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BRIDGING WESTERN AND INDIGENOUS SCIENCES IN CHANTAL BILODEAU'S CLIMATE CHANGE THEATRE PLAY *SILA*

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Abstract

This article examines the integration of Western scientific paradigms and Indigenous Traditional Ecological Knowledge systems (TEK) in climate change discourse through a critical analysis of Chantal Bilodeau's contemporary climate change theatre play Sila (2015). The study investigates how Sila challenges dominant scientific narratives by juxtaposing empirical, data-driven approaches with holistic, land-based, and relational knowledge systems. Emphasizing epistemological pluralism, the article explores the potential of theatre to mediate between conflicting worldviews and promote intercultural dialogue. The analysis demonstrates that artistic works can not only reflect but also intervene in ongoing climate debates by illustrating the ethical and political stakes of how knowledge is produced. In addition to its representational function, the play is discussed as a model for educational and activist theatre, fostering reflection on environmental justice and cross-cultural responsibility. The study concludes that integrating multiple epistemologies in both environmental research and climate communication is essential for a more inclusive, equitable, and effective response to the climate crisis.

***Keywords**: Traditional Indigenous Knowledge Systems (TIK), Western Science, Climate Change, Inuit, Environmental Theatre.*

CHANTAL BILODEAU'NUN İKLİM DEĞİŞİKLİĞİ TİYATRO OYUNU *SILA*'DA BATILI VE YERLİ BİLİMLERİ ARASINDA KÖPRÜLERİN İNŞASI

Öz

Bu makale, iklim değişikliği söyleminde Batılı bilimsel paradigmalar ile Yerli Geleneksel Ekolojik Bilgi (TEK) sistemlerinin nasıl bütünleştirilebileceğini Chantal Bilodeau'nun iklim değişikliği temalı tiyatro oyunu Sila (2015) üzerinden

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incelemektedir. Çalışma, ampirik ve veri odaklı yaklaşımları, bütüncül, toprağa dayalı ve ilişkisel bilgi sistemleriyle karşı karşıya getirerek baskın bilimsel anlatıları nasıl sorguladığını analiz etmektedir. Epistemolojik çoğulluğu esas alan makale, tiyatronun farklı dünya görüşleri arasında arabuluculuk yapma ve kültürlerarası diyaloğu teşvik etme potansiyelini tartışmaktadır. Analiz, sanatsal çalışmaların yalnızca temsil edici değil, aynı zamanda iklim tartışmalarına etik ve politik düzeyde müdahale eden araçlar olabileceğini göstermektedir. Oyun, çevresel adalet ve kültürlerarası sorumluluk üzerine düşünmeyi teşvik eden bir eğitim ve aktivizm modeli olarak da ele alınmaktadır. Çalışma, çevresel araştırmalarda ve iklim iletişiminde birden fazla bilgi sisteminin bütünleştirilmesinin daha kapsayıcı, adil ve etkili bir yanıt geliştirmek için zorunlu olduğunu savunmaktadır.

***Anahtar kelimeler**: Geleneksel Yerli Bilgi Sistemleri, Batı Bilimi, İklim Değişikliği, Inuit, Çevreci Tiyatro.*

Introduction

The advent of Western modernity and its concomitant Enlightenment project have engendered a paradigm shift in understanding the world and humanity's position within it. Propelled by empirical and rational reasoning, Western science has asserted its primacy, often delegitimizing alternative knowledge systems such as traditional Indigenous knowledge as archaic, esoteric, and superstitious, relegating them to the realm of folklore. This worldview has perpetuated systems of oppression, domination, and exploitation through its delineation of binary and hierarchical categories such as culture/nature, men/women, white/black, civilized/primitive, individual/society, Occident/Orient, human/non-human, reason/emotion, and us/them, among others. This framework has also informed the development of neoliberal capitalism, which is predicated on instrumental rationality. Western science, disseminated through colonialism and imperialism (Renn, 2012), has entrenched itself as the preeminent universal authority in knowledge generation and scientism. Hence, Western science, emphasizing logic, epistemology, and ontology, is widely recognized as the primary and exclusive form of scientific inquiry (Mellor, 2003). The hegemony of Western science has invalidated non-Western sciences, especially indigenous ones, around the globe (Eastern, African, Maori, Inuit, Cree, etc.), denying them an equal place in politics, science, academia, and education. However, the practicality of Indigenous scientific knowledge, founded upon scientific and logical validity, reassures and instills confidence. This knowledge continues to be refined as the community evolves. “This knowledge is used to sustain the community and its culture and to maintain the genetic resources necessary for the continued survival of the community” (Hansen & VanFleet, 2003, p. 3). Indigenous science is *the science* achieved through a deep ecological understanding of non-human nature. In other words, its relation to non-human nature (land, rivers, skies, trees, animals, mountains, rocks, plants, etc.) prioritizes a being-in-the-world that is non-anthropocentric, acknowledging

the inherent value in all human and non-human beings, independent of the benefits they might provide for the flourishing and well-being of the human world. Furthermore, Indigenous knowledge epitomizes a comprehensive, "dynamic, and practical system" rooted in "scientific and logical validity" (Battiste, 2002; Bates, 2009). It "represents generations of creative thought and action within each individual community, as it struggles with an ever-changing set of conditions and problems" (Warren, 1996, p. 3), notably unprecedented rates of environmental degradation and anthropogenic climate change.

This study proposes that Indigenous environmental knowledge systems (TEK) are increasingly indispensable in addressing contemporary challenges, particularly in the realms of climate change mitigation, assessment, adaptation, sustainable agriculture, biodiversity conservation, and land and resource management. It emphasizes the necessity of fostering an ethical, empathetic, socially and culturally responsible, reciprocal, and cross-cultural collaboration between Western and Indigenous sciences to advance decolonial and transformative climate change and environmental research. These assertions are expounded upon in Chantal Bilodeau's climate change play *Sila* (2015), elucidating the vital role of Indigenous environmental knowledge in contemporary climate change discourse. Bilodeau's *Sila*, a climate change play about the detrimental effects of anthropogenic climate change on the Arctic Inuit people, reveals why multiple scientific perspectives should work in tandem to find the best possible routes and, hence, solutions to deal with a rapidly changing climate, as well as what is at stake when done otherwise. At the outset, it is important to establish the following points for this study: First, the terms Indigenous science, traditional Indigenous knowledge (TIK), local knowledge, and traditional environmental knowledge (TEK) will be used interchangeably throughout this study. These terms collectively designate knowledge systems accumulated over generations in local environments, encompassing day-to-day observations, oral histories, skills, practices, and beliefs deeply rooted in the land. Second, this study fully acknowledges the heterogeneity of Indigenous people and firmly rejects reductionist approaches, recognizing the diversity of Indigenous knowledge systems. Third, this study does not endorse a hierarchical distinction between Western and Indigenous sciences. Instead, it advocates for an integrated knowledge system based on reciprocity and cooperation, emphasizing the equal and meaningful inclusion of Indigenous knowledge systems in environmental policy and action. Lastly, "Indigenous" is deliberately capitalized throughout this study to legitimize non-Western frameworks syntactically.

1. THE REALITY OF INUIT AND CHANTAL BILODEAU'S *SILA*: *"OUR LAND, OUR STRENGTH"* "*NOTRE TERRE, NOTRE FORCE*"

The Indigenous Inuit peoples, comprising approximately 165,000 individuals, inhabit the Arctic and sub-Arctic regions of Canada, Alaska,

Greenland, and Chukotka in Russia (Young & Bjerregaard, 2008). The Arctic is experiencing warming at a rate of two to three times higher than the global annual average, thereby making it one of the regions most susceptible to the impacts of climate change. In Canada, the Inuit population resides within "Inuit Nunangat," which translates to the "Inuit homeland" (Condon et al., 1995; Bunce et al., 2016; IPCC, 2018; Watts et al., 2021). Having endured a prolonged history of colonization, the Inuit have faced significant disruptions to their connection with their land and culture, elements that are intrinsically linked to their identity, spirituality, and resilience. Climate change exacerbates the ongoing social, cultural, and environmental transformations that Indigenous communities have been navigating for centuries.

The Arctic is experiencing rapid and profound environmental changes, including rising temperatures, permafrost degradation, shrinking sea ice, and increasing sea levels. These shifts are significantly altering the landscape, leading to restricted mobility, land instability, forced relocations, and heightened travel risks due to thinning ice conditions (Ford et al., 2006; Chanteloup et al., 2018; IPCC, 2018). As a result, Inuit communities are losing access to their traditional hunting, gathering, and trapping areas, making it increasingly difficult to sustain their customary way of life. Furthermore, climate disruptions have placed barriers to reaching sacred and historically significant locations, such as burial sites, weakening cultural and spiritual continuity. This environmental upheaval threatens not only Inuit livelihoods but also the intergenerational transmission of Indigenous Traditional Knowledge (ITK), known as “Inuit Qaujimajatuqangit,” which has long been central to their identity and survival. (Cunsolo Willox et al., 2012; Ford, 2012). Inuit communities have observed a significant decline in their capacity to participate in traditional land-based activities such as hunting, foraging, and trapping. Additionally, they face limitations in visiting culturally significant locations, such as cemeteries, due to climate-induced immobility. Consequently, there has been a notable decrease in the transfer of Indigenous Traditional Knowledge (ITK), known as “Inuit Qaujimajatuqangit,” across generations. (Cunsolo Willox et al., 2012; Ford, 2012). The consequences of these environmental shifts extend beyond physical displacement, deeply affecting the cultural identity, emotional well-being, and overall stability of Inuit communities. This situation underscores the pressing need for holistic policies and support initiatives to mitigate the widespread effects of climate change on Arctic Indigenous populations (Cunsolo Willox et al., 2013; Harper et al., 2015; Robertson & Ljubicic, 2019). In response, Indigenous groups and local governance bodies are reclaiming their rights and strengthening their connection to ancestral lands and traditions. Recognizing the critical role of elders and knowledge holders is essential, as they safeguard language, customs, and traditional ecological wisdom, all of which are indispensable for ensuring the survival and adaptation of Inuit ways of life in a rapidly changing Arctic.

Sheila Watt-Cloutier, a prominent Inuk author, climate activist, and Nobel Prize nominee, offers a powerful perspective on the rapid and alarming transformation of the Arctic in her memoir *The Right to Be Cold* (2015). She highlights how the Inuit, within a single generation, have witnessed dramatic environmental changes that have disrupted not only the physical landscape but also the intricate balance between their culture and the natural world. The once predictable climate patterns that sustained their way of life have become erratic and hazardous, posing existential threats to both human communities and the wildlife upon which they depend. The Arctic, she warns, serves as a forewarning for the rest of the world, illustrating the accelerating pace of climate change and the dire consequences of inaction. If global efforts fail to mitigate these environmental disruptions, the crisis currently unfolding in the Arctic will soon become a reality elsewhere, spreading instability and ecological collapse far beyond its icy frontiers (Watt-Cloutier, 2015, pp. xxv-xxvi).

Duane Smith, President of the Inuit Circumpolar Conference Canada and Vice-President of Inuit Tapiriit Kanatami, presents an assessment of the profound impact of climate change in the Arctic that is as pessimistic as that of Sheila Watt-Cloutier: Duane Smith highlights the devastating impacts of climate change on the Arctic, emphasizing that the survival of key wildlife species is under serious threat. As these species are essential to the Inuit way of life, their decline directly endangers the community's cultural and physical well-being. While international agreements aim to address food security and environmental stability, Smith stresses that these challenges are not future risks but urgent crises already unfolding in the Arctic, disrupting both the ecosystem and Indigenous traditions (Smith, 2007, par. 10).

Chantal Bilodeau's play *Sila* (2015) is set against the backdrop of climate-induced disruptions affecting the Inuit population in Nunavut, a Canadian territory officially established in 1999 through a Land Claim Agreement. As the first part of the Arctic Cycle—a series of eight plays exploring the wide-ranging effects of climate change in the Arctic—*Sila* is part of a larger theatrical project dedicated to addressing environmental crises across the eight Arctic nations. The series includes works such as *Sila* (2015) for Canada, *Forward* (2016) for Norway, and *No More Harveys* (2022) for Russia and the United States, each focusing on the unique environmental challenges faced by its respective region. Bilodeau's personal experiences in Alaska and Canada gave her direct exposure to the accelerating retreat of glaciers and the widespread consequences of global warming. The development of *Sila* (2015) and *Forward* (2016) took several years, with their premieres taking place in 2014 and 2016, respectively. The third play, *No More Harveys* (2022), was first staged on April 1, 2022, in Anchorage, Alaska, using a minimalist stage design with only one human performer. This creative decision emphasizes the isolation and vulnerability of human existence within the rapidly changing Arctic landscape.

Bilodeau elucidates her creative journey, stating, "The process of writing included traveling extensively in the Canadian Arctic and Norway, interacting with community leaders, activists, politicians, and scientists who work and live in the regions" (Lindsey, 2019). *Sila* (2015) is situated explicitly on Baffin Island within Nunavut and explores the intricate relationships among human and non-human characters against a backdrop of an Arctic landscape, one whose ecosystem and cultural fabric are increasingly compromised due to climate change. The narrative features Leanna, a climate activist and mother devoted to advocating for her people at international conferences, in contrast to her daughter Veronica, a high school teacher who believes that activism should focus on local concerns. Veronica grapples with the complexities of raising her son, Samuel, in a rapidly changing environment marked by cultural, social, and economic degradation. Additionally, the play includes characters such as Mama Bear and her cub, challenged by the melting Arctic; Tuluqaq, an Inuk elder embodying Indigenous knowledge; Thomas, an English Canadian officer from the Canadian Coast Guard Marine Communications and Traffic Services, intent on developing Arctic shipping infrastructure; and Jean, a Canadian American climate scientist conducting vital research in the region. Through these interconnected narratives, *Sila* poignantly articulates the intricacies of climate change and its effects on both human and non-human life in the Arctic.

The play commences with Leanna, an Inuit climate activist, who has submitted a formal petition to the Inter-American Commission on Human Rights. This petition asserts that the United States government is infringing upon human rights, given its status as one of the largest emitters of greenhouse gases globally:

> This place I come from we call Nunavut. It means "Our Land" in Inuktitut. It's where we, Inuit, have thrived for more than four thousand years. It's where we strive to realize our full potential. It's where we nurture our knowledge of who we are. But Nunavut, our land, is only as rich as it is cold. And today, most of it is melting. (Bilodeau, 2015, p. 12)

Jean, a *Time* Person of the Year, a climate scientist specializing in sea ice has been conducting scientific research in the region to observe the thinning of the ice mass. He has been coming to Nunavut to gather data for fifteen years. Before he takes his leave, he wants "to witness [the] multi-year ice collapse and collect the data" (Bilodeau, 2015, p. 30). However, his perspective remains rooted in the Western scientific framework that prioritizes empirical observation over Indigenous knowledge systems. As his departure nears, he insists on the necessity of witnessing the collapse of multi-year ice firsthand, believing that such an event must be recorded to enhance the accuracy of climate models. He emphasizes that the scale of this transformation is geological in magnitude, reinforcing the idea that direct measurement is the only path to scientific credibility. Frustrated by claims that climate projections lack precision, he argues that Western science can only

refine its models through fieldwork conducted by trained researchers, overlooking the deep environmental expertise of Indigenous communities. His stance reflects the dominance of Western epistemology in Arctic research, where empirical data collection is valued over lived experience, reinforcing a hierarchy that often marginalizes non-Western ways of understanding ecological change.

However, the only helicopter that could fly Jean to the campsite is under repair. Jean has two options to conduct his research: The first one is taking Coast Guard Thomas's offer to be the scientific adviser for the construction of a deep-sea port now that the Arctic is melting: "You will have a helicopter dedicated to you for an entire three years," says Thomas to Jean to make his offer more appealing (Bilodeau, 2015, p. 33). In other words, Thomas asks Jean to greenwash the project to show that they undertake the seaport construction under the guidance of an internationally acclaimed climate change scientist and are sensitive to environmental issues. The second option is to have the guidance of Tulugaq, an Inuit elder, hunter, and sculptor who represents indigenous science and wisdom in the play. Jean chooses Tulugaq and meets him at a restaurant. At this point, it is important to note why he rejects Thomas's neo-colonial, extractivist, business-as-usual schema: As mentioned above, Jean is an internationally renowned, currently New York-based, Canadian climate scientist, who has been collecting data in the Arctic region to feed into the climate models (most probably for IPCC), which is of uttermost importance to assess effects and inform policy agendas. Jean represents the Western scientist, who employs "the positivist (or empiricist) paradigm," which "is realist in its ontology, is objectivist in its epistemology, excludes values, and employs an experimental, quantitative, and decontextualized methodology focused on the verification of hypotheses" (Chilisa, 2020; Mertens, 2020). Also, Jean has an ethical stance on what he is doing because he has "been taking a stand for FIFTEEN YEARS" against "a bunch of death threats […]" (Bilodeau, 2015, p. 34). In other words, Jean does not affiliate "with conservative think tanks and privately funded corporations to challenge the established scientific consensus on anthropogenic climate change." He is not one of those "science-speaking mercenaries hired by corporations to crunch numbers in whatever way to prove that the corporations' products are safe and useful" (Buchanan, 2010, para. 10; Oreskes & Conway 2011).

Jean resists the idea of sacrificing scientific integrity for economic and political agendas, questioning why research must always serve an immediate practical purpose rather than simply expanding knowledge. He laments the shift away from science for its own sake, criticizing the increasing pressure to align research with national and corporate interests (Bilodeau, 2015, p. 33). In contrast, Thomas presents a starkly pragmatic view, arguing that scientific endeavors in the Arctic cannot be separated from geopolitical and economic realities. He insists that whether Canada takes the initiative or not, foreign

powers will inevitably exploit the region's resources, emphasizing that controlling and profiting from these operations is a strategic necessity (Bilodeau, 2015, p. 16). By portraying these opposing perspectives, the play highlights the tension between intellectual curiosity and political ambition, illustrating the complex ethical dilemmas faced in Arctic research and resource management. To Thomas, the melting Arctic means "commercially viable [...] fungible commodities and monetary wealth" (Park, 2015, p. 189), while for Jean it is an object of research to do science. In both cases, the Western nature/culture dichotomy is at work, disregarding how Inuit's livelihood, social and cultural capital, and mental and physical well-being are intimately related to the well-being of their surrounding ecosystem. Jean has been witnessing the loss of permafrost and sea ice in the region. Yet, he never questions what is at a loss while the sheer ecosystem of the Arctic is gradually decimated. The World Wide Fund for Nature (WWF) highlights profound shifts occurring in Arctic ecosystems due to climate change. As sea ice diminishes, polar bears increasingly rely on land for denning, while Pacific walruses form densely packed gatherings along coastlines, often at significant distances from their primary feeding zones. The retreat of ice has also expanded the hunting grounds of killer whales, allowing them to target marine species such as narwhals, belugas, and bowhead whales, which were previously more protected. These disruptions are not limited to marine life; the seasonal patterns, population sizes, and migration routes of key Arctic species, including caribou and salmon, are also being altered. Such ecological changes have severe consequences for Indigenous communities, leading to food shortages and threatening their traditional ways of life, economic stability, and overall well-being. (WWF, 2022, para. 2).

When Thomas and Jean stand by the coast and spot a mother and a cub polar bear, they come up with different stories about them, none of which is sensitive to what the Mama Bear and her cub are undergoing: that the ice is gradually receding, polar bears now have to swim long distances and they are starving because they cannot hunt seals anymore. Thomas calls polar bears as "[m]ean motherfuckers" (Bilodeau, 2015, p. 13), who must be shot down for they attack people; Jean views them as "[e]xtraordinary animals" who "can weigh up to fifteen hundred pounds and travel on ice so thin it wouldn't support a man" (Bilodeau, 2015, p. 13). For Jean, the extraordinariness of polar bears lies with their anatomic properties, but what makes them extraordinary in the play is their struggle to adapt to and survive in a collapsing ecosystem. It is ironic that Jean knows polar bears can carry their huge bodies across sea ice, and "can wander pretty far" (Bilodeau, 2015, p. 16), yet he never questions how they will survive when their habitat is dissolving to the extent that they are dying of hunger. That is why Bilodeau intertwines the story of Mama Bear and her cub with the stories of Veronica and her son, Samuel, who commits suicide, to showcase the fragility and the interconnectedness of human and non-human lives.

Jean has been coming to the region for fifteen years and conducting his quantified research with no community involvement, for what matters to him is "an avalanche of numbers" (Hacking, 1990, p. 80), and "technical rationality" (Foucault, 1995, p. 140). When he learns from Thomas that every "[r]esearch project has to involve the community somehow" (Bilodeau, 2015, p. 34), the new rule devised by the Nunavut Research Institute (NRI)[*]Jean exclaims, "I'm a SCIENTIST. Not a SOCIAL WORKER" (Bilodeau, 2015, p. 34). This is but a Western style arrogance (Southern in the geographical context of the play) that leaves no room for respect for and dialogue with the local community and expertise.

Jean's first involvement with the local community takes place at the local high school where Veronica teaches. Leanna asks Jean to do a presentation to the local students about environmental awareness, an event that Veronica had, in fact, organized around her mother. At first, Veronica assumes that Jean is new to Baffin Island and is eager to immerse himself in the local culture. However, her expectations quickly unravel during their conversation when Jean reveals that he has been visiting the region for fifteen years, not out of personal interest, but purely for professional reasons. As their discussion continues, Veronica expresses surprise that Jean, despite his extensive time in the Arctic, has made no effort to learn Inuktitut. Jean knows only a couple of Inuktitut words employed in Western media and popular culture for stereotyping Inuit: In popular perception, Inuit are often regarded as the quintessential bush people (Steckley, 2008, p. 142). One common stereotype is that all Inuit lived and still live in igloos. *Nanook of the North,* a 1922 docu-drama filmed in Northern Quebec, depicts the story of an Inuit man, Allakariallak, and his family, fishing for survival and trading furs. The director, Robert J. Flaherty, named Allakariallak Nanook (the polar bear in Inuit mythology) to enhance the film's marketability. In one scene, Allakariallak is filmed eating a gramophone. Therefore, when Veronica mentions "Nanook," Jean conjures up this humorous and "primitive" image of the Inuit in his mind. Nevertheless, the Nanug Veronica refers to is the polar bear spirit in Inuit mythology, who decides if the hunters have behaved according to the ritual rules to determine if a polar bear hunt is successful. Jean defends himself by insisting that his fieldwork demands an intense schedule, leaving little opportunity for cultural engagement. Nevertheless, Veronica remains unimpressed, pointing out that even the most basic words—such as those for polar bear, kayak, and igloo—have become common knowledge, reflecting how colonial structures persist in shaping interactions between Inuit and Westerners. While qallunaat[†] (non-Inuit outsiders) may have claimed the land, the Inuit, as Veronica highlights, have subtly woven

[*] NRI, a gatekeeping and ethical board in Nunavut, Canada, plays a crucial role in licensing all scientific research conducted in the region.

[†] Inuktitut word for white man

their linguistic influence into the dominant discourse, marking a silent form of resistance to colonial erasure (Bilodeau, 2015, pp. 39-40).

Jean represents a model of expertise that values data over lived experience, whereas Veronica's frustration reflects the marginalization of Inuit knowledge systems in the face of settler colonialism. Their conversation serves as a reminder that scientific research, despite its claims to objectivity, is never separate from the power dynamics that shape it. The fact that Jean has ignored them suggests an implicit disregard for the Inuit as knowledge holders**,** reinforcing the colonial assumption that scientific authority belongs exclusively to the West. His stance not only marginalizes Inuktitut but also perpetuates the idea that Inuit knowledge, including language, is irrelevant to "serious" scientific work.

> VERONICA: You know Jean, things have changed over the last fifteen years. If you want to work in Nunavut, it's not enough to talk AT us anymore. You have to talk WITH us. That's just *pitsiaqattautiniq*.[‡](Bilodeau, 2015, p. 41)

Veronica's distinction between "talking at" and "talking with" effectively exposes the patronizing and colonial attitudes exhibited by Western scientists and their associated institutions towards Indigenous communities and their traditional ways of life. This differentiation underscores the prevalent power dynamics and hierarchical structures that have historically prevailed in interactions between Western scientific communities and Indigenous populations. "Talking at" suggests a passive audience and a lack of reciprocal discourse, while affirming privilege, authority, power, and an unquestionable notion of "correctness." Conversely, "talking with" entails granting others a voice, acknowledging cultural variances, demonstrating cultural humility, and bridging manifold experiences, expectations, understandings, and worldviews. When Jean first encounters Tuluqaq at a local restaurant, he assumes that he is merely a local stone sculpture vendor and begins speaking to him in a somewhat dismissive manner. Upon learning that Tuluqaq has previously worked with scientists, Jean immediately presumes that his role was limited to logistical support. Focused on the demands of his own research, Jean starts giving direct instructions regarding the transportation of equipment, snowmobile use, and safety precautions. Since he is unfamiliar with the Arctic environment, he expects Tuluqaq to assist with navigation and ensure protection against polar bears". However, throughout their conversation, it becomes evident that Jean fails to fully appreciate the knowledge and lived experience of the local people, instead prioritizing the justification of research funding. This scene highlights the tension between Jean's perception of the Arctic as merely a

[‡] Inuktitut word for respect

research site and his underestimation of Tuluqaq's cultural and environmental expertise. (Bilodeau, 2015, p. 51)

Having worked with Western scientists before, Tuluqaq intimately knows the "talking at" type: Tuluqaq leaves the restaurant only to be followed by Jean, who offers him money, as well as an interpreter. Tuluqaq points at the sky and asks Jean how he calls what he sees. "Northern ligths. Aurores boreales,"[§] answers Jean. Tuluqag says, for Inuit it is "aqsarniit", which is "very dangerous," and "if you don't wear a hat, aqsaarniit cut off your head" (Bilodeau, 2015, p. 52). Jean takes this seriously and puts on his hat immediately, which makes Tuluqag laugh. As Tuluqag explains, "[they] tell Inuit children: *aqsarniit* cut off their heads and play soccer with it," and if one whistles "they come closer" (Bilodeau, 2015, p. 52). Here, Tuluqaq, as the bearer of Inuit traditional knowledge, offers Jean an alternate ontological framework which assumes a relational and reciprocal logic. Arctic Indigeneous peoples' conceptions of self are intricately linked to one's position within a network of socioecological relations, encompassing both human and nonhuman community members. (Ingold, 2000; Nuttall 2007). Jean must transcend the constraints of Western scientific paradigms and cultivate a nuanced understanding of Tuluqaq's standpoint. This necessitates an empathetic, ethically and contextually informed approach to scientific inquiry:

> TULUGAQ: That is Inuit qaujimajatuqangit. Inuit traditional knowledge. Old learning about living in peace with people, animals, nature. Arctic is not just numbers. Arctic is stories. Like aqsarniit story. Qallunaat learning: lots of numbers. But it comes here – (pointing to his head). Only here. Not good for us. Inuit qaujimajatuqangit comes here – (pointing to his head), here (pointing to his heart), and here – (moving hand and feet). Inuit qaujimajatuqangit is alive. Observation, experience. Always changing. Numbers are not enough. We need stories you understand? (Bilodeau, 2015, p. 52)

Tuluqaq introduces Jean to an alternative paradigm of science, one grounded in the enduring traditional knowledge of the Inuit people. This knowledge, which is relational, dynamic, holistic, and culturally rooted, underscores the interconnectedness of human and non-human life on Earth. As climate change drives transformations in the Arctic landscape, new narratives will emerge from the daily experiences of the Inuit, reflecting an awareness that as the land changes, everything else will follow suit. As Chantal Bilodeau says in an interview, "I think what's helping is understanding how all of the elements are coming together, and as soon as you move one you move [everything] else" (Lindsey, 2018, para. 6). Jean is eager to start his research immediately, but Tuluqaq insists they wait for the right

[§] In the early 17th century, astronomer and scientist Galileo Galilei attributed the name "Aurora Borealis" to this phenomenon.

time. Despite his frustration, Jean complies, awaiting Tuluqaq's approval to venture out onto the ice. After a couple of days, Tuluqaq leads Jean to the research spot only to promptly declare they must return. Sensing an impending storm and unsafe ice, Tuluqaq stops the plan. In a fit of rage, Jean demonstrates the hardness of the ice and insists on getting the drill. Suddenly, Jean is startled by a loud exhale echoing through the wintry landscape. As Jean ventures closer, Mama Bear, concealed beneath a shivering snowdrift, is unveiled, lying unconscious due to the suffering induced by hunger and the devastating loss of her cub. Sensing the danger, Tuluqaq urges Jean to leave, but the ice gives way, causing Jean to fall into the water. Below the surface, Jean encounters Nuliajuk, the Inuit goddess of the ocean, who rules over marine life and the spirit world. Believed to be the mother of all sea creatures, Nuliajuk ensures the balance of the ecosystem. When the balance of and respect for the natural world are not observed, Nuliajuk becomes angry and traps all marine animals and spirits in her tangled hair. "I can sense the weakness of all humanity," says Nuliajuk (Bilodeau, 2015, p. 85). Nuliajuk desires protection, respect, and care, achievable by combing her hair to revive the lost harmony between humans and the non-human worlds. Jean, slowly ensnared in Nuliajuk's hair, promises to protect her but does not know how (Bilodeau, 2015, p. 86). It is humanity's indifference and greed that have caused Nuliajuk's hair to become tangled. Only when human beings acknowledge their place in the world and live in harmony with the non-human world will order be restored.

Jean is saved by Tuluqaq, who demands to know if he combed Nuliajuk’s hair, stressing its critical importance for the hunters. Tuluqaq expresses that neglecting to comb her hair prohibits the sea animals from being caught, leaving the hunters without food. Refusing to collaborate with Jean while Nuliajuk is angry, Tuluqaq insists that Jean needs to find out the answer, as Nuliajuk specifically asked him to protect her. Jean, who previously did not want to offer his consolidation to Veronica, whose son has committed suicide, now pays a visit only to find that she has lost all her life force and has been without words for weeks. Jean tries to “talk with” Veronica saying, “I did figure out what pitsiaqattautiniq means” (Bilodeau, 2015, p. 96) and says to Leanna, “[i]t [will take] a long time” to recover” (Bilodeau, 2015, p. 96). He confides in her about how he and his wife lost their baby due to a targeted online attack. After he supported a potential carbon tax, backlash ensued, with a blogger publicly sharing their email addresses. This resulted in violent threats, culminating in an individual confronting his wife in person. Distressed, she lost the baby. (Bilodeau 2015, p. 97).

Jean initially prepares to depart but pauses, requesting a comb from Leanna. Subsequently, he commences combing Veronica's hair and encourages Leanna to take over. In the process, Nuliajuk's hair loosens, liberating trapped animals, including the spirit of the polar bear cub. This experience propels Jean into a world vastly distinct from his Euro-European

perceptions of self and nature. He realizes that knowledge cannot be divorced from its ethical responsibility, a contrast to prevalent practices in Western science, which often overlook relationships, morals, and values (Cernansky, 2021). Jean has failed to fulfill the responsibility inherent in the scientific knowledge he has been amassing. Specifically, he had long been aware of the melting of sea ice and glaciers due to climate change, focusing solely on data from his on-site observations. Consequently, he neglected to consider the implications of the aforementioned environmental changes on Inuit communities and the non-human world, thus perpetuating the Western dichotomy of nature versus culture. Jean's scientific focus, oriented around numerical data, methodologies, and funding, led to a lack of recognition of the interconnected nature of various occurrences. These encompassed the suicide of Veronica's son Samuel, the survival challenges faced by polar bears, the erosion of livelihood and cultural capital within the Inuit community, the unanticipated storm that wrought havoc on the German scientific vessel Polaria and its crew, the loss of his own son, and the dissolution of glaciers and decline of ice cover – all of which are intricately linked to the issue of climate change. It was only after Jean realized the interdependence of all elements within the world, both living and nonliving, that he attained a comprehensive outlook regarding his position within the global context. The Inuit people hold a belief that all plants, winds, mountains, rivers, lakes, and Earth's creatures possess a spirit and are therefore conscious and alive. This understanding emphasizes the necessity of maintaining respectful relationships with all aspects of nature to preserve the delicate balance. Western science, on the other hand, with its disciplinary boundaries, conceives of the world compromised of separate units, entities. A worldview that embraces Inuit principles of an interconnected universe, where "every one of us is connected to every other" (Bilodeau, 2015, p. 44), conceives of the self as an intricate system with spatial and temporal depth, intimately linked to other humans, non-humans, and material and immaterial entities. This perspective introduces us to a wisdom that embodies a cosmological ontology acknowledging the ever-evolving, dynamic, two-way relationship between humans and the non-human world. And from this conception of the being-in-the-world, "reciprocal responsibilities and mutual obligations are taken for granted and assumed without question of reflection" (Callicott, 1989, pp. 189-190). Professor Hans Baer posits that the ecological and climatic crisis may be surmounted by implementing a more sustainable global system, albeit the precise framework of an alternative strategy has not been expressly delineated. (Baer, 2017). Bilodeau's *Sila* is a response to Baer's position by explicitly outlining the parameters of an alternative, sustainable world system. It represents Inuit traditional knowledge rooted in the enduring principles of reciprocity and respect, conceptualizing the human and non-human world as interconnected entities that are constantly evolving, dynamic, fluid, and mutually reinforcing, infused with energy and spirit. In contrast, Western science tends to disconnect humans from their socio-ecological surroundings,

viewing the world as comprising distinct entities that can be studied, examined, and comprehended through rationality and objectivity. Before Jean combed Veronica's hair, he had regarded the Arctic as an object of scientific inquiry divorced from its social, cultural, and spiritual connotations. However, as Tuluqaq elucidates, knowledge generation in Inuit cosmology involves not living on but dwelling in land, signifying that Inuit science is cultivated from, with, and within the land. It is dynamic and adapts in tandem with changes in the environment.

Decolonizing Western science and underlining the importance of a socially/culturally responsible, reciprocal, and cross-cultural engagement between Western and Indigenous sciences in Chantal Bilodeau's climate change play *Sila* has been the primary concern of this study. The validity of knowledge about climate change is not limited to modern or Western science alone. It is crucial to foster cross-cultural dialogues that seek to understand climate change while respecting diverse knowledge systems. While the limitations of Western climate change governance are evident, Chantal Bilodeau highlights in *Sila* the potential for significant improvement through meaningful information exchange. This has the capacity to enhance efforts to comprehend, adapt to, and mitigate climate change, benefiting both indigenous communities and scientific research. *Sila* is devoted to promoting cross-cultural dialogue, urging Western science to engage in meaningful conversations with other knowledge systems, relinquishing its authoritative position by recognizing that science is more than just numbers and data, and embracing a more inclusive, ethical, reciprocal, and holistic approach.

2. DRAMATURGY AND THEATRICAL PERSPECTIVES IN *SILA*

While *Sila*'s narrative conveys a powerful message of cross-cultural knowledge integration, its mise-en-scène and dramaturgical choices equally contribute to the play's impact. From a theatre studies perspective, Bilodeau's work can be illuminated through the lenses of Antonin Artaud's (1958) *Theatre of Cruelty* and Bertolt Brecht's (1964) *Verfremdungseffekt* (alienation effect). In tandem with its emotional power, *Sila* employs Brechtian techniques to ensure the audience remains critically aware of the play's social and political themes. Brecht's (1964) *Verfremdungseffekt* (alienation or distancing effect) involves the use of techniques that remind spectators that they are watching a theatrical presentation, thereby preventing unthinking emotional absorption and encouraging intellectual engagement. In *The Messingkauf Dialogues*, Brecht further emphasizes that theatre must become "a forum for rational debate," where audiences are provoked to reflect rather than passively consume entertainment (1965, p. 76).

Bilodeau incorporates several such devices in the dramaturgy of *Sila*. For example, the play opens not with naturalistic dialogue but with Leanna's formal testimony about climate injustice, effectively placing the audience in a

geopolitical arena from the outset. This direct invocation of a real-world institution (a human rights commission) and the mention of actual climate policy issues have a Brechtian effect: viewers are made conscious of the play's relevance to their reality and are prompted to consider the broader social implications. Throughout *Sila*, scenes frequently shift between multiple locales and characters, a structure that prevents the audience from over-identifying with a single protagonist. This ensemble storytelling, akin to Brecht's epic theatre, allows spectators to analyze the situation from different perspectives—scientist, Inuit hunter, activist, even animal—rather than getting lost in any one character's plight.

Moreover, the staging of *Sila* incorporates deliberate reminders of theatrical artifice. In the premiere production directed by Megan Sandberg-Zakian, the two polar bears were portrayed by puppets, manipulated visibly by actors and puppeteers, "capturing the scale and muscularity, as well as the expressiveness and tenderness of these impressive animals" (Sandberg-Zakian, 2015, p. ii).

This creative choice engenders empathy for the mother bear and cub, yet seeing the puppeteers on stage also signals the audience to the fact that these are representations, inviting them to ponder what the polar bears symbolize. Similarly, the set was a minimalist expanse of white, with a few pieces of furniture rearranged in view to become a club, a living room, a Coast Guard station, or the sea as needed. By exposing the mechanics of scene changes and foregoing elaborate realism, the production kept viewers aware of the play's construct, much as Brecht would expose lights and ropes to break the illusion of reality. Even the play's use of language can serve an alienating function: characters slip between English, French, and Inuktitut, and one scene conveys Veronica's speechlessness by projecting jumbled letters onto the backdrop. Such moments prevent the audience from settling into passive consumption; instead, they must actively interpret the significance of, say, an Inuktitut word or a sudden visual poem of letters. In Brecht's terms, *Sila* "distances" its spectators just enough so that they remain cognizant of the issues at hand—climate change, colonial history, justice—and can "more clearly perceive the 'real' world reflected in the drama". The result is a balance between emotion and reason: the audience is moved to tears (Sandberg-Zakian, 2015, p. ii) but also moved to thought, understanding that the unfolding tragedy is not just personal but political and ecological.

While *Sila* is not explicitly grounded in Antonin Artaud's theory, several key moments in the play resonate powerfully with his concept of the Theatre of Cruelty. In *The Theatre and Its Double*, Antonin Artaud called for a new kind of theatre that would not rely solely on language or psychological realism, but would instead operate through a visceral, ritualistic language of signs, sounds, and movements that "shatter appearances and awaken dormant images" (1958, p. 85). *Sila* engages with this theatrical vision by staging climate trauma and cultural grief not only through dialogue but also through

symbolic embodiment and sensory excess. Jean's descent beneath the ice and entrapment in Nuliajuk's hair becomes a metaphysical rupture—a moment where rational structures collapse and what Artaud described as "the poetry of the senses" takes over (p. 84). This moment bypasses intellectual reflection, relying instead on sound, myth, and physical imagery to elicit a deeper confrontation with ecological and spiritual devastation. Similarly, Veronica's trauma following her son's suicide is expressed not through speech but through fragmented projections of scattered letters and bodily stillness—a moment that exemplifies Artaud's desire to "break language open and place in its fragments something of the original cry" (p. 84). Additionally, the storyline of the starving mother polar bear mourning her lost cub evokes a collective ecological trauma that transcends species, functioning not as sentimental realism but as symbolic suffering embodied on stage. These moments do not aim to produce catharsis in the Aristotelian sense but rather to destabilize the audience, awaken them through a kind of spiritual cruelty, and prompt intuitive engagement with the emotional and existential stakes of the climate crisis. Artaud insisted that "we must break language open and place in its fragments something of the original cry" (p. 84), and *Sila*'s staging of nonverbal mourning, disrupted speech, and ritual restoration precisely enacts this principle. Rather than offering a narrative of comfort or resolution, the play uses symbolic collapse—both emotional and epistemic—to provoke affective and communal reckoning. By aligning with Artaud's vision of a theatre that destabilizes perception and speaks to what he calls "the essential cruelty of life," *Sila* exemplifies a dramaturgy not of representation but of confrontation (p. 86). In this sense, the play does not merely depict climate crisis—it performs it in the body, in the breath, and in the rupture of meaning.

2.1. Staging and Performance Techniques

The theatrical techniques in *Sila*'s mise-en-scène reinforce both its emotional and critical engagement strategies. The embodiment of non-human characters through puppetry is a striking example. The mother polar bear and her cub, presented as large puppets on stage, elicit a compassionate response—audiences see the animals struggle and mourn; at the same time, the visible puppetry inherently creates a slight distance, an awareness that these creatures are symbolic of broader environmental realities. The innovative lighting and sound design further immerse viewers in the Arctic atmosphere while also serving thematic purposes. For instance, the soundscape features the howling of wind and the eerie throat-singing of Inuit tradition, juxtaposed with snippets of spoken-word poetry. This fusion of traditional and modern auditory elements underscores the play's message of interconnected worlds (Balestrini, 2020). However, the production remains sparing and minimalist in its visuals, avoiding any technologically overwhelming effects that might create a false spectacle of climate change. Instead, simplicity rules: *Sila*'s stage evokes tundra, sea, and sky with humble

props and evocative light, allowing the audience's imagination to fill in the rest. This minimalist aesthetic not only focuses attention on the actors and their relationships (human-to-human, human-to-bear, etc.) but also aligns with Brechtian ideals by not hiding the theatrical nature of the presentation. When Veronica's grief is illustrated by letters projected in chaos, or when actors address the audience in direct address-like monologues, the production is effectively saying: "Take note—this is a story being performed, and its significance extends beyond these characters." In sum, *Sila*'s dramaturgy marries Artaudian intensity[**] with Brechtian clarity[††]. By the end of the play, the spectators have been through an emotional journey—grieving, learning, and cathartically witnessing renewal—while also being equipped to analyze and question the societal issues depicted. This dual engagement is what makes *Sila* more than a poignant climate change story; it becomes what scholars term ecodramaturgy —a theater that not only tells of ecological crisis but actively shapes the audience's consciousness and conscience regarding that crisis.

Conclusion

In the recent Intergovernmental Panel on Climate Change (IPCC) report, issued on March 20th, 2023, Hoesung Lee, Chair of IPCC, emphasized the imperative of integrating effective and equitable climate action to mitigate losses and damages for both nature and humanity. Lee stressed that taking more proactive action at present could ensure a sustainable future for all (IPCC, 2023, para. 2). From an interpretive standpoint, Bilodeau's *Sila* could be construed as a response to Lee's urgent plea to mobilize more ambitious measures to address global climate change. Bilodeau contends that more data, computer-generated models, and peer-reviewed articles within the confines of Western scientific paradigms do not suffice to achieve the desired goal. It is essential to recognize the invaluable contribution of Indigenous peoples and their traditional knowledge systems in addressing the challenges of climate change, sustainable development, and the conservation of global biodiversity. Following the assertion of Indigenous scholar Douglas Herman that "now is the time for a Wisdom Revolution" (2015, p. 172), this paper highlights the necessity and implications of acknowledging Indigenous wisdom within the existing framework of climate discourse through cross-cultural, ethical, and equitable dialogue. Thìs study contends that Western science must move beyond limitations in statistical data and the epistemological categories rooted

[**]Artaudian intensity refers to the sensorial, immersive, and emotionally charged theatrical approach inspired by Antonin Artaud's *Theatre of Cruelty*. Artaud aimed to bypass intellectual analysis and reach the audience on a visceral level through sound, light, gesture, and atmosphere. In *Sila*, this manifests in the evocative Arctic soundscape, the raw depiction of animal grief, and the overall physical affect of the mise-en-scène.

[††] Brechtian clarity denotes the deliberate distancing (Verfremdungseffekt) techniques theorized by Bertolt Brecht, designed to prevent passive emotional absorption and instead provoke critical reflection. In *Sila*, visible puppetry, minimalist stage design, and direct address all remind the audience that what they are watching is a constructed performance meant to raise real-world awareness and foster political engagement.

in colonialism and hierarchy and accept the invitation to embrace Indigenous wisdom and ways of knowing, shaped by the energy of ecosystems over centuries. It is time for Western science to engage in meaningful discourse with Indigenous knowledge bearers, embracing both human and non-human entities, valuing ecological and social relations for their intrinsic meanings rather than through the lens of Western scientific literature. As Veronica asserts, Western science should start to "TALK WITH" Indigenous peoples, showing *pitsiaqattautiniq*.

Beyond the narrative, *Sila* also illustrates how theater itself can be a vehicle for social engagement and education on climate issues. The play has been recognized in environmental theatre circles for its impact; notably, Bilodeau's *Sila* was the winning play at the 2012 Earth Matters on Stage Ecodrama Festival, where it was praised for "calling attention to the interwoven lives and cultures of human and other species" and for crossing the boundaries of species, culture, language, and nation in the context of climate crisis (May, 2022, para. 10). From its opening scene centering Inuit knowledge in a geopolitical forum, *Sila* takes up questions of climate justice in a way that is both emotionally resonant and politically incisive. These qualities make it an exemplary piece for educational and activist theatre. Indeed, educators have developed classroom workshops around *Sila* as a means to teach students about ecodrama and climate change, using the play to prompt discussions about environmental responsibility and cultural perspective-taking (Brodacz-Geier, 2018).

In community settings, *Sila* becomes more than a theatrical work—it opens space for dialogue around environmental issues, particularly among audiences unfamiliar with Inuit traditions. As Theresa J. May (2015) notes, environmental theatre can cultivate affective spaces for civic engagement, and *Sila* clearly aligns with this potential. Rather than merely representing stories, it implicates the audience ethically by staging encounters between Indigenous and Western scientific worldviews. What emerges from such performances is the play's function as a bridge: linking epistemologies, cultural frameworks, and emotional vocabularies. As a result, *Sila* creates not only narrative resonance but also a shared environment in which ecological knowledge is emotionally and collectively activated.

In conclusion, *Sila* exemplifies the power of narrative and performance to inspire cross-cultural understanding and collaboration in the face of global environmental crises. It bridges Western and Indigenous sciences within its story while also using the tools of theatre – emotional intensity, allegorical imagery, direct address, and communal experience – to bridge the gap between awareness and action in its audience. As an artistic response to the planetary crisis, *Sila* gestures toward a new paradigm in which multiple epistemologies coexist and enrich one another. It enacts the very principles it promotes: reciprocity, empathy, and holistic vision. Could theatre be one of the most

potent catalysts for the "Wisdom Revolution" that thinkers like Herman (2015) envision? If *Sila* is any indication, the answer is yes—and urgently so.

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