genealogical Society) 54(4): 269-288.

<sup>87</sup> *Le Droit*, April 16, 1920, Qtd. in Brunelle, Patrick. 2004. Un cas de colonialisme Canadien: Les hurons de Lorette entre le fin XIXe siècle et le début XXe siècle (A Case of Canadian Colonialism: The Hurons of Lorette between the end of the 18<sup>th</sup> and the start of the 20<sup>th</sup> century). Dissertation submitted to the Department of History at the Université de Québec à Montréal.

<sup>88</sup> On how people use broad ranges of signs to infer and interpret race, see: Lemon, Alaina. 1998. Your Eyes are Green Like Dollars: Counterfeit Cash, National Substance, and Currency Apartheid in 1990s' Russia. *Cultural Anthropology* 13(1):22-55; Lemon, Alaina. 2000. *Between Two Fires: Gypsy Performance and Romani Memory from Pushkin to Post-Socialism*. Durham, NC: Duke University Press; Bakshow, Ira. 2006. *The Meaning of Whitemen: Race and Modernity in the Orokaiva Cultural World*. Chicago: University of Chicago Press.

name.” That was how she knew that young Joseph Belanger, seized by death at seven, was French and that the priest at Lorette in 1743 had placed his burial record in the right list—the list for whites. Is this how to tell who was an Indian in the past? *Were there* “Indians”? What does the category Indian even mean? Where did it come from? When did aboriginals become “Indians”? A great deal of evidence suggests that colonial French North American society—natives and settlers alike—classified natives differently from the way people in Quebec and Canada classify natives today. How are people in Quebec and Canada, including geneticists and demographers, classifying human difference differently from the way people in early North America described it? What does this difference mean for the way genealogists are reading race in the old records?

### *Savage Sensibilities*

The racial and religious politics of the colonial French civilizing mission in North America are part of the reason why the Church registers divided natives and “whites.” These separate categories did not mean what they might conventionally mean today. In New France, as in much of North America and Europe prior to the twentieth century, human groups were often delineated according to a different, more holistic interpretation of human difference. Priests in New France often viewed what many people took for granted in the twentieth century as self-contained, distinct categories of “culture,” “religion,” “biology,” “mind,” “spirit,” and “body.” They apprehended human difference as something cutting across intellectual, physical, and spiritual planes. They distinguished natives, not just as biological others, but as different according to a cumulative sum of

differences in all of these domains.<sup>89</sup> This logic led colonial authorities in New France to try to assimilate and “civilize” natives by altering their religious, moral, spiritual, and physical ties and practices—through education, marriage, and religious conversion. As in other parts of the French empire, priests and colonial administrators approached missionary evangelization, in particular, as a way of educating aboriginals in moral, intimate and sentimental norms in addition to religious rites. There were proper ways of speaking, dressing, farming, and singing. The priests in New France used baptism and religious education to enact and formalize these civilizational conversions, giving new French names and identities to natives who had learned to behave, interact, and work like French Catholics. Priests and administrators also encouraged native women, whom they saw as more assimilable than men, to marry into French families. Natives who formed families with French settlers disappeared into the records under their new French-Catholic names. The different categories—for whites and natives—in the records, and the French and native names within each column, were products of this particular mode of seeing people and the differences between them.

Successive royal intendants, administrators, and church leaders in the French North American colonies argued that through changes in comportment and “values,” in addition to education in prayer, liturgical chants, and scripture, natives would fully convert—not just to Catholicism but to “civilization” and, specifically, into Frenchmen and Frenchwomen. They called natives “savages.”<sup>90</sup> The French naturalist Georges-Louis Leclerc, Comte de Buffon wrote of “the Amerindian” in 1788: “having neither conquered

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<sup>89</sup> For more on this pre-twentieth century racial logic, see: Stocking, George. 1993. *The Turn-of-the-Century Concept of Race. Modernism/ Modernity* 1:4-16; Stanton, William. 1960. *The Leopard’s Spots: Scientific Attitudes Toward Race in America, 1815-59*. Chicago: University of Chicago Press.

<sup>90</sup> In French, “sauvages,” or “sauvagesses” for women.

the seas nor directed the course of rivers, nor cultivated the soil, he was in himself only an animal.”<sup>91</sup> Jesuit priests wrote often about the strange temperament and desires of natives. The nineteenth century missionary Abbé Raynal alleged that the inhabitants of the New World were strangely indifferent to sex, possessing “a sort of impotence that reveals clearly how new the continent is.”<sup>92</sup> Working in Acadia, a former French region of central Canada, in the early 17<sup>th</sup> century, Father Pierre Biard found natives “ignorant, lawless, and rude.”<sup>93</sup> The majority of priests put forward baptism, which involved renaming with a French identity, as the main way to “de-barbarize” North American aboriginals. From their perspective, baptism could assimilate natives not just into the Catholic faith but on these moral, national, and religious planes. Baptism was part of the culmination of a process of conversion that tethered natives to not just a new faith, but a new way of life.

The Archbishop of Quebec ordered priests in New France to give out the revered names of French saints “in order that the [baptized] might imitate their virtue.”<sup>94</sup> Priests working in the colonial mission, mostly from the Jesuit order, gave natives French Catholic names.<sup>95</sup> In their letters and official reports to the Society of Jesus in Paris, the Jesuits wrote often and in detail of baptism, specifically, as a way of bringing natives into “the French family.” In the minutes of a meeting held between four Mohawk leaders and British forces near Montreal in 1755, converted Mohawks are reported as saying of

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<sup>91</sup> Qtd. in Jaenen, Cornelius. 1982. “Les Sauvages Ameriquains”: Persistence into the 18<sup>th</sup> Century of Traditional French Concepts and Constructs for Apprehending Amerindians. *Ethnohistory* 29(1):47.

<sup>92</sup> Jaenen 1982, Pp. 51.

<sup>93</sup> Thwaites, Ruben Gold, ed. 1898-1901. *The Jesuit Relations and Allied Documents Travel and Explorations of the Jesuit Missionaries in New France 1610-1791*. 73 Vols. Cleveland, Ohio. Vol. 6 (1634), Pp. 147.

<sup>94</sup> *Rituel du diocèse de Québec (Rites of the Diocese of Quebec)*.1703. Musée de la civilisation, Bibliothèque du Séminaire de Québec.

<sup>95</sup> Looking at French colonial authorities in Turn-of-the-Century Indochine, Ann Stoler has noted how officials there also used names to categorize the cultural affiliation, racial identity, and legal rights of colonial subjects. Stoler 1992, Pp. 522.

baptism, “the French and we are one blood.” When a priest at the first French native reserve, Sillery, baptized a Montagnais leader named Nenaskoumat, renaming him François Xavier, one of the tribe members was reported to have said that he was at that point “related to the French,” having “received their belief.”<sup>96</sup> Baptism and renaming seem to have forged family ties in both directions: there are reports that mission priests also took native names in the villages of native converts to whom they ministered.<sup>97</sup>

Priests also baptized native women who married French settlers with French first names and surnames.<sup>98</sup> Priests and administrators focused on these marital unions between native women and French men as particularly effective means of hastening the civilizing process. From 1667 to the 1680s, the French government sent money for native women’s dowries to colonial governors. The French colonist and explorer Samuel de Champlain reportedly announced to a native group “our young men will marry your daughters and we shall be one people.”<sup>99</sup> Champlain specifically mentioned mixing with Indian women as a possible route to civilizational order and the betterment of native tribes. In 1639, the Jesuit Order in Quebec convinced the royal supervisor of the colonies to promise free cleared land to any native woman who married and settled with a Frenchman. The founders of Montreal, nuns and priests of the Society of Notre Dâme, wrote that they expected inter-marriages between native and French to result in mass conversions, leading to an expansion of the colonial population and political and social

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<sup>96</sup> Qtd. in Macleod, D. Peter. 1996. Catholicism, Alliances, and Amerindian Evangelists. *Catholic Church Historical Association Historical Studies* 62:69.

<sup>97</sup> *Rapport de l'Archiviste de Québec*, Vol. 1926-1927, *Lettres de Père Alneau Collection*. Pp. 283.

<sup>98</sup> There is a small literature that has examined these marriages, for example: Van-Kirk, Sylvia. 1980. *Many Tender Ties: Women in Fur-Trade Society, 1670-1870*. Ph.D. Dissertation, Department of History, University of London.

<sup>99</sup> Qtd. in Aubert, Guillaume. 2004. “Purity of Blood”: Race and Purity of Blood in the French Atlantic World. *The William and Mary Quarterly* 61(3): 476 s. note 27.

stability. They recruited native girls into Jesuit schools and later married many of them to French settlers.<sup>100</sup>

The rhetoric of French and Catholic conversion—often referred to as “francification”—was a key part of the French North American clerical and civil regime’s stated ideology about native groups. Cardinal Richelieu wrote in the charter for the colonial merchant Company of New France in 1627 that “the Savages who will be led to the faith and to profess it will be considered natural Frenchmen.” Louis XIV later requested that native children be raised “after the French manner of life, in order to civilize them, bit by bit.”<sup>101</sup> His Minister of the Marine, Jean-Baptiste Colbert, became a major force behind the founding of native schools, writing that “through the instruction of [savages] in our religion and our customs they can join with the [French] habitants of Canada to become one people.”<sup>102</sup> Much later, in an undated early 19<sup>th</sup> century letter back to a colleague in Paris, the Bishop of Quebec wrote with pleasure that young native women in a recently established mission school were learning how to dress, speak, and live like the French. “Some of them have learned under us how to be tailors, other have become cobblers, and yet others are masons who have already built by their own hands little European-style houses.”<sup>103</sup>

The actual practices of priests and colonial administrators may have been exclusionary when it came to natives but the Church records, as a public genre of colonial

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<sup>100</sup> Giry, François. 1687. *La Vie de M. Jean Jacques Olier, prêtre, fondateur et premier Supérieur du Séminaire de Saint-Sulpice* (The Life of M. Jean Jacques Olier, priest, founder and first Superior of the Saint-Sulpice Seminary). Paris. Pp 98-99.

<sup>101</sup> *Jesuit Relations* (1669-1670), Vol. 53, Pp. 205.

<sup>102</sup> Jaenen, Cornelius. 1976. *Role of the Church in New France*. Toronto: McGraw Hill/Ryerson, s. note 37.

<sup>103</sup> *Lettre de Mnsgr. L’Evêque de Québec, ou il rend compte à un de ses amis de son premier voyage de Canada, et de l’état ou il a laissé l’église et de la colonie* (Letter from the Bishop of Quebec, where he recounts to one of his friends his first trip to Canada and the state in which he has left the Church and colony). Nd. *Mandements, Lettres Pastorales, et Circulaires des Évêques de Québec* (Mandements, Pastoral Letters, and Circulars of the Bishops of Quebec). Québec: Imprimerie Général A. Coté et Cie. Pp. 209-211.



and Church discourse, were mediated by this official rhetoric of inclusion. There were three main kinds of public writing that colonial Church administrators, in particular, engaged in while in New France: the *Jesuit Relations*, annual reports sent back from the head of the mission in New France to France; letters sent from the Bishops of Quebec to parish priests and the Bishops of France; and the Church registers. In the *Relations* and letters, both written in detailed and extensive narrative form, priests regularly drew connections, implicit and explicit, between blood, baptism, the Christianization of native names, and the francification of native manners. Countless references to the mission baptism of Amerindians conveyed an image of the complete transformation of Indian bodies, souls, and in one case, specifically, “blood” through baptism. Through baptism, the Indians were said to have “broke[n] from [their] cruel and filthy culture.” Another missionary wrote in the *Relations*: “they believe that to be good Christians they have also to do everything like the French.”

There were precedents from mainland France for the French North American colonial and clerical equation of racial categories with cultural and moral competence. In both the mainstream and at the margins, French philosophers had forwarded the idea that the “racial” or “national” or “special” composition of a society would determine its civilizational fate. In the seventeenth century, most of these public discussions focused on the issue of noble blood. Representatives of the French nobility insisted on their natural superiority to officers who had purchased royal status, arguing that noble status was only bestowed by birth. It was said that nobles transmitted through their blood “seeds of valor

and virtue.”<sup>104</sup> Many nobles wrote that “mixed marriages” between people of different social rank could threaten their blood purity and, in turn, the stability of the social order. They also wrote, as a caveat, that lower ranking women could transmit the blood and qualities of their husbands to their children and were thus easier to assimilate. As a result, the logic went, noblemen could take plebian women as wives without jeopardizing their blood. Philosophers, jurists, and politicians used this equation of blood with rank and aptitude to apprehend the various physically and socially different people who inhabited new African and American colonies.<sup>105</sup>

Most famously, in 1775, J.F. Blumenbach, a comparative anatomist at the Institut de France, divided the human species into five physically and psychologically differentiated types. Blumenbach construed the high brows and fair skin of "caucasians" as apt physical expressions of a more sophisticated mentality and generous spirit.<sup>106</sup> He correlated physical characteristics like skin color and cranial features with mental aptitude. Another notorious, and arguably more influential, French philosopher who later took up the topic of racial and national mixing was the count Joseph Arthur de Gobineau. Gobineau proposed in the 1850s that the rise and fall of civilizations was determined by the racial composition of populations and that mixing with “superior” races could bring “inferior” races “up.” He divided humanity into ten specific races: “the Indian civilization, which traces its lineage back to a branch of a white people, the Aryans; the Egyptians, created by an Aryan colony from India that settled in the upper Nile region; the Assyrians, who included Jews, Phoenicians, Lydians, Carthaginians, and

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<sup>104</sup> Aubert 2004, Pp. 444.

<sup>105</sup> For a detailed examination of racial theories circulating in early modern French jurisprudence and politics, see Peabody, Sue. 1996. “There are no Slaves in France”: The Political Culture of Race and Slavery in the Ancien Régime. Oxford University Press.

<sup>106</sup> On the Natural Varieties of Mankind (1775)

Hymiarites; The Greeks, who came from a mixed Semitic-Aryan stock; the Chinese, the product of an Aryan colony that mixed with Malay and yellow races; the ancient civilization of the Italian peninsula, the cradle of Roman culture, produced by the mixture of Celts, Iberians, Aryans and Semites; the Germanic races, which originally were Aryans but were now a mixed Aryan-Slavic race; and the three civilizations of America: Alleghanian, Mexican, and Peruvian.” Gobineau wrote, “In the above list, no negro [race] is seen as the initiator of a civilization. Only when it is mixed with some other [race] can it be initiated into one.”<sup>107</sup> Gobineau thus reiterated a familiar 19<sup>th</sup> century correlation between dark skin and “primitive culture.” His confidence in the explanatory power of “civilizational” “national” and “racial” difference as a determinant of human character—as, indeed, a determinant of the character of entire societies—exemplifies the distinctions and analytic frameworks that French noblemen in the Estates General had made two centuries earlier and that the colonial New France Church mobilized to rationalize their civilizing strategy.

### *Reserve Life*

In colonial New France and contemporary Quebec, different regimes of racial identification predominated. The signs of human difference that people used to interpret racial belonging operated according to different logics and had different effects. French North American colonial priests, in documenting the bare facts about various members of their congregations, viewed and encoded racial belonging differently from the demographers at the Montreal laboratory where I observed these same priests’s records

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<sup>107</sup> Gobineau. Arthur Comte de. 1884. *Essai sur l'inégalité des races humaines* (Essay on the Inequality of Human Races). Paris: Firmin-Didot. Note to Chapter XVI, Vol. I, Book I.

being digitally translated. The contemporary Montreal demographers were submitting these records, and the data they contained, to anachronistic readings of race—readings that equated names with biology and biology with race. The demographers were in fact re-iterating the racial logics of the old colonial French clerical regime—inferring race based on labels in the records (names) that had depended on old missionary assessments of individuals’ moral, religious, and civilizational competence. When a demographer like Aimée categorized a name in the records as “white,” “French,” or “Indian” based on name, she was describing individuals according to the colonial New France racial logic that had assigned race through names and assessed race based on religion, morality, and culture. Demographers like Aimée were then marking names, families, and groups that emerged on screen with the imprimatur of modern biology—implying kinship connections based on genes, blood, and sex. There was a shift from one regime of racial identification (physiological-spiritual-moral) to another (biological) between the establishment and growth of French missions in North America and the emergence of contemporary 20<sup>th</sup> and 21<sup>st</sup> century demographic norms.

When and how might this shift have occurred? Some evidence suggests that the introduction of a formal Indian reserve system under the authority of Britain’s military administration in the 1760s may have been a turning point. The Seven Year’s War in Europe between Britain, Prussia and France, Austria, the Russian Empire, Sweden and Saxony was waged in the North American colonies between British and French imperial armies and native tribes that had declared allegiance to one or the other side. At the close of the war, in the 1763 Treaty of Paris, the British administration took control of all of the French North American colonies, including French Louisiana, most of Newfoundland, several counties in current-day New York and Pennsylvania, and French settlements in

Nova Scotia, New Brunswick, and the Great Lakes. Changes in the way people perceived natives—as Indians rather than savages; as strange people of a different race rather than as simply part of the congregation—begin to appear around this time in the British regime’s official rhetoric about race and reserves.

French and English-speaking historians have sometimes disputed the history of the territorial separation, or “containment,” of Amerindians in Quebec reserves. French-Canadian historians have charged that the British takeover and British laws delineating “Indian” land that were passed in the 1800s marked the beginning of the reserve system. They have blamed the British for the resulting drastic inequalities in territorial rights between natives and French. The spatial separation of natives from French began before British Conquest, however. Several reserves, including Wendake, were officially founded under the French regime. French colonial policy makers had pursued a policy of reserves simultaneously with the policy of intermarriage. Colonial records show both clergy and French bureaucrats becoming increasingly frustrated throughout the 17<sup>th</sup> and 18<sup>th</sup> centuries that many French men married native women in the vast expanse of unadministered space beyond settled territory, either informally or in native ceremonies which French priests scornfully labeled “*à la façon du pays*,” (according to local custom). In the 1700s, French bureaucrats and clerics posed the reserve system—designated spaces manned by Catholic missionaries where native groups would be told to settle en masse—as a new possible method for bringing natives under colonial control. The Intendant of New France—a royally-appointed colonial governor—held that the reserves would prevent natives from corrupting the French while converting them through submission to

ongoing instruction from permanent mission priests.<sup>108</sup> The first reserve was founded in a small town outside of Quebec City named Sillery in 1637. Between 1640 and 1680, the New France administration established more official reserves near Montreal, at Sault de la Prairie and Montagne, and created a second reserve near Quebec City, Lorette.

Did rhetoric about the fluidity of native character—native’s ability and potential to become “civilized” or European—shift with the introduction and spatial separation of natives in reserves? The case of Wendake can offer some insights about the changes in perceptions and categorizations that did and did not accompany French and then British reserves. The Company of New France, a business association of merchants, church officials, and French nobles that controlled the fur trade, granted the land on which Wendake was founded to a French colonist named Robert Giffard in 1647. The area had been occupied by an under-used rectory and Giffard was given the land in exchange for his commitment to bring more settlers from France. Giffard sold the land to the Society of Jesus twenty years later. A 1698 French census counted the “Huron population” there to be 122 people divided between 17 cabins. For the next forty years, the Jesuits maintained control of the settlement, transferring the title to the “Hurons of Lorette” in 1742, though keeping their chapel and mission post.<sup>109</sup> At the close of the Seven Year’s War, in 1762, a British admiral named James Murray visited the area and submitted a lengthy report about it to the colonial office in London. Britain had established the first Indian affairs administration, the Imperial Indian Department in the British military, in 1755 and Murray was working under its auspices. Murray described the Huron settlement as a

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<sup>108</sup> For example: Denonville, Jacques René Brisay de. 1685. *Memoir on the State of Canada*; Magnuson, Roger. 1992. *Education in New France*. Montreal: McGill-Queen’s University Press. Pp. 42-63. Also see Aubert 2004.

<sup>109</sup> Village des hurons, Wedake (Legal Surveys Division, Historical Review) Nd, Accessed on June 10, 2007.

village of civilized Indians. “They live in much the same manner as the Canadians,” “as Roman Catholics” and “decent well behaved people.” Murray noted that they had traded their ancient habitations for “excellent good Houses” where they had learned to cultivate and subsist off of the produce of their land. “Some of the Elders have been so tenacious of their mother tongue, they hardly speak a word of French, but most of the Younger ones speak it tolerably well.”<sup>110</sup> Murray’s record suggests he saw a village of Indians, distinct from their Canadian neighbors despite sharing many of the same social characteristics.

The French ecclesiastical and legal records from the same decade paint a different picture. As I wrote earlier, in the same decade, parish and notarial records suggest that there were frequently marriages between women in the Canadian settlements surrounding the village and Huron or mixed men. Two things in particular suggest that these inter-village intermarriages were not mere exceptions. The priest officiating the marriage of the chief, Etienne Ondiarate, to a half Huron half French woman in 1767 cited two “consanguinal” connections between the two partners to the “second and third degrees.” Canonical law in the universal Catholic Church required special “dispensations,” published and recorded permissions, be granted by priests for marriages between relatives who were closer than second cousins. The dispensation in this case suggests that Ondiarate’s mixed wife, rather than a rare individual who had happened upon marriage into the settlement, was part of an already existent, dense network of kinship connections there. Further, two of their four children, all born between 1768 and 1776, had godmothers from the Savard and Sasseville families that resided in the neighbouring French town. In New France, people conventionally named close

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<sup>110</sup> Murray, James. Report of the State of the Government of Quebec in Canada. 1762. Pp. 48-50.

relatives—either brothers, sisters, parents, or, more rarely, first cousins—as godparents. The priests recorded the names of godparents after the names of the parents and the new baby in the text of each baptism record. The appearance of the Sasseville and Savard woman in the records for the settlement thus suggests that they were related, whether by marriage or mixing between their parents, to Ondiarate and his wife. In contrast with the portrait of Lorette painted by James Murray, French and Huron groups could have been intimately intertwined.

Why do Murray and the various French records document the same groups of people at the same moment in time but incorporate such different assumptions about the intimate connections and makeup of both the native and French Lorette settlements? Part of what was different about how Murray appears to have approached Lorette was how he plotted out the axes of difference that separated people in the colony. He divided the people in Lorette into Indian and non-Indian based on residence before he described any of their other characteristics such as comportment, agricultural cultivation, morality, and faith. In the French ecclesiastical records, there was no such distinction. The religious records documented French Catholic names for converts and then identified people according to village and, rarely, tribe. The records emphasized that individuals were Catholic—listing them in successive rows of French Catholic names—and that affiliation, which had multiple moral and cultural resonances at the time, appears to have been the salient axis across which difference could be plotted out. In contrast, Murray had reported on morality, not as defining a major human category of difference (he wrote that the French and Hurons were equally lacking in “civility” even though he viewed the two groups as separate), but rather as subordinate characteristics of two categories somewhat differently construed, Indian and French. In the French records: a world divided into



Catholics and, by implication, non-Catholics. In Murray's report: a world divided into French and Indian. Was his report representative of a new way of thinking about human difference that had emerged in other parts of the British administration? Was it, rather, an idiosyncratic creation that tells more about Murray than about any reigning ideology or policy? Or is it impossible to parse the written pronouncements of the imperial administration and find clues about the way racial distinctions were construed in everyday life, outside of the world of documents, reports, and official writing?

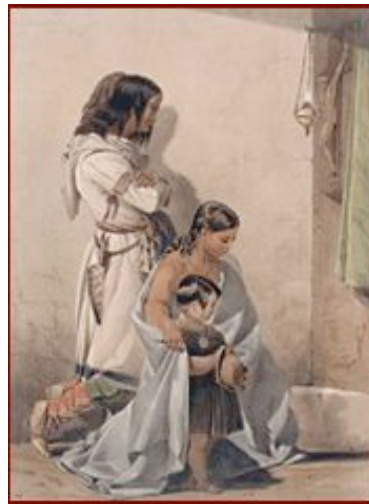


Fig. 2.3. INDIANS OF LORETTE (1840). John Richard Coke Smyth (1808-1882). Smyth painted this portrait of two Huron women and a baby at Lorette in 1840, labelling it “Aboriginals of Lorethe.” The Hurons of Lorette have adopted the portrait in their own published histories of the tribe and renamed it using “Indians” to replace “aboriginals.” Library and Archives Canada, C-001041.

Through successive legal acts, the British imperial administration began to territorially, politically and culturally isolate native settlements within Canada in the 1760s. In a 1763 British Royal Proclamation, George III delineated “Indian tribal lands” as separate from the colonies and reserved them for the Indians’ exclusive use and possession. The Proclamation asserted that these lands had been “reserved for them” and

that protecting them was “essential to [the] Interest and the Security of our colonies.” The King and imperial administration wrote that they hoped the setting aside of Indian lands would avert territorial disputes and warring between different Indian and European factions. The formal Canadian reserve system was then initiated in the 1830s. Like some French clergy and colonial civil servants, the British military and colonial office argued that reserves would civilize Indians. Unlike the French, they did not use Christianity as the sole organizing principal around which civilized behavior could be explained or assessed. With the British, Indian affairs were under the banner of the military administration, not the Church, and the evangelization process was accordingly moved away from the center of colonial native strategy. In British Imperial legislation, the reserves first and foremost were posed as addressing political and military concerns about security, though various military leaders sometimes described the reserves using rhetoric about “a civilizing mission.”<sup>111</sup>

The Canadian parliament established a registry of names of Indians who could be granted official Indian status and rights to settle on the reserves in the 1876 Indian Act. The British Commissioner of Crown Lands in Canada had allotted the 9,600 acres of land of current day Wendake to the “Hurons of Lorette” in 1853, just over a decade before independence and Canadian Confederation. The land was surveyed and the boundaries were set in the British North America Act in 1867.<sup>112</sup> The Canadian government assigned agents to each reserve to tally and collect names for the Register. By law, Indian status was determined by blood quantum. In practice, it was almost

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<sup>111</sup> Darling, Major General H.C. 1828. Report of the Royal Commission on Aboriginal Peoples. [www.ainc-inac.gc.ca/ap/pubs/sg/cg/cg9-eng.pdf](http://www.ainc-inac.gc.ca/ap/pubs/sg/cg/cg9-eng.pdf), Accessed on July 14, 2008.

<sup>112</sup> Village des hurons, Wedake (Legal Surveys Division, Historical Review) Nd, Accessed on June 10, 2007.

impossible to determine at that point who had mixed backgrounds and who did not.<sup>113</sup> In both the U.S. and Canada, fluid, subjective, and unfixed criteria played a formative role in deciding who was and was not an Indian for the original official state Indian rolls. In Canada, some agents used factors such as how much English an individual spoke or how a person dressed to determine status. “Individuals who were considered to be living ‘like Indians’ were taken into treaty [granted status under the act and listed on the rolls], while those who had at some point hauled supplies for the Hudson Bay Company, and as a result knew some English, were registered as ‘halfbreeds’—in each case regardless of ancestry.” Some natives who were away during registration failed to make the lists and were classified by default as halfbreeds.<sup>114</sup> The law also dictated that a “status Indian” could lose status through marriage to a man who did not have status, by birth to a woman who did not have status before marriage, or by birth out of wedlock to a mother with status and a father without. The laws thereby encouraged marriage within the reserves and particularly encouraged women to marry and have children within the reserve.

A previously diverse society where people described difference through the lens of Catholicism was becoming a bipolar society where people understood difference within the framework of certain, permanent dualities: White or Indian, French or English. Historians of colonial Louisiana have proposed a similar movement toward “biracialism” in the 1870s. A Catholic-supported system of mixed race worship there was supplanted

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<sup>113</sup> For more on blood quantum, see Strong and Van Winkle 1996, Pp. 555; Also see Spruhan. Paul. 2006. A Legal History of Blood Quantum in Federal Indian Law to 1935. *South Dakota Law Review* 51(1), Available at SSRN: <http://ssrn.com/abstract=955032>

<sup>114</sup> Lawrence 2003, Pp. 10; Waldram, James B. 1986. The ‘Other’ Side: Ethnostatus Distinctions in Western Subarctic Communities. In Laurie Barron and James B. Waldram, eds., pp. 279-295. 1885 and After: Native Society in Transition. Regina: University of Regina/Canadian Plains Research Center. Pp. 281.

after the 20<sup>th</sup> century by the same kind of duality: people were either black or white.<sup>115</sup> In Quebec, one of the best archival examples I found of this new bipolar perception was in a journal published in 1887 by Amb Fatard, an amateur historian from the Saguenay-Lac-Saint-Jean region. Fatard recovered a manuscript from the Chicoutimi seminary in the early 1880s. It came from St. Charles, a since dissolved French trading post and Montagnais mission established in the 1720s on the banks of the nearby Saguenay river. The priests posted at St. Charles had traveled frequently between the Saguenay region and the Îslets-de-Jérémie off the Labrador coast, traversing hundreds of kilometres to minister to distant settlements of colonists and natives. The manuscript was their informal record of baptisms, burials, and marriages from 1686 to 1748. The 40-odd pages were lists of mostly francophone names. In 1886, Fatard meticulously transcribed the original lists into a consolidated appendix. He wrote that his intention was to make an ordered, condensed list available for future generations of French North Americans who wished to research their family lines.<sup>116</sup> With this purpose in mind, he had arranged the names into an index that was divided into French and non-French sections. Fifty names—all francophone—were listed under the heading “the French”: Gagnon, Pelletier, Prevost, Castuguay, etc. Non-francophone names were in a different section: Mestigoit, Eitakwita, Sarasen, etc. They were sometimes annotated with the descriptors: “Algonquin,” “savage,” or “married to a savage.” In addition to condensing the registers, Fatard had re-categorized the information they contained. The priests in the 1600s and 1700s had never made distinctions between French and native ancestry in their records,

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<sup>115</sup> Bennett, James B. 2004. Catholics, Creoles, and the Redefinition of Race in New Orleans. *In* Henry Goldschmidt and Elizabeth McAlister, eds., pp. 183-208. *Race, Nation, and Religion in the Americas*. Oxford/New York: Oxford University Press.

<sup>116</sup> *Histoire et resume d'un vieux Registre, Amb Fatard, 1686-1748, Chicoutimi, avril 1889* (History and Summary of an Old Register, Amb Fatard, 1686-1748, Chicoutimi, April 1889). Archives Seminaire de Québec. Manuscrit 114.

instead lumping names together when people were part of the same family or parish. For Fatard in the 1880s, the names were markers of ancestry, nationality, race, and belonging in a world split, not by family or congregation, but between French and native.

It is *not* clear whether the British reserve laws caused the shift away from mixed marriage toward “marrying in” that the British military may have intended. In the archives at Chicoutimi, I also found records of a French girl who had lived and given birth to a baby conceived on the nearby reserve in the 1850s. A woman named Gabrielle Poitras had dedicated papers from her husband’s medical practice to the Chicoutimi historical society and recounted to the archivist in 1973: “A small girl from Laterrière with the surname Girard was taken and raised by Indians until she was 13 or 14. By the spring of one of those years, she was pregnant, marrying a man by the name of Nepton. Their baby Marie Nepton married Ambroise Poitras of Roberval—I am the daughter of their son.”<sup>117</sup> Marie Nepton, one-quarter Montagnais if the story is correct, stands in a lace-collared Edwardian style dress, her hair cinched in a soft bun, in a black and white photo pasted above this archived note. Was this a record of one of the last moments when settlers moved freely and created families that spanned French towns and the reserve? I could not find any other similar records in the Chicoutimi archive. Or, was this a sign of the continuation of intermixing despite the major changes the British had made to legal norms? Or, finally, was Poitras’ use in 1973 of the word “Indian”—as a French Canadian at the height of post-1960s French nationalism reflecting on her great grandparent’s lives during British Conquest—so difficult to historically locate and define so as to render the story illegible? Who counted as Indian for Poitras?

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<sup>117</sup> “La Prevention des Incendies à Arvida—9 octobre 1949.” Archives Nationales du Québec (Chicoutimi), Phototecque.

Poitras' record may not tell us very much about whether "Indians" continued to marry and have children with French Canadians after the establishment of the British reserve system, but it highlights something else. Information in records may be cloaked in the indecipherable, sometimes juxtaposed, racial vocabularies of different eras. To take a certain type of evidence, such as names, for granted as indicative of an entire category of people—such as "Indians"—overlooks this; names may not have indicated ancestry; "Indians" as a category may not have even existed. Given the indeterminacy and ambiguity of the evidence, it is possible to find facts that support any number of theories and edit the blanks into meaningful or meaningless omissions. But there is no certainty about who married or had sex and produced children with whom in the past.

How did geneticists then determine in the 1990s that diseases in the upper regions of Quebec had come directly from France? Given the ambiguity of the way record-keepers regarded human difference and may have recorded the race of colonial then national subjects in their rosters, how did geneticists decide that the records indicated only French people had been a source of diseases? *What* were the choices, models, modes of understanding, analysis and description that led an entire cadre of scientists—and their funding and institutional infrastructures—to certainty about the role of France and French settlers in the bodies—and most of all the DNA—of current-day Quebeckers? *Why* did these choices prevail? As I visited different scientists and planned my fieldwork during the first months of my stay in Montreal in the summer of 2006, I found myself looking for the beginning of the answers to this question back at the Université de Montréal demography department. Sometimes readily and sometimes only after much thought and discussion, every geneticist, doctor, and genealogist with whom I spoke referred back to the historical demography laboratory as the source of their original data.

CHAPTER 3  
DEMOGRAPHIC EVIDENCE AND THE CHURCH

To create population histories for genetic research, historical demographers in Quebec turned to Roman Catholic Church records, the most complete and accessible historical record of marriages, births, and deaths in the French North American past. They took the recording of population phenomena in these records to be neutral and ahistorical, rather than incorporating the very production of these sources into their object of study. They also, by definition, limited their histories of the Quebec population to the realm of Catholics. From my fieldwork, it appeared that two influences, in particular, had led to this choice. There was a clear disciplinary influence: the French demographic tradition in which the majority of Quebec demographers had been trained encouraged the separation of society into a French core and a non-French periphery. Historical demography, which developed and was standardized and then globally diffused from Paris, had also entrenched the parish record as its main historical source. This was because the records, in addition to appearing credible, were convenient and generally consistent (short, standardized lists of names, dates, and places). There was also evidence of a social influence: in their daily lives, Quebec demographers experienced validation of the Church records as trustworthy and comprehensive sources.

By “trustworthy,” they understood the records to be the unambiguous statistical reports of priests who knew the various members of “their flock”—including the comings and goings, births, marriages, tragedies, joys, trysts, rows, and past-times that made up

daily village life—first-hand. As a director of the historical demography program at the Université de Montréal once told me, “the priest was there.” This stance toward the Church records is a special artefact of the particular history and current perceptions of the Catholic Church in Canada and Quebec. Catholic leaders in Quebec approached the end of the 19<sup>th</sup> century with renewed ambitions for colonial expansion and a conviction that French society should dominate North America. Bishops and priests laboriously shaped geographic settlement and the educational system in ways that recast the Church as the self-evident center—past, present, and future—of Quebec’s political, economic, and social life. Their contention that the Church had dominated Quebec and French North America in the past supported this new positioning of the Church in their present. Contemporary demographers now read the old 17<sup>th</sup> and 18<sup>th</sup> century Church records from the vantage point of this Church-centrist history.

I am suggesting that the facts that these contemporary demographers glean from the written church records are dense layers of politics of history, memory, and law that have concrete consequences for race and genealogy in the present in Quebec. The 17<sup>th</sup> and 18<sup>th</sup> century Church mobilized legal discourse—of which documentary norms and personal data registration were one exemplary genre—to remake race as part of its North American colonization project (Chapter 2). The 19<sup>th</sup> and 20<sup>th</sup> century Church cast those mobilizations—the paperwork, notation procedures, and writing regulations of early priests—as neutral, comprehensive, and authoritative. Contemporary demographers now articulate these assumptions of neutrality to support their reliance on that paperwork as a source of credible facts about families. As a result, they are further supporting that historiography and, equally, reanimating the racial logic of the colonization project, this



time with a biological lens—interpreting French names in the records as indicators of not just French moral, social and religious identities, but French biological identities.

*Church Power and the Written Record*

From where did the Church sources originally come? Under what conditions might they have been produced? Like all writing, Church documents had authors. Between 1500 and 1700, a series of milestones in the standardization of the registry of life events by the Church in Europe and in French North America occurred. In 1563, the Council of Trent prescribed that the Catholic Church must universally record baptisms and marriages. The Council was a meeting of Church leaders that convened over twenty years, under two successive Popes, in the 1550s and 1560s to both censure the rise of Protestantism and, in response to Protestant disputations, decide on clearly defined Church sacraments, rites, masses, and teachings about scripture, saints, and original sin. In response to the Council's perceptions that the clergy lacked standard and systematic knowledge of Church doctrine, Pope Pius V had subsequently issued new liturgical books—a revised Breviary, Missal, and the Roman Catechism, and a revised Vulgate, or bible, in the Council's aftermath.<sup>118</sup> The requirement that priests record marriage, baptism, and burial rites, and the very records that resulted from this requirement, were part of this surge toward standard, diffusible Church writing. Later, in the 1614 Roman Ritual, which listed rites to be performed by priests, the pontificate required burials to also be included.

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<sup>118</sup> Cross, F. L., ed. 2005. *The Oxford Dictionary of the Christian Church*. New York/Oxford: Oxford University Press.

Several important shifts relating to the keeping of records were concurrently occurring in France. The French state did not have its own system of civil records but, in three ordinances, 1539, 1579 and 1667, the King effectively gave full legal recognition to Catholic registers as the primary legal proof of birth, marriage, and death. At the time of the last ordinance, the first study of the size and characteristics of the population of the French Kingdom had begun. The study eventually listed the number of “hearths,” parishes, and clergy in 46 administrative sectors. Around the same time, the French minister Colbert also ordered the first systematic surveys of Paris. His stated aim was to ascertain whether France was suffering a decrease in citizens due to war, famine, and the plague.<sup>119</sup> The first major regional census, in the province of Languedoc, was also underway. The Superintendant of Languedoc carried out the census in 1697, apparently motivated by the desire to estimate the size of the regional Catholic population. He tabulated the number of Protestants and Catholics, under the headings “Old Catholics” and “Newly Converted,” and the “general total of persons.” General anxieties about the size of the population—which had been linked to France’s political strength and power within Europe—were surfacing in literature, philosophy, and politics. This anxiety was a particular focal point in parts of Montesquieu’s *Lettres Persanes*, which became an emblem of growing French concern about supposedly dwindling reproduction.<sup>120</sup> A member of the Estates General wrote, “the basis of any political society was happiness, and its goal,

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<sup>119</sup> Goubert, Pierre. 1965. *Registres paroissiaux et démographie dans la France du XVII<sup>e</sup> siècle* (Parish Registers and Demography in 16<sup>th</sup> Century France). *Annales de Démographie Historique* Vol. II: 43-48.

<sup>120</sup> See Chapter One discussion of population, Pp. 24-34.

population."<sup>121</sup> In this context, parish registration systems were the main mechanisms for keeping constant count of the people.

In Canada, systems for parish registration of births, marriages, and deaths appeared with the arrival of the first missionaries, who were responding to the directives of the Council of Trent and the *Ritual romanum*, as well as to the French ordinances. In 1678, The Sovereign Council of Quebec officially implemented the prescriptions in the early French ordinances, recognizing Catholic records as legal in the Canadian colony. This led, the next year, to the initiation of a new system whereby priests were required to complete their registers in duplicate, keeping one record for the Church, and writing out a second record that was then sent to the civil authorities.<sup>122</sup> Vast lacunae in the civil records suggest that the duplicate record system did not really start until the 1720s. In many of the registers after the 1720s, major gaps in years as well as illegibilities and inconsistencies in the format and information included in each recorded rite also persisted. Some records of births have names of parents but not the baby, or dates and surnames but no first names, or names of one set of grandparents but not the other, etc. In some cases, it is clear that priests waited until the end of the year and duplicated the record book by hand all at once, leading to numerous mistakes. In one representative register from 1768 that I viewed, the priest had transcribed all of the acts in his parish between 1710 and 1768 and written two notes to the civil registrar: "Lacunae on 10 April

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<sup>121</sup> Hecht, Jacqueline. 1999. From 'Be Fruitful and Multiply' to Family Planning: The Enlightenment Transition. *Eighteenth Century Studies* 32(4): 536.

<sup>122</sup> Bouchard, Gérard and André LaRose. 1976. La réglementation des actes de baptême, mariage, sépulture au Québec, des origines à nos Jours (The Regulation of Baptism, Marriage, and Burial Acts in Quebec From The Beginning to the Present) *Revue d'Histoire de l'Amérique Française* 30 (64):67-84.

1710, 7 May 1747, 7 Feb 1765, 28 June 1768” and “Note: I still must copy ... from July 1744 to 27 April 1747.”<sup>123</sup>

Throughout the 1700s there were numerous unsuccessful attempts to enforce more methodical, systematic civil records taking. The Archdiocesan archives contain numerous edicts and letters from the successive Intendants of New France and clerics addressing the issue. On the French island territory of St-Pierre de Miquelon, just off the coast of Newfoundland, a general assembly of residents themselves demanded more accurate and thorough registration. Representatives for the small population of the islands—which contained individuals identifying themselves as French, Mi'kmaq, Basque and mixed—charged that the registers might deprive families and descendants of their rights because they were “too informal, full of different gaps, with some acts missing, and other missing dates, names, or signatures, and almost all lacking any standard form.”<sup>124</sup> It was not until 1866, in the Civil Code of Lower Canada (*Code civil du Bas-Canada*), that a systematic, consistent method of duplicate registration was put into full force. The written record after 1866 becomes remarkably standard, in terms of format and data, and appears much more continuous in terms of dates. The Code was based on the Napoleonic Code, supplanted a mixed French-English legal system that had previously prevailed, and marked a watershed in the legal consolidation and initiation of centralized administrative regulation of the province.

Throughout all of these phases in the 1600s, 1700s, and 1800s, the parish registers system unfolded in a specific political context. The Church's position in the political

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<sup>123</sup> Archives Seminaire du Québec (ASQ), Notes sur les registres au St. Nicholas (Notes on the St. Nicholas Registers), Poly 63 No. 7, Pp. 1

<sup>124</sup> Martijn, Charles A. 1996. Les Mi'kmaq dans les registres paroissiaux des îles Saint-Pierre et Miquelon, 1763-1830 (The Micmacs in the Parish Registers of the Saint-Pierre and Miquelon Islands). *Recherches Amerindiennes au Québec* 27(2):49-71.

establishment in New France and reputation with Catholic Orders in France was unstable during these epochs. In the early colonial period, the Jesuit bishops of Quebec wrote letters back to France complaining of the lack of funds and other obstacles to setting up churches, including the resistance of the local settlers and natives alike to Church rites. The second Bishop of Quebec wrote in the 1680s to the congregation of Beaubassin in Acadia exhorting them to build a permanent Church, furnish it with a crucifix, an urn for baptismal water, and the images of saints. In one ordinance, the Bishop of Quebec bemoaned the tendency of settlers to not baptise their children or, equally, to baptise them in make-shift urns of water at home, excluding the Church from birth and reproduction. “We explicitly forbid [mothers and fathers] from submerging [their children] at home.”<sup>125</sup> In the priests’ and bishops’ letters, there was at times a sense of desperation and often an explicit mention of the fragility of the evangelization project on the frontier: they wrote at length about how the climate, distances, diffidence, and disorder of the new North American society threatened their mission and morale.<sup>126</sup>

Letters from the Archdiocese archives between New France priests suggest that, toward the end of the 1600s and in the 1700s, Church officials directly competed with secular administrators for moral and political authority specifically over family life and that vital registration systems played a major role in this dynamic. In 1663, the French King authorized the creation of a new political body named the Sovereign Council of New France that included a Catholic bishop charged with overseeing religious affairs, a Governor General charged with overseeing diplomacy and defence, and an Intendant, under whose authority fell almost everything else, from trade relations to settlement

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<sup>125</sup> Tétu and Gagnon 1887, 1676 Ordonnance sur l’administration du sacrement de baptême (1676 Ordonnance on the Administration of the Sacrament of Baptism).

<sup>126</sup> Tétu and Gagnon. 1887. Lettre à Beaubassin (Letter to Beaubassin).

strategies and the justice system. The Royal Intendant passed several ordinances throughout the 1700s and early 1800s mandating that couples legally certify their marriage before a civil authority in addition to a religious ceremony with a priest.<sup>127</sup> Priests wrote letters contesting the law and affirming that the final arbiter of marriage ceremonies—as with baptisms a century earlier—could only be a Church official.<sup>128</sup> This dispute appears to have reached a boiling point when the Archbishop of Quebec in 1872 wrote a vituperative letter to the Quebec parliament demanding that the latest Act of Registers be amended or revoked. The Bishop, named Bourget, expressed dismay that the act did not require the names and titles of the priests who performed rites to be listed in the text of a written civil record. “It is a received custom in all states and types of society to designate a person by the title that honors him and that indicates the duties he has performed for his wards. Above all...it would be inexcusable, in the eyes of the law, to neglect to give title [to the person who is authorized to perform such acts.]”<sup>129</sup> He was expressing dismay that the main evidence of the Church’s role in marriage—the signature of the priest on the marriage record—would be erased. The dispute over Church versus civil legal authority, and the significance of written acts in that dispute, was clear.

The written culture of the evangelizing mission in New France took shape in the context of Church instability and these Church-civil disputes. Members of the Society of Jesus in New France wrote letters to prelates at their Paris headquarters documenting their travails in the New World. The letters were published annually between 1632 and

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<sup>127</sup> For example: Declaration du Roy concernant les conventions matrimoniales au Canada donnée a Versailles, 1733 (Declaration of the King Concerning Matrimonial Conventions in Canada, Given at Versailles, 1733). ASQ Poly. 5 No. 36a.

<sup>128</sup> ASQ, Règles du sacrement de mariage (Rules on the Sacrament of Marriage). Nd

<sup>129</sup> ASQ, Sem. 73 No. 65, February 10, 1873.

1673 as the *Jesuit Relations of New France*.<sup>130</sup> The *Relations* contained detailed descriptions of the customs and responses of Amerindians to missionaries and the ardor of life on the frontier. The *Relations* are infused with optimism, sadness, and confusion at the acceptance, rejection or perceived incompetence of Hurons and Iroquois in matters of faith. They are also almost always dramatic renditions, explained in climaxes and denouements, of the act of saving souls, guiding the hungry, and ministering to the near dead. Many historians have used the *Relations* as a body of evidence of life in New France but the structure of the stories suggests, equally, that they were texts that aimed to place the French and their missions at the center of life in the New World.<sup>131</sup> The *Relations*, rather than or in addition to historical records, relayed optimistic, and sometimes pedantic, messages about miracles and sainthood from distant outposts to the religious men and women back home.<sup>132</sup> Was the Church record, with its successive lists of French names and priests, also a form of message in some way? The names and lists for increasing numbers of Churches showed that people were submitting to Church baptism; that natives were converting; that parishes were being established and growing. The records were, among other things, an indication of the dedication and control of the Church over the colony. The records evinced a certain history—a history of the dominance of the Church.

In the 1840s, Quebec experienced a well-documented religious revival that made Church dominance a reality. In 1838, a series of French rebellions in Quebec against British colonial authorities had failed. During and after the rebellions the Roman

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<sup>130</sup> Also see discussion of *Relations* and race in Chapter Two, Pp. 64-65.

<sup>131</sup> One of the first and most publicized historians to use the *Relations* was Francis Parkman in his multi-volume study of the French and British in North America.

<sup>132</sup> See Greer, Alan. 2000. Colonial Saints: Gender, Race, and Hagiography in New France. *William and Mary Quarterly* 27(2):323-348.

Catholic Church in Quebec rose to new prominence as a galvanizing force for the rebels.<sup>133</sup> Though they had failed to secure Quebec as a separate colony, the rebellions were a turning point away from the secular British model of democracy as a model for Quebec self-rule. The Church intervened and positioned itself, with an agenda of messianic religious French nationalism, as the most viable way of ensuring the survival of francophone culture in North America. The religious revivalism took form in a dramatic reconnection with Rome, the aggressive founding of new parishes and proselytizing to the “faithless,” and advocacy of French language, custom, and agrarian “roots.” In the 1850s Bishop Bourget—the bishop who had disputed the Registers Act in 1872—oversaw the most dramatic colonization of Quebec territory outside of Montreal and Quebec City. He embodied the ideals of the post-Rebellion revivalism. He argued that the “French-Catholic nation” was “the heart of Catholicism in North America” and had been chosen “to play the role of the Jewish people in the midst of the heathen nations.”

Bourget created the all-dominant Church that the records and Relations had conjured. He oversaw the agricultural development and population of the Ottawa Valley, arguing that land in the Laurentian Mountains on the Ottawa River tributaries “occupies a strategic position for the salvation of the race.” He encouraged his own parish to move north and convinced Quebec industrialists to move paper mills and factories to Northeastern towns that settlers had previously deemed infertile or too cold for habitation. He also pushed for the completion of the Montreal Northern Colonization Railway. Bourget turned the argument embedded in the Church records and *Jesuit Relations* about the power of the Church in New France into a fact. The Church created a

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<sup>133</sup> Greer, Allan. 1993. *The Patriots and the People: The Rebellion of 1837 in Rural Lower Canada*, Toronto: University of Toronto Press.



monopoly over education, law, and political affairs. Bourget also disseminated that “fact.” He oversaw the passage of legislation that provided for the founding of Catholic schools and devised curricula that instilled in students a sense of awe at the power of the Church.<sup>134</sup> That system of instruction was intact well into the 1930s and experienced a surge of new support after the French nationalist movements of the 1960s.<sup>135</sup>

In addition to re-centering Quebec’s intellectual life around the Catholic Church, Bourget also introduced Church-centric documentary norms. He instituted Catholic documents as the sole form of legal proof in the province. In doing so, he created the contemporary conditions that would lead demographers at the Université de Montréal to take Church records—and the powerful Church history they implied—as comprehensive repositories of raw data. In demography laboratories, the somewhat shallow post-Bourget history of Church dominance had assumed the quality of a *long durée* fact. When everyone from demographers to genealogists to firemen and telecom workers whom I spoke to in Quebec brought up the Church, they saw its role in Quebec through Bourget’s prism. “Most powerful,” “Since the beginning,” “They ruled everything,” “We all were hard Catholic” with a little fist-and-punch gesture, “We’ve always been Catholic until now.” These were also the justifications that professors at the Université de Montréal demography lab offered for their use of Church records as sources of facts about family life in the colony and early province. I pressed the director to explain to me why he trusted the records one afternoon and he said, “When I was growing up, we went to school with the priest, the priest knew my mother, my father, everyone, and was there

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<sup>134</sup> Bishop Bourget, Dictionary of Canadian Biography Online, <http://www.biographi.ca/index-e.html>, Accessed July 2007.

<sup>135</sup> For a discussion of how Catholic historiographies and politics persisted even after the secular nationalist governments of the 1960s, see: Gauvreau, Michael. 2005. *The Catholic Origins of Quebec’s Quiet Revolution, 1931-1970*. Montreal and Kingston, On.: McGill-Queen’s University Press.

when my aunt died. The Church was everywhere and the priest knew all of his flock. That is the French-Canadian experience.” Somehow his own experience of a society and family life where the Church infused every event and moment had come to stand in for all of Quebec history. Catholicism was such an important part of his sense of the French past in Quebec that he could not conceive of an epoch when Catholicism and Frenchness had been decoupled.

### *Using the Church Record to Make Families*

In the historical demography office at the Université de Montréal, I was always struck by the mundane, everyday-ness of it all. This was, after all, data entry. I arrived in winter and students sat on two sides of a small room before monitor screens, with their faces alight like lanterns from the glow of their desk lamps. From the office window, you could see people filing into a courtyard near the perimeter of the campus. The building, a geometric grey tower, was inserted in 1943 into the north slope of Mount Royal, an 800-foot mountain around which the city of Montreal was built. One afternoon when I was there, two graduate students, Paul and Madeleine, modulated between two screens as they entered data into files. They had the empty forms that constitute a file open on one screen and the digitized scans of the original handwritten parish records on the other.

Paul and Madeleine were vexed by recurring overlaps and inconsistencies in name order within the original records. The most common problem they found with the records was the non-standard spellings of names. Recorded names were often inconsistent and written according to the phonetic interpretation of particular priests. In many instances, the demographers had shown that one person was recorded three different ways in various records, e.g. Joseph Tibo in his birth record, Thibault in his marriage

record, and Adelgar Thibault, under his middle name, in his burial record. Effectively, one individual could have a different name for her birth, marriage, and death, depending on which priest presided. It would be a mistake to count one person as three separate individuals because of these different spellings. The database directors had devised a method for standardizing names whereby those that were similarly spelled would be grouped under a single code, e.g. GSL = Gausselein, Gosselin, Goselin, and Gauselan. It was interesting to me that a process for computationally standardizing surnames in parish record data-entry was a question that a major genetics journal had seen relevant even in 1969. Under the coding system, the Montreal database staff had been trained to keep lists of similar names. The names were then bundled as recognized variations of a single surname. Toward the end of the data entry process, in the 1990s, a software program was developed to automatically assimilate entered “raw” French-Canadian names into their appropriate codes. When I was there, Paul also had an online dictionary open in one window. A Quebec genealogist had compiled lists of early francophone male and female first names by visiting Church cemeteries and copying tombstones around the province. Part of Paul and Madeleine’s task was to consolidate files for individuals with similar but variably spelled names. Paul was checking several names in his current file against the dictionary.

Variable spellings were just the tip of the iceberg, however. There were also problems with age: sometimes different records showed incongruous ages for what appeared to be the same person. Sometimes birth records for what appeared to be the same person preceded burial records in date. There were then problems with geography: sometimes a series of separate records for individuals with the same name and consecutive dates (e.g. a birth in 1721, marriage in 1740, birth of 5 different children

between 1741 and 1748, and burial in 1763) led the data-enterers to believe only one person was being described. Some of the records were from geographically separate, sometimes distant parishes, complicating things. Often, Paul, Madeleine, and the five other students who were working with them developed stories to rationalize the merging of separate records under one individual. They hypothesized out loud to me that someone in the records had been estranged from her parents and fled, or moved with her fiancée for work, or relocated upon the birth of a child.

In cases where records showed a woman with the same name as the mother of children born in 1782, 1784, and 1789, they usually assumed a record for an intermediary child born between 1784 and 1789 must be missing. “They were highly highly fertile,” Paul had told me. In cases where records showed a woman with the same name as baptising a child 7 months after being married, they sometimes hypothesized she had had an affair with a man who fled and then married a different man in order to preserve honor. In cases where records showed the same name married and baptised two children in one parish but baptised a child in a different parish inbetween, they offered stories as to why it might be the same man or not: he was traveling with his wife when the baby came, they were visiting their family at the time, or, it was winter and the priest had gone to the other parish to minister rites. If the name of the mother on all of the records was consistent, they merged them without pausing. If the name of the mother was not consistent—due to variations in spelling or the presence of a different name altogether—they often ventured that the mother was going under her first name in one instance and her middle name in another, that the priest had recorded her name incorrectly, or that the record had been entered incorrectly on the first punch-cards. In some cases, about 10% of the time, they went to an adjacent microfilm room and brought up the original

record, trying to decipher the often haphazard handwriting of priests in order to find the spelling or original listing of a name. They spoke about how they found the original records more authentic. Paul once said that when he held the actual old record in his hand—not just the microform image of it—he felt closer to the truth.

The presence of records for people with completely different names whom Paul, Madeleine, and the others believed were the same person was perhaps what they found the most irritating. Their challenge was to find proof that these records should be merged and this, as Paul and Madeleine both put it, was pure guesswork. “For example, this Marie-Louise Cournoyer with a baptism record for 1756 in St-Sulpice and this Elizabeth Cournoyer listed as mother of the baby in a baptism record for 1776 in St-Sulpice are likely the same person,” Paul placed his fingertips on the separate record images in two windows on the monitor screen. “She was born in 1756 as Marie-Louise and when she grew up she took a name she preferred,” he hypothesized. Speeding through all of the records for both Marie-Louise and Elizabeth Cournoyer, Paul deduced that the proposed single woman was “more Marie-Louise than Elizabeth.” The majority of the entries for both women, when considered together, were under the name Marie-Louise. Paul turned to Madeleine and asked whether she agreed. “I’m not sure. I think it’s more common for Isabelles to become Elizabeth than Marie-Louises.” But Paul clicked and merged the two women’s records into one file.

They told me that it was easier to consolidate people when they had full records. The more complete the family files were for a particular individual, the more material they had to compare in order to assess whether two records in fact came from the same person. “Here we have Marie Laplante versus Louise Laplante,” Madeleine said. She pointed to a record on screen. “The way you know that both records are the same

person, though they have different names, is that they have the same parents' names listed—Marie-Louise Charbonneau and Joseph Laplante for example.” Madeleine moved her mouse over the names on each scanned image. “Fortunately in these cases where we have the full names of the parents or children or spouses for both sets of records, we can forge the connection.” Paul added, “If you have doubts, you write a footnote.” There was a space at the bottom of each digitized file for the staff to add observations about the data.

Paul and Madeleine’s method clearly favored linking people into the web of genealogies in the database if they had been more fully documented in the registers. Under this criterion, by definition, natives are less visible in the linkage process because of the poor colonial documentation in general of their settlements and families.<sup>136</sup> Paul and Madeleine’s method also demonstrated the profound stasis and consistency that was being imposed on Church data at the department. They were not only taking records at face value as evidence of facts about how families formed. They were also assuming that women and men related and lived in regular, predictable ways: rarely moving from their parish, always marrying and having children, then together creating nuclear households where the wife pumped out babies on a biannual schedule while the husband traveled. Paul and Madeleine told me many times that it was more traditional in New France than it is in Quebec today. “People married, stayed put in their family, and had kids—they were Catholic then, not like today, where we all just go out.”

The marriage rate in Quebec today is lower than anywhere else in North America and is among the lowest in Europe and North America combined, on par with countries

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<sup>136</sup> For example, see: Madison, Barbara. 2008. Seeking Native Documents : Institutional Challenges of Anishinaabeg Research. Archives and the Ethics of Memory Construction Workshop. University of Michigan, Ann Arbor May 2-3.

like Norway, Denmark, and Sweden. In conventional Quebec historiographies, this current decline in marriage, which began in the late 1960s, is explained as a product of a perceived recent de-Catholicization of the province. In my discussions with staff at the demography project, talk about marriage and its meanings in contemporary Quebec also neatly fit this phenomenon into the overarching narrative about Quebec's post-60s secular modernity. In fact, this contrast between Quebec today—nobody marrying and not Catholic—and Quebec before—Catholic and full of “traditional families”—was one that many demographers drew during my fieldwork in relation to the records. “We have a problem,” a demographer at BALSAC had also told me several months before. “Nobody in Quebec is getting married anymore, not since the 1960s.” From a historical demographic perspective, this meant there would be no records to work with to compute families in the future.

Of great interest to me was the fact that many of the demographers, though persistent in their characterization of current day Quebec as a place where couples no longer contract full legal marriages, nevertheless referred to their partners' families using kinship terms that have usually been reserved in francophone societies for relationships that are defined by law: calling partner's mother and father *belle-mère* and *beau-père* (in English we refer to these as mother-in-law and father-in-law). I later asked one of the data-entry staff at the University of Montreal named Vincent about this one day. “You call your girlfriend's parents *belle-mère* and *beau-père*? Is that normal in Quebec?”

Vincent told me:

“Not really, although I suppose more normal these days. It used to be something you only used if you were married but these days, most people just live together, but I've been with her for eight years, so it's pretty solid, and the piece of paper doesn't mean anything now. We've turned away from the Church since our grandparents' generation.”

It seemed completely intuitive to him that legal documents could not capture the multi-dimensional forms of relatedness—familial connections forged through sentiment, cohabitation, and caring—that structured his own life. He perceived this, however, as a characteristic that was limited to the contemporary in Quebec.

Vincent, and many others, placed law in the contemporary in stark contrast to law in the past. Old legal records were presumed to be an accurate reflection of the relatedness and interconnectedness of individuals in previous incarnations of Canadian and North American society. In his view, that society had been “more traditional, more Catholic,” and, accordingly more prone to marriage. In contrast, legal records in the present were understood as mediating but not determining or reflecting kinship relations, sometimes avoided in the name of a quest for what he termed a “truer” bond (“we don’t need a piece of paper”), other times contracted in pursuit of practical benefits (“my cousin did it to get his wife citizenship”).

In the database office, I was continually reminded that in New France people lived more “traditional” lives—by which staff meant lives shaped by geographical stasis, lived out within the confines of a nuclear family, and colored, for the most part, by chastity and fidelity. Paul once said to me, “there were always light-thighed women,” which is a Quebec saying that is probably equivalent to the American sayings like “women who sleep around.” “But,” he said, “those women back then were busy. They were working hard, farming and having babies, and they didn’t have time to run off into the woods with whomever every second.” He had told me this when I asked him why he knew that two records from a single parish within a 5 year time-frame for two different babies that listed the mother under the same name but the father under different names



were for different women. He was beyond certain that there had been two women with the same name in the community around the same time—not an uncommon occurrence—rather than one woman with two reproductive partners.

*Historical Demography in Quebec, Big Families, and the Stable Society*

Quebec demography is intimately connected to the French language and culture movements that have dominated French-Canadian nationalism since the 1960s. As in many places around the globe with self-determination movements waged by struggling minorities, demography is important to the French Canadian (now often called Québécois) national project. Immigration and reproduction are touchstones of the self-determination agenda—the first being posed as a threat and the second as a salve. Tabulating the number of immigrants coming into and leaving the province and the number of children being born to French-speaking families is a highly politicized endeavour. Those tasks are the traditional domain of demographers and demography in Quebec has, as a result, become an enterprise that is intertwined with provincial politics.

Most demography professors in Quebec's French speaking universities, with the exception of the newest generation of hires, trained in France. French demography often was colored by similar anxieties about reproduction and "French vitality," particularly in the face of immigration. In the first four decades of the twentieth century, demography in France was dominated by pro-natalist interests. The National Alliance for the Increase of the French Population controlled demographic research under the leadership of a man named Jacques Bertillon who was most famous for authoring a fear-mongering incitement to action against immigration called *The Depopulation of France*. His undersecretary wrote in a 1915 bulletin of the association that foreign immigration was "a

peaceful but far more dangerous invasion than any war.”<sup>137</sup> Under Bertillon’s stewardship, numerous demographers in France turned their attention to documenting past and present village life in the rural regions. To them, these lives represented a pristine French society that foreign migration had destroyed in the main cities. The French family became an archetype—something natural, delicate, and in need of protection and expansion—in subsequent demographic work.

The founder of historical demography, Louis Henry, was both intellectually shaped and inspired by these currents in demographic and sociological thought. Henry was a researcher at the National Institute for Demographic Studies in Paris, was trained as a statistician, and appeared to have no explicit political agenda. However, he took it for granted that parish records contained bare facts that could be converted into statistics. He also believed that French families in the 16<sup>th</sup>, 17<sup>th</sup>, and 18<sup>th</sup> centuries represented the “natural” form and size of human families before industrialization—and modern medicine and contraception—“modified” reproductive practices among French women. He started his research by defining the concept of “natural fertility”—the number of children who would be born in the absence of contraception. Henry viewed the records as particularly fortuitous because he believed they provided statistical data beginning at precisely the moment at which populations began to transition from “natural” to “unnatural.” “The period for which production of statistics appears possible is also a transitional period, whose beginning lies in the extremely long period during which man allowed nature to dictate life and death, and whose end coincides with the start of the

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<sup>137</sup> Qtd. in Bertaux, Sandrine. 2000. “Processus” et “population” dans l’analyse démographique de l’immigration en France (“Process” and “Population” in Demographic Analysis of Immigration in France). *In* Le Bras, Hervé and Sandrine Bertaux, eds., Pp. 241-254. *L’Invention des populations* (The Invention of Populations). Paris: Odile Jacob, 2000, Pp. 242.

modern period in which man deliberately seeks to control mortality.”<sup>138</sup> He created a chronological division between a natural past and an unnatural present. Henry quantified these two eras as meeting around 1800. Implicit in his work was the aim to model the so-called “biological determinants of population behavior,” which could then be measured against modern population data in order to determine to which extent biological versus social versus political, legal, or geographical forces had determined contemporary French fertility rates—which were on the decrease.

Henry had conducted a survey of French parish registers in 1959. They found that sixty-two percent of French parishes had nearly complete records for 1668-99; seventy-six percent for 1700-1736; ninety-one percent for 1737-1792. The French registers appeared to become ever more reliable until the Revolution. He had hypothesized that, at that point, the clerical surrender of authority over civil records to the state coincided with a deterioration in registration standards. “The quality of registration was most seriously affected by the ignorance of the official replacing the priest.”<sup>139</sup> He believed the priest had been a trustworthy, competent, compliant steward of state statistics. Indeed, his system of family reconstitution depended on it. He recognized that, as with any dataset, there were of course certain problems: People sometimes lied about their age in the records to evade tax; people migrated, disappearing from the paper trail only to reappear in provinces, counties, and countries unknown to the hapless demographer. However, Henry argued that if one could control for these

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<sup>138</sup> Henry, Louis. 1958. Pour connaître la population de la France depuis Louis XIV (How to Research the French Population After Louis XIV). *Population* 13(4): 664.

<sup>139</sup> Henry, Louis and Michel Fleury. 1965. The Population of France in the Eighteenth Century. *In* D. V. Glass and D. E. C. Eversley eds., Pp. 70-78. *Population in History: Essays in Historical Demography*. London: Edward Arnold Ltd.

idiosyncracies, one could access, via the Church, the most well-preserved catalogue of multi-century family history available.

The founders of French-Canadian historical demography came back from apprenticeship with Henry assured that the method could unlock new possibilities in the colonies, as it had in France. The French-Canadian demographers who founded, designed, and trained students to work at the population database at the Université de Montréal did their theses directly under Henry at the demographic institute in Paris. They also periodized Quebec history the same way—splitting it into a pre-1800 and post-1800 era. They aimed to build a database that would enable statistical sampling of sub-populations in order to discover province-wide historical trends in settlement, marriage, birth, and death. In 1967, at the inception of the database project at the Université de Montréal, they proclaimed, “Using data taken from these registers...we hope to quantitatively and nominatively establish the facts of [the] Canadian population.”<sup>140</sup>

Henry’s method eventually dominated, then defined, the field of historical demography worldwide. The reasons for this are unclear. One demographer in the generation preceeding Henry has suggested it may have had more to do with academic and inter-institutional politics than anything concrete about ideas.<sup>141</sup> Numerous historians criticized Henry’s uncritical use of the parish registers.<sup>142</sup> They also critiqued his tendency to conduct studies of early modern French registers by taking statistical samples of records from several regions at once. Henry’s aim was to deduce nation-wide trends in births, deaths, and marriages. Historians at the *École des Hautes Études* criticized him for

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<sup>140</sup> Charbonneau, Hubert and Jacques Légaré, 1967.

<sup>141</sup> Rosenthal, Paul-André. 1997. Thirteen Years of Debate: From Population History to French Historical Demography (1945-1958). *Population: An English Selection* 9:215-241.

<sup>142</sup> For one of the strongest critiques, see Goubert, Pierre. 1965. Recent Theories and Research in French Population Between 1500-1700. *In* D. V. Glass and E. C. Eversley, eds., Pp. 70-78, *Population in History: Essays in Historical Demography*, Chicago: Aldine.

assuming that people in various sub-regions of 17<sup>th</sup> century France could be extracted from differing “geographical, physical and economic structures” and lumped together under the presumption of a unified national territory. They were critiquing Henry’s anachronistic intention to overlay the more uniform linguistic, cultural, political and economic boundaries of the twentieth century French state over an expanse that was much less unified. However, unmoved by this resistance, Henry published several major case studies of social life in several early modern French parishes using data from the Church registers. These studies became the model for hundreds if not thousands of parish monographs that subsequent historical demographers in France and Quebec researched and published throughout and after the 1960s.

Independently of Louis Henry and his students, demography in Quebec had since its inception been intertwined with French-Canadian self-determination movements. In Quebec in the 1950s and 1960s, when the Chicago School and Parsonian structural-functionalism were gaining popularity in the United States, sociology and demography began to focus on questions specifically related to Québec’s place in the Canadian federal system and among the “Anglophone” or “English” majority. Quebec sociologists, especially those trained in the French-language universities, were often preoccupied with studying the distinct cultural, political, and linguistic history of Quebec and oriented towards preserving that history or “heritage” in the face of the increasing presence of foreigners in daily life, whether immigrants or international franchises and firms.<sup>143</sup> Between 1960 and 1966, Quebec nationalists in control of the provincial government established a large, professional, multi-departmental, state bureaucracy that included a

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<sup>143</sup> See: Brym, Robert, and Celine Saint-Pierre. 1997. Canadian Sociology. *Contemporary Sociology* 26(2):543-546.

new network of public colleges and universities, public health planning bodies, and, importantly, cultural ministries made in the French image.

The most controversial of these ministries was the Ministry for Cultural Affairs. The ministry embarked on an ambitious program of cultural planning intended to resurrect and strengthen French-language and Francophone culture. The minister proposed the cultural and political exclusion of “outsiders” in order to preserve Quebec as a French enclave. These anxieties about immigrants and immigration were formalized in several legal bills that effectively defined who was Québécois (the term “French-Canadian” had largely been dropped in political parlance), laying “groundwork for a systematic opposition between the majority, said to be francophone, and the minorities.”<sup>144</sup> The 1960 platform of the reigning Liberal Party made this dividing line clear:

“The French fact (*le fait français*) constitutes the most all-embracing element of the Quebec context, and it is one that we owe it to ourselves to develop in depth...Conscious of our responsibility to the French language, we will endow it with an agency that will be both protective and stimulating; conscious of our responsibilities to the three or four million French Canadians and Acadians who live beyond our borders in Ontario, the Maritimes, the West, in New England and Louisiana, Quebec will become the mother country of all. In the arts, while participating in universal trends we will try to develop a culture specific to us; at the same time, we will use urban planning to enhance what remains of our French character. It is in terms of language and culture that our French presence in North America can assert itself.”<sup>145</sup>

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<sup>144</sup> Fontaine, Louise. 1995. Immigration and Cultural Policies: A Bone of Contention Between the Province of Québec and the Canadian Federal Government. *International Migration Review* 29: 1044. Handler, Richard. 1987. Holistic Culture, Bureaucratic Fragmentation: Government Administration of Culture in Québec. *Anthropology Today* 3(6):8.

<sup>145</sup> Qtd. in Handler, Richard. 1988. *Nationalism and the Politics of Culture in Quebec*. Madison: University of Wisconsin Press, Pp. 103

Summing up the platform's argument succinctly is the line: "It is by our culture rather than by numbers that we will prevail."<sup>146</sup> Yet, numbers have also been important. Provincial politicians and legislators have foregrounded "problems" with Quebecois fertility since the 1960s, when the birth rate precipitously declined.<sup>147</sup> In the 1970s and 1980s, provincial leaders encouraged a higher birthrate as a guarantee against assimilation into an increasingly multicultural, multi-language, immigrant society, calling for a "Revenge of the Cradle."<sup>148</sup>

Anxieties about the future of "Francophone culture" have since been institutionalized in Quebec academia. In the late 1970s, the ultra-nationalist Parti Québécois took control of the government and established an institute to oversee and coordinate long-term research on the "cultural development" of the province.<sup>149</sup> The government established a chair at Laval University "for the development of research on the culture of French expression in North America." The institute also distributed funds to research on the history, demography, sociology, and folklore of early settlers from France, enabling the historical demography program at Université de Montréal to form and grow. The director of the BALSAC population database, which would proceed and incorporate the Université de Montréal database, was appointed chair of the Laval program for "development of research on the culture of francophone expression" in 1991. He had trained in sociology and French colonial history at the Université de Paris in Nanterre.

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<sup>146</sup> Handler 1987, Pp.7

<sup>147</sup> Gevrais, Diane and Danielle Gauvreau. 2003. Women, Priests, and Physicians: Family Limitation in Quebec, 1940-1970. *Journal of Interdisciplinary History* 34(2):294-314.

<sup>148</sup> Fenwick, Rudy. 1981. Social Change and Ethnic Nationalism: An Historical Analysis of the Separatist Movement in Quebec. *Comparative Studies in Society and History* 23(1):212.

<sup>149</sup> Handler 1987, Pp. 8

The BALSAC director's publication of a francophone-nationalist historiography of the Saguenay region, *Quelques Arpents d'Amérique*, in 1996, led to his election to the Academy of Letters of Québec in 2003 and to recognition from the French Legion of Honor in 2002. His romantic depictions in the book of the northern Quebec towns where the first immigrants from New France lived focus on their supposed cultural and biological homogeneity: "Clearly geographically circumscribed, the region is equally cordoned off in its human plan; the history and demography—as all can see—have contributed to the creation of a highly homogeneous cultural entity."<sup>150</sup> The analytic models that had defined French demography under Henry were almost entirely replicated in the methods and models of French-Canadian society that he and other demographers used: the reliance on parish records; the presumption that Quebec could be divided into a traditional, ethnically pure, pre-industrial past of high fertility and multi-ethnic present; the idea that sub-regions of French North America in the past and present constituted a culturally uniform territory; the idea that this territory and the populations that inhabited it were for the most part a discrete cultural, political, and linguistic unit; and the absence in this territory of anyone who was not "French"—as perceived in contemporary bioracial terms.

#### *Contestations of the Church Record*

In the summer of 2006 I got in touch with a genealogist named Fiona Ouellette whom a scholar of Abenaki history in Montreal had suggested I visit. I drove to see her at her house, a one-story white cottage on the outskirts of Ottawa. Ouellette had fastidiously

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<sup>150</sup> Bouchard, Gérard. 1996. *Quelques arpents d'Amérique: population, économie, famille au Saguenay, 1838-1971* (American Arpents: Population, Economy, and Family in the Saguenay, 1838-1971). Montreal: Boréal, Pp. 18



aggregated the names, dates, and locations—as well as untold other minutiae—from three centuries of French colonial civil records into Abenaki family trees. The Abenakis are an eastern Algonquian tribe who, after the colonial settlement of New England, mostly fled north into Quebec. A significant number moved into two reserves near Trois-Rivières, south of Quebec City. Oullette’s manuscript pages presented a parallel world to the Church register. They used notarial rather than ecclesiastical records. They included Protestants and Amerindians rather than just Catholics. In the 17<sup>th</sup> century, Louis XIV’s administration had banned lawyers in New France and sent notaries to the colony instead in order to address the need for a person vested with the power to draft legal contracts and agreements. The notaries continued to draft these documents even after British takeover and the acceptance of lawyers in the colony and they are still a major part of legal procedures in Quebec today.<sup>151</sup> The demographers at the University of Montreal considered Oullette and her notary-based research naïve. The libraries of all major Quebec universities, except the English-language university, McGill, had refused to catalogue her book. “The parish records are not enough,” Oullette said. “If you’re just using the Church registers, you’re making a lot of arbitrary connections between names.” She lay open her manuscript, four hundred pages spiral bound in white plastic, at the beginning of the first genealogy. “And most natives and their families are not well-documented in the registers so they are tossed to the wayside just based on lack of documentation or documented family connection.” She had arranged names into charts, with individuals grouped together chronologically and alphabetically indexed by last name. Line 7990: A land lease from Laurent Tahamont and his spouse Marie Agathe to

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<sup>151</sup> Lafortune, Hélène, Normand Robert, and Serge Goudreau. 1989. *Parchemin s’explique: guide de dépouillement des actes notariés du Québec ancien* (Parchemin Explained: Guide to Sorting Notary Acts from Old Quebec). Montreal: Archives Nationales du Québec, Pp. 9-20.

Jean Baptiste Jorjeau, 1839. Line 7994: A donation of Laurent Tahamont to his son John Tahamont, 1872. “And this is much more vivid,” Oullette said, tracing her fingers over the columns. “People don’t come to life for you if you only know when and where they were born, married, and died. Those are just numbers and names.”

Oullette and her sister had started researching their genealogy when their mother died. In Gatineau, the first major Quebec town after the Ontario border, they looked at the French Church records. In downtown Ottawa, they went to the national archives on Wellington Street to search old Canadian censuses. Oullette was researching her grandfather’s line. He had told her he was Abenaki. She knew his name was Levi Paquette and that he had lived in New York before moving to Ottawa. Unable to find any records that might plausibly be linked to him in the Church registers, Oullette eventually began to scan the notaries for Quebec and surrounding towns. In documents of band meetings, she found mentions of a Robert Paquette from St. Francis Church, the mission post on the Quebec reserve. Oullette then found an 1894 letter in the Indian Affairs section of the national archive from the then Abenaki chief. The Bureau of Indian Affairs had removed Paquette’s descendants from the list of band members entitled to state payments and the chief sought to reinstate their native status. The chief mentioned that Robert Paquette was a tribal adoptee. Tribes had often captured French and English settlers—particularly women and children—to replace members of their own families who had been killed by disease or war, dressing them in tribal clothes, teaching them tribal languages and rituals, and making them, as one English official put it in his own words, their “own Flesh and Blood.”<sup>152</sup>

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<sup>152</sup> Axtell, James. 2000. *The White Indians of Colonial America*. In Peter C. Mancall and James H. Merrell, eds., *American Encounters: Natives and Newcomers from Colonial Contact to Indian Removal*. Pp. 324-

Paquette had been raised an Anglican among the Abenakis, though he was born to French-Catholic settlers. Through the notaries, Oullette traced him further. She found leases revealing that he had owned land in the reserve. She found land titles suggesting that his sisters married within the tribe and moved onto adjacent plots. She also came across a worn photograph of the band council and deciphered Paquette's granular image among the coarse silhouettes. Robert Paquette married two Abenaki women and had eight children, including two sons, George and Samuel Paquette. At the Anglican Archdiocese in Montreal, Oullette tracked down George's baptism record. Oullette then found a land title which certified that after George Paquette died, his wife, a Catholic Abenaki named Catherine, had moved to upstate New York and baptized the children in the Catholic Church. After several months and some dead-ends, Oullette located a Catholic baptism record at a church in Clayton, New York under the name Levi Packet. "And that was my grandfather," Oullette said. Paquette's family embodied shifts—across borders, between Churches, and from French to native and back. Oullette gazed at a sketch of Robert Paquette she had placed in the foreword of her book. She had brought the photograph of the band to an artist and had him do a rendition. "There are so many more documents on the French Catholic side. When you start it immediately becomes clear that it's so much easier to find those Abenakis because the records are more available." Using the notaries, Catholic registers, and Anglican records, Oullette had woven together a narrative about Paquette that she believed to be credible and that she could not have created using the Catholic registers alone.

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350. New York: Routledge. S. note 13. Axtell has written in detail about these adoptees and the elaborate physical and educational transformation they forcibly underwent after adoption in order to become part of the tribe in the eyes of their captors.

In 2003, a professor at the University of Massachusetts at Amherst named Alice Nash traveled to Ottawa to conduct a series of interviews with Fiona Oullette for a study of Abenaki names. Nash was in residence as a Fulbright visiting fellow at the Université de Montréal at the time. Oullette's manuscript, which she had titled *The Abenaki Paper Trail*, was the first comprehensive attempt to collect all of the disparate genealogies for a native tribe. Nash believed it might be a valuable source of indigenous spellings and pronunciations of Abenaki family names. As Nash describes it, once she got into Oullette's material, she became intrigued by the idea of using it as a platform for a more significant project on the scale of the demography database at the Université de Montréal. By April 2007, she had begun to envision an adjunct database of Amerindian names that would furnish data for future generations of native American linguists. At the University of Montreal demography department, I spoke with one of the current directors of the database project in his office just weeks later. Nash had never approached the department with her idea but it was clear that her proposal would encounter challenges if she ever did. The director, a former student of one of the database co-founders, mentioned that notarial records were ineffective primary sources for genealogical reconstitution. The notarial records consisted of marriage contracts, estate inventories, wills, and resolutions of land and other legal disputes, all of which contained information similar to that in the vital registers: names, addresses, dates, and family connections. The director said that, however, unlike the Church registers, information from the notaries was embedded in a mass of irrelevant material pertinent only to legal issues. In his view, the records were therefore not well-tailored to the time and budget constraints of a massive demographic databanking project. Staff would not be able to scan a notary with

ease and rapidity. And given the relative completeness and total accuracy of the Church records, there was little incentive to try<sup>153</sup>.

### *Trust in Church Records*

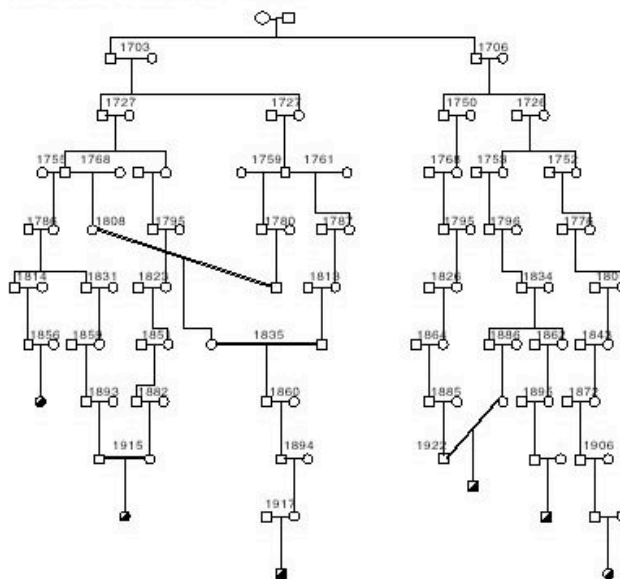
Why did the Church records elicit such trust? There was the historiography of Church dominance that Bishop Bourget had helped prevail. There was the presence of the Church in most people's everyday lives up until the 1960s and 1970s. Yet, I had little evidence directly linking the Church and this history and sociology of the Church in Quebec to documents and how people experience and evaluate them. When historical demographers came to read Church records, did they bring the experience of childhood under the Church directly to their evaluations? Did they think back to the lines of history books that had told them about how powerful the Church was? I wanted to know how the history and historiography of the Church in Quebec might have shaped historical demographers' stance toward parish evidence in particular ways but I couldn't see what they were thinking in the back of their heads when they looked at Church records. I could only look at how they talked about and used them.

In January of 2007, I traveled north to Chicoutimi, QC, seven hours by bus from Montreal, to start my first extended period of fieldwork at the BALSAC database. On a brisk January afternoon in one of my first weeks, one of the graduate assistants employed by the project to do data-entry sat checking an old parish record for an inconsistency with one of her digital files. The BALSAC staff had taken over responsibility for all of the Church records after 1800 and were completing genealogies from the Université de

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<sup>153</sup> See Starr, Susan Leigh and Geoffrey C. Bowker. 1999. *Sorting Things Out: Classification and Its Consequences*. Cambridge, Ma.: MIT Press, Pp. 231-233.

Montréal with that data. The BALSAC office itself is half of a one-story government-owned building leased from the Université de Québec, steps from the town paediatrician, two blocks uphill from the seminary, and a half-mile from the regional hospital. The place was a long U-shaped hallway strung on both sides with offices. There was an ethicist who monitored the confidentiality of personal information in the records and responded to commercial requests for tailored family trees. There were graduate students, who sat in two offices on the far end of the hall computing statistical regressions. There were three computer developers who had created the software that converted digitized lists of names in family files into linked 12 to 15 generation trees. The trees were crude sets of connected lines, like diagrams that explain evolutionary relationships in biology textbooks. Each tree came up poised horizontally on the computer screen. The early ancestors were to the right and then the lines branched out and forward to the left, where the living descendants were listed.



Source: Fichier RETRO  
 P. Couture et alii.: Evidence of a Founder Effect for the Protein C Gene 3363 Inserted C Mutation in  
 Thrombophilic Pedigrees of French Origin, *Thromb Haemost* 2001; 86:1000-6.

Fig. 3.1. BALSAC GENETIC GENEALOGY. Example of genetic genealogy compiled using BALSAC data. Demographers have developed software that connects names and families from the database lists into a visual tree diagram that geneticists use to study disease. This chart is vertical, not horizontal like most of the digitized trees I observed at BALSAC. For confidentiality reasons, I am unable to reprint the records I observed. Courtesy of BALSAC website.

That January afternoon, there was a request from one of the chief researchers to assemble a genealogy set for a breast cancer study underway. In addition to supporting biospecimen analysis for outside researchers, BALSAC had its own internal team of scientists trained in both demography and genetic epidemiology. The graduate student, Angélique, squinted, looking for the spelling of a name in the thickly compressed script of the old register. The desk was strewn with spread open dictionaries. We were in the library, a windowless room encircled by a counter of monitors and attached to a room of microfilm machines. There was a bookcase jammed with reference volumes: dictionaries of Quebec surnames, maps of the geographical distribution of settlers, histories of New France. The walls were covered with charts, some typed and some scrawled,

diagramming data entry codes: numerical ciphers for each region and sub-region of Quebec, abbreviations for parishes, both extant and existing. There were lists of phone numbers for genealogical societies and colored diagrams showing the prevalence of varied genetic mutations by Canadian and Quebec county. While Angélique worked, she recounted how she had just brought her baptism record to the government records office to apply for a civil birth certificate.

In 1994, new legislation demanded that all Quebec residents convert Church certificates into state records in order to conduct legal transactions. Before 1994, Church records had legal weight. Angélique recounted how she had waited in line for two hours to hand in her application, watched as the records office staff punched her details into the database, then received the new state-issued certificate in the mail a week later. She told me she had found the experience oddly familiar. Like the immigration officer, she also spent hours converting Church records data into anonymous digital files. Though the records she dealt with were not recent, they did not seem remote. As in her own parish records, there were clerical signatures, spaces where godmothers and godfathers had been named, witnesses, and dates for birth and then baptism. Sometimes the birth and baptism dates were far apart. She was sure this was only when the family had lived far away from Quebec or Montreal. Most birth and baptism dates were close. She knew this was when families lived nearer. Some priest's signatures were unkempt. Others were neat and compact. Usually the godparents were the sole witnesses. But once in a while there were records where five, six, or seven people had signed below. "Big family. My own record had only one witness, my godfather," she said. Through various other oddities of the records she peered into a past that was in many ways different. But the record templates



were intimately familiar. She could pry each page of the parish register from its foreign history and domesticate it in the present.

One of the major insights of Derrida's writing on graphic forms was that writing elicits our trust through conformity to familiar templates (both visual, and practical).<sup>154</sup> For instance, on contemporary birth certificates issued by the Province of Quebec, there is a space for the signature of a witness, who authenticates the validity of the event being certified. There is also a raised stamp or seal. To obtain a birth certificate, an individual must also go to or send an application to a government office which includes an Attestation of Birth from a witness to the birth and a Declaration of Birth filled out by the parents of the newborn. Most people do not question these formats and processes. In fact, many people have come to expect and even rely on these formal characteristics of legal documents and the arduous process of securing a document as indicators in themselves of the legitimacy and legal weight of the resulting certificate. For instance, when I asked one genealogist why she wanted to get a birth certificate for her daughter, she replied: "Well it would be like she hadn't been born!" Documentary formats and processes themselves sometimes index the authenticity of the birth or other event in question.

The historical involvement of the Catholic Church in devising documentary norms for authenticating events has invested Catholic records, in particular, with a privileged authenticity. With the 1994 legislation requiring that all Quebecers convert their baptismal or burial certificates, like Angélique, many people have frequently experienced the process of bringing a baptism record to a government office and exchanging a copy of it for an official state birth certificate. People sometimes related to

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<sup>154</sup> Derrida, Jacques. 1972. *Signature, Event, Context*. Glyph 1:72-97; Also see Chartier, Roger. 1994. *The Order of Books*. Palo Alto: Stanford University Press.

me that they also had to take a Church burial certificate to the provincial office to get an official death certificate for the purposes of executing an estate. Through such conversions, the validity of Church records is re-emphasized and, also, equated with modern bureaucratic modalities of record keeping. It is thus, in part, logical that when Quebeckers come to view old Church documents, they view them in accord with the same frameworks and sets of expectations they bring to their interpretation and use of modern bureaucratic records.

There were two specific sets of expectations that I found relevant to the way Angélique and many other people at BALSAC and the Université de Montréal read old Church records. One related to witnessing. They understood the signature of a witness on a contemporary Quebec document as proof that the signer not only observed first-hand the documented actions but “knew” the people he was witnessing and their friends, neighbors, and social world. The demographers repeatedly implied the validity of such a claim in relation to colonial and early national Church records in early Canada. “The priest saw everything,” “the priest knew everyone.” Some of them also cited this as a reason why other forms of early modern documents that contain genealogical information such as notarial records are not credible. As they put it, the notaries were not as deeply integrated into the social fabric of village and family life and were therefore less aware of the authenticity or background of parties to a documentary agreement. To document, to write a trust-worthy record—whether contemporary or early modern—they appeared to presume, involves or is the result of an act of first-hand witnessing by an all-knowing observer, which is the ultimate sign of the validity of an event. The other set of expectations the demographers brought to their reading of the records was about race. For everyone with whom I spoke, part of the act of witnessing involved in Church

documentation of a birth, marriage, or death was presumed to be the documentation of the bare facts of the “race,” which they understood as a separate category or quality from name or religion. They trusted that any Indians in the records are identified as such because the priest “would have written it” and “would have known.” (It is true that some priest’s records have the inscription “Indienne” or “sauvage” next to a scrawled name or that many natives are easily spotted by their non-French transliterated native surname.)

I would say that for these historical demographers, the idea of documenting, of witnessing, of recording the bare facts, or detailing race, mobilized a concept of racial categories that is fundamentally different—a twentieth century conception—from how “race” was discursively practiced and understood in official Church discourse in early Quebec and North America. The Church and its history in Quebec had shaped their historiographical orientation towards sources, moving them to trust Catholic records. But contemporary norms for reading documents, understanding bureaucratic language and categories, and making sense of how people and their affiliative groups are represented on paper had also come to bear on the way they chose to believe or not believe what was in a record.

CHAPTER 4  
NAMES AS THE KEY TO ANCESTRY

Pasted to a wall near the entrance to the library at BALSAC there was a chart listing Quebec family names. A left-hand column listed the twelve most common names. A right-hand column listed regions of France, under the heading “origins,” for each name (Tremblay came from Perche; Dufour from Normandy; Morin from Brittany, Brie, Poitou). Names, especially family names, were an important form of evidence at both the Université de Montréal and BALSAC population databases—scientists used them to link families and to infer whether individuals in the records were French, Basque, Irish, German, or Indian. In Montreal and Quebec family history societies and national archives, people who were constructing genealogies using public records did the same. A historical demographer named Nancy Ellen Davis has made one of the only explicit acknowledgements of this I have seen. She prefaced a study of French and English immigrant intermarriage in early Canada: “The identification of ethnic background [in this study] requires clarification, based as it is on the only information available on the people, their names.”<sup>155</sup> Like many other demographers and genealogists, Davis had used names to discern geographical, genealogical, and ethnic belonging and origins.

This way of using names captures a key characteristic of the kind of work that was being done at BALSAC. It was already evident to me from looking at the Church records

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<sup>155</sup> Davis, Nancy Ellen. 1995. French-British Marriages, Gender, and Cultural Orientation: An Example from Nineteenth Century New Brunswick. *Canadian Ethnic Studies* 27(1): 4.

and laboratory informatics that these genealogical databases were embedded—in the forms of evidence, proof, and experiment that enabled their creators to distinguish fact from fable—in a constellation of social and historical worlds. Names, and how they were

**Tableau 5**  
**Lieux d'origine des patronymes**  
**(immigrants établis au XVII<sup>e</sup> siècle)**

rang	patronyme	lieux d'origine
1	Tremblay	Perche
2	Gagnon	Perche
3	Bouchard	Aunis, Île-de-France, Maine
4	Côté	Perche
5	Gagné	Perche
6	Dufour	Normandie
7	Roy	Normandie
8	Lavoie	Normandie
9	Nadeau	Angoumois
10	Lévesque	Normandie, Gaumurois
11	Simard	Angoumois
12	Boucher	Perche, Poitou
13	Fortin	Maine
14	Girard	France (Indét.)
15	Morin	Bretagne, Brie, Normandie, Poitou
16	Bélanger	Normandie
17	Gauthier	Normandie, Saintonge
18	Caron	France (Indét.)
19	Leclerc	Bretagne, Normandie
20	Pelletier	Beauce, Perche
21	Poulin	Île-de-France, Normandie
22	Savard	Île-de-France
23	Boivin	Normandie

Source: IREP, BALSAC-RETRO

Fig. 4.1. NAMES CHART. Chart from BALSAC listing origins for 12 most common surnames in Quebec. The heading reads: “Table 5: Place of Origin of Father’s Surnames (Immigrants Arriving in the 17<sup>th</sup> Century).” The column on the left, “father’s surname” (*patronyme*), lists the name and the column on the right, “place of origin” (*lieux d’origine*), lists the region in France that scientists believe the name (along with the immigrants bearing that name and their descendants in current day Quebec) is from.

being used in Quebec genetics and genealogy, brought even more precision to this insight. Social, historical, and biological planes of existence and styles of thought were not simply intersecting. There was a transposition of *types* at work. Geneticists and genealogists were turning social and historical kinds of things into natural, biological kinds of things. They saw names as indices of heredity, history, genes, and blood; they also implied from names certain bonds of love, parenting, and affection; sometimes, and especially for genealogists in the archive whose research was about their own families, the names fulfilled a desire for ancestors and longing for a past, evoked dreams about the future, and provoked ideas about how families are made. Yet, ultimately, all of these feelings and interpretations figured very little in the finished product of their work with names, the genetic genealogy—a visual diagram they intended to describe biological lineage, bonds created by blood, and descent groups brought together by sexual reproduction (not memory, history, longing, religious conversion, or documents). There was a compression going on: of longing for family, zest for the archive, yearning for a place in history, idle ambling through the genealogical society on a Saturday afternoon (something to fill the time), and the colonial and Church histories of records *into* simple, linear, bio-genetic medical charts.

At BALSAC, someone had told me one of the demographers, Thérèse Secord, had an especially beautiful family tree and one afternoon while I was there I asked her about it. Secord's cousin had meticulously researched all of the current day family's maternal and paternal ancestors at national archives and genealogical societies. A curator who was planning an exhibition of genealogies on notable French Canadian families then contacted him about displaying the genealogy at a well-known museum in Montreal. The tree was in the form of a half-circle, radiating, 11-generation chart with the names of each

paternal and maternal ancestor going back to as early as the 1500s clearly delineated, some with dates of birth and death. It had been laminated and mounted onto card for the

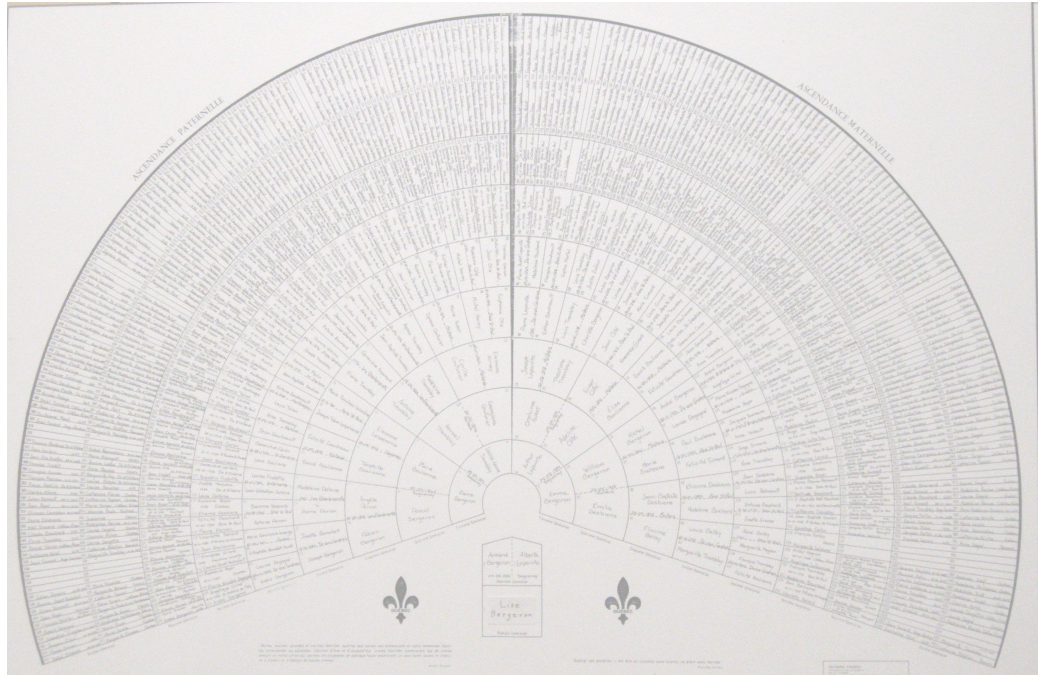


Fig. 4.2. GENEALOGICAL CHART FOR A QUEBEC FAMILY. Each box contains a single name. Each rung of boxes constitutes one generation. The diagram is split in half down the middle, with the left side representing paternal ascendance and the right side representing maternal ascendance. The chart was originally constructed by a family member and then was transposed into this formal diagram format and mounted for display as part of an exhibition on French Canadian genealogies at one of Quebec's historical museums.

exhibition (Fig. 4.2). Second said that one Christmas, her cousin the genealogist had come to a family gathering with consent forms from the museum and asked everyone over 18 to sign. The names in the chart were considered private data and the museum had to make sure absolutely all living relatives whose family information was exposed in the chart had formally approved its public display. Ostensibly, this was a requirement placed on the museum by acts passed in Quebec in order to safeguard personal data. Yet, it was clear that people at BALSAC had invested the names in the chart with other meanings in

addition to “private,” “personal” or “protected by law.” “It’s like having your biology on display,” a researcher told me. At the nearby Saguenay Genealogical Society, a librarian stopped me from photographing a similar diagram: “It’s private, like a medical file.” Thérèse herself had politely asked me to blur the names on her chart in my photograph. Nowhere else in my fieldwork had names so clearly been made to stand in for biological facts—worthy of the kind of ethical norms, confidentiality policing, and consent processes that people usually apply to medical information.

Looking at names sheds light on how social data is being converted to biological evidence in the process of scientific and medical explanation at BALSAC. The historian Susan Lindee studied the John’s Hopkins medical geneticist Victor McKusick’s collection of pedigrees among the Pennsylvania Amish in the 1960s and observed: “Even the most technical, machine-driven inscription of molecular genetics are grounded in the social complexity of the pedigree.”<sup>156</sup> Lindee charted how Mckusick used gossip, rumor, stories from local undertakers and notes in personal Bibles to construct Amish pedigrees for his molecular genetic research. Names and their use within genetics are a telling case of this social complexity. Surnames more generally have a special resonance in Quebec and are tied to popular histories about the French geographical, linguistic, and cultural origins of the current-day population. Many people in Quebec believe their ancestors lived in the Northwestern French provinces of Brittany and Normandy before migrating across the Atlantic in the 1600s. The crossing journey is oft-repeated everywhere from primary school history curricula to popular folk tunes. Most families that I stayed with, met and

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<sup>156</sup> Lindee, Susan. 2003. Provenance and the Pedigree: Victor McKusick’s Fieldwork with the Old Order Amish. *In* Alan H. Goodman, Deborah Heath, and M. Susan Lindee, eds., Pp. 41-57. *Genetic Nature/Culture: Anthropology and Science Beyond the Two-Culture Divide*. Berkeley: University of California Press, Pp. 41.



researched in Quebec—including but not limited to demographers, geneticists, and genealogists—had specialized name-books that tell the story of the first French ancestor bearing their surname who arrived in New England or New France. Through these lists of names and name books, people were making sense of their past and present moorings: telling stories about their ancestors, their links to near and distant places in both Quebec and France, and how they came to be as they are (“a real joker,” “good to people,” “sporty”). In both Quebec-at-large and in the practice of medical genetics in Quebec, people have allied names with categories of ethnicity and race. How precisely do they use names to infer geographies, genealogies, and ethnic categories? How are social and biological modes of reasoning, forms of evidence, and units of analysis being overlaid in the process of turning names into genetic indicators? What kinds of social meanings, documentary norms, and bureaucratic politics shape naming practices? What is being erased or forgotten in the transfer of names to biology?

### *Names and the Archive*

When I met Raymond Thierrin, a retired telecom engineer and avid genealogist, it was in the Tanguay room of the national archives in Montreal. “We were immigrant #35” Thierrin told me, referring to the number assigned to arrivals from France in the first days of administration of North American territory in the 17<sup>th</sup> century. Cyprien Tanguay was a vicar from Quebec City who was appointed in 1871 as the attaché to the bureau of statistics and charged with consolidating information about the historic characteristics of the French North American population using Church registries. He scoured eastern Canada, Acadia, New Brunswick, New England, the Great Lakes and archives in Paris and Belgium to gather records. He organized data by family and

assembled detailed genealogical trees that were published in a series of bulletins from the statistics bureau. The bureau's aim was to provide information that could aid with the arbitration of disputes about inheritance. However, Tanguay saw his work as serving aims that were not only practical but "eminently national."<sup>157</sup> He published the names in his genealogies in eight bound volumes of alphabetical lists. By the turn of the century, Tanguay had created a profitable side business providing personalized bound books documenting lineages for particular families—from farmers to factory-owners.

Like many North American libraries, the reading rooms at the national archives are split into reference areas and microfilm areas. The stacks are closed and when I arrived, Thierrin sat across from the reserve desk in the hallway between both rooms filling out an order form. The Tanguay volumes were in an alcove behind him. In the 1950s, the volumes were separated into lighter, more numerous sections and rebound in powder-blue half-calf. It is common for genealogical societies in New England and Quebec to showcase their recent acquisition or possession of a full Tanguay set in advertisements. Although several similar genealogy reference sets have been published since, the Tanguay books are usually placed in central spaces of reference libraries. "The Tanguay is one of the foundations of our science," a volunteer at the French-Canadian Genealogical Society told me. I had said, "A science of names?" and she had corrected me, "genealogical science." The Tanguays did not contain genealogies, however. They were extensive, successive lists of individuals from every generation in Quebec's history, alphabetic and by last name.

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<sup>157</sup> Dictionary of Canadian Biography, <http://www.biographi.ca/009004-119.01-e.php?BioId=41217>, Accessed July 2008.

Thierrin was assembling a vast genealogy for a friend. He told me that he had begun to take interest in genealogy after his parents died. Thierrin is partially handicapped due to a childhood disease but his wife, Margaret, drove him to classes at a genealogical society on Longeuil, an island south of Montreal, every Thursday for two years. The teacher was a retired high school instructor named Marcel Tremblay and the courses consisted of introductions to digital databases, overviews of the history of the French in Canada, and training in matters of technique: how to decipher old manuscript writing, understand old French, and analyze the numerical tables in old censuses. Most important and perhaps most elusive: how to use archival sources to interpret facts. It was classes on this last topic that appeared to have made the deepest impression on Thierrin. “It’s paradoxical. Genealogy requires stringent methodology. Yet only the most imaginative genealogists can bring a great tree into being,” he said.<sup>158</sup>

The ambiguity and multiplicity of types of old records induces a kind of parallax for the genealogist. Thierrin had found himself, like many genealogy enthusiasts, teasing out completely different paper trails for the same family from the archival thicket, depending on which document and database he chose as his starting point. He wondered out loud how to assess their relative truth. Part of the problem was with names. Too many names that were all the same. In 1703, the Bishop of Quebec stipulated strict rules for the bestowal of names at baptism in new *Rites of the Diocese of Quebec*. As in *Rites* in France, names considered profane such as Diane or Apollon were forbidden. The Bishop appended a list of 1,251 approved male and 373 approved female names in an annex to

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<sup>158</sup> Thierrin is a composite of several people I conducted fieldwork with at the national archive.

the *Rites*.<sup>159</sup> Among the 400,000 baptized in French North America before 1800, nearly 22,000 were named Jean Baptiste and nearly 21,000 were named Joseph. Just under 110,000 were women who were given Marie-Joséph, Marie-Louise, Marie-Anne, Marie-Marguerite, Marie-Angélique, Marie-Genevieve, Marie-Francoise, Marie-Catherine, Marie-Charlotte, Marie-Therese, or Marie-Madeleine.

Thierrin had a photocopy of a 1754 birth record for a Marie-Joseph Gagnon born to a mother of the same name and a Jean Baptiste Gagnon in Cap-de-la-Madeleine, Quebec, the second permanent settlement founded in New France. Thierrin had looked for Marie-Joseph's parents in a digitized databank of the complete Church records of New France, searching by their full names for marriage or birth certificates. This was the same digital database that Dr. Hamet used to compute the genealogies for his genetic study. Thierrin's aim was always to build backwards through the registers, tracking lineages by linking names from successive records that ascended back in time to the founding of the colony. However, his search for records for either Marie-Joseph Gagnon and Jean Baptist Gagnon prior to the birth of their daughter brought up over 42 instances in which such a named person was documented as having been married, baptised, or witness to a death. "Determining which one of these records is the right Gagnon is pure guesswork," Thierrin said. The distribution of surnames in the records is nearly as concentrated as first names. Ninety-five percent of people baptized in Quebec before 1800 shared one of only 1,400 surnames. Fifteen names in particular predominated.

Looking at the 42 potential parents for Marie-Joseph Gagnon, Thierrin smiled then sighed with mock fatigue. There was a sense of secret relish for the meticulous labor

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<sup>159</sup> Rituel du diocèse de Québec (Rites of the Diocese of Quebec), 1703, Musée de la civilisation, Bibliothèque du Séminaire de Québec.

that the investigation now required. He listed the dates and locations of each record in a new spiral notebook pad. "I go through about three of these a month." He trailed out of the reading room through the corridor to the microfilms. "We'll look at the acts from Cap-de-la Madeleine first." Perhaps the parents were born and married elsewhere. "But we have to have *somewhere* to start." In the microfilm room the rolls are arranged numerically and by parish in large white metal cabinets. Thierrin took five microfilms for the top seven records in his notebook (two records are from the same timeframe at Cap-de-la-Madeleine and therefore should be on the same microfilm). The microfilm machines were in clusters of four and he sat in the cluster furthest from the window. The room was dark but Thierrin was concerned about reflection. "We'll be doing close reading on the screen." He inserted the first film, for Cap-de-la-Madeleine 1746-1753, and began to scroll down through three decades of names. The first record on his list was a baptism of Marie-Christine Payeur in 1747. In the database, Jean Baptiste Gagnon had been listed as a witness. "If it was the father of our Marie-Joseph, perhaps this was the baptism of his sister's child." I was confused. "How will you know it was the right Jean-Baptiste from the original record?" Thierrin was absorbed in the list and irritated by my interjection. "Just wait."

In the left-hand corner was written B for baptism and underneath was the name "M. Payeur." The 1747 baptisms had begun four pages ago. The priest's inscription was four simple lines with the name of the baby and her parents and an attestation to the legitimacy of the birth. Father, mother: Joseph Payeur and Marie-Geneviève Cournoyer. Underneath were a series of signatures. Witnesses : Msgr. Crespin. The notary. Pierre Cornouyer. Joseph Cournoyer. Jean Paul Payeur. Catherine Payeur. Marie-Elisabeth Gagnon. Joseph Gagnon. Jean-Baptist Gagnon. Thierrin held up his photocopied birth

record for Marie-Joséphé Gagnon, 1754, taken from a page just like this in the Cap-de-la-Madeleine registry. Marie-Joséphé's father Jean-Baptiste's signature was at the bottom. Thierrin lined up the signature with the signature on the microfilm screen and squinted. "It's not the same." Seven records later and still no match. The signature on record number six was similar but not the same. Thierrin photocopied it to consider later as a possible option. Bleary-eyed, we stopped. Back in the reading room, Thierrin wanted to narrow the remaining parish records by cross-referencing them against notaries. Accessing the notarial database on one of the reference monitors, he typed in Jean Baptist Gagnon, Marie-Joséphé Gagnon, and a date range. Too many records came up. He retyped: Jean Baptist Gagnon and the name of one of the notaries from Cap-de-la-Madeleine whose name he had just noticed on the microfilm. "Wouldn't be more than one notary in those days in a small town." Four records were retrieved: An inventory of some kind that did not seem relevant. A will which had a Jean Baptist Gagnon who would have been 79 at the time of the birth of Marie-Joséphé Gagnon in 1754. An itemization of a debt of a farmer named Jean Baptist Gagnon from a town three hours north to a local inhabitant of Cap-de-la-Madeleine of a different name. A marriage contract—between Jean Baptist Gagnon and Marie-Madeleine Cournoyer, 1746.

Thierrin was intrigued by the last record. Thinking back to the first parish record he had viewed, Thierrin recalled that the mother was named Cournoyer. Questions multiplied. Could it be the same Jean Baptist who went on to marry Marie-Joséphé Gagnon? Did that Jean Baptist draw a marriage contract with a Cournoyer sister in 1746? Was he a friend of the Cornouyer family? A relative? That would explain why he was a witness to the birth of their child in 1747. "Perhaps," Thierrin said, bright-eyed, enlivened now by the chase, "this Jean-Baptist impregnated the Cournoyer girl and they

drew up the contract to get married, but he reneged. And the Cournoyers had the baby under the name of her sister and her sister's husband so that everything would be legitimate. And Jean-Baptist went on to marry Marie-Joseph Gagnon several years later, although we cannot find the parish record for that." Perhaps. But the signature did not match. "Yes, this is the problem. The signature." Thierrin drummed his fingertips against the reference room table on which the computer monitor lay. Perhaps there was no link. Perhaps Jean Baptist, the untrackable father, changed names. Perhaps there was another way of finding him that did not rely on the Gagnon name. "Of course he could have changed names. Anybody could have. And did," Thierrin said. He was in a good position to appreciate this. His father had willingly changed the family name to Parsons in 1952. A teacher, the older Thierrin was required to obtain a certificate attesting to his piety from the local Catholic priest in order to assume his position at the village French school. Unable to convince the priest he was practicing, he became a Protestant on paper and taught at the neighbouring English school. The junior Thierrin changed his name back to the original French at 45. "But if we don't have the name then we don't have much at all to go on." He paused. "It is a strange fact and the major constraint of our science."

#### *Names and Genetics*

In 2004, a Czech physician conducted a laboratory study of DNA from a sample of Quebec patients in order to locate genetic determinants of chronic elevated blood pressure. There is a broad medical consensus that genetic factors are at least fifty percent responsible for hypertension. Genetic research on hypertension is a National Institutes of Health priority area. Scientific teams at the University of Michigan, University of Texas, and Johns Hopkins have aggressively tried to understand the hereditary dimensions of the

disease using progressively elaborate research designs, sampling, and biological equipment. Working out of the University of Montreal hospital system and with support from the U.S. National Heart, Lung, and Blood Institute, Dr. Pavel Hamet recruited a sample population of 120 affected and non-affected individuals from the Saguenay-Lac-Saint-Jean region of northern Quebec. His staff computed 15-generation genealogies for each research participant using the BALSAC database. Dr. Hamet's study was not different from many other medical genetic investigations. Except that his participants all shared the same last name. A reporter covering the study in a Montreal news daily titled his article, "The Tremblays of Chicoutimi Participate in Medical Breakthrough."<sup>160</sup> Tremblay is the third most common surname in Quebec. Doctors, patients, and the broader public sometimes refer to common regional inherited disorders in Quebec as "the Tremblay diseases."

Dr. Hamet reasoned that individuals in a region who shared the same name were likely to be related. As a group, they would represent an approximately homogenous population, sharing the same genetic makeup due to centuries of isolation and intermarriage. The idea was that intermarriage would have dispersed and equalized the distribution of genetic material within the boundaries of the group. Dr. Hamet believed that comparing the genetics of individuals embedded in a homogenous population who have a specific disorder to the genetic characteristics of the broader population would make clear the genetic deviations implicated in a disease. In short, the value of a homogenous population accrued from the presumed simplicity with which that population, and its physical deviants, could be genetically profiled.

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<sup>160</sup> Sauv , Matthew-Robert. 2005. Forum - Maladies du coeur - Les Tremblays de Chicoutimi participent   une perc e m dicale. Le Devoir, November 16.



The homogenous population more generally holds a special place in the practice of genetics, and in Quebec genetics. The first class in population genetics that a young scientist takes always includes a discussion of the Hardy-Weinberg law. The law, a prototype used to craft examples and propel classroom learning, states that the relative frequencies of genetic traits and physical characteristics in large, randomly mating populations tend to remain constant from generation to generation. In order for the law to hold true, one must exclude the possibility of mixture with genetically different immigrant or emigrant populations. In other words, the law relies on the assumption that populations are homogenous. The Hardy-Weinberg population, like other ideal models across the disciplines, has been a useful model within genetics against which to measure the degree of mutations and mixture in an observed population. Genetic researchers profess profound cognizance of the inability of Hardy-Weinberg models to reflect the observed heterogeneity and contingency of genetic inheritance in actual populations. However, in practice, many geneticists have approached populations that are seen as “closer to Hardy-Weinberg” with a sense of excitement at the possibility of making methodological expertise that they built during their training operable. Quebec has been characterized within the North American medical research world as a particularly good place to study a homogeneous, discrete population. In *The Scientist*, a medical and biotechnology industry journal, an article in 2008 advertised the “history, reproduction, and isolation” of people in Quebec as providing “opportunities here for geneticists that aren’t available in many other places.”<sup>161</sup>

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<sup>161</sup> Secko, David. 2008. Rare History, Common Disease: Why Quebec is a Gift to Geneticists. *The Scientist* 22(7): 38-45.

Dr. Hamet, in choosing a sample that seemed as genetically homogeneous as possible, was in line with intellectual currents in contemporary genetics. One of the underlying assumptions of Dr. Hamet's sampling method, of course, was that names indicate paternity. In assuming correlations between patronym and genetic ancestry, Hamet was in harmony with yet another set of broader trends in global medical genetic research: a trend towards using names as diagnostics for biological lineage. "Surnames are cultural markers of shared ancestry," according to molecular biologists at the University of Leicester. This axiom is repeated throughout the genetic literature. Taking a randomly selected sample of British men who share the same surname, the Leicester researchers argued that sharing a surname "significantly elevates the probability" of biological relatedness.

When geneticists discuss shared ancestry, the discussions often revolve around experimental data involving the Y-chromosome. Y-chromosomes, which are unique to males, are comprised of a specific category of alleles that researchers believe are better indicators of biological lineage than alleles elsewhere in the genome. In the Leicester study, the researchers used Y-chromosomes to test their theory about surnames, finding that 24% of study participants shared Y-chromosome alleles with one other same-named person in the experiment and 76% did not. (They interpreted this as support for the proposition that names indicate shared ancestry). Normal chromosomes are paired sets of threads that sometimes recombine in random patterns and from which embryos inherit by effective lottery—receiving some alleles from one half of the pair and other alleles from the second half. Y-chromosomes are unique because, unlike other chromosomes, they do not come in pairs. The allelic composition of a Y-chromosome is passed down whole and

thus remains overwhelmingly constant from father to son. This is why Y-DNA, as it is also called, is often used as a fail-safe proxy for biological relatedness in genetic research.

Y-DNA studies have recently been popularized by a burgeoning commercial ancestry craze. The Oxford human geneticist Bryan Sykes founded one of the first of the now numerous private companies offering fee-based ancestry testing based on the Y chromosome. The company, Oxford Ancestry, began in 1999 when Sykes conducted a Y-Chromosome study of 48 apparently unrelated British males with the surname Sykes. He concluded, to vigorous dissent, that 21 of the 48 men displayed a “distinctive Sykes chromosomal signature.”<sup>162</sup> Sykes contended that four other men in the sample were also “only one mutation away” from sharing that signature. Based on this, he reasoned that there was one original founder of the surviving Sykes. The 23 men who did not have an approximate or identical Sykes chromosomal signature were the result of the steady accumulation, over several centuries, of “non-paternity events”—misalignments between the named father and the biological father—and adoptions. Many geneticists argued that Sykes’ theory of a single genetic founder for each surname was an Adam and Eve inspired over-simplification of the complexity of human migrations.

Despite these critics, similar types of Y-chromosome analysis, the so-called “molecular genealogical approach,” have been employed as a benchmark against which group descent myths may be “scientifically assessed.”<sup>163</sup> In a recent study at the Institut Pasteur in Paris, eight immunologists used Y-chromosomes to test Central Asian hypotheses that members of large national tribes descended from the same ancestor. The

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<sup>162</sup> Sykes, Brian and Catherine Irven. 2000. Surnames and the Y Chromosome. *American Journal of Human Genetics* 66(4):1417-1419.

<sup>163</sup> McEvoy, B. and D.G. Bradley. 2003. Y-Chromosomes and the Extent of Patrilineal Ancestry in Irish Surnames. *European Journal of Human Genetics* 11(9): 705-709; Soodvall, H., A. Nebel, B. Morar, and T. Jenkins. 2005. Genealogy and Genes: Tracing the Founding Fathers of Tristan de Cunha. *American Journal of Human Biology* 17(5):634-645.

researchers compared Y-chromosome data from 247 randomly selected, unrelated men in Uzbekistan who represented five self-designated “tribes”: Kazakhs, Turkmen, Uzbeks, Qongirat, and Uruw. They concluded that “no common ancestry is observed at the tribal level” despite entrenched social histories that affirmed shared origins.<sup>164</sup> Y-chromosome studies have similarly been used to disprove Irish claims to ethnic purity and undermine the founding narratives of settler society in Tristan de Cunha by revealing foreign paternity. (Though the application of Y-chromosome testing to social mythology has been critiqued, the basic contention that paternal relatedness can be gauged through the Y-chromosome has been generally accepted as an imperfect but relatively acceptable source of valid results within genetics. There is some consensus that Y-Chromosome tests should only be applied to test relatedness in recent generations. The deep history claims of some Y-Chromosome studies, linking current day Cohens in New York City to the priestly class of cohanim in ancient Jerusalem for example, are broadly viewed by many scientists as spurious at worst and highly tentative at best).<sup>165</sup>

Dr. Hamet was not studying Y-chromosomes, however. He was studying hypertension. In order to do so he had chosen a sample that he believed was as homogenous as possible so that he and his lab would be able to streamline their analysis. To ensure the homogeneity of the sample population, he did not conduct a Y-chromosome analysis of potential participants, which would have been expensive and time-consuming. Understanding surnames to be a correlate of Y-chromosome composition, he and his laboratory bypassed the Y-chromosome, using patronyms as

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<sup>164</sup> Chaix, Raphaelle, *et al.* 2004. The Genetic or Mythical Ancestry of Descent Groups: Lessons from the Y Chromosome. *American Journal of Human Genetics* 75:1113-1116.

<sup>165</sup> Abu El-Haj, Nadia. 2004. “A Tool to Recover Past Histories”: Genealogy and Identity after the Genome. Occasional Paper of the School of Social Science 19, Princeton University.

diagnostics for ancestry and tools for producing sample homogeneity. “Names are good markers to infer patrilineal genetic structures of populations, both on regional and micro-regional scales.”<sup>166</sup> Names elided with molecules. Surnames, like the ingredients list on a shampoo, could tell his laboratory what humans were made of.

*Names, Affiliation, and Bureaucracy*

A personal name is a window onto a dense world of vernacular meaning where tribal and national connections as well as bonds of caring and family are implicated, or erased. In the Canadian novel *Three Day Road*, a pair of James Bay Cree, Xavier and Elijah, become famous snipers with the Canadian army at Vimy and Passchendale during WWI. Unable to pronounce Elijah’s name, Watawaschkajimek, his white Canadian infantry-mates dub him Elijah Whiskeyjack, “making his name a name without a family.”<sup>167</sup> Rather than subsumed by his affiliation to Indian kin, Elijah was thereby bonded into a brotherhood with his combat unit. His name was an instantly recognizable pairing of common referents from the drinking and cards culture of white North American life in the trenches. In *The Stigma of Names*, the German historian Dietz Bering has chronicled how “Jewish names” elicited ridicule, harassment, and eventually mass murder under the Nazis. If Jews did not have a recognizably Jewish name, calling them “Cohen” or “Isidor” Judaized them where their names had failed, cordoning them off as alien to mainstream German society.<sup>168</sup> Various native North American tribes “named”

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<sup>166</sup> Manni, F., Toupance, B., Sabbagh, A., Heyer, E. 2006. New Method for Surname Studies of Ancient Patrilineal Population Structures, and Possible Application to Improvement of Y-Chromosome Sampling. *Current Biology* 16(4):384-388.

<sup>167</sup> Boyden, Joseph. 2005. *Three Day Road*. Toronto: Viking Canada.

<sup>168</sup> Bering, Dietz. 1992. *Stigma of Names: Antisemitism in German Daily Life, 1812-1933*. Ann Arbor: University of Michigan Press.

visiting anthropologists according to local practice.<sup>169</sup> Anthropologists' predecessors, missionary priests, were often not even accepted into North American native communities until they had been given local names.<sup>170</sup> In a 1735 letter from an Iroquois mission near Quebec City, the recently posted Jesuit priest Père Aulneau recounted how he was ceremonially renamed Hatéviat by the local Iroquois chief. "It is under this name that they know me and they have assigned me a house and incorporated me into a family here," he wrote.<sup>171</sup> Thereafter, Aulneau was addressed as Hateviat while within the Iroquois village and by his French name when he was without.

*Permanent* surnames have a particular history. It was in the purview of the government regulation of tax and primogeniture that the priest Cyprien Tanguay's French-Canadian patronym index evolved. Permanent recorded names were also requisite tools for conscription, court judgements, police work, the collection of land revenue, condemnation of criminals, and cataloguing of deeds.<sup>172</sup> In successive registration acts published by the French government prior to the 19<sup>th</sup> century, there was a special emphasis on the recording of consistent, complete (forename followed by patronym) names for individual North American settlers. The permanent patronym promised to recast an illegible world of esoteric meaning expressed through oral nicknames and convenient shorthands—such as *old John the miller by the little brook*—in terms that were standard, uniform, and measurable. In medieval France, the adoption of inheritable names was prompted by concerns about property rights. In Languedoc,

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<sup>169</sup> See: Kan, Sergei, ed. 2001. *Strangers to Relatives: The Adoption and Naming of Anthropologists in Native North America*. Lincoln: University of Nebraska Press.

<sup>170</sup> Macleod 1996, Pp. 66.

<sup>171</sup> Lettre de Père Aulneau à Père Bonin, Oct. 2, 1735. *In* *Lettres du Père Aulneau, 1734-1736, Rapport de l'Archiviste de la Province du Québec, 1926-1927*, Pp. 274.

<sup>172</sup> Scott, James C., John Tehranian and Jeremy Mathias. 2002. The Production of Legal Identities Proper to States: The Case of the Permanent Family Surname. *Comparative Studies in Society and History* 44(1) : 4-44.

nobles adopted second names to mark the eldest, inheriting son. The formal category “*nom de famille*,” now a familiar category on bureaucratic forms, had not yet materialized. However, the use of second names proliferated among nobles and property owners. The notary, who validated documents, signed agreements, and administered and recorded oaths, aided this proliferation. However, notarization or legal record of a surname did not always translate into continuity in the relationship between a given name and an individual. In Quebec, notarized and parish names were fungible well into the 19<sup>th</sup> century. The same individual may appear in different documents under various, often related but sometimes wholly dissimilar, appellations. Francesca Ebecinske married Nicolas Pelletier in 1677 and was successively listed by that name in parish birth records for two daughters born in 1685 and 1688. By the time of the birth of her last daughter and in her death record, she was listed as Francesca Etehineska. In a notarial record voiding her husband’s previous marriage, she was simply Francesca Pelletier.<sup>173</sup>

Names were not so much about personal identity, much less biology, but rather legibility: rendering citizens, subjects, and exiles recognizable, quantifiable by church register or census roll, and thus manageable—often in the most convenient format for a given task, time, or place. In a telling example, in 1721, the Canadian Superintendent of Indian Affairs Sir William Johnson bemoaned the difficulties of identifying English captives returned by the Iroquois. “They are ignorant of their own names.” Many of the captives had replaced their knowledge of English with Algonquian dialects and supplanted their baptismal names with hybridized or native names. These new names not

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<sup>173</sup> Notes tirés d’un registre de baptêmes, sepultures, et mariages des sauvages du Lac-Saint-Jean, Chicoutimi, et Tadoussac de 1668 à 1699, par Mgr. Gosselier (Notes taken from a register of baptisms, burials, and marriages of savages of Lac-Saint-Jean, Chicoutimi, and Tadoussac from 1668 to 1699, by Mgr. Gosselier). Nd., ASQ Manuscrit 423.

only made it difficult to link the returnees to a recorded name in the British records (and thereby to their original families). The names also confounded established record-keeping categories: they were dual, often devoid of a surname, or qualified by extenuating details. A roll call of returned captives delivered by the Shawanese nations to Canadians at Fort Pitt in 1765 was: “Wechquessinah, Joseph or Pechyloothume, Jenny or Ketakatwich, Wapatenaqua, and Nalupeia, sister to Molly Bird.” Johnson believed that the inferior but necessary solution to making sense of this morass of useless information was to describe the captives “more particularly...as to their features, Complexion etc. That by the Publication of Such descriptions their Relations, parents or friends may hereafter know and Claim them.”<sup>174</sup> Without proper English forenames and surnames, the returnees were effectively invisible to the colonial administration.

That legible names are a path to legal visibility has not been lost on the people whose files fill offices that line the hallways of Quebec’s city hall. In 1990, a group of residents of Trois-Rivières, Quebec claiming to be of Algonquin descent requested that the oral history that attested to their native roots be certified by the government as true. The leader of the request, Claude Hubert, told the local newspaper, “I cannot ignore that which our ancestors entrusted to us, despite the fact that it is not mentioned in the registers.” Quebec’s Bureau of Indian and Northern Affairs staff maintained that the records were so riddled with lacunae that it was impossible to make sound conclusions about the lineage of the claimants. Hubert argued that the very fact of these omissions was a product of the secondary status that his native ancestors endured in European North America. “[Our ancestors] knew neither how to read nor how to write. The first

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<sup>174</sup> Axtell, James. 1991. *The White Indians of Colonial America*. Fairfield, Wa.: Ye Galleon Press. Pp. 63, s. note 21.



[reserve] school dates back to only 1906. But this does not mean that our oral memory is not exact.”<sup>175</sup> Hubert tested the architecture of administrative control, which embraced the axiom that families exist first in writing, then in memory. At the same time, by asking the Bureau to create a written record of his group’s history, Hubert worked according to nationally-erected standards of record-making (i.e. that legitimate records be *written* records): he sought to bring a certain ancestry into legal being by rendering it legible.

Hubert’s attempts were widely discredited as instrumental by other genealogists and historical demographers. A former data-entry director named Maurice Robert at the University of Montreal parish records project claimed to have produced alternative genealogies for the co-applicants that revealed the fallacy of their assertions. “They’re just interested in land claims under the new laws for concessions to Indians,” Robert said. Though that may be, Hubert and a childhood friend published a book in 2006 that framed their search for history as a sentimental affair.<sup>176</sup> Robert and many others believe that was a ploy intended for maximal popular effect. Nevertheless, the book reveals how a quest for legibility also involves feelings that defy the logic of self-interested action against or within a state: Nostalgia. Curiosity. Boredom. Loss. Raymond Thierrin’s experience testifies to how these domains of sentiment become intertwined in the search for legibility: Thierrin was aware that legal names could be misleading indicators of descent. Yet, he accepted these names as the only way to make any kind of ancestor visible in the archive. The fact of that visibility, however flawed its basis might have been, was at times more important to him than ascertaining the validity of the “facts” themselves.

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<sup>175</sup> Zehler, Estelle. 2006. Algonquins de Trois-Rivières - Retour à Petite-Mission. *Le Devoir*, June 3.

<sup>176</sup> Hubert, Claude and Remi Savard. 2006. *Les Algonquins de Trois-Rivières: L’oral au secours de l’écrit, 1600-2005* (Algonquins of Trois-Rivières: Speech to the Aid of Writing, 1600-2005. Montreal: Recherches Amérindiennes au Québec.

*Names, Feeling, and Knowing About the Past*

In Christmas of 2007, I traveled up to Baie-Comeau, Quebec, ten hours north of Montreal, a small town where the Chicago publishing magnate Robert Rutherford McCormick erected a paper mill and pulp processing plant in 1936. The town had sprung from a riverbank rim of sludge and swampland into a populous deepwater port. An aluminum plant erected there in 1957 brought workers and their families from Lac-Saint-Jean and the Gaspesie. The linemen bunked up in apartments by the factory while the foremen and their families built two-story houses by the water's side. When I met Ricard, she was perched over her name-book in front of a window looking over the St. Lawrence, adjusting her spectacles. The book was simply bound in a copy-shop plastic cover and graced with a stencil of Antoine Ricard—b. 1627—on page one. “He was my first ancestor,” she said. She told me her relative had compiled it and given it to her for a small sum. “Was it a close relative?” I asked. “I found him over the Internet,” she replied. She had followed a trail from postings on the Ricard forum at a famous family genealogy website and found him. The relative lived in Quebec City, worked for Post Canada, and wrote Ricard-related materials in his spare time.

There is a prolific cottage industry of surname-based flyers, periodicals, published book series, and conferences produced and circulated by genealogy enthusiasts in Quebec and, indeed, the rest of Canada and North America. A genealogist at the National Archives in Montreal recounted the discovery of his family book online as a mystical moment of connection. “The books create living memories,” he said. “They are not just lists of names like a genealogy, they are more personal—we are talking blood.” The Dubois family is among the most active. They have a name-book and a formal association with a monthly magazine that is advertised in local archives and genealogical

societies. The association invites all Dubois in North America to participate in the completion of the Dubois family tree at annual conferences in Victoriaville (\$37 per person) and online, where there is a special section for sharing stories about the first Dubois ancestors from Trois-Rivières. As with the Ricards, the *first ancestor*, in particular, is an object of archival quests and subject of keen conjecture. Who was he? Why did he come? What did he leave behind? Where did he first land? What were his first years like? By *first ancestor*, most mean the male ancestor responsible for their family name who first came to North America—what some genealogists in the United States call “crossing ancestors.”

Ricard’s book was an extended genealogical corpus of family trees, some in list form, others in ascending or descending charts. For the nearer generations, there were informal photographs: families sprawled in lawn chairs, school portraits. There were also stories, some in cursive, some typed: Summer 1947 with Edith and Jean Ricard. For the more distant generations, there were formal portraits: weddings, baptisms, burial notices. There was a reproduced document from the National Archives in Paris with a passenger roster for a vessel that arrived in xxx in 1636. The first Ricard was immigrant #232. The author had compiled a narrative that tracked the Ricards from Outouais to Ottawa, where they spread out like a fan across Lower Canada. Many records had disappeared, burned, or were difficult to recover. Where there were gaps, the author had pasted excerpts from regional historical association periodicals that referred to Ricards. “It is not improbable that this was our ancestor.” Maryse concurred. “Seeing names in history books that are names of your ancestors helps you piece together your genealogy.”

Maryse said she had never visited an archive to do research but two years ago she went with her cousin on an organized heritage tour to Western France. The Canadian

Automobile Association of Quebec had put together a trip to coincide with an annual meeting of the French national genealogy congress. Forty-four people went, beginning in the Loire, trailing down to Versailles, and then traveling through the seaside and country towns of Bretagne and Normandy from which the first arrivals in New France are believed to have departed: La Rochelle, Touraine, l'Aunis, Saintonge, Rochefort-en-Terre, Guenrande, Honfleur. The group then took the high-speed TGV to Paris, where they scaled the Eiffel Tower, sped through the Louvre, and had a farewell meal at Nos Ancêtres les Gaulois, a bistro on Île-St.-Louis, before jetting back to Montreal.

“We are our family name.” The Quebec journalist Narcisse-Eutrope Dionne remarked in 1914. I asked Maryse if she ever took an interest in her mother’s name, Lemire. “It’s so remote for me. I don’t have any real connection,” she responded. Most of what she knew about that side, she had come by incidentally. She mentioned she had once seen a truck-stand selling apples with “Lemire farm” on the makeshift awning. Curious, she had asked the vendor, a woman, if she was a Lemire. “Well just because I married a Lemire,” was the reply. The husband had died the previous year in St. Jean Baptiste de Rouville, a small town in the Eastern Townships, a bucolic agricultural region of South Eastern Quebec that was occupied by French then New England and New York settlers. The surname was meaningless to the woman.

On her father’s side, Maryse had followed a lead from the *Journal de Montreal*, a community newspaper that featured a new house for sale in the real estate section every week. A published picture of an older couple posing outside a designated heritage cottage they had named the Ricard House caught her eye. She called the journal, got the couple’s phone number, and eventually visited the house one day several months later when the weather was warm and there was time to make the drive. The couple, who were not

Ricards, told her it was the house of the first Ricard ancestor. Maryse was unequipped to do the necessary legwork to verify their claim. She was aware that there were genealogists who could locate and decipher old deeds. But she tracked out the back door of the cottage and sat on the short dividing wall that had separated grazing from growing fields when the cottage was attached to a clergy-owned farm. She gazed at the crooked trellis along the back façade, cloaked in ivy. She said she imagined the older Ricard prying vines away from the tiny windows every year. That seemed like something he would have done. She said she knew that her ancestors had been there.

CHAPTER 5  
THE FOUNDER EFFECT

The founder effect theory is the linchpin that holds together scientific hypotheses in Quebec that there are “French Canadian diseases” and a “French Canadian population.” “Founder effect” is a formal term from population genetics. Geneticists use it to refer to the loss of genetic variation when a new colony is established by a very small number of individuals from a larger population. Geneticists call the small number of individuals “the founder population.” In the case of Quebec, geneticists and genealogists agree that there were about 2,600 founders. By this, they mean first generation immigrants from France to the new North American colony who stayed and settled, reproducing for up to 16 generations until the present day. In a 2005 article on breast cancer in *Human Genetics*, a group of mostly Quebec and France-based genetic researchers wrote: “The Quebec population contains about six-million French-Canadians, descended from the French settlers who colonized Nouvelle-France [New France] between 1608 and 1765.” The article then went on to characterize the genetic effect of these founding settlers on contemporary Quebec: “Although the relative genetic contribution of each of these founders is highly variable, altogether they account for the major part of the contemporary French-Canadian gene pool.”<sup>177</sup> People who use the founder effect to explain genetic disease in Quebec are mobilizing a particular kind of genealogical logic.

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<sup>177</sup> Vezina, Hélène *et al.* 2005. Molecular and Genealogical Characterization of the R1443X BRCA1 Mutation in High-risk French-Canadian Breast/ovarian Cancer Families. *Human Genetics* 117(2-3):119-22.

That logic, which they substantiate with BALSAC genealogies and church records, dictates that French people in early Canada reproduced with one another—within parishes, settlements, and sometimes within the same family. That logic is what sustains the possibility of a bounded current day population that can be labeled French Canadian in the first place. It is leading to the inference that current day diseases in this French Canadian population, if they are hereditary, are the legacy of the original French settlers—something “from France.”

How did a generic biological concept for describing islands come to assume such analytical power in the explanation of Quebec diseases? How did geneticists conclude that social history and practices in Quebec could be mapped biologically in the form of a bounded population? What kinds of data, evidentiary norms, styles of reasoning, and historiographical predispositions did they depend on to do this? As it turns out, the shape of the colonial ecclesiastical archive and the place of the written Church record in genetic models of disease played a distinct role in how the “French Canadian” population materialized in Quebec biology. In Chapters Two, Three, and Four, I looked at how natives may be invisible to demographers and geneticists because of a combination of their assimilation into church registries and the way demographers today read race in the registry archives. Here, I want to delve into what I perceived to be a parallel dynamic at work in the labs: demographers’ and geneticists’ tendency to over-emphasize in-marriage between French-Canadians because of the shape of another type of ecclesiastical archive: the records of dispensations. In doing so, I want to consider in more detail how something called “French Canadian culture” emerged and has been replicated in biological terms within Quebec genetics.

The founder effect theory's origins are in twentieth century Euro-American biology. Ernst Mayr, the evolutionary biologist, first fully described the concept. He developed it to describe the ecology of islands, hypothesizing that as a result of the loss of genetic variation in a large population, a subset population that migrates to an island may be distinctively genetically and physically different from the parent population. Mayr proposed that, in extreme cases, reproduction, isolation, and inbreeding within the founder population could lead to the evolution of a new species.<sup>178</sup> The small populations of the South Pacific's Easter Island and Pitcairn, an island supposedly founded by the British mutineers of the Royal Navy ship the *Bounty* and their Tahitian wives, are often cited as examples of the founder effect. Iceland and the South Atlantic archipelago of Tristan de Cunha have also been studied for founder effects and, recently, targeted for population genetic research and databanking initiatives. Geneticists both within and outside Quebec say that Quebec is also a good candidate for application of the founder effect theory because, though not a physical island, the French settler population constituted a cultural, and therefore biological, island in North America.

These geneticists are borrowing the optics of island ecology—images of enclosed, isolated spaces, separated from other forms of life by water, timezones, and obstructive distances—and applying them to Quebec history and social life. They are then turning these cultural units into biological units of analysis. In the daily Montreal newspaper *La Presse*, a local journalist wrote in 2005, “Genetic codes do not only serve to prove the culpability of murders or clear criminal suspects. They can identify the first inhabitants who introduced rare diseases to Quebec at the very beginning of the colony, and do it

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<sup>178</sup> Mayr, Ernst. 1942. *Systematics and the Origin of Species*. New York: Columbia University Press. Pp. 236-237.



with great precision.”<sup>179</sup> Geneticists had argued that the founders would tell them about the genetics of the current day population; the journalist assumed the genetics of the current day population could reveal the identities of specific founders. Either way, genes and ancestors, physiology and names, social boundaries and biological parameters, historiographical claims and genetic models were being equated.

*Inbreeding, Canadian Law, and the Church Archive*

The colonial French Church was a prodigious producer of documentation—not just of vital registration records but of ordinances, letters, public announcements, and reports. The paper trail left by the priests, bishops, and Archbishops of Quebec is thick with records, in particular, that explicitly discuss the intermarriage of couples from the same parish or extended settler family. The Catholic Church in New France required future spouses related by more than four degrees (third cousins) to request permission to marry. The early Roman Catholic Church had originally followed Roman custom, which did not prohibit first cousins from marrying. However, toward the end of the fourth century and throughout the fifth and sixth centuries, successive Councils of Rome passed laws forbidding the marriage of first and second cousins. In the 11<sup>th</sup> century, the Church expanded the list of forbidden marriages to include sixth cousins. The Church required any couple marrying within these degrees to pay a fee for a special dispensation allowing them to proceed. The British anthropologist Jack Goody has suggested that the Church instituted the dispensation system in its own political and economic interests: to disrupt the consolidation of wealth in continuously intermarrying generations of the same family

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<sup>179</sup> Noël, André. 2005. *Généalogie et génétique* (Genealogy and Genetics). La Presse, August 18. Pp. 8

and thereby create a new, reliable source of Church income.<sup>180</sup> Other scholars have critiqued Goody's argument.<sup>181</sup> Whatever the reason for the ban system, in New France, the ecclesiastical archives are rife with copies of dispensations (*dipenses*) and records of dispensation payment, as well as letters from priests requesting permission from bishops to grant them, debates about the merits of particular dispensation cases, and abstract philosophizing about dispensations and why to provide them.

The presence of these dispensation-related records, most of them letters directly to the Vatican or public announcements intended for New France parishioners, has made intermarriage between French settlers and French-named families readily visible in the historical record for demographers. Quebec historians and demographers use the preponderance of dispensations for intermarriage in the historical record to detail a now archetypal narrative about French endogamy in New France. In their studies of kin networks, demographers at the Université de Montréal invoke the dispensations to argue that New France villages were isolated, intimate rural enclaves of French Catholicism. In a classic study, a demographer named Maureen Molloy who studied dispensations at the Université de Montréal department examined the Paradis family of Île d'Orléans, Quebec: "Eight of their children married...Among them they had 28 children who married. Of these, 16 married into other sibling groups [within the family] or to affines of their own aunts and uncles." An affine is a person related by marriage. Molloy concluded from the dispensations that there had been "dense intermarriage" between wings of the family over many generations. Building on studies completed by more senior

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<sup>180</sup> Ottenheimer, Martin. 1996. *Forbidden Relatives: The American Myth of Cousin Marriage*. Urbana and Chicago: University of Illinois Press, Pp. 65; Goody, Jack. 1983. *The Development of the Family and Marriage in Europe*. Cambridge: Cambridge University Press.

<sup>181</sup> For example: Verdery, Katherine. 1988. A Comment on Goody's *Development of the Family and Marriage in Europe*. *Journal of Family History* 13(2):265-270.

demographers in the department, she argued that the dispensations showed French Canadian villages were characterized by tight-knit kin networks. Village and kin were “synonymous.”<sup>182</sup> For Molloy, the records of dispensations validated French North American histories that had chronicled the tightly united spirit of early French Canadian settlement.

In the dispensation records, as in the personal registries, people were only specified by name, village, and often slight other identifying characteristics like father’s and mother’s name, profession, and original village of birth. Like the registries, the dispensations evoke a world of French-named Catholics that does not necessarily distinguish between settler and native in ways that modern racial logics might dictate. The only way current scholars gauge the ethnic homogeneity of the families they find in the records is by correlating these various French surnames. For example, if a demographer found that a Beauce daughter married a Robillard son and, a generation later, a Robillard grandson married a woman named Beauce from the same parish town in which they all had lived, he might infer that the Beauce and Robillard families cross-married for several generations and use this inference to support the hypothesis that early French Canadians were endogamous. There could have been intermarriage, francification, and renaming between French and native individuals prior to the drafting of these dispensations. If that were the case, the dispensations, though they show successive intermarriages between later same-named groups of descendants, do not in themselves prove French Canadian ethnic homogeneity and endogamy. It is unclear. Molloy and other demographers have generally interpreted the dispensations as evidence

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<sup>182</sup> Molloy, Maureen. 1990. Considered Affinity: Kinship, Marriage, and Social Class in New France, 1640-1729. *Social Science History* 14(1):1-26.

that natives were separate from French Canadian settlements: “Long, cold winters, short growing season, the great amount of labor required to clear land for farming, and the threat of attack by the indigenous peoples are likely to have had the effect of promoting relations of mutual support, such as close kin networks,” Molloy wrote, explaining the preponderance of dispensation records for rural French Canadian parishes.<sup>183</sup> Natives were distant and antagonistic aliens to the fabric of early settlements in her rendition.

Of even greater interest to me was also the fact that the dispensation records, and thus the dispensation archive, were intimately bound up in the politics of French-British tensions over religious and cultural life that built after British takeover of Quebec in 1763. English-speaking Canadians began to formally challenge and redraft Quebec legal norms related to marriage and family law in the 1860s. The laws governing marriage in Quebec became a touchstone in the broader debate between English Canadians and French Canadians about jurisdiction to regulate private and public life. The Canadian parliament in Ottawa sought to legislatively standardize the prohibitions against marriage across provinces, particularly incest bans regarding the marriage of a man to his wife’s sister. Under the Catholic Church such marriages were permitted via dispensation but under English common law in the rest of Canada they were categorically forbidden. The A prolonged debate in the Canadian parliament about how to regulate marriages between these forbidden relatives in Quebec specifically brought dispensations to the fore of discussions about French-Canada’s cultural and political character.

At the time, many French Canadians labeled the move to standardize the forbidden degrees of relatives, and thus remove the Catholic Church’s legal and spiritual authority in the determination of marriage practices, a form of Canadian trespass over

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<sup>183</sup> Molloy 1990, Pp. 5

Quebec's religious and cultural autonomy. Catholic authorities in Quebec rejected the attempt as a move to undermine the right to practice Catholicism, invoking the principle of religious freedom.<sup>184</sup> Some parliamentary representatives outside of Quebec agreed, arguing that a blanket incest law would conflict with the Canadian constitution's guarantee of religious freedom.<sup>185</sup> However, the incest laws and religious rights they implied had other political valences. Quebec politicians and writers described the parliament as pursuing a direct assault on the Catholic heritage of the province and thereby posing a threat to Quebec's French character. Quebec legislators articulated rejections of any attempt to institute non-Catholic marriage in this frame. One French-Canadian legal commentator wrote in contempt of the parliament, "To marry in Lower Canada [Quebec], it is necessary to be Christian. The legislature of a Christian nation cannot reasonably accommodate infidels, and even less so atheists and the impious."<sup>186</sup> He seamlessly equated faith, marriage practice, and Quebec's cultural and political character. To be from Lower Canada was to be Christian and to marry according to the edicts and procedures of that Christian juridical system. The struggle to push back against Canadian attempts to institute nationally uniform, non-religious, civil marriage codes crystallized in Quebec as a struggle against Canadian cultural imposition.

Did the dispensations—and the French Catholic way of doing things they signified—become a way of drawing attention to French-Catholic uniqueness, vitality, and custom on Canadian soil? Did priests emphasize dispensations and their recording as part of the political struggle against Canada? The archives have only left the dispensations

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<sup>184</sup> Leckey, Robert. 2006. Profane Matrimony. *Canadian Journal of Law and Society* 21(2): 9-11.

<sup>185</sup> Girouard, Désiré. 1868. *Considerations sur les Lois civiles du mariage* (Considerations on the Civil Law of Marriage). Montreal: Nouveau Monde, Pp. 25.

<sup>186</sup> Girouard 1868, Pp. 33, s. note 37

themselves, with few clues as to why they were so meticulously recorded, particularly after British Conquest in 1760. The records themselves suggest that dispensations were not just for-a-fee, by-the-book tallying of canonical degrees. In a 1760 list of dispensations authorized by the Bishop of St. Malo, a village in Quebec's eastern townships named for the town in Normandy where Jacques Cartier was born, a priest wrote the subheading: "Dispensations of consanguinity...in order to encourage alliances among habitants and between them." Habitants is the word the French regime coined for rural settlers in New France. Other priests articulated why to grant dispensations using related rationales, emphasizing the aim to bolster unity and alliances. In an 1850 letter, a pontiff instructed a priest to maintain flexibility in allowing dispensations for women in his parish who could not find someone in the village who was both "advantageous" and a "stranger,"—i.e. not a near or distant relation—to marry.<sup>187</sup> He was authorizing the priest to encourage local alliances.

In contrast to the dispensation archive, the only specific discussion I found in the Church archive of a native-French marriage—apart from the numerous blanket ordinances and statements by French pontiffs supporting, prohibiting, or evaluating the success of such marriages—was a letter written by a priest to the Bishop of Quebec in 1826. The priest was part of the mission parish at Lac des deux Montagnes, an Iroquois settlement. He wrote to vociferously argue against the marriage of one of "our young savages" to a French Canadian woman. He was displeased at the prospect of a French-native marriage in general but he was most perturbed about the fact that the marriage was of a French Canadian *woman* to a native *man*. "We have observed that those who

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<sup>187</sup> Lettre de Celestine Gauvreau au curé [Letter from Celestine Gauvreau to priest], 1850. ASQ Poly 16, No. 10

have contracted such alliances [in the past] were (among the men) of an animated, ambitious spirit.” In contrast, he continued, “(among those who have sex [women]), there are young girls, impressionable, uninstructed, and uncertain as regards [our] customs.” The priest argued that the young woman in question would be in danger of culturally drifting. The letter is suggestive on many planes. It offers insights into mixed unions: apparently, they were happening between white men and native women. It tells us about the gendered dimensions of how the Church perceived such unions: women were perceived as more assimilable, posing an advantage for white men who married native women, but posing danger for white women who married native men. Most importantly here, it implies something about Church writing: white men-native women marriages were non-threatening and therefore did not warrant formal appeal or discussion. Could this be why they so rarely arise in Church documents even though, by this priest’s account and by account of notarial records, they did occur? What is certain is that the ecclesiastical records are ambiguous documents when read against their historical context. They can be read as supporting multiple possible histories of interaction and reproduction in pre-twentieth century Canada and Quebec. In Quebec demography and historiography, dispensations and Church registers are used as the evidence that endogamy was the fundamental truth of early life in the colony.

### *Mapping the Archive onto Biology*

One day in Chicoutimi, I walked over to a now defunct wing of the Grand Seminary to meet Christine Tremblay. The Jesuits consolidated their offices and classrooms in the 1950s into a cottage next to the main building to make room for a province-run college. Tremblay is the founder of one of the first and most active patient

advocacy associations in Quebec and teaches health classes at the college. In the 1980s, a local physician diagnosed her daughter with a fatal metabolic disorder. From her office, she manages the association, now 47 families. She lobbies the provincial and regional government for scientific research funds, solicits postings from parents about life with the disorder for an on-line blog, arranges annual meetings for the families in Chicoutimi, and contributes manpower and data to genetic education workshops run by the local health services in schools. “Everybody called it the Tremblay disease back then. And it’s true that when you looked in [our] genealogy, you could find lots of Tremblays. At that time, I was ashamed, because we had a feeling that we had done something wrong, that there was something wrong about *us*.”

It was, and is, common to hear people in Quebec talk about diseases as “inbred.” “The Tremblay disease” is a convenient shorthand for this that evokes feelings of fear, repulsion, and anxiety about the farmers, tillers, and factory workers who still populate Quebec outside of the industrialized cities—Montreal, Quebec City, Trois-Rivières. Those cities were at the heart of the modernizing efforts of French nationalists in the 1960s. Before the nationalist movement came to power, Montreal, in particular, was a city split into plush detached Georgian homes inhabited by English speakers on the West side and the multi-colored, low, attached cottages that are the signature of the French-speaking Eastern “Plateau.” The nationalist government enacted tax and contract reforms that reshaped the urban landscape, bringing boulevards of boutiques, French banks, and strictly regional French coffee, grocery, and restaurant franchises into the West, East, and center. Against the backdrop of these transformations, people across Quebec often describe the rural land, often called “the regions,” of Quebec as a contradictory symbol: of the romance of pastoral French Canada life but also of the



“backward” moorings of French Canadian society. “They all sleep with their cousins up there,” was a common enough refrain for me to hear in Montreal. People used inbreeding to draw contrasts between city and country, “new Quebec” and “old Quebec.”

Talk about endogamy and consanguinity—marriage within the same family, often to forbidden relatives—at BALSAC and among patients, clinicians, geneticists, and health activists like Tremblay was often tinged with apprehension about these distinctions. Tremblay had interpreted her daughter’s diagnosis as a sign of shame because, within this framework, it indicated her family did not fit the modern French Canadian ideal. She continued: “We were relieved when we found out it was not us but the founder effect. That diminished our sense of blame.” Gerard Bouchard, the leader of the BALSAC population registry, and a genetic researcher named Marc De Braekeleer from Lyon (France), first publicized the founder effect explanation for diseases in Quebec in the 1980s. “There was a meeting and we were all sitting at the hospital and that’s where I heard about it for the first time,” Tremblay recalled. “We suddenly understood it was not us as a family but us as a population that faced this problem. We never took an interest in genealogy after that.” For Tremblay, the founder effect shifted scientific, medical, and public focus from individual families and regions to the entire French Canadian population, obscuring distinctions between different kinds of French Canadians—urban and rural, developed and undeveloped—that had upset her.

Bouchard and De Braekeleer published numerous articles between 1991 and 1996 using the founder effect to explain Leigh syndrome, spastic ataxia, vitamin D rickets, lactic acidosis, muscular dystrophy, and several other neurological and metabolic diseases

that are statistically more prevalent in Quebec than elsewhere in the world.<sup>188</sup> Tracing names through the records, they showed that the first and then subsequent groups of settlers in early Quebec did not necessarily marry cousins, but did indeed marry within the local population. They focused in particular on the Saguenay-Lac-Saint-Jean region of Quebec, where Chicoutimi is located and where Bouchard is from, and on disproving the theory that inbreeding was to blame for common diseases there. In an interview with me in 2007, Bouchard emphasized, “This is a collective challenge.” Bouchard and De Braekeleer used Church records—registers, dispensations, and tithe tallies—to prove the endogamy but not the consanguinity hypothesis. They took the reproductive isolation of the French population in Canada to be fact and, based on that, outlined a genetic explanation for how the diseases were transmitted from founders to their descendants.

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<sup>188</sup>For example: De Braekeleer, Marc, and Serge Gauthier. 1996. Autosomal Recessive Disorders in Saguenay-Lac-Saint-Jean (Quebec, Canada): A Study of Inbreeding. *Human Biology* 68(3): 371-381; De Braekeleer, Marc, and J. Larochelle. 1990. Genetic Epidemiology of Hereditary Tyrosinemia in Quebec and in Saguenay-Lac-Saint-Jean. *American Journal of Human Genetics* 47: 302-307; Bouchard, Gerard and Marc de Braekeleer. 1991. *Histoire d'un genome (History of a Genome)* Montréal: Les Presses de l'Université de Québec.



Fig. 5.1. DISTRIBUTION OF PIONEERS OF BOTH SEXES BY PLACE OF ORIGIN. (“*Distribution des pionniers des deux sexes selon le lieu d’origine*”). Map of France created and displayed at the research library in the offices of the BALSAC project.

In many cases, they pointed to particular founders as probable carriers of specific diseases. For oculopharyngeal dystrophy, a rare type of degenerative muscular disease, De Braekeleer and several colleagues in Paris proposed a couple nicknamed “J.E.-M.B.” from the maritime regions of early modern Poitou, an administrative region in central western France.<sup>189</sup> Ship records showed that the couple’s children emigrated from Poitou to Montmagny, on the southern banks of the St. Lawrence, in the 17<sup>th</sup> century. De Braekeleer wrote that Church records for 28 individuals diagnosed with the disease in contemporary Saguenay-Lac-Saint-Jean all linked in one way or another to these emigrant children. He noted that several cases of the same disorder have been diagnosed

<sup>189</sup> Tremblay-Tymczuk, S., J. Mathieu, K. Morgan, JP Bouchard, and M. De Braekeleer. 1992. Genealogical Study of Oculopharyngeal Dystrophy at Saguenay-Lac-Saint-Jean, Quebec, Canada. *Revue Neurologique (Paris)* 148(10):601-604.

in contemporary Poitou, a region of about 1.6 million people. He ignored the incidence rates for the disorder in other populations outside of France and Quebec. Relying on the Church records, he argued that the documented genealogical links between current-day Quebec patients and the presence of the disorder at the “point of origin,” in France, were evidence that the disorder was of French origin.

One of the key types of data that Bouchard, De Braekeleer, and other geneticists and demographers used to describe diseases and their origins in Quebec was the “kinship coefficient.” A kinship coefficient is a statistical concept, often attributed to the Vichy France mathematician Gustave Malécot, whose statistical work on heredity influenced early population geneticists and eugenicists. Malécot developed the kinship coefficient to measure the genetic similarity between two individuals.<sup>190</sup> It represents the probability that any two genetic alleles sampled at random from two individuals are identical copies of a shared ancestral allele. Malécot also developed what is known in contemporary genetics as an “inbreeding coefficient,” the measurement of the kinship coefficient between two parents (If the parents are not related, the inbreeding coefficient is effectively zero.) In the 1980s, Bouchard, De Braekeleer and their colleagues at BALSAC determined precise kinship and inbreeding coefficients for various regions of the Saguenay-Lac-Saint-Jean area using the Church records. They compared the coefficients with disease incidence rates in each region. They found that kinship coefficients were higher in regions where disease cases were clustered. They held that inbreeding coefficients, on the other hand, had no relation to disease incidence.

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<sup>190</sup> Original: Malécot, Gustave. 1941. *Études mathématiques des populations mendéliennes* (Mathematical Studies of Mendelian Populations). *Annales de l'Université de Lyon* A(4): 45-60. See: Slatkin, Montgomery and Michelle Veuille. 2002. *Modern Developments in Theoretical Population Genetics: The Legacy of Gustave Malécot*. Oxford University Press.

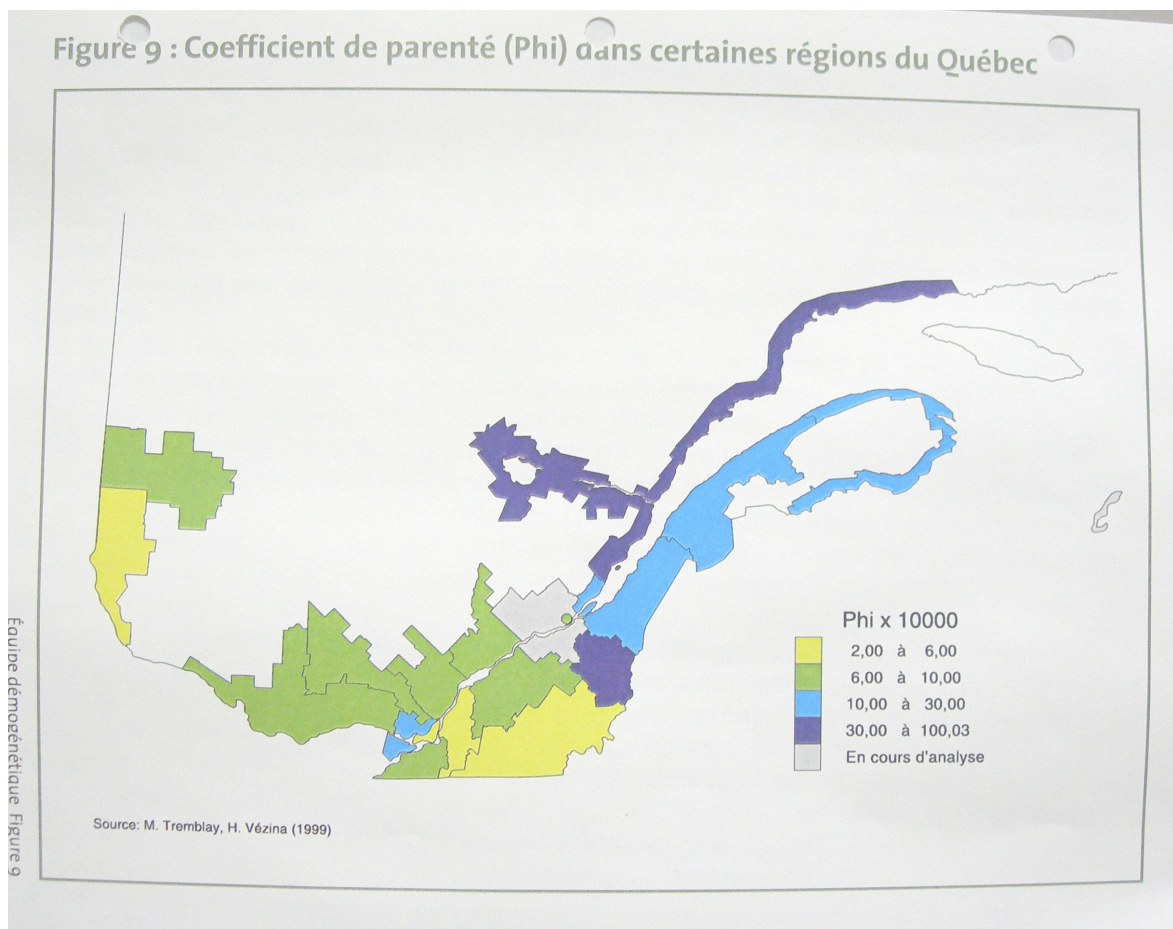


Fig. 5.2. KINSHIP COEFFICIENT IN CERTAIN QUEBEC REGIONS. (“*Coefficient de parenté dans certaines régions du Québec*”). Map of Quebec from walls of the library at BALSAC representing distribution and density of kinship coefficients by region.



**Tableau 2**

**Proportion (%) des individus consanguins selon la profondeur généalogique**

Régions	Profondeur généalogique		
	4	8	12
Côte-Nord	12	85	93
Bas-Saint-Laurent	3	91	97
Saguenay	8	90	98
Charlevoix	16	98	99
Côte-du-Sud	3	97	97
Beauce	8	95	99
Québec et région	7	79	94
Estrie	9	73	85
Bois-Francs	7	86	99
Mauricie	17	87	98
Lanaudière	7	82	93
Richelieu et Rive-Sud	6	80	95
Montréal et Rive-Nord	3	79	90
Laurentides	4	81	99
<b>Moyenne</b>	<b>8</b>	<b>86</b>	<b>95</b>

Fig. 5.3. PROPORTION (%) OF CONSANGUINEOUS INDIVIDUALS BY GENEALOGICAL DEPTH. (*“Proportion (%) des individus consanguins selon la profondeur généalogique”*). Chart from the library wall at BALSAC. “Genealogical depth” refers to the number of generations an individual’s genealogy has been tracked back within Quebec. The regions on this chart with the highest percentage of “consanguineous individuals” [definition unspecified] generally corresponds with the regions on the map in Fig. 5.2 of regions with high kinship coefficients.

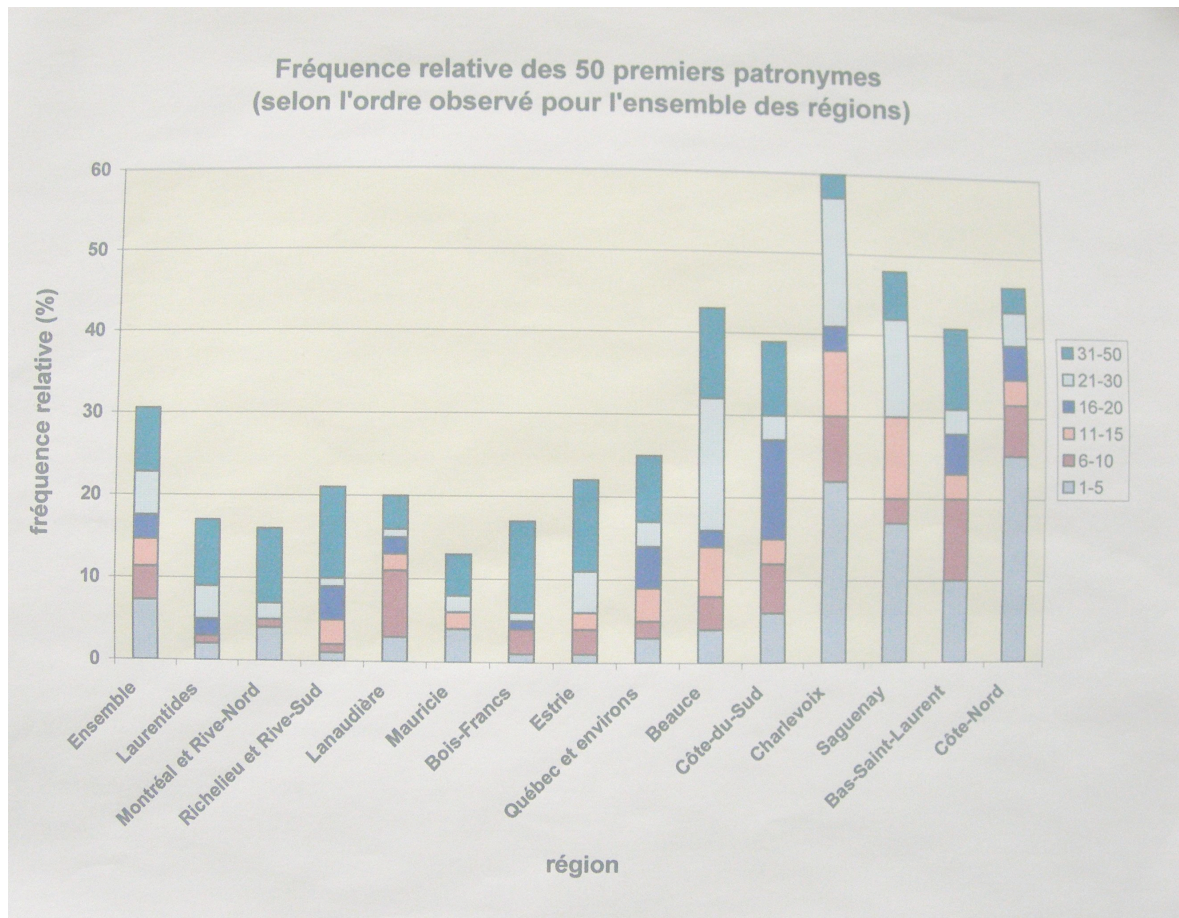


Fig. 5.4. RELATIVE FREQUENCY OF THE 50 FIRST PATRONYMS (ACCORDING TO OBSERVED ORDER FOR ALL REGIONS TOGETHER. (“*Fréquence relative des 50 premiers patronymes (selon l'ordre observé pour l'ensemble des régions)*”). A bar chart from the wall of the library at BALSAC that tallies the frequency of the 50 most common surnames in Quebec by sub-region. With the exception of the Mauricie region, the regions with the highest frequencies of the top 50 surnames correspond to the regions identified as having the highest rates of consanguineous individuals in Fig. 5.3 (Charlevoix, Saguenay, Côte-Nord) and the highest kinship coefficient in Fig. 5.2.

Bouchard and De Braekeleer rejected data that insinuated inbreeding and opted to, rather, turn the data that countered claims about French consanguinity into evidence in their examination of diseases. They used dispensations to argue for in-marriage, “close-knit” village networks, and rural intimacy while dispelling any question about “inbreeding” and disease. Their scientific explanation focused on endogamy rather than consanguinity. It enabled them to shift frames from the individual to the collective, to

recast illness as a group characteristic rather than a familial shame, and to try to remake the Saguenay-Lac-Saint-Jean region into a part of the French Canadian modernizing story—not the lagging back country of an uneducated menial workforce whose cousins intermarried.

Bouchard and De Braekeleer's style and methods became a template that numerous subsequent demographers followed. Using the same methods, in their 2005 article on breast cancer in *Human Genetics*, BALSAC demographers had also located a single founder couple and linked incidence to high kinship coefficients. The couple appeared in genealogies for all 18 of the current-day carriers of a specific breast cancer allele who had participated in their study (but only 26 out of 54 control genealogies). The authors used a correlation with current medical cases in France to argue that the mutation came specifically from the mother. "The founder couple married in Quebec City in 1671...the wife came from France and the husband came from Portugal, which is interesting since most 17<sup>th</sup> century founders of the Quebec population came from France. As the R1143X mutation has been reported in French families and, to our knowledge, has not been found in Portugese families, we can therefore hypothesize that the mutation was introduced from the mother's side."<sup>191</sup> They inferred geographical transmission in the past according to geographic distributions in the present, compressing space and time into an explanation for the ethnic character of the mutation. They also explained the disease and its transmission as an effect of successive intermarriage within the French Canadian population—high kinship coefficients.

Many things in fact contribute to the number of cases of a particular allele that doctors detect in one population, such as France, versus another, such as Portugal: the

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<sup>191</sup> Vezina *et al.* 2005, Pp. 16, 17



availability of genetic tests that could identify the allele; the willingness of local patients to undergo testing or of governments or insurers to finance it; the ability of doctors or researchers to communicate their statistics to the scientific community through English or French publications. Perhaps the Church records that identified the father as Portugese and the mother as French were not even trustworthy stewards of such data. What did it mean to be Portugese or French in 1675? The researchers had not considered these other genres of data. “Although the identification of the founders who introduced the mutation will always remain probabilistic we are confident that our method, based on the use of control groups and criteria of frequency and specificity to select ancestors gives us a very high probability of having pinpointed the right couple.” It was 2004 when they conducted the research and it is clear that by that time, using the Church records to construct genealogies and statistics—kinship coefficients—then linking these to genetic conditions had become standard investigative practice.

*The Logic of the French-Canadian Collective*

Richard Lewontin once eloquently summed the founding insight of social studies of biology: “Scientists do not begin life as scientists...but as social beings immersed in a family, a state, a productive structure, and they view nature through a lens that has been molded by their social experience.”<sup>192</sup> What was the social experience, especially of family, state, and nature, of genealogists in Quebec and, specifically, the Saguenay-Lac-Saint-Jean? In the Chicoutimi archives, I found an album of photographs commemorating centennial celebrations in 1938 held by the regional government to mark the founding and French colonization of the Saguenay-Lac-Saint-Jean region.

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<sup>192</sup> Lewontin, Richard. 1991. *Biology as Ideology: The Doctrine of DNA*. New York: Penguin. Pp. 3.

There were photos of parade floats, lyrics for a song, and pictures of two plays put on with help from the local priest and convent. One play was about the pioneer women: “The Heroism of Our Mothers.” The second was about the first French explorers in Canada.<sup>193</sup> Saguenay boys had dressed up like Indians with feathers and fringed tunics to reenact the moment in the 1670s when the French colonial administrator Jean Talon signed a peace treaty with the Montagnais tribe. In a stall set-up along the parade route, two girls in the ruffled white bonnets that French emigrant women are fabled to have worn in New France baked old style French country bread—sometimes referred to as “Everday Bread” or “Peasant Bread.” On large ox-drawn floats labeled “The Great Virtues of our Ancestors” and “The First Colonials,” men and women in old costume circled piles of hay with small pigs and goats, greeting and waving. Crowds flanked the floats on either side. There were other photos: of the Canadian Cardinal Villeneuve and Bishop of Quebec touring the town by car; of chief—labeled “Chief Jacques Germain”—of the neighbouring Montagnais settlement at Pointe-Bleue standing in tribal costume on the slope of the Saguenay riverbank after disembarking from a canoe. Tucked in the archive one a notecard were also lines to a hymn a local historian had arranged for the festivities. It began: “The King of your people prays, You let it be known with traits of blood.”<sup>194</sup>

The idea that contemporary descendants of early French settlers in Quebec are “pure Québécois” (*Québécois pure laine*, lit.: “pure wool Québécois”) is connected to the veneration of rural French peasant life in the early colony. Lionel Groulx, a nationalist

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<sup>193</sup> L’Héroïsme de nos mères--centenaire du Saguenay, 1838-1938 (Our Mothers’ Heroism—Saguenay Centenary, 1838-1938). Album 729 (Photographies officielles des fêtes). Archives Nationales de Chicoutimi.

<sup>194</sup> Original: “La foi de ton peuple qui prie, tu la souligné en traits de sang.” Hyme au Saguenay, words by R.P. Laurents, Archives Nationales de Chicoutimi.

historian and politician, declared at a 1938 conference on French-Canadian folklore, “What is constant for us is our peasant roots. We were born and we became people in the country...as a French and a Catholic peasantry, tillers of the earth and pastoral tenders.”<sup>195</sup> The mission statement of the second Congress on the French Language in Canada in 1937 similarly declared, “We conserve our French heritage in order to perpetuate ‘the Canadian miracle’ on American soil.”<sup>196</sup> These stories about the pioneers, or founders, defined the boundaries of the current day Quebec population. In the last century, folklorists, linguists, and museum and tourism workers have all since contributed to romantic visions of a rural past where homogenous French villages and agricultural collectives were bastions of *Gemeinschaft* that Conquest and modern commerce eroded. Early Quebecers, the story goes, lived in idyllic cultural isolation until British Conquest in the 1760s. They transported the charm, grit, and intimacy of every day village life in France to the North American wilderness. Quebec language, architecture, and arts groups animated this vision in the 1980s, 90s, and 2000s in new museums and heritage monuments. They depicted the founders and their immediate descendants as marooned in isolated clusters on a vast and empty Canadian frontier.

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<sup>195</sup> Velay-Vallantin, Catherine. 1997. Usages de la tradition du folklore en France et au Québec (1937-1950): l’investiture du politique (Uses of the Folklore Tradition in France and Quebec, 1937-1950). In Gerard Bouchard and Martine Segalen, eds., Pp. 273-301. Une langue, deux cultures: rites et symboles en France et au Québec (One Language, Two Cultures: Rites and Symbols in France and Quebec). Quebec: Les Presses de l’Université Laval. Pp. 294.

<sup>196</sup> Velay-Vallantin 1997, Pp. 274



Fig. 5.5. HOMAGE TO SAGUENAYEN FOUNDERS. (“*Homage aux fondateurs saguenayennes*”). 1938 Centennial Celebrations, Saguenay-Lac-Saint-Jean. Archives Nationales du Québec, Chicoutimi, Phototèque, SHS-P2-S7 Album No. 5, Pp. 19.

There are two ideas in particular that Quebec historians and folklorists routinely bring up to talk about the cultural isolation of the French-Canadian past: *patrimoine*, which, in the strictest sense, can be glossed for English equivalents “inheritance” or “heritage,” and *paysannerie*, which can gloss as “rurality,” “peasantry,” or “country life.” “The simplest definition of *patrimoine* is ‘old things,’” the contemporary anthropologist of Quebec Richard Handler writes.<sup>197</sup> In a 1972 parliamentary debate in the Quebec National Assembly, one politician suggested a broader definition: “The word *patrimoine* designates the totality of what we possess, and what is added to it. Thus it refers not only to the conservation of what we call traditional goods, but of everything that can be called

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<sup>197</sup> Handler, Richard. 1985. On Having a Culture: Nationalism and the Preservation of Quebec's Patrimoine. In George W. Stocking, Jr. ed., Pp. 192-215, *Objects and Others: Essays on Museums and Material Culture*. Madison: University of Wisconsin Press, Pp. 195

cultural property.”<sup>198</sup> One anthropologist of Quebec has described *patrimoine* as something that people perceive is transmitted inter-generationally, a way one can “reproduce oneself through one’s children.”<sup>199</sup> It “is a matter of deciding what to bring and what to leave behind.” In Quebec, it is common to hear people speak of cultural, genetic, architectural, artistic, and even industrial *patrimoine* (e.g. old Quebec factories, factory towns, and factory laborers).

The authenticity of an object’s claim to inclusion in the category of *patrimoine* tends to hinge on its insider-status. Is it *organic* to Quebec culture?<sup>200</sup> In order to assess whether something counts as *patrimoine*, then, the boundaries of Quebec culture first need to be defined. Lionel Groulx, the historian, once stated: “Students of Catholic faith and French race. Here, it seems to me, is your definition; it is your originality; you have no other.”<sup>201</sup> Some historians have debated this ultra-conservative clerical nationalist interpretation. Within history departments, there is a lively debate about “Americanist” versus “French-Canadianist” approaches to the province’s history. Americanist revisionists state that they wish to emphasize the distinctly North American, as opposed to exclusively French-Canadian, heritage of Quebec.<sup>202</sup> They propose that the historical axes that have structured the “Quebec collectivity” are not limited to Catholicism, French migration, and the development of French-Canadian identity, but include native peoples’

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<sup>198</sup> Qtd. in Handler 1985, Pp. 195

<sup>199</sup> Marcoux, Jean-Sébastien. 2001. The “Casser Maison” Ritual: Constructing the Self by Emptying the Home. *Journal of Material Culture* 6(2): 214, 217. [213-235]

<sup>200</sup> Commission des biens culturels du Québec (Quebec Commission on Cultural Goods). 2005. Comment nommer le patrimoine quand le passé n’est plus ancien?: document de réflexion sur le patrimoine moderne. Special Report. <http://www.cbcq.gouv.qc.ca/cbcq.html>. Accessed May 11, 2006.

<sup>201</sup> Groulx, Lionel. 1935. *Orientations*. Montreal: Éditions du Zodiaque, Pp. 188.

<sup>202</sup> Sarraournet, Michel, ed. 2001. *Les nationalismes au Québec du XIX<sup>e</sup> Siècle au XXI<sup>e</sup> Siècle* (Nationalisms in Quebec from the 19<sup>th</sup> Century to the 21<sup>st</sup> Century). Quebec: Presses de l’Université Laval; Bouchard, Gerard and Yves Lamonde. 1995. *Québécois et américains: la culture québécoise aux XIX<sup>e</sup> et XX<sup>e</sup> Siècles* (Both Quebeckers and Americans: Quebec Culture in the 19<sup>th</sup> and 20<sup>th</sup> Centuries). Montreal: Fides; Bouchard, Gerard. 1999. *La nation québécoise au futur et au passé* (The Quebec Nation in the Future and Past). Montreal: VLB Éditeur.

movements and migrations and the migrations and growth of significant Irish, English, and other minority communities in Quebec. Other historians have emphasized the undeniable French-Canadian character of the Quebec collectivity, arguing that its ethnic distinctiveness “is an unavoidable sociological fact.”<sup>203</sup> This conception of the collective is the definition I most often saw expressed in law, media, and other areas of research and scholarship.

In 1840, the prominent report back to the Foreign Office by British colonial official Lord Durham characterized French-Canadians as “a people with no history, and no literature.”<sup>204</sup> In the twentieth century, the anthropologist Eric Wolfe used this term to encapsulate imperial Europeans’ paternalistic view of “rural societies” as barbaric, primitive, and ‘stuck in time’ in his book *Europe and the People Without History*. In Quebec, cultural preservation workers seem haunted by Durham’s terse observation. During fieldwork, museum workers and genealogists I spoke with sometimes mentioned Durham’s vulgar statements to me with repulsion.<sup>205</sup> The Quebec Historical Monuments Commission and Ministry of Cultural Affairs have been at pains to emphasize French Canada as a place and population with its own, rich history, apart from either the French or British colonial regimes. The monuments commission explicitly and intently states that it seeks to preserve architecture, not from the French period (c.1600-1763) nor from the subsequent period after British Conquest, but from the period prior to the “abusive intensification of commercial activities” associated with twentieth century American and

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<sup>203</sup> Létourneau, Jocelyn. 2004. *A History for the Future: Rewriting Memory and Identity in Quebec*. Translated by Phyllis Aronoff and Howard Scott. Montreal and Kingston: McGill-Queen’s University Press, Pp. 51.

<sup>204</sup> See: Lucas 1912, Pp. 1-60, 288-292. See Chapter 1, Pp. 13 for more on the Durham Report.

<sup>205</sup> Trofimenkoff, Susan Mann. 1982. *The Dream of Nation: A Social and Intellectual History of Quebec*. Montreal and Kingston, On.: McGill-Queen’s University Press, Pp. 81

British industrial domination.<sup>206</sup> In doing so, they have identified a betwixt temporal space that is neither French nor British nor American and therefore, by process of elimination, stands for an authentically French-Canadian *patrimoine*. A concerted effort to emphasize the distinctiveness of French-Canada from France, in particular, is noteworthy in other arenas such as the growing subfields of Quebec dialect and folklore studies. It is common to find the slogan, or some variation of the sentiment, “one language, [but] two cultures, [French and French-Canadian]” in recent linguistic scholarship.<sup>207</sup>

An entire field of folklore scholarship in Quebec has risen in response to that perceived need to define French Canadian history and culture. A Quebec-born, Oxford-trained anthropologist named Marius Barbeau laid the groundwork for this enterprise in the 1920s. He initially collaborated with Edward Sapir on early studies of Northwest Indians in Canada in 1911 and 1912. With the encouragement of Franz Boas and the American Folklore Society, Barbeau then set about documenting and publishing rural French Canadian folktales in the *Journal of American Folklore*. He traveled and transcribed oral histories, folk and fairytales, and songs of 1920s rural Quebec. He published a book of French Canadian folksongs with Sapir in 1925 and a series of oral history collections throughout the 1930s: *At the Heart of Quebec*, *Grandma's Stories*, *The Saguenay Kingdom*, *Our Artisan Masters* and *Quebec: Where Ancient France Lingers*.

Later scholars turned Barbeau's post-WWI Quebec into a snap-shot of a supposedly timeless Quebec culture, uniquely French, but different from France, and, many believed, on the verge of extinction. A group of Quebec folklorists founded the

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<sup>206</sup> Handler 1985, Pp. 203.

<sup>207</sup> For example: Lavoie, Thomas. 1997. Culture française et culture québécoise: héritage linguistique commun (French Culture and Quebec Culture: A Common Linguistic Heritage). In Bouchard and Segalen, eds. 1997, Pp. 122-146.

“Center for the study of language, arts, and popular traditions of Francophones in North America” (CELAT) at Université Laval, Quebec City, in 1974. In addition to drawing on Barbeau, many of them had been trained under anthropologists and folklorists in France and sought to mirror the French Mission of Ethnological Heritage, a French government department charged with documenting the artisanal and folkloric cultures of France’s regions. The Laval center became a clearing-house for the type of farmhouse study that French anthropology had made famous after Arnold Van Gennep.<sup>208</sup> Unlike in France, where there has been a concerted effort since the mid-1980s to encourage urban ethnology that eschews this romanticized vision of isolated, homogenous French culture, ethnology in Quebec continues in the 2000s to focus on rural parish communities.<sup>209</sup>

Through Barbeau, the Laval center, and the numerous legislative and policy transformations of nationalist governments and preservation movements, the rustic simplicity and isolation of early frontier life, *paysannerie*, has become almost synonymous with *patrimoine* in Quebec. The tourism industry has recently turned this history into marketable brands of “authentic” rural dance, folktale, and feast, generating folklore-as-spectacle for urban visitors and foreign tourists. The idea of early Quebec as a cultural island has saturated written history, scholarship, and every day life and story telling in the province.

This sense of cultural isolation and purity also resonates on political fronts. As I mentioned in Chapter One (Pp. 13), politicians have used claims about the ethnic purity of the French-descended residents of Quebec to bolster demands for Quebec sovereignty.

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<sup>208</sup> Langlois, Christine. 1999. Recent Developments in French Anthropology of France and the Role of the Mission du Patrimoine Ethnologique. *Cultural Anthropology* 14(3): 409-416; du Berger, Jean. 1997. Folklore et ethnologie à l’université Laval. In Laurier Turgeon and Ann-Marie Desdouits, eds. Pp. 3-24, *Ethnologies francophones de l’Amérique et d’ailleurs*. Quebec: Presses de l’Université Laval, Pp. 22-23.

<sup>209</sup> Langlois 1999, Pp. 410; Roberge, Martine. 1997. L’Ethnologie Urbaine: l’Expérience de Québec (Urban Ethnology: The Quebec Experience). In Turgeon and Desdouits, eds. 1997, Pp. 161. [160-175]



They often based their arguments for separate Quebec laws and independent Quebec rule on the contention that French-Quebeckers are culturally, historically, and linguistically distinct within North America. Most recently, in 2007, the Ministry of Cultural Affairs appointed Gerard Bouchard, the BALSAC database director, and Charles Taylor, the political philosopher, to head a commission on intercultural relations in Quebec. The two figures led four months of public hearings in nine Quebec cities on the topic of how much Quebec should culturally accommodate “outsiders.” The hearings soon fell lock-step into a familiar polemic template that posed the integrity of “Québécois culture” in an inverse relationship to “political concessions” to outsiders. The commission had been provoked by a series of politically explosive clashes between white French Quebeckers and Muslim and Jewish immigrants in Montreal throughout 2006 and 2007.<sup>210</sup> In January 2007, the small town of Hérouxville, QC adopted a declaration of norms for would-be immigrants to the town: “Kids can't bring weapons to school—no ceremonial daggers used by Sikhs or others. It's also all right for boys and girls to swim together in the same pool. Also, female police officers are empowered to arrest people, and are also allowed to drive, dance and make their own decisions.” André Drouin, one of the members of the town council explained, “we’re telling people who we are.”

National uproar ensued across Canada, the Quebec government recruited Bouchard and Taylor, and mandated that they devise a way to poll the people of Quebec on how best to accommodate cultural differences in the face of growing immigration and

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<sup>210</sup> For a study of immigrant experiences of these debates in Quebec, see: Das, Sonia. 2008. *The Talk of Tamils: Representations of Language, Devotion, and Space in Montreal*. Ph.D. Dissertation, Department of Anthropology, University of Michigan, Ann Arbor; There is also some interesting recent work in anthropology on the politics of tolerance, recognition and difference in France: Fernando, Mayanthi. 2006. *French Citizens of Muslim Faith: Islam and the Politics of Difference in Contemporary France*. Ph.D. Dissertation, Department of Anthropology, University of Chicago; Silverstein, Paul A. 2004. *Algeria in France: Transpolitics, Race, Nation*. Bloomington: University of Indiana Press.

globalization. Bouchard and Taylor ran hearings in town halls across Quebec for four months in autumn of 2007. In the public testimonies given before the commission, televised several nights a week on local stations, speakers often argued for the preservation of “Québec culture” and rejection of immigrants through reference to the prerogatives of the “pure Québécois” and the harmonious rural life they have supposedly pursued on Canadian land for centuries. Charles Taylor responded to these repeated claims at the news conference announcing the commission’s final report: “All those who live here, who work here, who make their life here, who are part of our society are Quebecers, regardless of their origins.”

Who is a Quebecker? A French-Canadian? What histories, spaces, times, and ancestors do people call on to define the parameters of these groups? The Bouchard-Taylor commission, on the one hand, paints a picture of a society where the answers to these questions are in flux. Yet, separately from the commission and the emerging politics of difference and accommodation—gender, religion, race, and commerce—of which it is a part, Quebec science has hummed forward on its own trajectory. In Quebec demography and historiography, dispensations and Church registers are used as the evidence that, rather than nationalist myth, endogamy within the French founder group was the fundamental truth of early life in the colony and, based on this, is the defining characteristic of the contemporary white French-speaking Quebec population. Popular ideas in conservation and folklore about the existence of a French Canadian collective depend on the delineation of temporal and spatial boundaries: isolated pastoral communities; multi-generational cultural continuity. The same logic underpins the genetic notion of the French Canadian population, though geneticists use the language of biology to convey it: biological “islands.”

Many Quebec demographers and historians, including Molloy and Bouchard, the BALSAC director, have drawn on demographic studies of seventeenth century France to validate their interpretation of the historical record. Studies of French village family patterns have revealed common patterns of spouse selection that included high rates of “parish, occupational, and social class endogamy.”<sup>211</sup> In 1991, Bouchard collaborated with two historians at the Institute for Advanced Studies in Social Science in Lyons (France) to publish a book that specifically compared family life in New France to family life in early modern France. Called *Familial Reproduction in Rural France and Quebec from the 18<sup>th</sup> to 20 Centuries*, the collection assembled essays that drew direct lines between inheritance, work, education, masculinity, femininity, and everyday life in France and New France.<sup>212</sup> The authors and editors envisioned Quebec as an outpost of French life in North America. (National historians of Israel, Australia, and Japan have set historic settler societies against supposed landscapes of barbarism they inhabited in similar ways.)

Whatever the truth of sex on the “frontier” is—and I think we may never know—the fact that the trail of Church writing about native-European marriage is vague is worth considering in its own right. The lack of explicit discussion of such marriages offers insights into the written culture of the Church as much as it may or may not tell us about what happened in the past. Church authorities generated an archive that has enabled contemporary scholars in Quebec to give the highly politicized, popular 20<sup>th</sup> century consensus about Quebec’s homogeneity a stamp of scientific approval. The vital registers,

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<sup>211</sup> Molloy 1990, Pp. 6

<sup>212</sup> Bonnain, Rolande, Gerard Bouchard, and Joseph Goy. 1992. *Transmettre, hériter, succéder: la reproduction familiale en milieu rural France – Québec XVIIIe – XXe siècles* (Transmission, Inheritance, Succession: Familial Reproduction in Rural France and Quebec from the 18<sup>th</sup> to 20 Centuries). Paris and Lyon: L’École des Hautes Études en Sciences Sociales and Presses Universitaires de Lyon.

letters, and dispensations in the Church archive reflect the ideology of the colonial civilizing mission and, perhaps, the struggle of French-Catholics against English Canadian power. The shape of the archive is a result of the way priests working in the context of these movements in the 17<sup>th</sup>, 18<sup>th</sup>, and 19<sup>th</sup> centuries made the following conscious or unconscious decisions: what issues warrant documentation? How should ideas be presented? How should people be organized, described, and named? Demographers at the Université de Montréal and BALSAC are divorcing the records from this history.

Demographers are turning the form and shape of the colonial ecclesiastical archive into a justification for the demarcation of certain biological units of analysis. They are interpreting that archive, which was shaped by the politics of the early modern civilizing process, within the historiographical politics of *paysannerie* and *patrimoine*. This move has happened through the entrenchment of certain evidentiary norms and styles of reasoning—the tendency to integrate data from external disciplines into databases without regard for the footnotes, omissions, or heuristics that delimited that data in the first place; the preference for Church records as genealogical sources; and, the transformation of written names into evidence of biological race.

CHAPTER 6  
RISK, RACE AND BELONGING

Many people who live and work beyond the laboratory are using the founder effect, family history data, and French frontier histories to explain disease and predict susceptibility. Their questions are: which families are responsible, which histories are responsible, and thus on which children and parents do we need to focus in order to prevent or cure disease? Like demographers and geneticists at BALSAC, they are turning medical conditions into “French-Canadian diseases.” Like BALSAC scientists, they understand family history as a primary factor determining health and illness. In their everyday lives, people in Quebec usually talked about individual risk for disease only insofar as the person can be viewed through the lens of his or her genealogy and population. People regularly used the “French-Canadian population” as a descriptor, model, and mode of explanation for a broad range of physiological conditions, from asthma to hormonal imbalances. Throughout my fieldwork in Quebec, people also said “it came from the founders” and “it came from France” often as they strove to explain the reason for illnesses in their families, clinics, and neighborhoods.

“When you tell a patient his child is sick, the first question they ask is ‘Why do we have it?’” Dr. Lucien Laberge, a pediatrician treating children with a fatal recessive disorder in the Saguenay-Lac-Saint-Jean region told me in 2008 at his clinic: “And that is when we explain the founder effect.” He continued: “You see, we have not mixed. Multiculturalism in Quebec is changing that, particularly in Montreal, and this dilution is

medically good. We will have less disease. But, for centuries, French-Canadians only married each other.” Like BALSAC geneticists, Laberge was affirming historiographic hypotheses about the way French families used to live on the frontier by enfolding medical explanations in comforting historical refrains. Both Laberge and laboratory scientists are bringing contemporary categories of linguistic and ethnic affiliation (“French,” “Québécois”)—and a version of the past that makes those categories credible (the “French frontier”)—to bear on biological definitions of human difference. How is this affecting the way people diagnose, treat, or try to prevent diseases? Is this influencing the way physicians make decisions about how to—or whom to—treat? How are people bringing the “French-Canadian” and “founder” explanation to bear on their own experience of and apprehensions about illness?

### *Risk and the Population Frame*

It was a Thursday in January at the high school in La Baie, a tiny village snugly set around an inlet of the Saguenay River, eight miles from Chicoutimi. The high school is perched on a hill beside the rusting cranes of a now defunct waterside factory. I came with Geneviève Turncotte, a coordinator from the regional hospital’s patient outreach service. “By getting the younger generation, we’re hoping to shape perceptions early on,” Geneviève said. A BALSAC demographer founded the hospital group in the 1980s and recruited Geneviève to do community canvassing. When Geneviève was an infant, a local doctor diagnosed her with an inherited metabolic disease that demographers have traced back to families from Western France. Unlike other local patient associations, which focus on particular diseases and the children diagnosed with them, Geneviève’s group presents general knowledge about genetics and disease to schools and community centers. At the

school in La Baie, two teachers had assembled twelve students from the carpentry and metallurgy workshops in a conference room. They sat fidgeting as they watched Geneviève set up her slide projector. “DNA is your genetic baggage—what it is, *you* are,” she began. Most of the students said they knew there are diseases in Quebec that exist in higher rates than elsewhere. When Geneviève spoke of this, they all nodded and several spoke. “How do you know it’s not because of consanguinity?” one student said. They all laughed. Geneviève clicked forward on the overhead to a map of France.

Geneviève explained, “There are two types of genes, the kind that you express and the kind that you just carry.” In 2007, Geneviève’s group printed posters with enlarged head-shots of young, old, blonde, brown-haired, punk, nerdy, and prim characters, supposed to be from around the Saguenay region, and the slogan, “It’s not in your face. It’s written in your genes.” Like HIV/AIDS education campaigns in the 1990s that argued you cannot tell if someone has HIV by appearance, the point was to argue that genetic illness is not apparent from the outside—in skin, size, or look. The organization took the HIV rhetoric and reintroduced it using the language of genetics. According to the posters, genes are the biochemical proof that disease happens inside, not on the surface, of people’s bodies. In highlighting this, Geneviève was outlining an accepted distinction within Mendelian genetics between biologically dominant and recessive physical traits. Humans have two copies of each part of their genome, each inherited from one parent. If one copy determines a particular physical trait, in effect suppressing the power of the other copy, it is called a dominant trait. The suppressed copy is called a recessive trait. According to Mendelian theory, a child who inherits recessive alleles for a given trait from both parents will express that trait. “Today we are going to

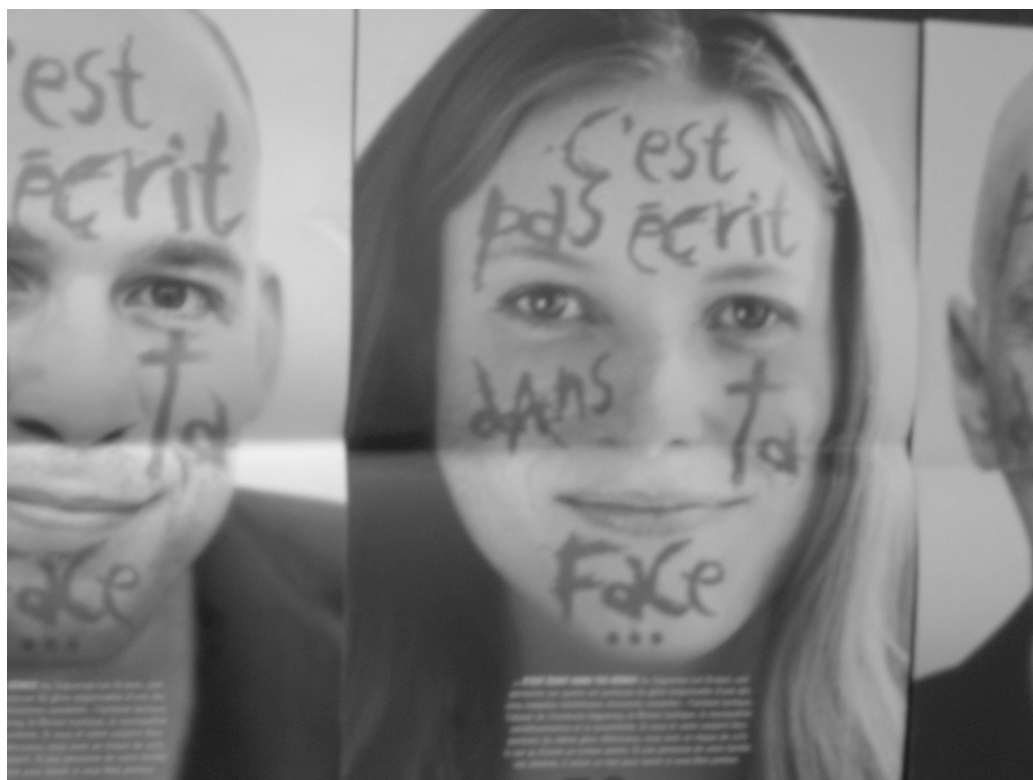


Fig. 6.1. IT IS IN YOUR GENES. Poster disseminated by patient organization to educate the public about genetic disease in Saguenay-Lac-Saint-Jean region. “It is not written in your face” is written on the face. “It is in your genes” is printed in small typeface below.

speak only about recessive illnesses,” Geneviève said. “Many people are carriers of a recessive copy of a disease and don’t know it. Though they are not sick, they maintain the risk of transmitting illness.” Pointing to Western France on the overhead map, she began to tell the familiar story of the founder effect.

During my many trips in the Saguenay region, there were frequent discussions of the recessive disease “carrier” (*porteur*); in clinics, laboratories, and cafes; among healthcare staff as well as people living lives only infrequently touched by the hospital or health services. The active campaigning of a famous tri-athlete from Chicoutimi named Pierre Lavoie, a carrier for a metabolic disorder called lactic acidosis, has conveyed the science behind recessive disorders to a broad public audience. Patient organizations in the area often use the example of Lavoie to draw stark contrasts between “genotype”—what



is inside a person's genome—and “phenotype”—what is physically expressed by a person's body. The Danish biologist Willhelm Johannsen coined the terms genotype and phenotype in 1911.<sup>213</sup> From studies of beans, Johannsen had concluded that the forces affecting plant physiology could be separated into hereditary causes, a person's DNA inherited from his parents, and physical characteristics that affect how a particular plant grows. In the 1970s, population geneticists elaborated this distinction between genome and phenome, characterizing the genotype as an invisible agent that acts at will against a passive phenotype. Some argued that the human body is divided into a continuum of “internal” and “external” traits, posing external traits as most alien to the true picture of a particular human because they are the “furthest away from the long chain of cause and effect that starts with a gene and ends with a physical trait.” Writing in 1971 in a now seminal population genetics text called *The Genetics of Human Populations*, Luciano Cavalli-Sforza and Walter Bodmer argued that internal traits such as cellular-level biochemical patterns are “much nearer the origin of this chain.”<sup>214</sup>

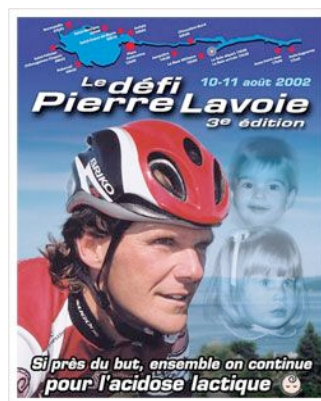


Fig. 6.2. PIERRE LAVOIE'S CHALLENGE. (“*Le défi Pierre Lavoie*”). Poster advertising Lavoie's 2002 triathlon in the Saguenay to raise awareness and money for lactic acidosis carrier screening, prenatal diagnosis, and drug development. His two children, who both have been diagnosed with lactic acidosis, are at right.

<sup>213</sup> Johannsen, W. 1911. The Genotype Conception of Heredity. *American Naturalist* 45 (531):129-159.

<sup>214</sup> Cavalli-Sforza, Luciano and Walter Bodmer. 1999 [1971]. *The Genetics of Human Populations*. New York: Dober Publications. Pp. 703.

For many people in the Chicoutimi region, Pierre Lavoie embodies the incongruity that this division of the body into distant and near—“true” and false—makes possible. Lavoie is exceptionally fit yet, because of hereditary material invisible to the naked eye and hidden in the indecipherable code of biochemical compounds, he is a source of illness.

Geneviève mentioned Pierre Lavoie in the Polyvalente conference room and emphasized that carriers are invisible unless they are genetically tested. She emphasized the patient could only be known from his microscopic interior, not his misleading exterior. She then listed the current day carrier rates for a handful of genetic disorders in the Saguenay: 1 person in 15 is a carrier for cystic fibrosis, 1 person in 22 for spastic ataxia, a neuromuscular disorder, 1 person in 23 for sensory-motor neuropathies. The hospital had produced bookmarks for each disorder with the carrier rate and symptoms printed on either side and Geneviève passed these around. She continued: “Every population globally is affected by hereditary disease. In the Saguenay-Lac-Saint-Jean, the frequency of certain defective genes and inherited illnesses is elevated because of the founder effect.” She pointed to a graphic of a group of stick figures from Western France on the projector screen. Geneviève’s group published a guide to genetics in 2005 with help from two local genetic epidemiologists. Inside, a graphic charts the migration of French settlers from France to the St. Lawrence estuary then the Beaupré Coast, just north, and then further upwards to the Saguenay-Lac-Saint-Jean. Next to it is written, “In a population shaped by the founder effect, there is much less variability in genetic defects than in a cosmopolitan population.” The quote reiterates the link between illness, founders, and homogeneity that geneticists and demographers have charted.

Geneviève and the book had divided heredity into good and bad genes: the bad genes are hidden beneath bland phenotypes of unknowing carriers; under that veil of invisibility, the bad genes have traveled through generations of French-Canadians, linking the current day population, inextricably but devastatingly, to its founders. Geneviève's implication for everyone in the room was that the insides of their bodies were walking museums—capsules of a frontier history that lingered on in every cell. She had turned physiology into a metonym for history. She had turned the body and its past into a metonym for risk, a risk that is insidious because of how it is buried beyond the limits of human detection. The map of France, genetic carriers, and founder effect were all part of a seamless link she was posing between geography, genealogy, and biology—a link stitched together in the biochemical matter within cells that constituted each student's genotype. Here, there are answers to questions of location: where is human difference and belonging being located in contemporary genomics? People are moving difference deep inside the body to the inner workings of cells.<sup>215</sup> There are also answers to questions of mechanism: how is race being remade in contemporary genomics? People within and beyond medicine are turning enzymes and nucleotides into signs of race. They are also connecting these cellular processes to geographies and genealogies with astounding specificity—to particular towns in countries far away and to certain people in those towns, all through written records. By linking and layering the genealogical trajectories of these people—tracking lines from each ancestor in France to a descendant in Quebec one-by-one—Geneviève was turning a cluster of stick figures on the Normandy coast into a population.

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<sup>215</sup> Other social scientists have examined this move in detail. For example: Nelson, Alondra 2008. *Bio Science: Genetic Ancestry Testing and the Pursuit of African Ancestry*. *Social Studies of Science* 38(5):759-783.

At the high school, Geneviève mentioned CartaGENE, a new genetic project that, when complete, is poised to be the largest public DNA repository in North America. In a newspaper article published just before I met Geneviève in 2008, a science reporter named Fabien Deglise had covered the initiation of the formal recruitment of donors for CartaGENE. A small group of Quebec researchers with funding from the province's economic development ministry founded the databank in 2005 with the stated aim of furthering research on causes of both rare and common disease in the province and in Canada. The same day that I met with Geneviève in La Baie, CartaGENE was sending 1,080 letters of invitation to a sample of Quebec residents around greater Montreal. The letters asked people to participate in the databank by providing blood and urine samples, physiological data, and detailed demographic, social, and epidemiological information about their family histories and behavioral patterns, including such things as diet, exercise, and sleep habits. "The CartaGENE leaders have announced that the database will ultimately allow scientists to more easily identify the genes that predispose the Québécois to certain major illnesses and, equally, those genes that protect them against illness," Eglise wrote.<sup>216</sup> Pierre Lavoie, the databank's chief scientists, and many genetic researchers in Quebec attended opening ceremonies. At the offices of CartaGENE's funders and organizers, intense debate had already begun about what types of physiological measurements, specifically, to collect along with each donor's DNA (lung capacity measurements, electrocardiograms, insulin levels?). The students at La Baie said they had heard that CartaGENE would help cure Quebec diseases. There was a sense in the classroom, as in the reports in the newspaper, that unearthing the secrets embedded

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<sup>216</sup> Eglise, Fabien. 2008. La carte génétique du Québec prend forme (The Genetic Map of Quebec Takes Form). *Devoir*, Monday, January 7, A3.

within the body—in its blood, urine, and the pulse, rhythm and size of its subparts—one could find, and then control risk. The risk was a result of history—of family life on the frontier—and finding it was supposed to counteract that history.

What exactly was at risk? As I mentioned in Chapter 3, at BALSAC, one of the chief scientists had told me two years earlier that the population registry and demogenetics in Quebec were doomed because so few people contract formal marriages anymore. In her view, the paper trail tracking families that the Church had created over centuries had diminished because of the secularization movements of the 1960s in Quebec. A 2008 article in *The Scientist*, a U.S. consumer biotechnology journal, a geneticist who works on Alzheimer's at McGill and who has completed several recent studies of French-Canadian "founder populations" was quoted, "This may be the last generation of people over 60 where we can do founder studies." The article continued, "In Canada, interracial marriages have increased more than 30% from 2001 to 2006. Moreover, in Quebec, visible minorities (many of whom are new immigrants) also rose more than 30% during the same period, to 8.8% of the population."<sup>217</sup> History posed a risk to bodies for the students at the Polyvalente. Bodies pose risks to history for these researchers: modernization, secularization, mixing and inter-marriage between French-Canadians and immigrants or minorities (perceived as modern phenomena) would wipe out the population's ability to serve as a demographic or genetic prototype. That ability had been predicated on the population's supposed ethnic purity and the historical exactitude of documents attesting to that purity. For these researchers, the population itself—its demographic and genetic shape, the vibrance of its historical moorings in the

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<sup>217</sup> Secko, David. 2008. Why Quebec is a Gift to Geneticists: Rare History, Common Disease. *The Scientist* 22: 38-45.

present day—is at risk. This mixing might be “medically good,” as the physician who approved of “multi-culturalism” as a way to mix up the gene pool in Quebec mentioned. Yet, mixing would be scientifically disarming. It would rob geneticists and demographers of a prototype—“the French-Canadian population”—making things more confusing, harder to track, study, reduce to simple terms, and understand. Mixing would require the introduction of new frameworks that were foreign and unfamiliar.

In 1982, Mary Douglas gave a structuralist anthropological account of risk in her book *Risk and Culture*. Douglas viewed the way people give risk meaning in different contexts as a window into the way a particular moral, political, or social world is organized. “Individuals ...do not look for the risks then make inferences about who to blame. Instead they begin from social groups that they want to blame and from this make inferences about which risks to focus on.”<sup>218</sup> Douglas described how people used narratives about risk to brand already marginal groups as even more foreign, insidious, or beyond the norm. Other scholars since Douglas have looked at risk narratives in genetic medicine as examples of how ever-more categories of people are being brought under the umbrella of “biologically abnormal.”<sup>219</sup> In contrast, the risk narratives of these Quebec scientists and patient-facing healthcare workers like Geneviève are normalizing children and their families as biological members of a historical French-speaking group—as “real French-Canadians.” The narratives contradict the relationship between risk, blame, and marginality that Douglas and others have posed. The narratives assign risk to “insiders”

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<sup>218</sup> Douglas, Mary and Aaron Wildavsky. 1982. *Risk and Culture: An Essay on the Selection of Technical and Environmental Dangers*. Berkeley: University of California Press. Pp. 51

<sup>219</sup> E.g. Vailly, Joëlle. 2008. The Expansion of Abnormality and the Biomedical Norm: Neonatal Screening, Pre-natal Diagnosis, and Cystic Fibrosis in France. *Social Science and Medicine* 66(12): 2532-2543; Also, Rabinow, Paul and Rose, Nikolas. c2003. *Thoughts of the Concept of Biopower Today*. The authors discuss new categories of people and forms of sociality arising from what they term the “politics of susceptibility” in contemporary biomedicine.

rather than “outsiders” and blame to the very history and homogeneity that is at the core of people’s self-definition as “inside the collective” in Quebec.

Scientists and doctors are not consigning patients to a new category of biologically abnormal or inferior beings when those people test positive as carriers of a disease. On the contrary, scientists, doctors, and ordinary people beyond the purview of health and medicine are calling people carriers, potential carriers, or susceptible on the basis of membership in a pre-existing category, “French-Canadian.” Carrier-status or diagnosis legitimates people’s membership in that pre-existing category. That category is revered, not marginalized. The founders, though they are posed as the locus of genetic risk and hazard, are a source of pride and are sometimes invoked to argue for French supremacy on Quebec land. In the context of these kinds of dynamics, genetic risk is an index of enrootedness and proximity to the perceived core of French-Canadian society—France, New France farms, country bread, Church weddings, white bonnets.

### *Risk and Belonging*

Several months before I spoke to Geneviève, I met Germain Desjardins in the genealogy section of the national archives in Montreal. He was researching his wife’s family history. He told me after many conversations about his archival work that he had first set out to do genealogies because he wanted to find an explanation for his wife’s illness. He had unrolled a five-by-five foot poster on which he had drawn his wife’s fourteen-generation family tree. He pointed to the places where his wife’s maternal and paternal line had shared ancestors: great-great-great-aunts and uncles who had married into both her mother’s and father’s family lines. “That was inbreeding.” He also pointed to the line that he said unequivocally led back to Catherine de Baillon, a supposed

descendant of Charlemagne who came to New France in 1669 as a *filles de roi*, or King's Daughter. A French-Canadian priest published a book on de Baillon in 2001 that traced her lineage through French noble houses in Europe in the Middle Ages to contemporary French-Canadian family names.<sup>220</sup> For Germain Desjardins, the link to de Baillon was proof of the French provenance of his wife's ancestors. Not only were they French, as he told it they were part of the very core of early modern French society in Europe. Desjardins had connected these three points—his wife's illness, the lines of consanguinity he had found in her family tree, and the links to French royals. For him, the consanguinity and royals were explanations for the illness; the illness, conversely, was suggestive of the consanguinity and French royals. He was infusing disease with historical meanings that he then used as a basis for ancestral claims. It was the flip-side of Geneviève's presentation at the Polyvalente. She said that having French ancestry indicated a higher risk of being ill. He suggested that having an illness indicated French ancestry; being at-risk evidenced a link to a founder, and, before that, to a genealogical world five centuries, numerous wars, expeditions, and explorations and four thousand miles of ocean away.

Like Desjardins, many genealogists I spent time with spoke of nobility as a sign of ethnic, national, and biological purity. In 1994, a duo of Quebec genealogists founded an association dedicated to documenting the connections between Charlemagne and contemporary Quebec families through de Baillon.<sup>221</sup> Many genealogists at the national

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<sup>220</sup> Jetté, René. 1991. *Traité de Généalogie* (Genealogical Treaty, lit.). Montréal: Les Presses de l'Université de Montréal. Pp. 112-114, 593-598.

<sup>221</sup> Moreau, Gail F. and John P. DuLong. 1992. Archange Godbout's Baillon, de Marle, and Le Sueur Families of France. *Michigan's Habitant Heritage* 13(2):40-51; Jetté, René, John Patrick DuLong, Roland-Yves Gagné, Gail F. Moreau, and Joseph A. Dubé. 2001. *Table d'ascendance de Catherine Baillon (12 Générations)* [Catherine de Baillon's Table of Ascendance, 12 Generations]. Montréal: Société Généalogique Canadienne-Française.



archives were meticulously pulling together the fragments of genealogical trails—interpreting omissions, typos and the incomplete names and dates strewn across different records—that would lead them back to a French noble house, a royal crest, or an ancestor of at least some repute or social standing. This was not particular to genealogists in Quebec or French genealogists. Almost everyone who is trying to glean from paper trails the decipherable lines of a multi-generational family tree is looking for some link to greatness. In genetic ancestry testing, this is also the case. People have taken Y-DNA tests looking for laboratories to substantiate or suggest a link to legendary leaders, warriors, and conquerors like Genghis Kahn. In Quebec, this fascination with French royals was interesting because it was paired with a search for medical risk—something usually regarded as shameful—and an interest in tracing French ethnicity. Scholars studying medical narratives of diseases like sickle cell in the 1980s and 1990s have noted that doctors assumed white patients with the disease had black ancestry (the medical establishment had labeled sickle cell a “black disease”). In those cases, people used risk and diagnosis to remonstrate patients and families as “impure” or as part of a marginalized racial group.<sup>222</sup> In Quebec, diagnosis does the opposite: it legitimates purity and it categorizes patients as closer to the center of French-Canadian moral and cultural life. Desjardins’ logic exemplified this. He had articulated a way of thinking about the body and history that depends on the following tautologies: If you are at risk you are pure French; if you are pure French you are at risk; to be pure French is to be a part of historic Quebec society; to be at risk is to be a part of historic Quebec society.<sup>223</sup>

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<sup>222</sup> See: Wailoo, Keith. 2001. *Dying in the City of the Blues: Sickle Cell Anemia and the Politics of Race and Health*. Chapel Hill: University of North Carolina Press.

<sup>223</sup> A historian named Alice Wexler has studied early American portrayals of sufferers of Huntington’s chorea, a severe neurological disorder, and found that people in small New England towns made similar

Back in Chicoutimi, a man named Hebert Turncotte whom I interviewed in the Saguenay Genealogical Society later expressed a relationship between these points (purity, risk, history) more precisely. “Those who are ill come straight from the founders,” he said. He assumed that illness was proof of unadulterated French purity. One evening at a party by Jean-Talon market, an open-air farmer’s market named after the New France superintendant, I spoke with a student named Marc Boivin whose brother has tyrosinemia. “I will never marry a Quebecker,” he said. “I’ll never have kids.” He explained that he thought he was permanently tainted and that his family, for being French in Canada and for marrying within French-Canadian families, was to blame. These expressions of confidence in illness as evidence of the link back to France, or as evidence of the consanguinity among French Canadians, are examples of sentiments I heard often throughout my fieldwork—in interviews, during observations, and in the course of my own every day life in Quebec. These sentiments had their own nuances but what they shared was a common sense of the parameters of French society in North America: French-Canadians come from France and French founders; they maintained cultural unity for centuries, evidenced in its most extreme form by their consanguinity; and these two facts have culminated in the illnesses by which they are now beset. For these people whom I encountered, genetic disease distinguished French from non-French and founder-families from non-founder families. By reference to the inner workings of

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kinds of connections, between illness and membership in gentrified white Presbyterian society. Wexler, Alice. 2002. Chorea and Community in a Nineteenth-Century Town. *Bulletin of the History of Medicine* 76(3):495-527.

human cells, which they spoke of as elusive yet authoritative, they could understand who were insiders and who were outsiders in their society.<sup>224</sup>

At the Polyvalente in La Baie, as Geneviève wrapped up her presentation and put away her projector, she encouraged the students to get tested. “Carrier tests are available on a volunteer basis for families at risk for free,” she told them. One student raised his hand and said he had a distant cousin with tyrosinemia—would he qualify? Geneviève said yes. Later, I asked how the screening program assesses precisely which families are at risk and therefore qualify for subsidized tests. She replied, “If both of your parents are from the region and part of the founder effect population.” How was membership in the founder effect population assessed? Historical demography and the BALSAC register. For Geneviève, to be “from” the region was a matter of genealogical facts. For organizations like Geneviève’s that try to streamline outreach efforts by pinpointing particular groups, the first step in developing a strategy is to ask, “Who is at risk?” In defining the “who”—the population that they will target—they are mobilizing assumptions about the boundaries of groups. These groups may be defined genetically; all carriers of a specific allele. They may be defined physiologically; all short, fat, tall, or small-lunged people. They are also sometimes defined by categories that many would call social; all rural people with less than \$22,000 annual family income, all reserve Indians with 3,000 calorie and above per diem diets. Geneviève defined “who” genealogically. In doing so, she had silently called forth planes of interpretation and meaning that were cultural, historical, and highly political.

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<sup>224</sup> In an interesting comparison to the Quebec case, Miriam Ticktin has examined how claims to illness have become ways of legally claiming national belonging for non-French immigrants in France. See: Ticktin, Miriam. 2006. Where Ethics and Politics Meet: The Violence of Humanitarianism in France. *American Ethnologist* 33(1):33-49.

That “from” in “from the region” invoked all of the historical confluences and contemporary valences of the category “founder” which had shaped the very genealogical facts to which she referred. She was appealing to genealogical and genetic conclusions that had been crafted in concert with cultural and historical norms. She was grounding her delineation of a particular population group—people “from the region”—in a historical, linguistic, and social category. The founder-effect population and the genetic and genealogical studies that have brought it into existence are at once genetic, historical, cultural, and political. Have political claims and cultural history modified genetic definitions? Have genetic definitions shaped political and cultural claims? It seems almost impossible to say. What is evident is that the category of founder-effect population is neither social nor natural, neither exclusively cultural nor exclusively biological, if these categories could ever really be separated. Through her certainty in the genetic origins and effects of the founders, however, Geneviève had abbreviated the founder-effect population into a matter and force of biology—a biology buried deep inside the body. She had then made biological risk, specifically, into a short hand for cultural and historical belonging.

#### *Risk, Race, and Evidence*

Scientists’ and healthcare workers’ use of the founder effect to explain “French-Canadian disease” is part of a broader ecosystem of racial meanings, etiological explanation, and experimental procedures that extends beyond white French-speakers. Several months after wrapping up my fieldwork I met with a friend who is a genetic counselor in a large Quebec hospital. We spoke casually about how genetic education groups plan their outreach in Quebec and I asked, “Does anyone go to the Indian

Reserves?” She replied, “Well the health issues they deal with on the reserves are different. They have much higher rates of alcoholism, smoking and obesity. It’s much more lifestyle issues that they need help on. They have a terrible diet.” Did she mean people in the reserves do not get genetic disease? Did she mean that disease in white French-Canadians is due to heredity while disease in aboriginals is due to behavior? She had articulated a certain racial logic of clinical evidence with clarity: Family history is considered evidence in the study of the causes of “French-Canadian disease” while behavior is considered evidence in the study of the causes of “Indian disease.” This logic appears to have percolated into outreach, treatment, and the explanation of a broad range of medical conditions, stretching well beyond the rare diseases that were the focus of genetic research and genealogy in the 1980s and 1990s.

The medical genetic research infrastructures that the government and scientists set up to study diseases in Quebec in the 1970s and 1980s revolved around family history databases (BALSAC), which researchers saw as key to understanding the clusters of rare pediatric diseases doctors had detected in the province. Those rare diseases were unequivocally recessive “Mendelian disorders”—a type of disorder that is inherited and expresses itself in an individual on the basis of whether her parents were both carriers. Mendelian disorders do not, as far as we understand, develop over the course of the lifespan due to environmental or behavioral factors like pollution or diet. Yet, when researchers now study non-Mendelian disorders like cancers, heart disease, and breathing disorders—all labeled “complex” within medicine because of the bewildering array of factors that may be causes—they are using the same infrastructure. They have the same databases and the same legacy of prior studies that have proven the existence of a French-Canadian population, French-Canadian genetic profile, French-Canadian gene pool,

French-Canadian genealogy and French-Canadian heredity. The evidentiary norms—the tendency to turn to family history and heredity for explanations of disease—that had marked the early research are shaping this new research. There are now studies underway both within and beyond Quebec of breast cancer, hypertension, asthmas, and intermediary physiological characteristics associated with the onset of these conditions and diseases (e.g. hormonal changes associated with breast cancer, enzymes associated with asthma traits) that seek to explain incidence as the result of a French founder effect.

At McGill University's Heart Function Clinic in 2008, investigators initiated an observational study aimed at identifying the specific founder mutations believed to be responsible for dilated cardiomyopathy in Quebec. Dilated cardiomyopathy is a heart condition that can lead to congestive heart failure. The investigators wrote:

“Dilated cardiomyopathy (DCM) affects about 200,000 Canadians. Eighty percent of these cases are of unclear cause, often occurring in families. We believe that mutations in specific already-identified genes contribute to DCM in Quebec and that certain mutations may account for a significant proportion of cases due to the well-documented "founder effect."<sup>225</sup>

The founder effect has become a convenient hypothesis for the cases that are still little understood. Medical geneticists in Montreal, Chicoutimi, Cambridge, Massachusetts and Finland collaboratively published studies in *Nature Genetics* and the *American Journal of Respiratory and Critical Care Medicine* in 2001 and 2007 arguing that variations in the genetic code responsible for producing an enzyme called Urokinase plasminogen activator (uPA) are associated with asthma symptoms in French-Canadians. The authors suggested that the diffusion of the genes associated with the enzyme was due to a French founder

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<sup>225</sup> The Genetics of Dilated Cardiomyopathy: A Quebec-Based Study, NIH Submitted Study Overview. <http://clinicaltrials.gov/ct2/show/NCT00523653> Accessed on April 14, 2009.

effect.<sup>226</sup> Numerous investigators trying to explain the presence of steroid-producing enzymes or hormone concentrations that cause breast cancer have called them the result of “founder mutations.”<sup>227</sup> Using the founder effect also enables scientists to make use of the databases, infrastructures, and institutional agreements they have at hand in order to gather data for their investigations. Proposing a founder effect helps scientists explain unknowns and unknowables—“the eighty percent of cases of unclear cause”—with a widely accepted and understood theory of why white French-speakers get disease. The founder effect fills gaps in understanding—and these gaps are huge despite what news reports and published grant proposals may say—about what really causes cancers, asthma, heart disease and other conditions and diseases.

What about explanations of incidence of little understood diseases—often the same diseases—in natives? In the clinic and hospital, people are turning to behavior and contemporary lifestyle “choices” for data to help them understand disease in natives. For example, colorectal cancer outreach targeted specifically at aboriginal groups on and off the Reserves rarely mentions family history, if at all. Provincial cancer treatment clinics in Eastern Ontario describe cancer in aboriginals as a result of obesity, lack of physical activity, and nutritional problems. At a cancer research workshop held in Ottawa by the Canadian Institutes of Health Research in 2003, the presentations on aboriginals focused exclusively on eating, drinking, smoking and other lifestyle factors associated with lung,

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<sup>226</sup> Bégin, Philippe *et al.* 2007. Association of Urokinase-type Plasminogen Activator with Asthma and Atopy. *American Journal of Respiratory and Critical Care Medicine* 175: 1109-1116; Laitinen, Tarja *et al.* 2001. A Susceptibility Locus for Asthma-Related Traits on Chromosome 7 Revealed by Genome-Wide Scan in a Founder Population. *Nature Genetics* 28:87-91.

<sup>227</sup> For example: Tonin, Patricia N. *et al.* 1998. Founder BRCA1 and BRCA2 Mutations in French Canadian Breast and Ovarian Cancer Families. *American Journal of Human Genetics* 63:1341-1351.

colorectal and breast cancers.<sup>228</sup> In one of their monthly newsletters the aboriginal cancer unit featured two aboriginal women, under the heading “Elder stories,” with their narratives about the “old ways” of eating and exercising on the Reserve (Fig. 3). The pamphlet begins “Being brought up on the Reserve was not easy but Josephine looks back on her life with fond memories of a tough but healthy lifestyle,” then segues into Ojibwe elder Josephine’s narrative: “We tried to stay away from frying foods cause it wasn’t good for you.” The outreach pamphlet then expounds at length on how aboriginals need to take charge of their diet and fitness and make “good lifestyle choices” in order to avoid colorectal cancer. Native Health Boards, the self-governing healthcare organizations that serve Reserve populations in Quebec, also currently focus outreach and care for many chronic conditions in addition to colorectal cancer on “lifestyle”-related factors such as alcoholism and nicotine addiction.<sup>229</sup>

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<sup>228</sup> Cancer Care Ontario/Action Cancer Ontario. 2006. Healthy Living and Colorectal Cancer. Aboriginal Cancer Care Unit Newsletter 3(3):2-4

<sup>229</sup> See: Hammond, Meryll, and Rob Collins. 2007. Moving Further Down the “Road to Competency”: Final Report on the 2006/2007 Core Competencies Project for Wellness and Primary Health Care Providers. Montreal: National Indian & Inuit Community Health Representative Organization.



## Elder stories



### Audrey Kornyllo

Audrey Kornyllo, Métis Elder, lives just outside Thunder Bay today, but her memories bring her back to Petersfield, near the mouth of the Red River in Manitoba. Growing up in a poor area just outside Red River, Audrey remembers mostly happy times

being raised with her four siblings. "When you don't know you're poor," Audrey explains, "you don't have anything to be sad about."

Audrey's mother was from the Lambert family of the Swampy Cree people in Northern Manitoba. Audrey's parents did the best they could for their children with what little they had. Happiness came from the closeness her family shared in everything they did. They played games and sports, worked and attended social events together. Social activities were very important to their family happiness. Like many other Métis family, they enjoyed fiddle music and step dancing.

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***"We spent a lot of time during the winter skating on the frozen river."***

*Audrey Kornyllo*

Audrey's father trapped. Along with her siblings, Audrey helped him on his trap line while her mom stayed home to tend to the animals, make family meals and mend clothes. Muskrats and rabbits were the animals of choice for the trapping family. Although they trapped only

Fig. 6.3. HEALTHY LIVING AND COLORECTAL CANCER. 2006 Aboriginal Cancer Care Unit Newsletter of Cancer Care Ontario and Action Cancer Ontario.

Mainstream Quebec outreach on complex disease is notably more explicit about the role of family history in health and illness. Canadian colorectal cancer outreach in Quebec, for instance, starts its outreach message, "You can't change your family history or your genes," then goes on to advise, "Know your family history—If a first degree relative had colorectal cancer you are at increased risk. Talk to your doctor about getting screened."<sup>230</sup> Are clinicians, outreach staff, and scientific researchers separating genetic and genealogical data from behavioral, environmental, and psycho-social data and deeming some of these "evidence" in studies of cancer in white French-speaking

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<sup>230</sup> Cancer Care Ontario/Action Cancer Ontario. 2005. Healthy Lifestyle, Healthy Colon. <http://coloncancercheck.ca/preventionandscreening.html>, accessed December 15, 2009.

Canadians and others “evidence” in studies of cancer in aboriginals? Is the absence of scientific attention to family history data among natives due to the fact that, unlike for French-Canadians, aboriginal family records do not appear to these scientists to exist? Is it for a lack of genetic data? Eastern Canadian native populations and residents on the reserves are generally underserved and understudied by provincial health services, making the detection of genetic mutations and genetic contributions to disease in their communities unlikely.<sup>231</sup> Nobody has studied whether breast cancer, asthma, or other disease-linked inherited genetic mutations considered to be “French-Canadian” might exist in aboriginals. There is no data on which to base any conclusion that heritable genetic causes do or do not play a role in “aboriginal cancer.” Or, is the absence of scientific attention to family history data in explanations of illness in natives because aboriginal groups themselves do not emphasize the place of family history in health? Or, is it because family history has become so closely associated with disease in the French-Canadian population that an inversion of this association is now taken to be true: to *not* be French is to *not* be affected by family history.

I find the issues raised by these imbalances in the application of data to scientific investigations in different populations fascinating. Social critics of genetic research often focus on doomsday future scenarios in which genetic technologies may be wielded by racist or nationalist ideologues as neo-eugenic tools for social engineering.<sup>232</sup> Reading these articles, we could be convinced that the onslaught of blue-eyed babies, sex-selected societies, or cancer-and-disease free communities is imminent and that this imminence is

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<sup>231</sup> For example, the annual Canadian and Quebec Health Surveys overseen by Statistics Canada & Health Quebec exclude reserve populations. [http://www.stat.gouv.qc.ca/cadrisq/acces\\_microdonnees\\_an.htm](http://www.stat.gouv.qc.ca/cadrisq/acces_microdonnees_an.htm), accessed March 4, 2009.

<sup>232</sup> E.g. Rose, Nikolas. 2001. The Politics of Life Itself. *Theory, Culture, and Society* 18 (6): 1-30.

the most troubling aspect of genetic science.<sup>233</sup> These critics ask questions like: In a Quebec where genetic screening is so closely linked with ethnic purity and ethnic purity is revered, what will happen when families can select or abort based on screening results? Such questions do not seem nearly as interesting to me. The racial logic that underpins medical and health approaches to aboriginals and whites in Quebec is here and now and has real consequences for the cast of outreach and the scope of research. Geneviève's organization in Chicoutimi does not include First Nations reserve schools in genetic education. Genetically linked diseases may exist on the reserves and reserve populations might benefit from learning about how to detect, prevent, or seek treatment for genetically linked diseases. However, the absence of data on genetic disease in aboriginal groups makes it hard for groups such as Geneviève's to justify expansion to the reserve. If we look at science as a repertoire of evidentiary norms, analytic practices, and styles of inquiry, I think we can capture this other dimension of inequality and injustice: the data that gets omitted, the inquiries that are never formulated much less considered, and the logic about race and disease that both led to these omissions and gets reinforced as a result of them.<sup>234</sup>

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<sup>233</sup> In the case of Quebec, two scholars have already made this argument: Bibeau, Gilles. 2004. *Le Québec Transgénique: Science, Marché, Humanité* (Transgenic Quebec: Science, Market, Humanity). Boréal: Montreal; Lloyd, Stephanie Jean. 2001. *Genetic States: Collective Identity and Genetic Nationalism in Iceland and Quebec*. Ph.D. Dissertation, Department of Anthropology, McGill University.

<sup>234</sup> Several scholars are beginning to look in particular at how environmental data is routinely left out of etiological explanations in contemporary cancer research. For example: McCormick, Sabrina. 2008. *No Family History: Investigating the Environmental Links to Breast Cancer*. Lanham, MD: Rowman & Littlefield; Brown, Phil, Stephen Zavestoski, Sabrina McCormick, Joshua Mandelbaum, and Theo Luebke. 2001. *Print Media Coverage Of Environmental Causation Of Breast Cancer*. *Sociology of Health and Illness* 23:747-775

*Prevention, Treatment, and Belonging in the Population*

Charles Scriver, a McGill geneticist who has dedicated much of his research to the study of inherited metabolic disorders in Quebec, wrote in an article published in the journal *Community Genetics* in 2006: “Genetic screening...is a search for people possessing certain genotypes that are already associated with disease or are predisposing to disease, may lead to disease in their descendants, or may confer genomic variation that is found to be associated with disease...The goal is not to reduce disease incidence alone, but to help individuals so that they may avoid the consequences of their heredity.” In 1971, the government of Quebec funded the establishment of a centralized body to initiate and oversee prenatal and newborn genetic screening and reproductive and treatment counseling programs throughout the province. The programs were operated collectively by the province’s four main medical schools and under the umbrella of the Division of Community Medicine in the Quebec Ministry of Health. The medical network introduced screening of all Quebec newborns for metabolic irregularities, using blood samples and covered by provincial healthcare.

In the 1970s the province instituted two screening programs for children and adults that were designed to detect “silent carriers” of “disease-causing alleles” linked to Tay-Sachs and beta-thalassemia, two globally well-known Mendelian disorders. Tay Sachs is a neurological disorder that has long been associated with Ashkenazi Jews because of particularly high rates of diagnosis of Ashkenazis in the United States throughout the 20<sup>th</sup> century. The disease is not limited to Ashkenazis and has been diagnosed in much lower rates elsewhere in the United States and Canada. In the early 1990s, doctors diagnosed a cluster of 15 Tay-Sachs sufferers in Southeastern Quebec. Researchers studying this early group followed the template of other genetic studies of

Quebec families and proposed that the disease was a proof of the founder effect that linked these contemporary individuals to the first pioneers from Perche and Normandy. A new moniker, “French-Canadian Tay Sachs” was coined and used to describe the 15 Quebec cases. Beta-thalassemia is a blood disorder that has been associated with Mediterranean populations and North Africans. In the late 1970s, doctors in Quebec detected 85 cases of beta-thalassemia in “French-speaking Quebecers without Mediterranean ancestry.” There are significant numbers of Arab and North African immigrants in Quebec who speak French and the researchers sought to clarify that they were not referring to these people. The researchers found that most of the families had “settled in Quebec more than 200 years ago, largely in Portneuf county” and concluded that they were evidence of a new form of “French-Canadian Thalassemia.”<sup>235</sup> The Quebec screening programs focused on students at the high school level in “particular demographic communities” in Quebec—Ashkenazi Jewish, Italian, Greek, and French-speaking, non-recent immigrant white “Catholic Francophone” Canadians.<sup>236</sup>

Health authorities set up a voluntary education and screening clinic at the regional high school in Portneuf county, the presumed “center of diffusion” for French Canadian Tay Sachs and beta Thalassemia, and found 1% of the high school population were carriers. Of some interest, a beta Thalassemia mutation similar to that detected in residents of Portneuf county was also detected in several Ashkenazi Jews in Montreal. Doctors in Montreal believed that that particular mutation had been found in only one other family in the world, a Jewish family in Israel. In an article on the discovery, Charles

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<sup>235</sup> Desjardins, L. *et al.* 1978. Thalassemia in French-Speaking Quebec Residents. *Canadian Medical Association Journal* 119(7): 709-713.

<sup>236</sup> Scriver, Charles. 2006. Community Genetics and Dignity in Diversity in the Quebec Network of Genetic Medicine. *Community Genetics* 9(3):148.

Scriver, who was involved in the research, described how one of the Montrealers diagnosed with the disease, Stanley Diamond, went on to found a Jewish genealogy project aimed at reconstructing pre-Holocaust family trees by searching and following the path of the mutation in the contemporary United States, Canada, Israel, and Eastern Europe. Diamond sought to find unknown branches of his dispersed family and, using surnames, in collaboration with the Polish state civil records office, found 50 other families that he believed could be at risk for the disease. On the website for Diamond's beta Thalassemia Genetic Project, there is a list of various members of the 19<sup>th</sup> century Lomza, Gubernia and Bobruysk families to whom he had traced his allele. "If your family shares one of these names, you could be a carrier of the beta-thalassemia trait."<sup>237</sup> Health and medical authorities widely hailed these programs to be a success. Participation rates at the screening clinics was high and all subsequent births of infants affected by Tay Sachs or beta Thalassemia were to couples that had not been screened. After the Tay-Sachs and thalassaemia testing programs, pre- and post-natal screening and counseling programs multiplied in the province.

In the Saguenay-Lac-Saint-Jean region, screening programs were introduced in 2005 for several of the rare pediatric diseases deemed to be frequent in the region. At the same time, with pressure from patient groups representing parents of children with the diseases, the three principal medical centers in the region began to provide counseling and uniform treatment for symptoms of the diseases in affected children and adults.<sup>238</sup> These two poles—screening and treatment—provided the first tools ever for parents facing the diseases and their families. Previously, children with the disorders had been

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<sup>237</sup> <http://www.geocities.com/Heartland/Pointe/1439/>, Accessed July 2008.

<sup>238</sup> Oral history, fieldwork with patient associations and their affiliates in Montreal, Chicoutimi and Jonquière, QC, 2007-2008.

misdiagnosed, mistreated, and usually died. Carriers, in the absence of genetic testing, had, as one counselor told me, been deprived of choices about when and whether to have children. These two poles have also become a source of conflict, however, and looking at how that conflict is ensuing sheds more light on how scientists, healthcare workers, and people outside of the medical and health system have turned diseases into signs of ethnic and cultural belonging. During my fieldwork people talked about deciding to undergo genetic screening as a choice between seeing diseases as a collective burden and a private responsibility. People's perceptions of genealogy and the relevance of the population-frame for understanding disease had a bearing on how they narrated their decisions.

Patient advocates and physicians in the Saguenay-Lac-Saint-Jean region are divided into two camps on how best to respond to genetic diseases with screening programs. A main point of contention is what I would call the "genealogical mentality" about disease. The genetic diseases in the Saguenay were first detected in particular individuals and attributed to certain families and genealogies. It was later, in the early 1980s, that scientists introduced the idea of the founder effect. For some people, this had the effect of shifting blame from individual families to entire populations and their intimate histories. Christine Tremblay encapsulated that view when she told me that after she found out about the founder effect, her family "never took an interest in genealogy" again (Chapter 5, Pp. 51). For others, the founder effect was a compelling genetic explanation but did not detract from the main culprit, families and their lineages. Paul Provencher, a father of a child with a rare Mendelian disorder who replaced Christine Tremblay as head of her Chicoutimi patient advocacy organization in 2007, expressed this view. Even after he became aware of the founder effect, he made sense of the disease through genealogy:

“We asked our parents and our cousins about other children before in the family, trying to see where it came from. It came up that there were two, three other children two or three generations back who died very young. It wasn’t diagnosed at the time but maybe it was [the disease]. I talked about it a lot, especially to my family, because I want to make sure that it never happens again.”

Provencher never mentioned the disease in the context of French-Canadian genetics, the founder effect, or a French-Canadian population.

Provencher had begun to advocate for his patient organization within this genealogical framework: proposing screening, testing, and family history tracing in order to predict and prevent further incidence of the disease. He wanted to prioritize research on the hereditary mechanisms through which Mendelian diseases were transmitted, what he called “molecular pinpointing,” and was in the middle of negotiating with the regional health services to draft a new policy that would make screening more accessible and widespread. In contrast, Christine Tremblay, as well as many other patient advocates and doctors, had chosen to focus on treating the disease rather than preventing it. They suggested to me that Provencher’s strategy was inappropriate, as it shifted blame to individuals and made the disease into a private choice rather than a collective burden. Provencher was part of an unpopular minority. Tremblay was, in contrast to Provencher, advocating for research on how to manage the diseases and for health policies that provide parents with more social and financial support to see the symptoms through. Her efforts were directed at “living with the disease” and screening was a secondary concern.

There are many contrasts beyond genealogy at work here: about how Provencher and Tremblay perceived the value of life without disease; about how they saw the place of screening and medical technology in the experience of health and illness. The contrast of most interest to me here is how Tremblay was using the population frame



to anchor one approach to treatment (“managing symptoms”) while Provencher was using the genealogical frame to anchor another (“preventing cases”). They were both using different forms of explanation for disease that had led them towards different attitudes about how best to clinically respond. That difference in attitudes hinged on whether the disease was seen as afflicting a population or afflicting individual families. Tremblay saw genetic diseases as a defining characteristic of the population—a shared experience and obstacle—and she found the idea of trying to eradicate it disturbing. Did she see the eradication of cases as threatening that collective self-definition? Did she see eradication as undermining the biological heritage that binds people into the “French-Canadian population”? Was Provencher unbothered by eradication because he had never attached such meanings to the diseases? The contrast between the two approaches suggests another way in which the population frame can palpably affect patient outreach priorities, clinical strategies, and advocacy in addition to laboratory procedures.

Pierre Lavoie, the tri-athlete, was exemplar of the population-framed advocacy approach. On my first day at BALSAC, Lavoie had come to a meeting with the research scientists there to help design a kit for parents that explains how to live with lactic acidosis: when to anticipate disruptive symptoms, how to navigate healthcare and payment hurdles, and how to maintain good marital relations when a child falls sick. One of the physicians at the meeting suggested that the kit include information on heredity, family transmission, and pre-natal diagnostics and Lavoie disagreed. He said the kit should simply include explanations of the founder effect and then rapidly move into details about life with lactic acidosis. Lavoie framed the disease in terms of French-Canadian founders. Provencher had framed it in terms of personal genealogy. It was the former classification, initiated and perpetuated through BALSAC, that had turned

diseases like lactic acidosis and tyrosinemia into “French-Canadian diseases.” That shift from the lone pedigree toward indicting a whole population—geographically, historically, and culturally defined and differentiated—is at the source of how illness has become a meaningful proof of group belonging in Quebec.

The founder effect is emblematic of this movement away from pedigrees, genealogy, and personal blame for diseases. Doctors and healthcare workers offer it as a form of explanation that can instantly make sense of symptoms, pain, and death. To link oneself to a founder is to have found the answer to the question, “Who?” Who got the disease? Why me? The founders. This of course involves doing genealogy. But the difference between this kind of genealogy and the kind of genealogical thinking that Paul Provencher did was that the pedigree is not an end or an explanation in itself. It is not just a key to ancestry but a route, through finding connections to a “founder,” to proving belonging in a population and explaining pain as an effect of that belonging.

CHAPTER 7  
CONCLUSION—WRITING, GENETICS, AND FAMILIES

“What kind of ancestor will you be?” is the title of a half-page 2005 article by the librarians of the Orange County (NY) Genealogical Society in their quarterly review. They instruct readers: write about yourself, identify faces in photographs, and store all records in sealed containers for future generations to mine.<sup>239</sup> The uneven typewritten itemization of livestock consigned in a rural Pennsylvania will and the half-formed sentences scribbled in the margins of an antebellum notary are the paper trails that prevent the irrecoverable loss of an ancestor to oblivion. As one genealogist in Canada told me, “If it isn’t written, it is like it didn’t exist.” But a record is not just a proof. It produces intimacy. Harold LeClair Ickes, a New Deal U.S. cabinet secretary, expressed well how writing connects people with ancestors:

“I have often wished that my father and his father, to say nothing of ancestors back before them, had left some written record, however brief, of their lives and times...We speculate about them: we wonder how they lived and what they thought, but except for an occasional isolated and unconnected fact or legend they are to us total strangers.”<sup>240</sup>

For Ickes, writing made ancestors more real, rounding them out as living human beings with aspirations, predilections and tastes, and in doing so, it brought them in from distant times and spaces. It brought them closer. Henry Louis Gates Jr., reflecting on the links

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<sup>239</sup> What Kind of Ancestor Will You Be?. 2005. Orange County Genealogical Society Quarterly 35(3):10.

<sup>240</sup> Ickes, Harold L. 1953. *The Secret Diary of Harold L. Ickes: Volume I: The First Thousand Days, 1933–1936*. New York: Simon and Schuster. Pp. iii.

between records, memory, and belonging, recounted his first forays into an archive looking for clues about his father's genealogy:

“I was searching not just for the names of my ancestors to fill out my family tree but also for stories about them. Each new name that I was able to find and print in my notebook was another link to the colored past that had produced, by fits and starts, but also, inevitably, the person I had become and was becoming.”<sup>241</sup>

Gates used the records to carry remote people and periods into the present and connect them to the intricacies of his own life. Another genealogist in Montreal once said to me of her own daughter's birth, “If we hadn't gotten the certificate, well it would be like she hadn't been born.” (Also see Chapter 3, pp. 111). Like Gates, she appeared to be doing more, through reading the records, than conjuring people from the past. Was she posing present lives and the relations between them—their sense, meaning, and specificity—as *contingent* on the existence of records? Were documents part of the process of becoming a person? Could they negate or alter affective bonds based on blood or built through parenting?<sup>242</sup>

In Quebec, people were searching for the truth of a distant past, a forgotten ancestor, or a way to make sense of the present through records. In the demography laboratory, Paul, Madeleine, and their colleague Vincent (Chapter 3) would resort to microfilm in order to glimpse writing on the old record that they believed scanning and digitization had blurred or effaced. Paul said he preferred working with the bound records themselves. “You can feel the past, it's closer.” Madeleine had been more matter-of-fact: “When it's really old, the smell of it! But sometimes you have to [look at the

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<sup>241</sup> Gates Jr., Henry Louis. 2008. Personal History: Family Matters. *New Yorker* December 1.

<sup>242</sup> Estelle Lau has specifically examined the role of documents in making and unmaking families among Chinese immigrants in California: 2006. *Paper Families: Identity, Immigration Administration, and Chinese Exclusion*. Durham: Duke University Press.

originals], it gives you something you can't get here [on the screen]." By both of their accounts, the older and more worn a document was—if it was delicate, yellowed, stained—the better. For the students, the documents had a kind of patina, a visible historicity, that made them seem more authentic. The harder the writing was to decipher and the more irregular the text, the more convinced the students were that the text held hidden clues. The paper could substantiate different kinds of bonds (some more solid, truthful, accurate) depending on its form.

Maryse Ricard (Chapter 4), through the reprinted records in her name-book, crafted stories, created new memories, and found connections between people and to places: the garden of the cottage where a first ancestor may have lived and worked; the apple orchard whose owner shared a family name. Like Henry Louis Gates Jr., she compressed time—bringing the first ancestor in from the early modern to the cottage rear as she gazed at the ivy and the couple who now lived there. Was she sure that this was indeed the right house? She had used the records compiled by a genealogist to name her first ancestor in Quebec. She had traced him to a still-standing house through a newspaper article. For her, the records were a hypothesis and her feelings when she arrived at the house were what proved the family connection. Yet, the paper had helped bring that history, life and connection into being. The anthropologist Stephen Hugh-Jones has written about how Northwest Amazonian Barasana viewed the passage of time as introducing ever-more distance between them and their ancestral origins: "as generations pile up like leaves [on the forest floor], living people are taken further and further away from the ancestors."<sup>243</sup> For Ricard, sitting on the back wall behind the

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<sup>243</sup> Qtd. in Munn, Nancy D. 1992. *The Cultural Anthropology of Time: A Critical Essay*. *Annual Review of Anthropology* 21: 101-102.

cottage helped her mend the distance that time had pried open between her and her ancestors.

If records can bring lives, families, geographical coordinates, and historical trajectories together, what are their consequences specifically for genetics? This dissertation has traced how, in Quebec, the church records bring into being “French families” and “French ancestry” and legitimize (based on their status as evidence you can trust) certain ways of posing those genealogies in relation to disease and to race: in an illustrative example, in his memoir *Island of the Colorblind*, the neurologist Oliver Sacks recounted a 1992 research trip to the Micronesian islands he undertook with a Norwegian colleague to study achromatopsia, complete congenital colorblindness. The island of Pingelap, a 250-resident atoll, was rumored to have numerous achromatopic children and adults and Sacks brought his scientific colleague Knut Nordby, also congenitally colorblind, to study them. Upon their first steps onto the island, Sacks recalled that Nordby instantly recognized, from their eye spasms and squinting (also manifestations of achromatopsia), which young children had the condition:

“Though Knut had read the scientific literature, and though he had occasionally met other achromatopic people, this had in no way prepared him for the impact of actually finding himself surrounded by his own kind, strangers half a world away with whom he had an instant kinship. It was an odd sort of encounter which the rest of us were witnessing—pale, Nordic Knut in his Western clothes, camera around his neck, and the small brown achromatopic children of Pingelap—but intensely moving.”<sup>244</sup>

Does disease mean kinship? Does illness mean shared ancestry? Are family histories and genealogical trajectories the keys to pathology? Does a pedigree sum up an individual’s— or a *population’s*—physiology? Sacks was not insinuating that Knut shared ancestors with the children on Pingelap, but his metaphor for disease as a form of familial bond evokes

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<sup>244</sup> Sacks, Oliver. 1993. *The Island of the Colorblind*. New York: Vintage. Pp. 31.

the language and perceptions of Bernard Brisson, the doctor studying neurogenetics in Lanaudière (Chapter One). Brisson expected that the presence of a disease in early modern France and current day Quebec meant a kinship link between the two societies—in this case, a shared genetic ancestry. In fact, Sacks’ sense of the contrast between Knut’s and the children’s skin color, despite their shared pathology, invoked a similar logic of disease, race and genealogy as Brisson. It was *odd* to Sacks that people could look so entirely different and yet, at the same time, share a physical experience and medical condition. It was perfectly normal to Brisson that people who had similar pathologies would be alike (in look, linguistic history, and supposed geographic origin). Both construed disease—whether explicitly or vaguely—in terms of genealogy (blood, ancestry, origins) and race (skin, hair, clothes, language or other markers that may perceptibly differentiate someone as *typologically* different, “French Canadian,” “Nordic”). In Brisson’s case, these links—between national origins, shared linguistic history, genes, and pathology—were proven by the paper kinships (the maze of interconnecting records of parentage) he was procuring from the archive, via BALSAC.

This case of medical genetics in Quebec—the genesis of natural genetic epidemiological categories through overlays of socio-historical, linguistic, and biological worlds—captures an unaddressed research problem and suggests a new, both more expansive and more precise, way to look at racial logics and genetics. Both within and beyond Quebec, scientists, health researchers, and the array of people who work on health provision and policy are asking the question, “Who gets disease,” and answering it with a new question, “How are we connected?” The one inquiry, it is perceived, automatically leads to the other: disease and genealogy; pathology and heredity; physiology and ancestry. Countless scientific inquiries into the causes of illness proceed

along this path, connecting facts about physical manifestations of a disorder to other facts about human groups and relatedness, creating a self-contained experimental world in which the scope of investigation is naturally delimited to these axes: disease, heredity, ancestry.

At the center of the answers to that second question—“How are we connected?”—are scientific interpretations of what it means to be a family and what constitutes a family in the first place. The very way scientists accumulate and arrange their facts about families—writ small and large, whether we are talking about a single household or a continental cluster—is mediated by such interpretations: what does it mean to be related; are families related by blood; are they related by genetics; do they transmit traits inter-generationally; can we divide families into ancestors, the sources of traits, and descendants, the recipients of traits; how can we piece together fragments of information from the past to assemble valid families for our research? On a broader scale: do extended multi-generational families that *appear* to be cultural isolates due to forces of history (such as French-Canadians in Quebec) constitute “populations”; can we divide these populations into founders, the origins of population-wide traits, and current day members, the recipients of population-wide traits; how can we efficiently and validly reconstruct the family histories of these populations?

These questions of who belongs in or constitutes a family are bound up with the questions of evidence, proof, and model that color numerous areas and communities of practice that stretch well beyond questions about historical demographic evidence and the Church record. This dissertation shows the influence on family-making in genetics of numerous dynamics: the way people feel about and construe families in social life; the circulation of histories; norms in law and policy; formal inquiry within historical



linguistics, folklore, biology, sociology, and ethnology. Genetics, it is quite clear, is not just happening in the laboratory. To try, as an analyst of genetic practice, to disentangle the dynamics that have led to the way medical geneticists pose disease and families requires a critical lens that can apprehend all of these disparate areas.

*Trees and the Metaphor of the Closed System*

A shared characteristic of family-making across the domains I observed in Quebec was the use of genealogical trees as models of inquiry and material bases for biological conclusions. People everywhere, inside and outside of science and medicine, were using trees to convert sources that were dense with historicity into natural facts. In this respect, the genetic worlds I examined in Quebec reflect broader movements in contemporary scholarship. There is a current move within social and biological science toward the application of multi-layered social, linguistic, and political data to genetic knowledge about human groups and origins. In a 2003 article in *American Anthropologist*, the biological anthropologist Doug Jones proposed that there are “significant correlations in the distributions of genetic, linguistic, and archeological variation” around the globe.<sup>245</sup> He noted the recent emergence of a transdisciplinary conversation between biologists, linguists, and anthropologists who aim to use these correlations to map human diversity. This growing scholarship draws on and is perhaps a product of the same logic that has guided genetic research in Quebec: that language groups constitute bounded communities; that cultural entities are discrete socio-historical units; and that biology can be inferred or correlated with the vectors of these supposed isolates. That logic has shaped

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<sup>245</sup> Jones, Doug. 2003. Kinship and Deep History: Exploring Connections between Culture Areas, Genes, and Languages. *American Anthropologist* 105(3):501.

the historical narratives and classificatory predispositions of big population genetics projects (the Human Genetic Diversity Project, HapMap), demographic data-gathering initiatives, and major scientific research on disease and ancestry well beyond Quebec.

The shared problematic across these linguistic, anthropological, and biological areas of knowledge production when it comes to reckoning with human diversity (how to characterize and classify it) has been whether to think of people and the groups they are part of as closed systems (discrete units) or open systems (overlapping, permeable, and unbounded). In linguistic anthropology and sociolinguistics, a major question is how to define and whether or how to bound groups who share linguistic and speech practices.<sup>246</sup> Some studies have shown that language and social structure are not necessarily synonymous—that people can be part of the same kin network or settlement and speak different languages or use language very differently.<sup>247</sup> This has naturally led to questions about how to characterize people who share practices—are they part of a heterogeneous linguistic community, a homogeneous community within a larger heterogeneous matrix of linguistic practices, and so on. In evolutionary biology and genetics, the debate is about whether global human genetic maps consist of distinctly bound groups of genetically similar individuals, gradually changing gradients of genetic variation, or heterogeneous

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<sup>246</sup> Linguistic anthropology and sociolinguistics, two distinct fields, have had somewhat different histories of addressing these issues. Linguistic anthropologists began to consider problems with the closed, homogeneous speech community somewhat earlier (e.g. Hymes 1974) than sociolinguists, many of whom deployed a closed homogeneous community concept throughout the 80s, 90s, and 2000s (e.g. Chomsky 1988). See: Hymes, Dell. ed., 1974. *Pidginization and Creolization of Languages: Proceedings of a Conference Held at the University of the West Indies, Mona, Jamaica, April 1968*. London/New York: Cambridge University Press; Chomsky, Noam. 1988. *Language and Problems of Knowledge*. Cambridge, Ma.: MIT Press. Some new work in sociolinguistics is now bucking that former trend: Thomason, S.G., 2001. *Language Contact: An Introduction*, Washington D.C.: Georgetown University Press.

<sup>247</sup> For example: Jackson, Jean E. 1974. *Language Identity of the Columbia Vaupés Indians*. In R. Bauman and J. Sherzer, eds., *Explorations in the Ethnography of Speaking*. New York: Cambridge University Press: 50-64. Also see: Irvine, Judith. 1989. *When Talk Isn't Cheap: Language and Political Economy*. *American Ethnologist* 16(2):248-67.

clusters of individuals who defy categorization into a shared genetic group.<sup>248</sup> Some have argued that the overwhelming majority of human genetic diversity exists *within* local and regional populations rather than between them, making it impossible to perceive any sort of bound global genetic groups.<sup>249</sup> Open or closed is the core question of concern in any evaluation of how or whether to define a “population”: must it be bounded; can it be open (shifting, cross-connecting with other people and behaviors, like a web)?

It is specifically through the shared metaphor of the closed system that sociolinguistics, ethnology, biology, and genetics have begun to engage each other about how to divide the world into historical bio-genetic-cultural-linguistic groups. This conversation has been facilitated, perhaps, by the similarities in the structure of linguistic, biological, and anthropological kinship models, making data garnered in the context of one model (e.g. comparative linguistics) easily transposable into another (e.g. population genetics). Until very recently (perhaps 15 years ago or less) all of these areas of practice had standardized some variation of the genealogical tree as a way of representing change and taxonomy, interpreting difference and similarity in terms of descent. The historian Stephen Alter has argued that this commonality in choice of model is no accident. He traces the way that early natural historians like Ernst Haeckel, and later Charles Darwin, explicitly drew on linguistic diagrams to chart the origins of species. Haeckel had applied a uniform tree diagram to represent Indo-Germanic language changes, Indo-Germanic

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<sup>248</sup> For example: Risch, N., E. Burchard, E. Ziv, and H. Tang. 2002. Categorization of Humans in Biomedical Research: Genes, Race and Disease. *Genome Biology* 3(7): comment2007.1-2007.12; Serre, David and Svante Pääbo. 2004. Evidence for Gradients of Human Genetic Diversity Within and Among Continents. *Genome Research* 14:1679-1685; Rosenberg, N.A., *et al.* 2002. Genetic Structure of Human Populations. *Science* 298: 2381-2385.

<sup>249</sup> For example: Yu, N. *et al.* 2002. Larger Genetic Difference Between Africans than Between Africans and Eurasians. *Genetics* 161-269-274.

people and the “Twelve Species of Man.”<sup>250</sup> In the same decade the philologist August Schleicher popularized the *Stammbaum* theory of Indo-European language development, using morphological and phonological linguistic data to posit historical genetic relationships between languages. The British geologist Charles Lyell and George Romanes, a colleague and follower of Darwin, made explicit analogies between this comparative method in philology and analysis of the natural world. Lyell wrote most evocatively, “Words are to the anthropologist what rolled pebbles are to the geologist—battered relics of past ages often containing within them indelible records.”<sup>251</sup> It has been suggested that the original inspiration for the tree form is the biblical story of Genesis and the sons of Noah.<sup>252</sup>

As Alter points out, the genealogical schema foreclosed the possibility of development through cross-fertilization, convergence, or some other mechanism of change than descent and divergence. When people use family trees to define a population, they are implicitly postulating populations as closed systems. Ascending or descending tree genealogies are predicated on an organization of phenomena and units into sequentially occurring, hierarchical essences, where the original units (the ancestors or antecedents) transmit a bounded set of traits that are constantly refined over time with the passage from one rung to the next. The essences are continuous and define the boundaries of each unit; each unit’s base-line definition is its relationship to the prior, originating rung of units. The system, by definition, is bounded, closed to interference that might alter the

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<sup>250</sup> *The History of Creation* (1868)

<sup>251</sup> Alter, Stephen. 1999. Darwinism and the Linguistic Image: Language, Race, and Natural Theology in the Nineteenth Century. Baltimore: Johns Hopkins University Press. Pp. 12, 121.

<sup>252</sup> Bouquet, Mary. 1996. Family Trees and Their Affinities: The Visual Imperative of the Genealogical Diagram. *Journal of the Royal Anthropological Institute* 2:45-66; Also see: Trautmann, Thomas R. 2006. *Explosion in the Grammar Factory*. In *Languages and Nations: The Dravidian Proof in Colonial Madras*. Berkeley: University of California Press.

essence that defines each component. W.H.R Rivers, who formalized the genealogical method of social anthropological inquiry into kinship systems at the Turn-of-the-Century, explicitly articulated the legitimacy of the tree within this logic of essences and closed systems: he said he was using genealogies to uncover “the dog beneath the skin,” by which he indicated he meant the essential qualities of the people and society he was studying. He remarked that people “became real personages” in the context of the extended list of cousins and descendants in his lists of pedigrees.<sup>253</sup>

Anthropological kinship has since moved into more diverse and idiosyncratic models of relatedness that seek to divorce classificatory modes from tree models.<sup>254</sup> This work often draws on—whether implicitly or explicitly—concepts that early post-structuralist philosophers developed in the 1970s and 1980s. For example, Gilles Deleuze and Félix Guattari’s seductive, if sometimes opaque, descriptions of the “rhizome” in *A Thousand Plateaus* have been taken up by several anthropologists. Deleuze and Guattari wrote in 1988: “There are no points or positions in a rhizome such as those found in a structure, tree, or root. There are only lines.” The *rhizome* is comprised of *plateaus*, a term which Deleuze and Guattari in fact borrowed from an anthropologist, Gregory Bateson. Bateson had used the term in his 1920s and 1930s Balinese ethnographies to describe “a continuous, self-vibrating region of intensities whose development avoids any orientation toward a culmination point or end.”<sup>255</sup> Numerous anthropologists have since pursued research within this milieu, resisting theoretical constructs that essentialize nations,

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<sup>253</sup> Qtd. in Bouquet 1996, Pp. 45.

<sup>254</sup> For example: Helmreich, Stefan. 2003. Trees and Seas of Information: Alien Kinship and the Biopolitics of Gene Transfer in Marine Biology and Biotechnology. *American Ethnologist* 30(3):340-358; Borneman, John. 1997. Caring and Being Cared For: Displacing Marriage, Kinship, Gender, and Sexuality. *International Social Science Journal* 49: 573-84; Parkes, Peter. 2004. Fosterage, Kinship, and Legend: When Milk Was Thicker than Blood. *Comparative Studies in Society and History* 46:587-615.

<sup>255</sup> Deleuze, G. & F. Guattari. 1988. *A Thousand Plateaus: Schizophrenia and Capitalism*, transl. by Brian Massumi. Minneapolis: University of Minnesota Press, Pp. 7-9, 22.

ethnicities, or breeds or that naturalize them through reference to shared origins. Donna Haraway used dog pedigrees to show how genetic, social, and interspecies relationships might best be apprehended as a web of horizontal and vertical connections rather than a descending genealogical tree.<sup>256</sup> Jonathan Boyarin has critiqued descriptions of diasporic “identities” that presuppose “common roots” and “common origins” are what bind people together.<sup>257</sup> These studies might also be posed as part of the heritage of early anthropological work by Franz Boas and his students (Ashley Montagu, Ruth Benedict, Robert Lowie), in addition to being posed as products of poststructuralist philosophy. Boas aimed to dismantle the notion of permanent inferior and superior racial types by decoupling cultural and biological explanations of human groups. He argued that people’s mental and moral capacities had little to do with their physical form, a contention intended to disrupt naturalized, essentialized popular characterizations of human races as discrete biopsychocultural units.<sup>258</sup>

However, despite recent resistance to the traditional tree model in anthropology, geneticists and biologists seeking data to correlate with DNA to infer population histories generally use the older genealogical classifications of anthropological studies of the 1950s and 1960s. These classifications conjured a world divided into numerous, autonomous closed systems (populations, culture areas, tribes). As I mentioned in Chapter One (Pp. 31-32), the population geneticist Cavalli-Sforza and other researchers at the Human Genome Diversity Project used Yale University’s Human Relations Area Files to define

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<sup>256</sup> Haraway, Donna. For the Love of a Good Dog: Webs of Action in the World of Dog Genetics. *In* Goodman, Heath, and Lindee, eds., *Genetic Nature/Culture: Anthropology and Science Beyond the Two-Culture Divide*. Pp. 111-132.

<sup>257</sup> For example, see: Boyarin, Jonathan and Daniel Boyarin. 2006. *Diaspora—Generation and the Ground of Jewish Identity*. In Ana Evans Brazier and Anita Mannur, eds., Pp. 85-118, *Theorizing Diaspora*. Malden: Blackwell.

<sup>258</sup> For example: Boas, Franz. 1925. What is a Race? *The Nation* 120: 89-91.

the populations from which they would seek genetic samples. The Area Files culled data from a wide range of ethnographies about various tribes and foreign societies, cataloguing collections of traits by “cultural area.” (The catalogue is now called “eHRAF World Cultures”). The aim of the HRAF project was to facilitate the statistical comparison of cultural traits (e.g. marriage customs, kinship terms, social organization, beliefs, etc.). In this respect, the project harkened back to the yet earlier anthropological work of E.B. Tylor. Inspired by the Belgian statistician Adolphe Quetelet, Tylor had surveyed the kinship customs of over two-hundred linguistic-cultural-biological-geographical units in the 1870s and 1880s, seeking to discern correlations that he could then generalize into universal kinship laws.<sup>259</sup> In the 1950s and 1960s, the HRAF files often inferred cultural areas from language areas (e.g. Tajik-speakers were taken to be “the Tajiks”) in the style of the project’s pioneer, George Peter Murdock. In his 1962 *Ethnographic Atlas*, Murdock had divided Africa into 239 different societies based largely on perceived linguistic divisions. He had defined tribes as “groups of essentially identical language and culture.”<sup>260</sup>

In the 1990s, the Human Genome Diversity Project staff decided to delimit and sample DNA from African groups defined by language and ethnicity using Murdock’s African culture area maps.<sup>261</sup> Cavalli-Sforza, the population geneticist, and many of his colleagues were already conducting research that showed the world could be split into genetically-defined population areas and that posed these population areas in historic genealogical relationships to one another—family trees writ large. They had published

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<sup>259</sup> See: Tylor, Edward B. 1889. On a Method of Investigating the Development of Institutions Applied to Laws of Marriage and Descent. *Journal of the Anthropological Institute of Great Britain and Ireland* 18: 245-272; Tylor, Edward B. 1872. Quetelet’s Contributions to the Science of Man. *Nature* 5:358-363.

<sup>260</sup> Braun, Lundy and Evelyn Hammonds. 2008. Race, Populations and Genomics: Africa as Laboratory. *Social Science and Medicine* 67(10):1580-88.

<sup>261</sup> Braun and Hammonds, 2008

papers proposing different ways of reconstructing the ancestral relationships of different populations by comparing biological data. In the 1960s, Cavalli-Sforza and the mathematical geneticist Anthony Edwards, a student of eugenicist statistician R.A. Fischer, proposed an East-West split in the world's populations (between Asia & Oceania and Europe & Africa) based on comparisons of blood-group alleles. They arrived at this conclusion by first bounding their biological units of analysis—the populations they wished to study—according to socio-political boundaries (“Africa,” “Europe,” and their various geopolitical sub-regions) then using comparisons of data about each unit as evidence of relatedness. They theorized historic splits after which these different units—conceived as biological entities—had diverged and developed on separate paths. Later, in the 1980s, Cavalli-Sforza used DNA data to reaffirm his hypotheses, proposing that Africans and EurAsians had split 92,000 years ago based on the comparison of 120 alleles in 42 populations.<sup>262</sup> Cavalli-Sforza explicitly drew on Murdock's culture area studies to describe his population units.

Cavalli-Sforza also used the comparative linguistic work of Joseph Greenberg, a controversial Stanford linguist who had posited historic, genealogical relationships between groups of African and Amerindian languages based on shared structural elements. Cavalli-Sforza found in Greenberg's work major correspondences to the global biological maps he and his colleagues had been computing. In 1987, Greenberg had articulated the aim of his comparative analysis as “the classification [of languages] into

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<sup>262</sup> Cavalli-Sforza, L., A. Piazza, P. Menozzi, and J. Mountain. 1988. Reconstruction of Human Evolution: Bringing Together Genetic, Archaeological, and Linguistic Data. *Proceedings of the National Academy of Science* 85: 6002-6006. Also see: Marks, Jonathan. 2001. “We're Going to Tell These People Who They Really Are”: Science and Relatedness. In Sarah Franklin and Susan McKinnon, eds., Pp. 355-370. *Relative Values: Reconfiguring Kinship Studies*. Durham and London: Duke University Press. Pp. 362.



valid genetic units,” and likened these units to “the taxon in biological classification.”<sup>263</sup> Linguists in the 1980s characterized Greenberg’s project as guided by an inverted sort of logic wherein, by setting up the language groups he set out to confirm as his units of comparison, he had created a fallaciously inductive experiment. They held that finding commonalities between different language units in itself did not prove a historical relationship and, even more so, did not provide any clues about a supposed common ancestral proto-language.<sup>264</sup> Just as Cavalli-Sforza had chosen a standard set of genetic markers (designated points on the genome) with which to compare individuals from various pre-defined populations, Greenberg used a standard set of vocabulary and grammatical characteristics to sample different languages and then draw contrasts and comparisons between them. Like Cavalli-Sforza, Greenberg held that similarities could be used to determine “convergence backward in time to a plausible common original.” Suggesting the synthetic uses to which his data might be applied, Greenberg had held in 1987 that “valid genetic [language] units form the natural basis both for comparative historical study and for cultural-historical references.”<sup>265</sup>

Numerous linguists and biologists have since used comparative linguistic data to infer the biological histories and origins of human groups in addition to historic relationships between languages. Much of this work makes little distinction between the two forms of analysis—biology and linguistics—switching back and forth between biological and linguistic phylogenetic idioms to describe conclusions about human histories. In 1992, three biological researchers at SUNY Stonybrook published a study in

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<sup>263</sup> Greenberg, Joseph H. 1987. Language in the Americas. *Cultural Anthropology* 28(5):647

<sup>264</sup> Greenberg, Joseph H. 1987. Language in the Americas. *Current Anthropology* 28(5):657-662 [Replies by Victor Golla and Dell Hymes]

<sup>265</sup> Greenberg 1987, Pp. 648

the *Proceedings of the National Academy of Sciences* that used language comparisons and geographical distributions to estimate the “genetic distance” between “25 systems in numerous Indo-European-speaking samples from Europe.”<sup>266</sup> In 1995, Cavalli-Sforza and several colleagues at the Università di Torino published results of a study that correlated hypothesized Indo-European language changes with genetic differences between European populations (nationally defined as “French,” “German,” “Greek,” “Hungarian,” etc.) to test various hypotheses about the “origin” of “the Indo-European language speaking people.”<sup>267</sup> In 2003, the same year that Doug Jones published his article on the emerging synthesis between culture areas, genes and languages, two psychologists at the University of Auckland published a paper in *Nature* arguing that comparative linguistic analysis using evolutionary biological algorithms supported a particular theory of Indo-European migration.<sup>268</sup> How were “Indo-Europeans” being defined in all of these cases? Who was using linguistic criteria and who was using biological criteria? Had they used one kind of data to induce the units of analysis on which they then based their study of the other kind of data? It was all unclear. The trade in evidence and models between these linguists and geneticists, and their attendant ideologies about linguistic and biological systems (that they are closed and change through genealogical descent), was confusing.

Recent critics of the genealogical diagramming of languages and genes—and of the human histories these diagrams claim and the logical models on which they depend—have tried to historicize or question the norms of practice and proof that guide this work.

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<sup>266</sup> Sokal, R.R., N.L. Oden and B.A. Thomson. 1992. Origins of the Indo-Europeans: Genetic Evidence 1. *Proceedings of the National Academy of Science* 89(16):7669-7673.

<sup>267</sup> Piazza, A. *et al.* 1995. Genetics and the origin of European languages. *Proceedings of the National Academy of Science* 92(13): 5836–5840.

<sup>268</sup> Gray, R. D. and Atkinson, Q. D. (2003) Language-tree divergence times support the Anatolian theory of Indo-European origin. *Nature*, 426(6965):435-439.

Judith Irvine has traced how philological language family charts and later phylogenetic reconstructions of African languages selectively used evidence and borrowed imagery from colonial discourses to describe Africans as a closed-system linguistic family.<sup>269</sup> Michael Silverstein has long critiqued the “*Stammbaum* models of linguistic typology” that he argues underpin much of the linguistic work involved in these syntheses: “Even in the face of long-known linguistic documentation to the contrary, most anthropological work has proceeded out of its own ideological condition of Andersonian linguistic-cultural nationalism, in which ‘stable, language-bounded, one-language cultural units’” are assumed to be the basic condition of historic social interactions, settlement, and life.<sup>270</sup> The sociolinguist Sarah Thomason summed up the prospects and problems with a proposed linguistic-biological-cultural synthesis eloquently:

“What is certain is that all of us are looking at the same picture. That is, some sequence of historical events that took place, and in each instance we are all trying to find out just what those historical events were. So there is no doubt that the data from our several subfields must ultimately be compatible with a single historic picture. Unfortunately, this doesn’t mean that we can count on being able to discover how all the pieces fit together.”<sup>271</sup>

Earlier linguists and linguistic anthropologists such as Dell Hymes, Jean Jackson, and the vast number of people studying language contact communities have also generated data that significantly complicates the one-language, one-reproductive unit theory. Other scholars who are not typically seen as engaged in this critique have also produced work that complicates any assumptions about past closed-system settlement forms. Engse

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<sup>269</sup> Irvine, Judith. 2001. The Family Romance of Colonial Linguistics: Gender and Family in Nineteenth-Century Representations of African Languages. In Susan Gal and Kathryn A. Woolard, eds., Pp.13-29. Languages and Publics: The Making of Authority. Northampton, MA and Manchester, UK: St. Jerome Publishing.

<sup>270</sup> For example: Silverstein, Michael. 1996. Encountering Language and Languages of Encounter in North American Ethnohistory. *Journal of Linguistic Anthropology* 6(2):127.

<sup>271</sup> Thomason, Sarah Grey. 2002. Cladistic and Reticulate Processes in Language Change and Diversification. Unpublished ms. Pp. 28.

Ho's historical studies of transcultural exchanges over the last 500 years of migrations across the Indian Ocean between the Arabian peninsula, the Subcontinent, and beyond is one example of such a study.<sup>272</sup>

Nevertheless, in his 2003 article, Doug Jones noted the addition of a new variable to the linguistic-biological synthesis, culture, and attempted to model how culture "units" could be reconciled with linguistic-biological data. Jones cited the work of UC Irvine biological anthropologist Michael Burton, who had used cultural trait data about kinship customs in 351 societies culled from George Peter Murdock's human area catalogues to determine the existence of 9-10 "physically contiguous," "internally homogeneous" global "culture areas." Burton and Jones both argue that these areas correlate with language families and genetics."<sup>273</sup> Jones aligned his culture areas with Cavalli-Sforza's 1988 genealogical chart of genetic similarities between 42 world populations based on comparative data for gene frequencies of 120 alleles. The forms of understanding and model that Jones employed to classify human groups—the equivalence of language, culture, and genes and the perception of a world divided into endogamy-generated closed-systems—are also the basis for much medical genetic work, as in Quebec.

The genealogical mode of construing human connections and classifying human diversity has been used to develop the computational systems and databases that many researchers use for health and medical research, as in Quebec. A guiding principle of this work is that the less complex can shed light on the origins and dynamics of the more complex—that understanding a simple antecedent or a bounded group makes it possible to draw inferences about complex descendants or mixed groups. The successive

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<sup>272</sup> Ho, Engseeng. 2006. *The Graves of Tarim: Genealogy and Mobility Across the Indian Ocean*. Berkeley: University of California Press.

<sup>273</sup> Jones 2003, Pp. 506.

generations are supposed to be more refined, complicated versions of the originating generations.<sup>274</sup> The prevailing logic of trees within population biology (as in linguistics), exemplified by Cavalli-Sforza, has been that descendants are more complex forms of ancestors and that by finding the commonalities of descendants one can piece together the original form of those ancestors. This is the rationale in computational biology for looking to islands (like scientists do in Quebec, a so-called “cultural island”) for insights about disease progression. The island is like an ancestor on the tree—a simpler form of life and natural dynamics that many biostatisticians and genetic epidemiologists believe, once grasped, will lead to insights about the essential epidemiological characteristics of more complex systems (cities, archipelagos). (Along with the work of Silverstein, Ho, and others, this dissertation brings into question, among other things, the existence of these islands *as* islands in the first place).

The emergence of multiple variable computation capabilities has played a role in the standardization of such forms of inquiry (“island” studies; population studies). The social epidemiologist Nancy Kreiger has suggested that the major civilian demonstration of the storage and computation of multivariate data for the 1950 U.S. census first made it clear how computers could help health researchers cross-analyze molecular, cellular, physiological, pathological, psychological, social, and environmental data to infer possible causes of disease in a given population.<sup>275</sup> In social science and demography, computing

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<sup>274</sup> The anthropologist James Fernandez speaks of this logic as “ever-present and potential” in contemporary thinking. George Lakoff and Mark Turner have argued that this type of tree logic “exists as a contemporary unconscious cultural model indispensable to our understanding of ourselves, our world, and our language.” Fernandez, James. 1998. *Trees of Knowledge of Self and Other in Culture: On Models of the Moral Imagination*. In L. Rival and M. Bloch, eds., Pp. 81-110, *The Social Use of Trees*. Oxford: Berg, Pp. 97; Lakoff George and Mark Turner 1989. *More Than Cool Reason: A Field Guide to Poetic Metaphor*. Chicago: University of Chicago Press, Pp. 167.

<sup>275</sup> Krieger, Nancy. 1994. *Epidemiology and the Web of Causation: Has Anyone Seen the Spider?* *Social Science and Medicine* 39(7): 890.

became a core aspect of training starting in the 1980s. Journals like *History and Computing* and social science computing associations and cooperatives emerged at major universities. In genetics, the new computation-based sub-field of genetic epidemiology began to take shape in the 1980s and 1990s. N.E. Morton, who published one of the standard introductory textbooks for the field, described it as "a science which deals with the etiology, distribution, and control of disease in groups of relatives and with inherited causes of disease in populations." In a 2005 series of retrospective articles on the development and scope of genetic epidemiology in the *Lancet*, three researchers further described the overarching logic behind the field of genetic epidemiological inquiry like this:

“Knowledge about the underlying biology, coupled with the inferential tools of modern epidemiology and biostatistics, allows important aetiological questions to be answered...[]By incorporating the biology of gamete formation and chromosomal recombination into a mathematical model of the extent to which a given [genetic locus] tends to be transmitted through a family in conjunction with a disease, we can estimate [genetic causation].”<sup>276</sup>

The researchers went into detail about how studying pathologies within families—comparing family members to each other and to their respective populations—could reveal genetic factors that influence disease. They proposed that identifying similarities in genetic composition between individuals in the same family or population who have the same pathology (e.g. asthma, diabetes, etc.) could enable computations of the historic origin of the pathology. Like Greenberg and Cavalli-Sforza, their criteria for delimiting families and populations has often been unspecified or articulated using a confusing mixture of sociological, biological, and historiographical justifications. Like Greenberg and Cavalli-Sforza, their proposed units of analysis were also families and populations

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<sup>276</sup> Burton, Michael L., Carmella C. Moore, John M.W. Whiting, and A. Kimball Romney. 1996. Regions Based on Social Structure. *Current Anthropology* 37:87-123; Jones 2003, Pp. 941

and they aimed to infer ancestry from commonality between and within these units. The theories of kinship, descent, families, population blocs, closed-systems, historic purity, and language-culture-gene synthesis that I have outlined above are buried in these mathematical models. These theories, once computational results are disseminated to clinics, are now being turned into predictive tools for medicine.

In Quebec, the logic of descent-based taxonomy has structured knowledge and units of analysis in far-reaching ways vis-à-vis the incorporation of such computation parameters. Several genetic researchers whom I worked alongside during my laboratory fieldwork have recently begun to investigate the non-hereditary components of common diseases, examining how cellular functions and shifts, developmental paths, and the human environment affect pathologies. They are mimicking broader shifts in genetic research globally. They hold that the prominence of genealogy has receded within their research. “We don’t use that anymore” and “we’ve moved beyond that,” was how two different researchers explained their relationship to family trees and descent-based models of genetic epidemiological analysis. In particular, they argued that they can identify the French character of a DNA sample, and thus characterize particular conditions in relation to population categories by examining nothing but the DNA itself to see whether it is “French-Canadian” or “French-originating” DNA. However, the prototypes that are used to gauge the populational “identity” of an individual’s DNA are developed using genealogy: people whose formal BALSAC or orally transmitted genealogies indicate “pure” French origin are selected to develop a “French-Canadian panel” of genetic markers—a group of sites on the human genome that these geneticists can later use to determine the ancestry of a patient or study participant based on his or her DNA. Thus, though people believe they are not operating under the assumptions of a peripheral

project like BALSAC because they do not explicitly use genealogies to characterize the ethnic origins of DNA, BALSAC's assumptions about the exclusively French character of the current day Quebec population are deeply embedded in their research process—in how they delimit and characterize their units of analysis.

This bears out a key insight about genealogy and genetics that has already been suggested by several other critical observers. Alberto Cambrosio and Yoshio Nukaga noted in their study of pedigrees in Japanese and Canadian genetic clinics, “‘Even in the age of new genetics,’ medical pedigrees still constitute ‘the basic investigative tool’ in the genetics clinic.” Pedigrees, they noticed, often disappeared from doctor’s discussions of genetics and disease in the clinic once they had been collected and used to categorize genetic samples. Yet, their form and content shaped the inferences that health workers later made about medical test results.<sup>277</sup> It is this circumstance—the induction and traceless transferal of family trees from old records into digital databases and then genetic laboratories—that has produced some of the most fascinating links that the Quebec medical genetics case brings to light: between molecular biological inferences and colonial and post-colonial cultures of relatedness; between interpretations of illness in Montreal and early modern French civilizing strategies; between analyses of physiological, clinical, and cellular data and the scribbles in an archive of paper.

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<sup>277</sup> Nukaga, Yoshi, and Alberto Cambrosio. 1997. Medical Pedigrees and the Visual Production of Family Disease and Canadian and Japanese Genetic Counselling Practice. In Mary Ann Elston, ed. Pp. 29-56. *The Sociology of Medical Science and Technology*. Oxford: Wiley-Blackwell, Pp. 29; Also see: Marks, 2001.



*Forms of Explanation in the Social Study of Genetics*

Like the scientists at BALSAC who shifted through seas of information to discern patterns that might sustain insights about disease, I have generated and then sorted through reams of notes from interviews, observations, and meetings in order to develop a sense of how genetic explanations unfold. I could use the word “theory” here instead of sense but “theory” insinuates a coherence—a set of principles that might conclusively fasten together and apply to the range of phenomena I observed in Quebec—that I did not encounter during my fieldwork. (Family trees were the common mode of discussion and material artifact that I probed and prodded in so many domains—historical societies, laboratories, clinics, private homes. However, the ways these trees were trafficked, made sense of, construed, and evoked were different in as many ways as they were similar.) It was the contention that reigning theories of medicine and society—post-Foucauldian formulations of *biopower* and *biopolitics* and the explanation of diverse processes as products of *nationalism*—too coherently account for what goes on in clinics and laboratories that set me off on this project in the first place. What had I done differently than the scholars who use these theories? Which ethnographic moments had I, by broadening my attention beyond these rubrics, been able to chronicle?

*Biopower*, on the one hand, and *nationalism*, on the other—as they are both commonly used in contemporary studies of science and medicine—are two, often complementary, instantiations of a certain mode of explanation. The anthropologist Janelle Taylor has elaborated (uncritically and without explicit reference to Foucault) the main contention of many social scientists who use Foucault and “biopower” to study medicine and bodily states: “The body, one might say, is not so much a thing as an — ing...bodies take shape and take place through practices of all sorts: feeding, legislating,

training, cutting, explaining...”<sup>278</sup> According to this rendition of social life, people, their experiences, consciousness, and bodies are brought into being in certain ways by the discourse of authoritative institutions and figures (the nurse, doctor, bureaucrat, record-taker, hospital, city hall). Bodies and minds are, as I suggested in the introduction to this dissertation, viewed as *tabulae rasae*, empty vessels waiting to be animated by the work of power (Chapter One, Pp. 8). This mode of explaining experience, ideas, and material phenomena dominates much of the anthropological and social science analysis of clinics and laboratories, and of the categories and logics through which people make sense of their bodily experiences. Many studies of medical experience that proffer *nationalism* as a root cause of particular medical categories and experiences also explicitly deploy such arguments about the body, holding that nation-building priorities shape everyday consciousness and categories.<sup>279</sup> These studies pose the nation-state as the power that, through government policies and unnamed bureaucrats, fills up the empty awaiting bodies and minds of an expecting populace. Some studies of nationalism argue that, through the working of the *imagination*, “nationalist common sense” prompts certain modes of action, thought and feeling.<sup>280</sup> (These kinds of arguments are particularly popular in the literature on science and medicine in Quebec). These studies, while not explicitly referencing empty bodies, rest on a similar assumption to many of the studies that use “biopower”: that people’s minds and bodies are surfaces for the projection of preformed needs and desires (of the nationalist state, doctor, clinic, etc.). These studies of

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<sup>278</sup> Taylor, Janelle S. 2005. Surfacing the Body Interior. *Annual Review of Anthropology* 34: 745.

<sup>279</sup> For example: Ram, Kalpana. 2001. Rationalizing Fecund Bodies: Family Planning Policy and the Modern Indian Nation-State. In Margaret Jolly and Kalpana Ram, eds., Pp. 82-117.

<sup>280</sup> Alonso, Ana Maria. 1994. Space, Time, and Substance: State Formation, Nationalism, and Ethnicity. *Annual Review of Anthropology* 23:382. This and other similar studies often draw on Benedict Anderson’s 1984 book *Imagined Communities: Reflections on the Origins and Spread of Nationalism* (London: Verso) to support their claims.

nationalism also tend to incorporate a further set of assumptions: that people, the empty and awaiting *tabulae rasae*, conceive of and experience their connectedness to others in their “imagined collective” uniformly (this uniformity is what makes the collective a collective to begin with—the shared “imagined” ideas about history, time, substance, space, etc. that supposedly gird people together and cause them to act in certain ways).

One could guess what an ethnography of BALSAC and Quebec genetics within the provisos of these argumentative principles would look like. It would focus on the interactions that link people to formations of power—observing clinics, laboratories, and governing infrastructures and following bureaucratic and neo-liberal forms of authority (pharmaceutical companies, patient organizations, hospitals, and health ministries) as they seek to impose styles of thinking, desiring, and acting on everyday people. It might argue that ethnicized genealogies and “French diseases” came about in Quebec in the following particular way: ‘The French colonial regime and then Quebec nationalist movements invented a history, geography, and ethnicity that supported their claims to political independence. They designed bureaucratic record-taking, educational institutions, and the spaces and experiences of the everyday to reflect and materialize this cosmology. They turned names into a contested space linked to enshrined temporal, geographical coordinates of the nation. Animated by this nationalist sensibility and consciousness, French-Canadian genealogists and geneticists have now self-abstracted themselves into individual instances of a particular surname. They conceive of themselves as connected across time and space to other similarly abstracted individuals with whom they are linked by virtue of that name. They imagine that this name indexes shared blood and shared history. Their imaginings, shaped by nationalist ideologies, create fictional boundaries between insiders and outsiders, excluding from the collectivity past and

present individuals who are not of French or European blood. They have, finally, generated various artifacts that represent these dimensions of the social imaginary, such as the extended family genealogy chart. Genetic genealogies that posit diseases as French and families as pure French-Canadian are thus the result of the categories of thought, meaning, and practice that have been imposed, through documentary and clinical norms, by a nationalist bureaucracy.’

This explanation assimilates local or individual level desires and states to larger, more enduring, collective causes, interests, or forms. It depends on the view that people either have no idea what they want (*tabulae rasae*) or, conversely, have an idea in their heads of exactly what they want to do (animated by discourse or imagining) when they interact in the world. This explanation also forecloses possibilities of exploring ways in which some types of connections that people draw with each other and to times, spaces, and documents have little to do with the nation, the work of power, or the authority of institutions.<sup>281</sup> Building on this, this explanation forecloses the possibility of exploring ways in which these other connections (whether they are *a priori*, simultaneous, separate, etc.) are brought to bear on how people are affected by or take up the categories imposed by the working of bureaucratic or institutional power. I am not making the strong claim here that experience is mediated, first and foremost, by a transcendental, universal feeling subject who precedes social and power relations. I am making a more modest claim that social conventions and social relations between persons and groups are not always products of authoritative discourse—and that these conventions and relations complicate the way that authoritative discourse makes its way into lived experience and actions.

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<sup>281</sup> For detailed critiques of certain aspects of the “imagination” discussed here, see: Axel, Brian Keith. 2003. Poverty of the Imagination. *Anthropological Quarterly* 76(1):111-133; Hage, Ghassan. 2005. A Not so Multi-sited Ethnography of a Not-so-imagined Community. *Anthropological Theory* 5(4):463-475.

I will use an example to show what I mean. When I first met Geneviève (the director of the patient association I describe in Chapter 6) during my preliminary ethnographic research in Quebec, she told me that a family in Devon, England contacted her by email in 1999 because their child was developing the same medical condition as she had. The Devon family had been told by local doctors that Quebec has more medical specialists who understand the disease in question because of its higher incidence rate there. Through doctors in Quebec, the parents had been referred to Geneviève's group. The parents contacted Geneviève hoping to trade information about prescriptions, therapies, and other challenges and solutions to living with the disease. Over the course of the next two years, Geneviève's family and the family in Devon frequently corresponded over phone and email and, finally, Geneviève decided that she would go "on exchange" and live with them for a month in England. While she was there she told me she spent time with their son showing him how to take his medications (timing of doses, foods to take with them) and how to eat "with the disease." "What the doctors tell you is not enough or always right," Geneviève had said to me. "You need to speak to someone who has lived with it herself." In addition, Geneviève spoke to the family about what it was like for her siblings when she got ill, who are "carriers," and how to make future reproductive and marital decisions.

From the perspective of post-Foucauldian work on biopower and biopolitics, the social bond between Geneviève and this family would be evidence of the emergence of new global categories of persons that have been identified and imposed by doctors, patient organizations and pharmaceutical companies. Paul Rabinow, working within the ambit of the theory of biopower, has developed the term "biosociality" to describe new social networks that are emerging between people within these categories (e.g. cystic

fibrosis organizations, breast cancer survivors groups).<sup>282</sup> From his perspective, Geneviève's bonds with the Devon family would be an example of how personhood and medically/governmentally-determined health status are increasingly intersecting in contemporary society. Equally, her interaction with the family would be construed as an example of how big pharmaceuticals and medical bureaucracies are shaping the categories that patients and patient-groups use to make sense of their lives and enact possibilities related to the body and health (e.g. her and the family's sense that she and their son were, by virtue of both being labeled "sufferers of X disease," connected and have a shared responsibility to care for themselves in certain ways.)<sup>283</sup>

Yet, one could make a different argument. One could indeed account for the influence of corporations and bureaucracies: on the erection of global categories such as "sufferers of X disease" or "carriers of X disease"; on individual and group imperatives to eat and take medications in a certain way. However, one could also demonstrate how people's understanding of these new categories of persons is also constituted, not exclusively through the exercise of power, but through feelings and bodily acts (for example, when Geneviève demonstrates how to take pills or eat). When Geneviève showed the boy (and many others who I observed her address while I was with her in Quebec) how to organize, sequence, and swallow his pills, she did not speak exclusively as the automaton of a pharmaceutical company or institutionalized medicine. She mixed her own feelings and experiences with the professional advice and training she had received. Indeed, in her own narrative about her time in Devon, her value to the Devon

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<sup>282</sup> Rabinow, Paul. 2005. Artificiality and Enlightenment: From Sociobiology to Biosociality. *In* Jonathan Xavier Inda, ed., Pp. 181-193. *Anthropologies of Modernity: Foucault, Governmentality, and Life Politics*. Oxford: Wiley-Blackwell.

<sup>283</sup> This strand of theory in post-Foucauldian formulations of biopower is inspired by Foucault's work on "care of the self" and "technologies of the self." It is a particularly strong theme in the work of Nikolas Rose (e.g. 2008)

family was precisely in this ability she had to understand disease by revealing her own “personal experience” and way of doing things, which was viewed as legitimate based on the bodily criterion, “I have lived with it.”

In articulating her connection to the Devon family, she often used language imposed by pharmaceutical companies, patient organizations and government (“X disease”). She perhaps mobilized a logic (shared physical states=social bond) bolstered by nationalist cosmologies about substance, space, and time in Quebec. But does this negate the intensity of feeling she described she had when she could sit next to a little boy who looked like she looks, felt pain as she does, and sees similar obstacles to his future? When I asked her whether her purpose on the trip was to authenticate or inauthenticate medical advice based on her own experience, she said, “Yes and no. That’s a very practical way of looking at it. Most of all, there was something important about just being there.” It seemed to me that she was neither resisting nor absorbing the thought, language, or style of reasoning of biomedical or nation-state collectivities and authorities in these moments. Her feelings were outside the bounds of comprehension vis-à-vis a power/knowledge/discourse analysis. Her sense of the meaning of the interaction in Devon had been framed by the feeling and sensation, as she later elaborated, of sitting in the garden, sharing food, moving, working, laughing, and enjoying and taking comfort in a place, presence and moment.

“Biosociality,” as Rabinow described it, assumes that new collectives result from imposed institutional and organizational categories but what about the forms of group feeling and sense-making that precede or co-develop with biomedical worlds? The way people articulate these feelings may be constrained or influenced by the politics of difference, medicine, or colonial and national regimes—but does that discount the

intensity and force of those feelings? When Maryse Ricard sat on the back wall of the cottage where she believed her ancestor had lived, regimes of documentation (the name-book) and cultures of ancestry shaped by ethnic and linguistic politics (the revered connection to the first founder) had propelled her there. But was the poignance and longing with which she described those moments simply an “effect” of state power, something invented, inauthentic, not hers, not real? It seemed that Geneviève’s attachment to the boy and his family in Devon, something she felt grew every day she spent there eating, taking pills, and talking with them, was the basis for their social bond. When she used the language of pharmaceuticals, hospitals, and patient collectives, was it perhaps simply a way that she was then able to articulate that bond? Was “biosociality” just another mode of discourse, part of the repertoire of styles of talking about illness that people can draw on to describe their own experiences, and not necessarily a lived form of social life and interaction? Biosociality, and the broader theory of biopower on which it rests, couldn’t capture the subjective motivations that animated either Geneviève’s or Maryse Ricard’s actions.

How shall social scientists strive to capture the spectrum of thoughts and processes that shape human motivations and actions? In a 1990 essay in *Cultural Anthropology* on subjectivity and the study of culture, Robert Paul expressed dissatisfaction that:

“To this day...most anthropologists tend to shy away from strong formulations and close examinations of human subjective motivation. They either fall back on the view that people in a certain culture want what people in that culture are enculturated to want...or else on some...taken for granted rough and ready formula about people wanting power, prestige [and] resource maximization...[These anthropologists ignore] how life is lived and experienced by agents full of hopes, fears, desires, and plans.”<sup>284</sup>

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<sup>284</sup> Paul, Robert A. 1990. What Does Anybody Want? Desire, Purpose, and the Acting Subject in the Study of Culture. *Cultural Anthropology* 5(4):433; Also see: Ortner, Sherry. 1995. Resistance and the Problem of Ethnographic Refusal. *Comparative Studies in Society and History* 37:184, 186.



I think that we do not necessarily need to develop finely wrought theories of “emotion,” “feeling,” or “desire” to render our descriptions of human actions and cultural logics more expansively while allowing them to remain orderly. These descriptions will (or should) always be contingent and context-specific, eluding the grasp of any one theory or perspective. I think that sometimes the best thing to do is just describe, as much as possible, as broadly as possible. Veena Das wrote in 1988, “An anthropological text, we know, is marked by a certain kind of excess or a certain surplus. Call it thick ethnography, call it fascination with detail. Most ethnographies provide more than the theoretical scaffolding requires.”<sup>285</sup> Das saw this excess as crucial to capturing the entanglements that simultaneously define and are defined by the “inner” world of the mind and the “outer” world (two domains or processes that for Wittgenstein, the focus of her article, were inseparable). This—the recourse to descriptions, some of which contain elements of excess (details or flourishes that seem superfluous)—is something I tried to do throughout the chapters of this dissertation.

### *Meanings, Objects and Ethics*

What is at stake with the interpretations of genetics, genealogy, and medicine in this dissertation? One question of interest is, if disease and human diversity are being invested with all of these different meanings, vis-à-vis the traffic and application of various evidentiary norms (e.g. trees), which meanings among them should inform research and policy? The Quebec example shows how meanings influence explanations and attendant distributions of goods (education, health access). The diffusion of hereditary and ethnic

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<sup>285</sup> Das, Veena. 1998. Wittgenstein and Anthropology. *Annual Review of Anthropology* 27: 179.

explanations (“French disease”) for common and rare diseases in Quebec has shaped public health outreach to white self-identified “pure Québécois” and natives differentially (Chapter 6). Healthcare workers planned how to talk to people about illness according to the parameters of a world they believed was biologically divided into French-Canadian and non-French-Canadian. They identified the French-Canadians as white speakers of French, describing them as heirs to a discrete and autonomous French culture passed down from the past and biological descendants of French people—fashioning a natural unit based on data about language and custom. The health workers believed these French-speaking people were the logical locus of risk and, therefore, the logical target of outreach and deserving beneficiaries of screening programs.

If how people define units of analysis has consequences for how research is applied, are these units and their definitions worthy of ethical consideration? At the moment, ethicists still grasp the spectrum of issues that bear on moral questions involving BALSAC very narrowly. Informed consent, privacy, and confidentiality issues are the current focus of most bioethical commentary about BALSAC, as well as the Human Genome Diversity Project, HapMap, and other major biobanking and biological sampling initiatives.<sup>286</sup> BALSAC demographers mentioned the example of the remote South Atlantic archipelago of Tristan de Cunha, where public resistance based on privacy and autonomy concerns prevented a planned national biobank project from implementation, as a rationale for their ethics strategies. The BALSAC database staff charged with structuring ethics policies took strides to follow standard protocols set by regional medical ethics boards and North American bioethics organizations in order to

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<sup>286</sup> For another example of this, also see: Cambon-Thomsen, Anne, Clémentine Sallée, Emmanuelle Rial-Sebbag, and Bartha Knoppers. Population Genetic Databases: Is a Specific Ethical and Legal Framework Necessary? *GenEdit* 3(1):1-13.

avoid a similar failure of public confidence due to confidentiality issues.<sup>287</sup> Their focus seems to be obscuring ways in which perceptions and standards of proof produce analytical objects that lead patients, doctors, and people who think about disease to act in certain ways—ways that exclude social groups from information and care because of how they were bounded into units of analysis and then designated either high-risk or low-risk depending on which unit they occupied. The broader social implications of the BALSAC genealogies and their use within genetics were quite absent from conversations about policy and ethics.<sup>288</sup> The focus, like elsewhere in genetics, was on how to appropriately disseminate data and not on how the data was produced in the first place.

At BALSAC, potential moral questions are embedded in a much more complex interface of analytical and practical areas. The “French-Canadian population” and “French disease” are objects fashioned through the compression of all of the social practices, historical contexts, feelings, material artifacts and scientific areas this dissertation begins to examine. Grasping and theorizing these deployments as an ethical domain is perhaps more difficult as a result of that—it makes merely recognizing all of the practices and forms of knowing that structure these “populations” as moral problems quite challenging. In order to answer the inquiry I laid out above—*how was data produced in the first place*—and its larger corollary question—*what are the broad factors shaping biogenetic knowledge*—I have looked at writing, church histories, and documentary evidence, in addition to the dynamics I set out at the beginning of my study expecting to examine: ideas about language, history, relatedness and notions of human diversity and connection,

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<sup>287</sup> The Tristan de Cunha case was more complex than a confidentiality crisis but at BALSAC it was construed within these terms.

<sup>288</sup> Dena Davis has also critiqued the individual and privacy-oriented focus of genetic ethics: Davis, Dena. 2004. Genetic Research and Communal Narratives. *Hastings’s Center Report* 34: 40-49.

both inside and outside the laboratory.<sup>289</sup> Elsewhere there will undoubtedly be other intricate and very specific ways of knowing, modes of proving, and forms of evidence at work: that add new dimensions to our understanding of the production of linguistic-biological-social-historical syntheses; that shed light on different ways in which social data is being turned into natural facts.

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<sup>289</sup> For a perspective on genealogies and genetics in Iceland: Pálsson, Gísli. 2002. The Life of Family Trees and the Book of Icelanders. *Medical Anthropology* 21:337-367.

## BIBLIOGRAPHY

- Abu El-Haj, Nadia  
2004. "A Tool to Recover Past Histories": Genealogy and Identity after the Genome. Occasional Paper of the School of Social Science 19, Princeton University.
- Adams, Julia  
1990. Introduction: Genetics and Demography and Historical Information. *In* Convergent Issues in Genetics and Demography. Julia Adams, David A. Lam, Albert I. Hermalin, and Peter E. Smouse, eds. Pp. 3-13. New York: Oxford University Press.
- Alonso, Ana Maria  
1994. Space, Time, and Substance: State Formation, Nationalism, and Ethnicity. *Annual Review of Anthropology* 23: 379-405.
- Alter, Stephen  
1999. Darwinism and the Linguistic Image: Language, Race, and Natural Theology in the Nineteenth Century. Baltimore: John's Hopkins University Press.
- American Medical Association, <http://www.amaassn.org/ama/pub/category/2380.html>, Accessed June 24, 2008
- Ariew, André  
2005. Rethinking Darwin's 'Population Thinking.' Paper presented at the Department of History and Philosophy of Science, Cambridge University, United Kingdom, February 21
- Aubert, Guillaume  
2004. "Purity of Blood": Race and Purity of Blood in the French Atlantic World. *The William and Mary Quarterly* 61(3): 439-478
- Axel, Brian Keith  
2003. Poverty of the Imagination. *Anthropological Quarterly* 76 (1): 111-133
- Axtell, James  
2000. The White Indians of Colonial America. *In* Peter C. Mancall and James H. Merrell, eds., *American Encounters: Natives and Newcomers from Colonial Contact to Indian Removal*. Pp. 324-350. New York: Routledge

1991. *The White Indians of Colonial America*. Fairfield, Wa.: Ye Galleon Press.
- Bakshow, Ira  
2006. *The Meaning of Whitemen: Race and Modernity in the Orokaiva Cultural World*. Chicago: University of Chicago Press.
- Bégin, Philippe *et al.*  
2007. Association of Urokinase-type Plasminogen Activator with Asthma and Atopy. *American Journal of Respiratory and Critical Care Medicine* 175:1109-1116.
- Bélanger, Pauline  
1990. *Inventaire des Registres Paroissiaux Catholiques du Québec 1621-1876*. Université de Montréal/Programme de Recherche en Démographie Historique
- Bennett, James B.  
2004. Catholics, Creoles, and the Redefinition of Race in New Orleans. *In* Henry Goldschmidt and Elizabeth McAlister, eds., pp. 183-208. *Race, Nation, and Religion in the Americas*. Oxford/New York: Oxford University Press.
- du Berger, Jean  
1997. Folklore et Ethnologie à l'Université Laval. *In* Laurier Turgeon and Ann-Marie Desdouits, eds. Pp. 3-24, *Ethnologies Francophones de l'Amérique et d'Ailleurs* ((French Ethnology in America and Beyond). Quebec: Presses de l'Université Laval.
- Bering, Dietz  
1992. *Stigma of Names: Antisemitism in German Daily Life, 1812-1933*. Ann Arbor: University of Michigan Press.
- Bertaux, Sandrine  
2000. "Processus" et "population" dans l'Analyse Démographique de l'Immigration en France ("Process" and "Population" in Demographic Analysis of Immigration in France). *In* Le Bras and Bertaux, eds., Pp. 241-254.
- Bibeau, Gilles  
2004. *Le Québec Transgénique: Science, Marché, Humanité* (Transgenic Quebec: Science, Market, Humanity). Boréal: Montreal
- Blumenbach, Johann Friedrich  
1969 [1775] *On the natural varieties of mankind. De generis humani varietate nativa*. Translated and edited from the Latin, German, and French originals, by Thomas Bendyshe. New York: Bergman.
- Boas, Franz. 1925. What is a Race? *The Nation* 120: 89-91
- Bonnain, Rolande, Gerard Bouchard, and Joseph Goy, eds.

1992. *Transmettre, Hériter, Succéder: La Reproduction Familiale en Milieu Rural France – Québec XVIIIe – XXe Siècles (Transmission, Inheritance, Succession: Familial Reproduction in Rural France and Quebec from the 18<sup>th</sup> to 20<sup>th</sup> Centuries)*. Paris and Lyon: L'École des Hautes Études en Sciences Sociales and Presses Universitaires de Lyon.

Bookstein, Fred L.

1995. *Utopian Skeletons in the Biometric Closet*. Series of Occasional Papers. Ann Arbor: University of Michigan, Institute for the Humanities.

Borneman, John

1997. *Caring and Being Cared For: Displacing Marriage, Kinship, Gender, and Sexuality*. *International Social Science Journal* 49: 573-84

Boyarin, Jonathan and Daniel Boyarin

2006. *Diaspora—Generation and the Ground of Jewish Identity*. In Ana Evans Brazier and Anita Mannur, eds., Pp. 85-118, *Theorizing Diaspora*. Malden: Blackwell.

Bouchard, Gérard

1999. *La Nation Québécoise au Futur et au Passé (The Quebec Nation in the Future and Past)*. Montreal: VLB Éditeur.

1996. *Quelques Arpents d'Amérique: Population, Économie, Famille au Saguenay, 1838-1971 (American Arpents: Population, Economy, and Family in the Saguenay, 1838-1971)*. Montreal: Boréal.

Bouchard, Gérard and Yves Lamonde

1995. *Québécois et Américains: La Culture Québécoise aux XIX<sup>e</sup> et XX<sup>e</sup> Siècles (Both Quebecers and Americans: Quebec Culture in the 19<sup>th</sup> and 20<sup>th</sup> Centuries)*. Montreal: Fides

Bouchard, Gérard and André LaRose

1976. *La Réglementation des Actes de Baptême, Mariage, Sépulture au Québec, des Origines à Nos Jours (The Regulation of Baptism, Marriage, and Burial Acts in Quebec From The Beginning to the Present)* *Revue d'Histoire de l'Amérique Française* 30 (64):67-84.

Bouchard, Gérard and Marc De Braekeleer

1991. *Histoire d'un genome (History of a Genome)* Montréal: Les Presses de l'Université de Québec.

Bouchard, Gérard and Martine Segalen, eds.

1997 *Une langue, deux cultures: rites et symboles en France et au Québec (One Language, Two Cultures: Rites and Symbols in France and Quebec)*. Quebec: Les Presses de l'Université Laval.

Bouquet, Mary

1996. Family Trees and Their Affinities: The Visual Imperative of the Genealogical Diagram. *Journal of the Royal Anthropological Institute* 2:43-66.
- Boyden, Joseph  
2005. *Three Day Road*. Toronto: Viking Canada.
- Brace, C. L.  
1964. On the Race Concept. *Current Anthropology* 5: 313-314.
- De Braekeleer, Marc, and Serge Gauthier  
1996. Autosomal Recessive Disorders in Saguenay-Lac-Saint-Jean (Quebec, Canada): A Study of Inbreeding. *Human Biology* 68(3): 371-381
- De Braekeleer, Marc, and J. Larochelle  
1990. Genetic Epidemiology of Hereditary Tyrosinemia in Quebec and in Saguenay-Lac-Saint-Jean. *American Journal of Human Genetics* 47: 302-307
- Le Bras, Hervé  
2000. Peuples et Populations (Peoples and Populations). *In* Le Bras and Bertieaux, eds. Pp. 1-39.
- Le Bras, Hervé and Sandrine Bertaux, eds.  
2000. *L'Invention des Populations (The Invention of Populations)*. Paris: Odile Jacob.
- Braun, Lundy and Evelyn Hammonds  
2008. Race, Populations and Genomics: Africa as Laboratory. *Social Science and Medicine* 67(10):1580-88.
- Brown, Phil, Stephen Zavestoski, Sabrina McCormick, Joshua Mandelbaum, and Theo Luebke  
2001. Print Media Coverage Of Environmental Causation Of Breast Cancer. *Sociology of Health and Illness* 23:747-775
- Brunelle, Patrick.  
2004. *Un Cas de Colonialisme Canadien: Les Hurons de Lorette entre le fin XIXe siècle et le début XXe siècle (A Case of Canadian Colonialism: The Hurons of Lorette between the end of the 18<sup>th</sup> and the start of the 20<sup>th</sup> century)*. PhD Dissertation, Department of History, Université de Québec à Montréal.
- Brym, Robert, and Celine Saint-Pierre  
1997. Canadian Sociology. *Contemporary Sociology* 26(2):543-546.
- Burton, Michael L., Carmella C. Moore, John M.W. Whiting, and A. Kimball Romney  
1996. Regions Based on Social Structure. *Current Anthropology* 37:87-123
- Cambon-Thomsen, Anne, Clémentine Sallée, Emmanuelle Rial-Sebbag, and Bartha Knoppers.



2007. Population Genetic Databases: Is a Specific Ethical and Legal Framework Necessary? *GenEdit* 3(1):1-13.
- Cancer Care Ontario/Action Cancer Ontario  
2006. Healthy Living and Colorectal Cancer. Aboriginal Cancer Care Unit Newsletter 3(3):2-4
2005. Healthy Lifestyle, Healthy Colon.  
<http://coloncancercheck.ca/preventionandscreening.html>, accessed December 15, 2009.
- Cavalli-Sforza, Luciano and Walter Bodmer  
1999 [1971]. *The Genetics of Human Populations*. New York: Dober Publications.
- Cavalli-Sforza, L.L., A. Piazza, P. Menozzi, and J. Mountain  
1988. Reconstruction of Human Evolution: Bringing Together Genetic, Archaeological, and Linguistic Data. *Proceedings of the National Academy of Science* 85: 6002-6006.
- Cavalli-Sforza, L.L., A. Piazza, and P. Menozzi  
1994. *History and Geography of Human Genes*. Princeton: Princeton University Press.
- La Chaire de Recherche du Canada Sur La Question Territoriale Autochtone Lettre D'Information (Canada Research Chair on the Aboriginal Land Question Newsletter), Université du Québec à Montréal  
2007.1(3): 2.
- Chaix, Raphaëlle, *et al.*  
2004. The Genetic or Mythical Ancestry of Descent Groups: Lessons from the Y Chromosome. *American Journal of Human Genetics* 75: 1113-1116.
- Charbonneau, Hubert and Jacques Légaré  
1967. *La démographie historique au Canada (Historical Demography in Canada)*. Recherches sociographiques (Sociological Research) Series, Vol. VIII, No. 2. Quebec: Les Presses de l'Université Laval.
- Chartier, Roger  
1994. *The Order of Books*. Palo Alto: Stanford University Press.
- Chomsky, Noam  
1988. *Language and Problems of Knowledge*. Cambridge, Ma.: MIT Press.
- Clifford, James  
1988. *The Predicament of Culture: Twentieth-Century Ethnography, Literature, and Art*. Cambridge: Harvard University Press.
- Commission des Biens Culturels du Québec (Quebec Commission on Cultural Goods)

2005. Comment Nommer le Patrimoine Quand le Passé n'est plus Ancien?: Document de Réflexion sur le Patrimoine Moderne. Special Report. <http://www.cbcq.gouv.qc.ca/cbcq.html>. Accessed May 11, 2006.

Cross, F. L., ed.

2005. *The Oxford Dictionary of the Christian Church*. New York/Oxford: Oxford University Press.

Darling, Major General H.C.

1828. Report of the Royal Commission on Aboriginal Peoples. [www.aainc.gc.ca/ap/pubs/sg/cg/cg9-eng.pdf](http://www.aainc.gc.ca/ap/pubs/sg/cg/cg9-eng.pdf), Accessed on July 14, 2008.

Darwin, Charles

2004. *The Descent of Man*. With an introduction by James Moore and Adrian Desmond. London: Penguin Classics.

1985. *On the Origin of Species by Means of Natural Selection*. With an introduction by J.W. Burrow. London: Penguin Classics.

Das, Sonia

2008. *The Talk of Tamils: Representations of Language, Devotion, and Space in Montreal*. Ph.D. Dissertation, Department of Anthropology, University of Michigan, Ann Arbor

Das, Veena

1998. Wittgenstein and Anthropology. *Annual Review of Anthropology* 27: 171-195

Davis, Dena

2004. Genetic Research and Communal Narratives. *Hasting's Center Report* 34: 40-49.

Davis, Nancy Ellen

1995. French-British Marriages, Gender, and Cultural Orientation: An Example from Nineteenth Century New Brunswick. *Canadian Ethnic Studies* 27(1).

Denonville, Jacques René Brisay de.

1685. *Memoir on the State of Canada*

Deleuze, Gilles and Felix Guattari

1988. *A Thousand Plateaus: Schizophrenia and Capitalism*, transl. by Brian Massumi. Minneapolis: University of Minnesota Press.

Derrida, Jacques

1972. Signature, Event, Context. *Glyph* 1:72-97.

1970. Structure, Sign, and Play in the Discourse of the Human Sciences. *In The*

Languages of Criticism and the Sciences of Man: The Structuralist Controversy. Richard Macksey and Eugene Donato, eds., Pp. 247-265. Baltimore: John's Hopkins University Press.

Desjardins, L. *et al.*

1978. Thalassaemia in French-Speaking Quebec Residents. *Canadian Medical Association Journal* 119(7):709-713.

Dickason, Olive Patricia

1985. From 'One Nation' in the Northeast to 'New Nation' in the Northwest: A Look at the Emergence of the Métis. *In* J. Peterson and J. S.H. Brown, eds. Pp. 19-33. *The New Peoples: Being and Becoming Métis in North America*. Lincoln: University of Nebraska Press.

Dobzhansky, T.

1951. *Genetics and the Origin of Species*. New York: Columbia University Press.

Douglas, Mary and Aaron Wildavsky

1982. *Risk and Culture: An Essay on the Selection of Technical and Environmental Dangers*. Berkeley: University of California Press.

Duster, Troy

1990. *Backdoor to Eugenics*. London/New York: Routledge

Eglise, Fabien

2008. La Carte Génétique du Québec Prend Forme (The Genetic Map of Quebec Takes Form). *Devoir*, Monday, January 7, A3.

Elias, Norbert

1982. Scientific Establishments. *In* *Scientific Establishments and Hierarchies*, N. Elias, R. Whitley, and H.G. Martins, eds. Pp. 1-69. Dordrecht: Riedel Publishers

Fenwick, Rudy

1981. Social Change and Ethnic Nationalism: An Historical Analysis of the Separatist Movement in Québec. *Comparative Studies in Society and History* 23(1):196-216.

Fernandez, James

1998. Trees of Knowledge of Self and Other in Culture: On Models of the Moral Imagination. *In* L. Rival and M. Bloch, eds., Pp. 81-110, *The Social Use of Trees*. Oxford: Berg.

Fernando, Mayanthi

2006. French Citizens of Muslim Faith: Islam and the Politics of Difference in Contemporary France. Ph.D. Dissertation, Department of Anthropology, University of Chicago

- Fontaine, Louise  
1995. Immigration and Cultural Policies: A Bone of Contention Between the Province of Québec and the Canadian Federal Government. *International Migration Review* 29:1041-1048.
- Fullwiley, Duana  
2007. The Molecularization of Race: Institutionalizing Racial Difference in Pharmacogenetics Practice. *Science as Culture* 16(1):1-30
- Gates Jr., Henry Louis  
2008. Personal History: Family Matters. *New Yorker* December 1.
- Gannett, Lisa  
2003. Making Populations: Bounding Genes in Space and in Time. *Philosophy of Science* 70(5):989-1001.  
  
2003. Racism and Human Genome Diversity Research: The Ethical Limits of "Population Thinking". *Proceedings of the Philosophy of Science Association* 68(3): 479-492
- Gauvreau, Michael  
2005. *The Catholic Origins of Quebec's Quiet Revolution, 1931-1970*. Montreal and Kingston, On.: McGill-Queen's University Press.
- The Genetics of Dilated Cardiomyopathy: A Quebec-Based Study, NIH Submitted Study Overview. <http://clinicaltrials.gov/ct2/show/NCT00523653> Accessed on April 14, 2009.
- Gevrais, Diane and Danielle Gauvreau  
2003. Women, Priests, and Physicians: Family Limitation in Québec, 1940-1970. *Journal of Interdisciplinary History* 34(2):294-314.
- Ginsburg, Faye D. and Rayna Rapp, eds.  
1995. *Conceiving the New World Order: The Global Politics of Reproduction*. Berkeley: University of California Press.
- Giry, François  
1687. *La Vie de M. Jean Jacques Olier, prêtre, fondateur et premier Supérieur du Séminaire de Saint-Sulpice* (The Life of M. Jean Jacques Olier, priest, founder and first Superior of the Saint-Sulpice Seminary). Paris.
- Girouard, Désiré  
1868. *Considerations sur les Lois civiles du mariage* (Considerations on the Civil Law of Marriage). Montreal: Nouveau Monde.

- Gobineau, Arthur Comte de  
1884. *Essai sur l'Inégalité des Races Humaines* (Essay on the Inequality of Human Races). Paris: Firmin-Didot.
- Goodman, Alan H., Deborah Heath, and M. Susan Lindee, eds.  
c.2003. *Genetic Nature/Culture: Anthropology and Science Beyond the Two-Culture Divide*. Berkeley : University of California Press
- Goody, Jack  
1983. *The Development of the Family and Marriage in Europe*. Cambridge: Cambridge University Press.
- Goubert, Pierre  
1965. *Registres Paroissiaux et Démographie dans la France du XVIe Siècle* (Parish Registers and Demography in 16<sup>th</sup> Century France). *Annales de Démographie Historique* Vol. II:43- 48.
1965. Recent Theories and Research in French Population Between 1500-1700. *In* D. V. Glass and E. C. Eversley, eds., Pp. 70-78, *Population in History: Essays in Historical Demography*, Chicago: Aldine.
- Goudreau, Serge  
2003. *Un Chef Huron du Village du Lorette*. (A Huron Chief of the Village of Lorette). *Memoires de la Société Généalogique Canadienne-Française* (Memos of the French-Canadian Genealogical Society) 54(4):269-288.
- Gradie, Margaret and Danielle Gauvreau  
1987. Migration and Hereditary Disease in the Saguenay Population of Eastern Québec. *International Migration Review* 21 (3):592-608.
- Gray, R. D. and Atkinson, Q. D.  
2003. Language-tree Divergence Times Support the Anatolian Theory of Indo-European origin. *Nature*, 426(6965):435-439.
- Greenberg, Joseph H.  
1987. Language in the Americas. *Current Anthropology* 28(5):657-662 [Replies by Victor Golla and Dell Hymes]
- Greer, Alan  
2000. *Colonial Saints: Gender, Race, and Hagiography in New France*. *William and Mary Quarterly* 27(2):323-348.
1993. *The Patriots and the People: The Rebellion of 1837 in Rural Lower Canada*, Toronto: University of Toronto Press.
- Groulx, Lionel  
1938. *La naissance d'une race* (Birth of a Race). Montreal: Granger Frères.
1935. *Orientations*. Montreal: Éditions du Zodiaque.

- Gwinn, Marta, Sara Bedrosian, Denae Ottmann and Muin J. Khoury  
 2005. *Genomics and Population Health 2005*. Atlanta: Centers for Disease Control and Prevention and the Office of Genomics and Disease Prevention, Pp.11-13.
- Hacking, Ian  
 1991. *The Taming of Chance*. Cambridge University Press.  
 1976. *The Logic of Statistical Inference*. Cambridge University Press; Hacking, Ian.
- Haeckel, Ernst  
 1914. *The history of creation or The development of the earth and its inhabitants by the action of natural causes. A popular exposition of the doctrine of evolution in general, and of that of Darwin, Goethe, and Lamarck in particular*. Translated by rev. by E. Ray Lankester. New York, D. Appleton & co.
- Hage, Ghassan  
 2005. A Not so Multi-sited Ethnography of a Not-so-imagined Community. *Anthropological Theory* 5(4):463-475.
- Hamilton, Jennifer A.  
 2008. Revitalizing Difference in the HapMap: Race and Contemporary Human Genetic Variation Research. *Journal of Law, Medicine, and Ethics* 36(3):471-477
- Hammond, Merryll, and Rob Collins  
 2007. *Moving Further Down the "Road to Competency": Final Report on the 2006/2007 Core Competencies Project for Wellness and Primary Health Care Providers*. Montreal: National Indian & Inuit Community Health Representative Organization.
- Handler, Richard  
 1988. *Nationalism and the Politics of Culture in Quebec*. Madison: University of Wisconsin Press.  
 1987. Holistic Culture, Bureaucratic Fragmentation: Government Administration of Culture in Québec. *Anthropology Today* 3(6):6-8.  
 1985. On Having a Culture: Nationalism and the Preservation of Quebec's Patrimoine. In George W. Stocking, Jr. ed., Pp. 192-215, *Objects and Others: Essays on Museums and Material Culture*. Madison: University of Wisconsin Press
- Haraway, Donna.  
 c.2003. For the Love of a Good Dog: Webs of Action in the World of Dog Genetics. In Goodman, Heath, and Lindee, eds., Pp. 111-132.
- Havard, Gilles, and Cécile Vidal  
 2003. *Histoire de l'Amérique Française [History of New France]*. Paris: Éditions

Flammarion

Havard, Gilles

2003. Empire et métissages: Indiens et Français dans le Pays d'en Haut, 1660-1715 (Empire and Metissage: French and Indian in Upper Canada). Paris: Septentrion/PUPS

Hecht, Jacqueline

1999. From 'Be Fruitful and Multiply' to Family Planning: The Enlightenment Transition. *Eighteenth Century Studies* 32(4): 536.

Helmreich, Stefan

2003. Trees and Seas of Information: Alien Kinship and the Biopolitics of Gene Transfer in Marine Biology and Biotechnology. *American Ethnologist* 30(3):340-358

Henry, Louis

1958. Pour Connaître la population de la France depuis Louis XIV (How to Research the French Population After Louis XIV). *Population* 13(4): 664.

Henry, Louis and Michel Fleury

1965. The Population of France in the Eighteenth Century. In D. V. Glass and D. E. C. Eversley eds., Pp. 70-78. *Population in History: Essays in Historical Demography*. London: Edward Arnold Ltd.

Heyer, Evelyn and Alain Gagnon

2001. Intergenerational Correlation of Effective Family Size in Early Québec. *Human Biology* 13(5):645-659.

Ho, Engseng

2006. *The Graves of Tarim: Genealogy and Mobility Across the Indian Ocean*. Berkeley: University of California Press.

Holmes, F.L.

1987. Scientific Writing and Scientific Discovery. *Isis* 78(292):220-235

Hubert, Claude and Remi Savard

2006. *Les Algonquins de Trois-Rivières: L'oral au secours de l'écrit, 1600-2005* (Algonquins of Trois-Rivières: Speech to the Aid of Writing, 1600-2005). Montreal: Recherches Amérindiennes au Québec.

Hull, Matthew

2003. The File: Agency, Authority, and Autography in an Islamabad Bureaucracy. *Language & Communication* 23: 287-314

Hymes, Dell. ed.

1974. *Pidginization and Creolization of Languages: Proceedings of a Conference Held at the University of the West Indies, Mona, Jamaica, April 1968*.

London/New York:Cambridge University Press.

Iankova, Katia.

2006. *La Territorialité Urbaine de Wendake, Née du Choc du Cultures* (Wendake's Urban Territoriality, Born of Culture Clash). Paper presented at Le Territoire et Les Autochtones, Université de Québec à Montréal, Montreal, September 21.

Ickes, Harold L.

1953. *The Secret Diary of Harold L. Ickes: Volume I: The First Thousand Days, 1933–1936*. New York: Simon and Schuster.

Irvine, Judith

2001. *The Family Romance of Colonial Linguistics: Gender and Family in Nineteenth-Century Representations of African Languages*. In Susan Gal and Kathryn A. Woolard, eds., Pp.13-29. *Languages and Publics: The Making of Authority*. Northhampton, Ma. and Manchester, UK: St. Jerome Publishing.

Irvine, Judith

1989. *When Talk Isn't Cheap: Language and Political Economy*. *American Ethnologist* 16(2):248-67.

Jackson, Jean E.

1974. *Language Identity of the Columbia Vaupés Indians*. In R. Bauman and J. Sherzer, eds., *Explorations in the Ethnography of Speaking*. New York: Cambridge University Press: 50-64.

Jaenen, Cornelius

1982. "Les Sauvages Américains": Persistence into the 18<sup>th</sup> Century of Traditional French Concepts and Constructs for Apprehending Amerindians. *Ethnohistory* 29(1):43-56.

1976. *Role of the Church in New France*. Toronto: McGraw Hill/Ryerson.

Jasanoff, Sheila

2004. *Ordering Knowledge, Ordering Society*. In *States of Knowledge: The Co-production of Science and Social Order*. S. Jasanoff, ed. Pp. 1-32. London/New York: Routledge.

Jetté, René

1991. *Traité de Généalogie* (Genealogical Treaty, lit.). Montréal: Les Presses de l'Université de Montréal.

Jetté, René, John Patrick DuLong, Roland-Yves Gagné, Gail F. Moreau, and Joseph A. Dubé

2001. *Table d'Ascendance de Catherine Baillon (12 Générations)* [Catherine de Baillon's Table of Ascendance, 12 Generations]. Montréal: Société Généalogique Canadienne-Française.



- Johannsen, W.  
1911. The Genotype Conception of Heredity. *American Naturalist* 45 (531):129-159.
- Jolly, Margaret and Kalpana Ram, eds.  
2001. *Borders of Being: Citizenship, Fertility, and Sexuality in Asia and the Pacific*. Ann Arbor: University of Michigan Press
- Jones, Doug  
2003. Kinship and Deep History: Exploring Connection between Culture Areas, Genes, and Languages. *American Anthropologist* 105(3):501-514
- Kahn, Jonathan  
2008. Exploiting Race in Drug Development: BiDiI's Interim Model of Pharmacogenomics. *Social Studies of Science* 38(5): 737-758.
- Kan, Sergei, ed.  
2001. *Strangers to Relatives: The Adoption and Naming of Anthropologists in Native North America*. Lincoln: University of Nebraska Press.
- Kleinman, Arthur, Veena Das, and Margaret Lock, eds.  
1997. *Social Suffering*. Berkeley: University of California Press.
- Kohli-Laven, Nina.  
2003. Regulating Conception in the Jewish State: Women's Citizenship and State Responses to the New Reproductive Technologies in Israel. *In Women and Gender in the Middle East and the Islamic World Today*, Sherifa Zuhur, ed. Berkeley: University of California Digital Press/Center for International and Area Studies.
- Krementsov, Nikolai  
2000. Lysenkoism in Europe: Export-Import of the Soviet Model. *In Academia in Upheaval: Origins, Transfers, and Transformations of the Communist Academic Regime in Russia and East Central Europe*, Michael David-Fox and Gyorgy Peteri, eds., Pp. 179-202. New York: Garland Press.
- Krieger, Nancy  
1994. Epidemiology and the Web of Causation: Has Anyone Seen the Spider? *Social Science and Medicine* 39(7): 887-903.
- Kuklick, Henrika  
1996. Islands in the Pacific: Darwinian Biogeography and British Anthropology. *American Ethnologist* 23(3):611-638.
- Laberge, Anne-Marie, Michèle Jomphe, Louis Houde, Hélène, Vézina, Marc Tremblay, Bertrand Desjardins, Damian Labuda, Marc St-Hilaire, Carol Macmillan, Eric A. Shoubridge, and Bernard Brais

2005. A "Fille du Roy" Introduced the T14484C Leber's Hereditary Optic Neuropathy Mutation in French-Canadians. *American Journal of Human Genetics* 77(2):313-317
- Laberge, A.M., J. Michaud, A. Richter, E. Lemyre Laberge, M. Lambert, and B. Brais  
2005. Population History and its Impact on Medical Genetics in Quebec. *Clinical Genetics* 68(4):287-301.
- Lakoff George and Mark Turner  
1989. *More Than Cool Reason: A Field Guide to Poetic Metaphor*. Chicago: University of Chicago Press.
- Laitinen, Tarja *et al.*  
2001. A Susceptibility Locus for Asthma-Related Traits on Chromosome 7 Revealed by Genome-Wide Scan in a Founder Population. *Nature Genetics* 28: 87-91
- Lafortune, Hélène, Normand Robert, and Serge Goudreau  
1989. *Parchemin S'Explique: Guide de Dépouillement des Actes Notariés du Québec Ancien (Parchemin Explained: Guide to Sorting Notary Acts from Old Quebec)*. Montreal: Archives Nationales du Québec.
- Langlois, Christine  
1999. Recent Developments in French Anthropology of France and the Role of the Mission du Patrimoine Ethnologique. *Cultural Anthropology* 14(3):409-416.
- Lau, Estelle  
2006. *Paper Families: Identity, Immigration Administration, and Chinese Exclusion*. Durham: Duke University Press.
- Lavoie, Thomas  
1997. Culture française et culture québécoise: héritage linguistique commun (French Culture and Quebec Culture: A Common Linguistic Heritage). *In* Bouchard and Segalen, eds., Pp. 122-146.
- Lawrence, Bonita  
2003. Gender, Race, and the Regulation of Native Identity in Canada and the United States: An Overview. *Hypatia* 18(2): 8.
- Leckey, Robert  
2006. Profane Matrimony. *Canadian Journal of Law and Society* 21(2):9-11.
- Lemon, Alaina  
2002. "Without a 'Concept'?: Race as Discursive Practice. *Slavic Review* 61(1):54-61.  
  
2000. *Between Two Fires: Gypsy Performance and Romani Memory from Pushkin to Post-Socialism*. Durham: Duke University Press

1998. Your Eyes are Green Like Dollars: Counterfeit Cash, National Substance, and Currency Apartheid in 1990s' Russia. *Cultural Anthropology* 13(1):22-55
- Leone, Charles A.  
1952. Genetics: Lysenko versus Mendel. *Transactions of the Kansas Academy of Science* 55(4):4-32.
- Létourneau, Jocelyn  
2004. *A History for the Future: Rewriting Memory and Identity in Quebec*. Translated by Phyllis Aronoff and Howard Scott. Montreal and Kingston: McGill-Queen's University Press.
- Lewontin, Richard  
1991. On the Natural Sciences. *In Questions of Evidence: Proof, Practice, and Persuasion Across the Disciplines*. James Chandler, Arnold I. Davidson, and Harry Harootunian, eds. Pp. 478-491. Chicago: University of Chicago Press.  
  
1991. *Biology as Ideology: The Doctrine of DNA*. New York: Penguin. Pp. 3.
- Lindee, Susan  
2003. Provenance and the Pedigree: Victor McKusick's Fieldwork with the Old Order Amish. *In Alan H. Goodman, Deborah Heath, and M. Susan Lindee, eds.*, Pp. 41-57. *Genetic Nature/Culture: Anthropology and Science Beyond the Two-Culture Divide*. Berkeley: University of California Press.
- Livingstone, Frank  
1962. On the Non-Existence of Human Races [And replies by T. Dobzhansky]. *Current Anthropology* 3:281.
- Lloyd, Stephanie Jean  
2001. *Genetic States: Collective Identity and Genetic Nationalism in Iceland and Quebec*. Ph.D. Dissertation, Department of Anthropology, McGill University.
- López-Béltran, Carlos  
2004. In the Cradle of Heredity: French Physicians and L'Hérédité Naturelle in the Early 19<sup>th</sup> Century. *Journal of the History of Biology* 37(1):39-72.
- Lucas, C.P. ed.  
1912. *Lord Durham's Report on the Affairs of British North America*. Oxford: Clarendon Press.
- Macleod, D. Peter  
1996. Catholicism, Alliances, and Amerindian Evangelists. *Catholic Church Historical Association Historical Studies* 62:63-72.

- Madison, Barbara  
2008. Seeking Native Documents : Institutional Challenges of Anishinaabeg Research. Archives and the Ethics of Memory Construction Workshop. University of Michigan, Ann Arbor May 2-3.
- Magnuson, Roger  
1992. Education in New France. Montreal: McGill-Queen's University Press
- Malécot, Gustave  
1941. Études mathématiques des populations mendéliennes (Mathematical Studies of Mendelian Populations). Annales de l'Université de Lyon A(4): 45-60
- Malthus, Thomas R.  
1992. Essay on the principle of population, or, A view of its past and present effects on human happiness: with an Inquiry into our Prospects respecting the future removal or mitigation of the evils which it occasions, Selected & Introduced by Donald Winch. Cambridge University Press.
- Manni, F., Toupance, B., Sabbagh, A., Heyer, E.  
2006. New Method for Surname Studies of Ancient Patrilineal Population Structures, and Possible Application to Improvement of Y-Chromosome Sampling. Current Biology 16(4):384-388.
- Marcoux, Jean-Sébastien  
2001. The "Casser Maison" Ritual: Constructing the Self by Emptying the Home. Journal of Material Culture 6(2):213-235.
- Marks, Jonathan  
2001. "We're Going to Tell These People Who They Really Are": Science and Relatedness. In Sarah Franklin and Susan McKinnon, eds., Pp. 355-370. Relative Values: Reconfiguring Kinship Studies. Durham and London: Duke University Press.
- Martijn, Charles A.  
1996. Les Mi'Kmaq dans les registres paroissiaux des îles Saint-Pierre et Miquelon, 1763- 1830 (The Micmacs in the Parish Registers of the Saint-Pierre and Miquelon Islands). Recherches Amerindiennes au Québec 27(2):49-71.
- Mayo Clinic, <http://www.mayoclinic.com/health/medical-history/HQ01707>, Accessed September 22, 2008.
- Martin, Emily  
1998. Anthropology and the Cultural Study of Science. Science, Technology & Human Values 23(1):24-44.
- Mayr, Ernst  
1942. Systematics and the Origin of Species. New York: Columbia.

- M'Charek, Amade  
2005. *The Human Genome Diversity Project: An Ethnography of Scientific Practice*. Cambridge: Cambridge University Press.
- McAllister, James  
2007. Model Selection and the Multiplicity of Patterns in Empirical Data. *Philosophy of Science* 74(5): 884-894.
- McCormick, Sabrina  
2008. *No Family History: Investigating the Environmental Links to Breast Cancer*. Lanham, MD: Rowman & Littlefield
- McEvoy, B. and DG Bradley  
2003. Y-Chromosomes and the Extent of Patrilineal Ancestry in Irish Surnames. *European Journal of Human Genetics* 11(9):705-709
- McLaren, Angus  
1990. *Our Own Master Race: Eugenics in Canada, 1885-1945*. Toronto: McClelland and Stewart
- Molloy, Maureen  
1990. Considered Affinity: Kinship, Marriage, and Social Class in New France, 1640-1729. *Social Science History* 14(1):1-26.
- Moreau, Gail F. and John P. DuLong  
1992. Archange Godbout's Baillon, de Marle, and Le Sueur Families of France. *Michigan's Habitant Heritage* 13(2):40-51
- Murray, James.  
1762. *Report of the State of the Government of Quebec in Canada*.
- Munn, Nancy D.  
1992. The Cultural Anthropology of Time: A Critical Essay. *Annual Review of Anthropology* 21: 101-102.
- Nelson, Alondra  
2008. Bio Science: Genetic Ancestry Testing and the Pursuit of African Ancestry. *Social Studies of Science* 38(5):759-783.
- Noël, André  
2005. *Généalogie et Génétique (Genealogy and Genetics)*. La Presse, August 18. Pp. 8
- Nelkin, Dorothy  
1996. The Social Dynamics of Genetic Testing: The Case of Fragile-X. *Medical Anthropology Quarterly* 10:537-550

- Normandin, Sebastian  
1998. Eugenics, McGill and the Catholic Church in Montreal and Quebec, 1890-1942. *Canadian Bulletin of Medical History* 15(1):59-86.
- Nukaga, Yoshi, and Alberto Cambrosio  
1997. Medical Pedigrees and the Visual Production of Family Disease and Canadian and Japanese Genetic Counselling Practice. In Mary Ann Elston, ed. Pp. 29-56. *The Sociology of Medical Science and Technology*. Oxford: Wiley-Blackwell
- Ohta, Michiya, Ralph D. Ellefson, Edward H. Lambert, and Peter-James Dyck  
1973. Hereditary Sensory Neuropathy Type II: Clinical, Electrophysiological, Histologic and Biochemical Studies of a Quebec Kinship. *Archives of Neurology* 29:23-37.
- Olin Wright, Erik, Andrew Levine, and Elliott Sober  
1992. *Reconstructing Marxism: Essays on Explanation and the Theory of History*. London and New York: Verso.
- What Kind of Ancestor Will You Be?  
2005. *Orange County Genealogical Society Quarterly* 35(3):10.
- Ortner, Sherry B.  
1995. Resistance and the Problem of Ethnographic Refusal. *Comparative Studies in Society and History* 37: 173-193.
1984. Theory in Anthropology since the Sixties. *In Culture/Power/History: A Reader in Contemporary Social Theory*. Nicholas B. Dirks, Geoff Eley, and Sherry B. Ortner, eds. Pp. 372-411. Princeton: Princeton University Press.
- Ottenheimer, Martin  
1996. *Forbidden Relatives: The American Myth of Cousin Marriage*. Urbana and Chicago: University of Illinois Press.
- Pàlsson, Gísli  
2002. The Life of Family Trees and the Book of Icelanders. *Medical Anthropology* 21:337-367.
- Parkes, Peter  
2004. Fosterage, Kinship, and Legend: When Milk Was Thicker than Blood. *Comparative Studies in Society and History* 46:587-615.
- Pannekoek, Frits  
2001. Metis Studies: The Development of a Field and New Directions. *In Fritz Pannekoek, ed. Pp. 111-128. From Rupert's Land to Canada: Essays in Honour of John E. Forster*, Edmonton: University of Alberta Press.

- Peabody, Sue  
1996. "There are no Slaves in France": The Political Culture of Race and Slavery in the Ancien Régime. Oxford University Press.
- Peltonen, Leena, Aarno Palotio, and Kenneth Lange  
2000. Use of Population Isolates for Mapping Complex Traits. *Nature Reviews Genetics* 1:182-190
- Parish Registers, XVII-XIX Century, National Archives of Quebec, Montreal.
- Parnes, Ohad S.  
2007. On the Shoulders of Generations: The New Epistemology of Heredity in the Nineteenth Century. *In Heredity Produced: At the Crossroads of Biology, Politics and Culture, 1500-1870*. Staffan Müller-Wille and Hans-Jörg Rheinberger, eds. Pp. 138-156. Cambridge, Ma.: MIT Press.
- Paul, Robert A.  
1990. What Does Anybody Want? Desire, Purpose, and the Acting Subject in the Study of Culture. *Cultural Anthropology* 5(4):433. [431-451];
- Perreault, Matthieu  
2005. La Généalogie au Secours de la Génétique (Genealogy to the Rescue of Genetics). La Presse, August 19.
- Piazza, A.  
1993. Who are the Europeans? *Science* 260(5115):1767-1769.
- A Piazza, S Rendine, E Minch, P Menozzi, J Mountain, and L L Cavalli-Sforza  
1995. Genetics and the origin of European languages. *Proceedings of the National Academy of Sciences* 92(13): 5836–5840.
- Lucas, Charles Prestwood.  
1912. *Lord Durham's Report on the Affairs of British North America*, Oxford: Clarendon Press.
- Poovey, Mary  
1998. The Modern Fact, the Problem of Induction, and Questions of Method. Pp. 7-14. *In A History of the Modern Fact: Problems of Knowledge in the Sciences*. Chicago: University of Chicago Press.
- Povinelli, Elizabeth  
2002. *The Cunning of Recognition: Indigenous Alterities and the Making of Australian Multiculturalism*. Durham, NC: Duke University Press.
- Rabinow, Paul  
2002. *French DNA: Trouble in Purgatory*. Chicago: University of Chicago Press.

- Rabinow, Paul  
 2005. Artificiality and Enlightenment: From Sociobiology to Biosociality. *In* Jonathan Xavier Inda, ed., Pp. 181-193. *Anthropologies of Modernity: Foucault, Governmentality, and Life Politics*. Oxford: Wiley-Blackwell.
- Rabinow, Paul and Nikolas Rose  
 2003. Thoughts on the Concept of Biopower.  
[http://www.molsci.org/research/publications\\_pdf/Rose\\_Rabinow\\_Biopower\\_Today.pdf](http://www.molsci.org/research/publications_pdf/Rose_Rabinow_Biopower_Today.pdf). Accessed June 11, 2007.
- Rapp, Rayna  
 1988. Chromosomes and Communication: The Discourse of Genetic Counseling. *Medical Anthropology Quarterly* 2: 143-157
- Rapport de l'Archiviste de Québec, Vol. 1926-1927, Lettres de Père Alneau Collection.
- Reardon, Jenny  
 2005. *Race to the Finish: Identity and Governance in an Age of Genomics*. Princeton: Princeton University Press.
- Riles, Annelise  
 2006. Introduction. *In* Annelise Riles, ed. *Documents: Artifacts of Modern Knowledge*. Ann Arbor, MI: University of Michigan Press.
- Risch, N., E. Burchard, E. Ziv, and H. Tang  
 2002. Categorization of Humans in Biomedical Research: Genes, Race and Disease. *Genome Biology* 3(7): comment2007.1-2007.12
- Rituel du Diocèse de Québec (Rites of the Diocese of Quebec)  
 1703. Musée de la civilisation, Bibliothèque du Séminaire de Québec.
- Roberge, Martine  
 1997. L'Ethnologie Urbaine: l'Expérience de Québec (Urban Ethnology: The Quebec Experience). *In* Turgeon and Desdouts, eds. Pp.160-175.
- Rose, Geoffrey  
 2001. Sick Individuals and Sick Populations. *International Journal of Epidemiology* 30(3):427-432.
- Rose, Nikolas  
 2008. *The Politics of Life Itself: Biomedicine, Power, and Subjectivity in the 21<sup>st</sup> Century*. Princeton: Princeton University Press
- Rosenberg, N.A., *et al.*  
 2002. Genetic Structure of Human Populations. *Science* 298: 2381-2385.



- Rosenthal, Paul-André  
1997. Thirteen Years of Debate: From Population History to French Historical Demography (1945-1958). *Population: An English Selection* 9:215-241.
- Thwaites, Ruben Gold, ed.  
1898-1901. *The Jesuit Relations and Allied Documents Travel and Explorations of the Jesuit Missionaries in New France 1610-1791*. 73 Vols. Cleveland, Ohio.
- Saada, Emmanuelle  
2002. The Empire of Law: Dignity, Prestige, and Domination in the "Colonial Situation." *French Politics, Culture, and Society* 20(2):109.
- Sacks, Oliver  
1993. *The Island of the Colorblind*. New York: Vintage. Pp. 31.
- Sahlins, Marshall  
2004. *Apologies to Thucydides: Understanding History as Culture and Vice Versa*. Chicago: University of Chicago Press.
- Samerski, Silja  
2007. The 'Decision Trap': How Genetic Counselling Transforms Pregnant Women into Managers of Foetal Risk Profiles. *In* Kelley Hannah-Moffat and Pat O'Malley, eds. Pp. 55-74. *Gendered Risks*. New York: Routledge.
- Sarrabournet, Michel, ed.  
2001. *Les Nationalismes au Québec du XIX Siècle au XXI Siècle (Nationalisms in Quebec from the 19<sup>th</sup> Century to the 21<sup>st</sup> Century)*. Quebec: Presses de l'Université Laval.
- Sauvé, Matthew-Robert  
2005. Forum - Maladies du coeur - Les Tremblay de Chicoutimi Participent à une Percée Médicale. *Le Devoir*, November 16.
- Schaffer, R., Kuczynski K., & Skinner, D.  
2008. Producing Genetic Knowledge and Citizenship through the Internet: Mothers, Pediatric Genetics, and Cybermedicine. *Sociology of Health and Illness* 30(1):145-159.
- Schemann, Ludwig  
1910. *Gobineaus Rassenwerk: Aktenstücke und Betrachtungen zur Geschichte und Kritik des L'Essai sur l'inégalité des races humaines*. Stuttgart: E. Hauff.
- Scheper-Hughes, Nancy and Margaret M. Lock  
1987. The Mindful Body: A Prolegomenon to Future Work in Medical Anthropology. *Medical Anthropology Quarterly* 1(1):6-41.
- Scott, James C., John Tehranian and Jeremy Mathias

2002. The Production of Legal Identities Proper to States: The Case of the Permanent Family Surname. *Comparative Studies in Society and History* 44(1):4-44.
- Scriver, Charles  
2006. Community Genetics and Dignity in Diversity in the Quebec Network of Genetic Medicine. *Community Genetics* 9(3):148.
- Secko, David  
2008. Rare History, Common Disease: Why Quebec is a Gift to Geneticists. *The Scientist* 22(7):38-45.
- Serre, David and Svante Pääbo  
2004. Evidence for Gradients of Human Genetic Diversity Within and Among Continents. *Genome Research* 14:1679-1685
- Silverstein, Michael  
1996. Encountering Language and Languages of Encounter in North American Ethnohistory. *Journal of Linguistic Anthropology* 6(2): 127.126-144
- Silverstein, Paul A.  
2004. *Algeria in France: Transpolitics, Race, Nation*. Bloomington: University of Indiana Press.
- Slatkin, Montgomery and Michelle Veuille  
2002. *Modern Developments in Theoretical Population Genetics: The Legacy of Gustave Malécot*. Oxford University Press.
- Sokal, R.R., N.L. Oden and B.A. Thomson  
1992. Origins of the Indo-Europeans: Genetic Evidence 1. *Proceedings of the National Academy of Science* 89(16):7669-7673.
- Soodvall, H., A. Nebel, B. Morar, and T. Jenkins  
2005. Genealogy and Genes: Tracing the Founding Fathers of Tristan de Cunha. *American Journal of Human Biology* 17(5):634-645.
- Spruhan, Paul  
2006. A Legal History of Blood Quantum in Federal Indian Law to 1935. *South Dakota Law Review* 51(1), Available at SSRN: <http://ssrn.com/abstract=955032>
- Starr, Susan Leigh and Geoffrey C. Bowker  
1999. *Sorting Things Out: Classification and Its Consequences*. Cambridge, Ma.: MIT Press.
- Stanton, William.  
1960. *The Leopard's Spots: Scientific Attitudes Toward Race in America, 1815-59*. Chicago: University of Chicago Press.

- Stocking, George  
1993. The Turn-of-the-Century Concept of Race. *Modernism/ Modernity* 1:4-16
- Stoler, Ann Laura  
2009. *Along the Archival Grain: Epistemic Anxieties and Colonial Common Sense*. Princeton: Princeton University Press.  
  
2002. Colonial Archives and the Arts of Governance. *Archival Science* 2: 87-109.  
  
1992. Sexual Affronts and Racial Frontiers: European Identities and the Cultural Politics of Exclusion in Colonial Southeast Asia. *Comparative Studies in Society and History* 34(3):514-551
- Stolzenberg, Nomi  
2002. The Culture of Property. *In Engaging Cultural Differences: The Multicultural Challenge in Liberal Democracies*. Richard Shweder, Martha Minow, and Hazel Rose Markus, eds. New York: Russell Sage Foundation
- Strong, Pauline Turner and Barrik Van Winkle  
1996. "Indian Blood": Reflections on the Reckoning and Refiguring of Native North American Identity. *Cultural Anthropology* 11(4):547-576.
- Sykes, Brian and Catherine Irven.  
2000. Surnames and the Y Chromosome. *American Journal of Human Genetics* 66(4):1417-1419.
- Taylor, Janelle S. 2005. Surfacing the Body Interior. *Annual Review of Anthropology* 34: 741-756.
- Téту, Monseigneur H. and Abbé C.-O. Gagnon.  
1887. Lettre à Beaubassin (Letter to Beaubassin). *Mandements, Lettres Pastorales, et Circulaires des Évêques de Québec (Mandements, Pastoral Letters, and Circulars of the Bishops of Quebec)*. Québec: Imprimerie Général A. Coté et Cie.
- Thomason, Sarah Grey  
2002. Cladistic and Reticulate Processes in Language Change and Diversification. Unpublished ms.  
  
2001. *Language Contact: An Introduction*, Washington D.C.: Georgetown University Press.
- Ticktin, Miriam  
2006. Where Ethics and Politics Meet: The Violence of Humanitarianism in France. *American Ethnologist* 33(1):33-49.
- Tonin, Patricia N. *et al.*  
1998. Founder BRCA1 and BRCA2 Mutations in French Canadian Breast and Ovarian Cancer Families. *American Journal of Human Genetics* 63:1341-1351.

- Trautmann, Thomas R.  
2006. Explosion in the Grammar Factory. *In* Languages and Nations: The Dravidian Proof in Colonial Madras. Berkeley: University of California Press.
- Tremblay-Tymczuk, S., J. Mathieu, K. Morgan, JP Bouchard, and M. De Braekeleer  
1992. Genealogical Study of Oculopharyngeal Dystrophy at Saguenay-Lac-Saint-Jean, Quebec, Canada. *Revue Neurologique (Paris)* 148(10):601-604.
- Trofimenkoff, Susan Mann  
1982. *The Dream of Nation: A Social and Intellectual History of Quebec*. Montreal and Kingston, On.: McGill-Queen's University Press.
- Turgeon, Laurier and Ann-Marie Desdouits, eds.  
1997. *Ethnologies Francophones de l'Amérique et d'Ailleurs (French Ethnology in America and Beyond)*. Quebec: Presses de l'Université Laval.
- Turner, Terence  
1994. Bodies and Anti-bodies: Flesh and Fetish in Contemporary Social Theory. *In* Thomas C. Csordas, ed. Pp. 27-47. *Embodiment and Experience: The Existential Ground of Culture and Self*. Cambridge: Cambridge University Press.
- Tylor, Edward B  
1889. On a Method of Investigating the Development of Institutions Applied to Laws of Marriage and Descent. *Journal of the Anthropological Institute of Great Britain and Ireland* 18: 245-272;  
  
1872. Quetelet's Contributions to the Science of Man. *Nature* 5:358-363.
- Van-Kirk, Sylvia  
1980. *Many Tender Ties: Women in Fur-Trade Society, 1670-1870*. Ph.D. Dissertation, Department of History, University of London.
- Vailly, Joëlle  
2008. The Expansion of Abnormality and the Biomedical Norm: Neonatal Screening, Pre-natal Diagnosis, and Cystic Fibrosis in France. *Social Science and Medicine* 66(12):2532-2543.
- Verdery, Katherine  
1993. Whither "nation" and "nationalism"? *Daedalus* 122(3):37-45.  
  
1988. A Comment on Goody's Development of the Family and Marriage in Europe. *Journal of Family History* 13(2):265-270.
- Vezina, Hélène, *et al.*  
2005. Molecular and Genealogical Characterization of the R1443X BRCA1 Mutation in High-risk French-Canadian Breast/ovarian Cancer Families. *Human Genetics* 117(2-3):119-132.

- Vidal, Cécile  
2006. Perspectives sur l'Atlantique Française de l'Intérieur Nord-Américain (The French Atlantic as Seen From the North-American Interior). French Atlantic History Group Workshop I, Université de Montréal, Montreal, QC, September 28.
- Village des Hurons, Wedake (Legal Surveys Division, Historical Review).  
Nd. Ottawa: Canadian-U.S. International Boundary Commission,  
[www.internationalboundarycommission.org](http://www.internationalboundarycommission.org), Accessed on June 10, 2007.
- Velay-Vallantin, Catherine  
1997. Usages de la Tradition du Folklore en France et au Québec (1937-1950): l'Investiture du Politique (Uses of the Folklore Tradition in France and Quebec, 1937-1950). In Gerard Bouchard and Martine Segalen, eds., Pp. 273-301.
- Wade, Mason  
1968. The French-Canadians, 1760–1967. New York: St. Martin's Press. Vol. II, Pp. 867
- Wailoo, Keith  
2001. Dying in the City of the Blues: Sickle Cell Anemia and the Politics of Race and Health. Chapel Hill: University of North Carolina Press.
- Waldram, James B.  
1986. The 'Other' Side: Ethnostatus Distinctions in Western Subarctic Communities. In Laurie Barron and James B. Waldram, eds., pp. 279-295. 1885 and After: Native Society in Transition. Regina: University of Regina/Canadian Plains Research Center.
- Wexler, Alice  
2002. Chorea and Community in a Nineteenth-Century Town. Bulletin of the History of Medicine 76(3):495-527.
- Yu, N. *et al.*  
2002. Larger Genetic Difference Between Africans than Between Africans and Eurasians. Genetics 161-269-274.
- Zehler, Estelle  
2006. Algonquins de Trois-Rivières - Retour à Petite-Mission. Le Devoir, June 3.