The Prism of Inuit Qaujimajatuqangit

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INTRODUCTION

As we began to engage with the research literature, it became apparent that 'Inuit Qaujimajatuqangit' is described with some variety between records. This observation prompted us to track unique, informative, or otherwise notable descriptions of IQ during our coding phase. A closer examination of the language found in 82 'notable descriptions' led to the identification of several reoccurring terms and phrases used to communicate, embody, or explain Inuit Qaujimajatuqangit. An extensive analysis was also undertaken to identify points of intersecting interests within and between discussions. Research team member Tapisa Kilabuk led this analysis, which manifested organically as she engaged with the material and recognized shared elements or features in diverse descriptions. The analysis enabled the clustering of any recurring terms and phrases that were indicative of a shared concept or construct. Several of the concepts/constructs are presented below. As part of a reflective process, each was paired with an underived Inuktitut term with which the concepts/constructs correlated. To contextualize this process, they are presented with summary descriptions, many of the insights from research authors, images, and commentary arising from the reflective approach. This analysis allowed for a broader conceptualization of what has been difficult to define in the Nunavut research literature.

PRISM OF INUIT QAUJIMAJATUQANGIT

About half of the authors that describe or define 'Inuit Qaujimajatuqangit' in their texts provide an uncomplicated and concise explanation. Our dataset also includes hundreds of records[1] that contained expansive and descriptive definitions, where authors have elaborated on various aspects and facets of Inuit Qaujimajatuqangit. Many of these authors expressed their understanding of IQ by connecting several narratives of Inuit experience and the complex ramifications of those experiences. Many of these understandings provide insight into the historical dimensions of Inuit Qaujimajatuqangit, contemporary social norms, the function or effect of holism on IQ communication, and much more.

The Honorable Paul Okalik, Nunavummiuq and former Premier of Nunavut, provided a particularly memorable characterization of Inuit Qaujimajatuqangit during his speech at the 'Seventh Tribal Sovereignty Symposium' in 2007. Paul credits Inuit Qaujimajatuqangit as the reason that Inuit were still able to flourish despite the challenges posed by colonization. He explains, "By using Inuit concepts expressed in Inuktitut, we have ensured that future land management decisions must be interpreted through the prism of Inuit Qaujimajatuqangit" (Okalik, 2007, p. 17). His description of Inuit Qaujimajatuqangit as a prism suggests that IQ is not a uniform concept that can be fleshed out and

[1] 'Inuit Qaujimajatuqangit' appeared in 1385 (37.63%) of the records that we surveyed for our review and was defined or described in 945 (25.7%). Almost half of these definitions/descriptions were considered moderate (n=223; 22.6%) or detailed (n=229; 24.2 %). That is, we considered descriptions that were two to three sentences long as 'moderate', less than that as 'brief', and more as 'detailed'.

defined, but a multifaceted notion that can be examined, analyzed, and implemented in a myriad of ways and spaces.

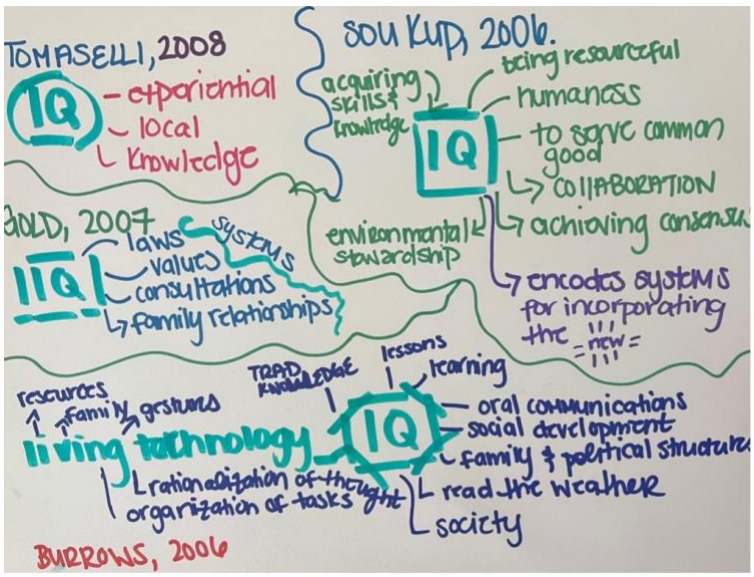
The prism analogy immediately resonated among our team given our experience with the literature and the various interpretations of IQ that we discovered through our review process. That is, we found that Inuit Qaujimajatuqangit can be discussed, engaged, or applied in many ways and spaces. We were therefore able to see the collective literature as a medium that refracts a broad spectrum of meaning as opposed to a consistent definition.

PROCESS AND ANALYSIS

The concepts and constructs discussed in this chapter emanate from the terms and phrases found in many descriptions of Inuit Qaujimajatuqangit (the specific records used for this analysis are listed in Appendix 11: Notable descriptions/definitions). Some concepts are already well-developed in the literature while some have more potential to be expanded upon. The ones presented here are meant to be understood in collaboration despite them being discussed in dedicated sections below. We appreciate that the concepts act in a system where overlap is accepted, as their meanings are often intertwined with one another.

This appendix was created independently from the other branches in this report. However, there are similar concepts discussed throughout. The intention is to identify key details of, and connections among, the concepts developed by authors in the surveyed literature.

Figure 1. *Visualizing the process: identifying the connections.*



CORE LEXES

Research authors often describe various concepts or constructs to explain what is or could be congruent with Inuit Qaujimajatuqangit. As it is common for scholarly writers to paraphrase others when not directly quoting them, these concepts or constructs can come to be expressed by many like terms while still remaining true to the original abstract or notion. In addition, derived ideas can be applied or elaborated on in several ways, spaces, and directions while still retaining their core conceptual meaning. In this way, Core Concepts (CC) are represented in the research literature by a lot of Alternate Language (AL) used to convey the same meaning. For instance:

CC: Experience < **AL**: life skills, ideas and actions, practices, consultations, experiential [as seen in Arnakak (2003), Higdon and Ferguson (2014), Martin (2009), McCall (2014), and McGregor (2013)].

> "The experiences of others and the experiences of the community are part of finding meaning and understanding" (Healy and Tagak, 2014, p.8).

CC: Relationship < **AL**: generational, social organization, kinship patterns, family, community [as seen in: Aporta (2002), Brooker (2018), Cowan (2005), Gold (2007), and Tagalik (2010)].

> "Inuit Qaujimajatuqangit" in that individuals are seen "in the context of their relationships [which] align with Inuit culture" (Brooker, 2018, pg. 11)

CC: Values < **AL**: laws, norms, ethics, governance, political structures [as seen in: Grimwood (2012), Henshaw (2006), Higdon, and Ferguson (2014), Imire (2014), and McGregor (2013)].

NOTE TO READER

This overview of Inuit Qaujimajatuqangit is based on what was found in the surveyed literature. It does not represent the views, beliefs, or knowledge of all Inuit, especially considering that most publications were authored by non-Inuit. It may however serve as a starting point to understand what has been documented and interpreted about the subject thus far in terms of research endorsed by, and in collaboration with, the Nunavut Research Institute.

LANGUAGE

Inuit Qaujimajatuqangit is a term that reflects the necessity to 'Inuitize' policy and incorporate ways of knowing into contemporary public service systems. Inuit knowledge is best reflected when contextualized with Inuit epistemologies. Because ontologies are shaped by language, we believe that further exploring the terms arising from the analyses and discussions in the systematic literature review is a worthwhile endeavor.

SECTION OVERVIEW

Literary descriptions of Inuit Qaujimajatuqangit that contained similar arguments, wording, interests, and more were compiled and analyzed for the following synopsis. The section headings are the underived Inuktitut terms with which the concepts/constructs correlate (followed by an English translation). The content is accompanied by quotes, images, and tables.

QAUJIMA
IQ as Knowledge
- a. Traditional Knowledge? Inuit Cultural Knowledge?

IKIAQTAQ
Layered relationships
- a. What Influences Inuit Qaujimajatuqangit

AVALUQANNGITTUQ
That which has no circle or border around it.
- a. An Introduction to Process

ILIQQUSIQ
Continuum, System, And Process.
- a. Using patterns to explain Interconnectedness.

TUKISIUMANIQ
Building understanding or making meaning in life
- a. Worldview, philosophy, and cosmology

SILATUNIQ
Inuit Qaujimajatuqangit is Relational

AKUNI
Evolving Nature Of IQ
- a. The Influence of Past, Present, And Future

SILATURNIQ
Inuit Conceptual Paradigms
- a. IQ As a Conceptual Framework: for understanding, preservation, and integration.

ISUMASAQSAYUQ
The elements of Inuit pedagogy
- a. The affection of teaching and learning creates positive effects.

ISUMAUTI
Metaphysics as IQ
- a. Fractions of Epistemology, worldview and more.

IQQAUMAQTIGIINIQ
All thoughts, or all knowing, coming into one (Concluding remarks)

ISUMAGIYAIT
Remembering (take aways)

QAUJIMA[2]

to know

"QAUJI - means to find out; QAUJIMA - means to know; QAUJIMAJAQ- means what or that which is known; QAUJIMAJATUQAQ - means something which has been known for a long time; and Inuit QAUJIMAJATUQANGIT means something that Inuit have known for a long time" (Alexina Kublu in Stern, and Stevenson, 2006, p. 101).

The inclusion of Inuit Qaujimajatuqangit in several academic discourses has provided an incredible opportunity for academics, organizations, and Inuit and non-Inuit community members to share their understandings of IQ and learn from one another as content emerges. Arguably, the typical definitions of Inuit Qaujimajatuqangit are formed by relating Inuit to their knowledge, culture, actions, and ideas **(Aporta, 2002; Brown, 2016; Dunning, 2012; Gearhead et al., 2010; Grimwood, 2012; Grimwood & Doubleday, 2013; Kelley, 2009; Klein, 2017; Knopf, 2018; Leduc, 2006; Meis, 2015; Obed, 2017; Okalik, 2007; Tomaselli, 2018; White, 2006).** Inuit Qaujimajatuqangit is often discussed as knowledge(s) connected to Inuit culture. A variety of perspectives inform the current discourse and authors' descriptions are either validated or invalidated by one another.

TRADITIONAL KNOWLEDGE?

The miscommunication of Inuit Qaujimajatuqangit has become a reoccurring concern in the literature. Many authors identify how IQ is connected to tradition(s) and this has become a point of contention, as that description limits IQ to the realm of past Inuit ideas or actions.

Williamson (2022) shares their ambivalence toward the terms Inuit Qaujimajatuqangit, Indigenous knowledge, and Traditional knowledge. Traditional knowledge, they said, has indication of pastness for some **(Williamson, 2022, p. 45)** and this same pastness has become embedded in Inuit Qaujimajatuqangit and Indigenous knowledge. **Arnakak (2002)** writes, "Inuit Qaujimajatuqangit, or IQ, from its inception, is intended to include not only Inuit traditional knowledge but also the contemporary values of Nunavut's communities" (p. 34). In the article *Cultures in Collision: Traditional Knowledge and Euro-Canadian Governance Processes in Northern land-claim Board*, the Author briefly examines the language used to discuss Inuit and their knowledge. They point out the "misleading connotations" found in using such terminology as "traditional," which "suggest customs and beliefs [being] frozen at a particular point in time (usually the distant past)" **(Nadasdy, 2003 as cited in White, 2006, p. 402).** They also state that Inuit Qaujimajatuqangit has become the preference over "traditional" given that IQ combines "the traditional knowledge, experience and values of Inuit society, along with the present Inuit

[2] Dunning, N. (2012). Reflections of a disk-less Inuk on Canada's Eskimo identification system. Études/Inuit/Studies, 36(2), 209-226.

knowledge, experience and values that prepare the way for future knowledge, experience and values" **(GN, 2002 as cited in White, 2002, p. 402).**

Jose Kusugak's (2004) perspective acknowledges that Inuit Qaujimajatiqangit develops from the past, but carries forward through cultural learning. He writes:

> "Following the literal meaning of Inuit Qaujimajatuqanjit, I would have been born with the knowledge of building iglus, qajaqs, Shamanism, traditional music skills, delivering babies, the intricacies of skinning animals, weather forecasting and a thousand other things; because Inuit Qaujimajatiqangit, which, when translated into English means 'Inuit instinctive knowledge.' Other than suckling, crying, and hurting, not much else is instinctive. [However], like all races of people in this world, all knowledge is learned" (p. n.a.). Furthermore, "all this new knowledge had to be taught from one Inuk generation to the next. It also had to be taught and learnt in the most practical way respectable to the culture, in which it is taught and learned" (p. n.a.).

Research authors alike exclaimed that Inuit Qaujimajatuqangit is not stagnant. Williamson (2022) wrote, "Of course, traditions are dynamic and ever-changing, and Indigenous knowledge is more than a static collection of skills and information. I use the term Inuit knowledge to reinforce that this is a specific, situated complex of living knowledge and skills" (Williamson, 2022, p.165). Several authors argue that regardless of the knowledge, skill, or understanding created in the past, the intention is that these ideas and actions should not be confined to the past, and therefore IQ remains relevant if understood correctly (Imrie, 2009; Kelley, 2009; Rosen, 2013; Williamson, 2022; Woynarski, 2020).

INUIT CULTURAL KNOWLEDGE?

Many descriptions of Inuit Qaujimajatuqangit [82 articles analyzed: 92 mentions of cultur/e/al/ally. Alternative language: society[ties]/societal] emphasize the cultural component of Inuit knowledge **(Brooker, 2018; Ferrazzi et al., 2019; Leduc, 2006; and McGregor, 2013)**. Several authors preferred using the term cultural knowledge, [as it] "is thought to capture better the need to include contemporary and future knowledge as epistemological conceptions embedded in IQ" (**Ferrazzi et al., 2019, p. 3).** Descriptions of Inuit Qaujimajatuqangit that emphasize culture can signal its complex nature and tend to place it beyond the past. For example, **Weber (2013)** states, "IQ represents an effort to recognize and harvest the great continuities and strengths of Inuit culture in the context of the 21st century with its mad scramble for resources in the 'pristine' Arctic" **(p. 215).**

An analysis of the intersecting interests within and between discussions points to Inuit Qaujimajatuqangit as a broader philosophy, of which Inuit knowledge and culture are integral components. The elements are synonymous and, when in alignment, propose a framework. IQ reflects the inseparable connection between what the Inuit know and how they live, forming a unique foundation for their cultural identity and sustainable practices. As a term, 'Inuit Qaujimajatuqangit' encompasses both Inuit knowledge and cultural practices, but it is different from either of these concepts individually. Researchers may choose to avoid defining Inuit Qaujimajatuqangit in a silo or as being representative of an entire peoplehood at a specific time and space, and instead iterate IQ in a

way that is representative of the multi-dimensional realities from past, present, and future Inuit. This may lead to Inuit Qaujimajatuqangit being described more broadly, displaying more fractals in the 'prism'.

IKIAQTAQ[3]

something made in layers, layered composition.

Environment, society, community, values, and Elders are among the interrelated layers that influence the nature of Inuit Qaujimajatuqangit.

INFLUENCE: LAND

(alternate terms: land, nuna, nature, animals, land-use, local, environment).

The connection between Inuit Qaujimajatuqangit and Land (*Nuna*) is regularly acknowledged within the literature. 'Land' is inclusive of water (I*maq*) and sky (*Sila*) **(Qitsualik, 2013)**. Particularly, **Kelley's (2009**) case study provides critical perspectives from various writers who elaborate on how land is integral to IQ. Kelley (2009) summarizes "Inuit have developed a deep understanding of their environmental context and surroundings, through their long-term observations, uses, and experiences of the land, water, sea, and ice around their communities and in the places where they used to live before moving to the settlements" **(p. 45)**. Additionally, **Okalik (2007)** writes, "[IQ] is [the] belief system that continues to define our Inuit societal values," and it is "closely tied to [Inuit] land and the family bonds that have allowed [Inuit] to flourish where others have not" **(p. 12).** Notably, **Woodley et al., (2015)** provide an example of the "effectiveness of IQ" whereby they use a research team's work around "population and distribution trends for four species of migratory birds" **(p. 674).** Thet found "[f]or two of the species examined, local knowledge identified population shifts that were previously unknown to Western science" **(p. 674). Berkman et al. (2019)** as they state "[as] Northerners, because we live here and have lived here for centuries, have deep reservoirs of traditional and local knowledge about the land and the environment and can make major contributions in this regard" **(p. 327).**

INFLUENCE: COMMUNITY

The community greatly influences the understanding, conceptualizing, and transmission of Inuit Qaujimajatuqangit. Community being inclusive of family, kinship ties, and ancestors. Many principles and natural laws associated with IQ mention the importance of serving the community with your knowledge and actions. IQ's meaning is complex and reflective of a community-based perspective.

[3] McGrath, J. T. (2018). *The Qaggiq model: Toward a theory of Inuktut knowledge renewal*. Nunavut Arctic College Media.

Arnakak (2003) writes "when we are talking about IQ, we are not talking about a monolith, but about a very diverse phenomenon that changes from community to community with unlimited themes" **(p. 176).**

Gold (2007) describes Inuit Qaujimajatuqangit as "a hybridizing perspective" **(p. 359).** The author further explains IQ as "a system of laws, values and consultations; and an understanding of complex family relationships that is explained by Inuktitut kinship terminology" **(Nunavut, 2000 as cited in Gold, 2007, p. 359).** Adding, "IQ is about "healthy, sustainable communities regaining their rights to a say in the governance of their lives using principles and values they regard as integral to who and what they are" **(Arnakak, 2001, as cited in Gold, 2007, p. 359).** Gold (2007) states that IQ is "central to the attempt to legitimate northern and Inuit expertise" **(p. 359).**

Johnston (2011) maintains "IQ is particularly important to Nunavummiut families today, as "the traditional kinship structure is the means whereby goods and services are transacted and exchanged," but it is also the "means of transmitting ideas, values, knowledge, and skills from one generation to the next. In other words, individual, family and society are linked by the kinship structure" (Arnakak, 2001)" **(p. 69). Brown (2016)** adds familial community context, stating "Such lessons served to pass cultural information onto successive generations through observational, experiential, and participatory learning methods. This Process ensured that upon reaching puberty, each individual would be fully capable of, and therefore expected to meaningfully contribute to the community's physical and social needs (Condon and Stern 1993). Thus, by age twelve or thirteen, an individual would be expected to complete all tasks socially ascribed to their gender (Condon and Stern 1993). In short, childhood was characterized as a period of experiential learning, while adulthood required tangible action" **(p. 73).** The influence of Inuit Qaujimajatuqangit within the context of community manifests in different ways. For instance, "the principle of Aajiiqatigiingniq, or collective work to address challenges, is the principle used by Inuit to adapt as a community to their environment" (McMillan & Sheppard, 2020, p.198),

INFLUENCE: SOCIETY

The Inuit Qaujimajatuqanginnut Task Force's (2002) IQ description is used often in articles that link IQ to society (Baikie, 2020; Grimwood, 2012; Grimwood & Doubleday, 2013; McCarney, 2018; Meis, 2015; Van Dam, 2005). They state "Inuit knowledge, or Inuit Qaujimajatuqanginnut (IQ), is described as 'the Inuit way of doing things: the past, present and future knowledge, experience and values of Inuit society" (Inuit Qaujimajatuqanginnut Task Force, 2002, p. 4).

Society greatly influences the transmission and interpretation of Inuit Qaujimajatuqangit. Inuk author Jaypetee Arnakak champions the narrative that links the presence of society with Inuit Qaujimajatuqangit. His work (2001, 2002, 2003) was used by many of the authors mentioned in this review. Notable ones include IQ being "a set of teachings on practical truisms about society, human nature and experience passed on orally (traditionally) from one generation to the next […]. It is holistic, dynamic, and cumulative in its approach to knowledge, teaching, and learning" (Jaypetee Arnakak (2002) as cited in Martin, 2009, p.185; Higdon & Ferguson, 2014, p. 15). Particularly, Johnston (2011) draws on Arnakak, 2001 in their work. They state "Inuit Qaujimajatuqangit (IQ), has been described as "a means of rationalizing thought and action, a means of organizing tasks and resources, [and] a means of

organizing family and society into coherent wholes," (Johnston, 2011, p. 69). Further dialogue highlights Arnakak's interpretation "that IQ possesses a temporal sweep that extends into the past, present, and future and is a living technology through which Inuit thoughts and actions, tasks and resources, family and society are organized" (Daborn, 2017, p. 30). Meis (2015) also uses Arnakak, 2001 in their discussion by stating "IQ is more than traditional knowledge or wisdom; it is about process" (Arnakak, 2001 as cited in Meis, 2015, p. 137).

INFLUENCE: VALUES

Principles, values, and laws are significant because they shape worldview, social structure, and ethical framework known to Inuit. A structure is offered for a better understanding of the nuances behind such values. This structure includes (1) four core beliefs, also known as natural laws and in Inuktitut as *Maligait/Maligarjuat,* (2) eight guiding principles or Inuit societal values that articulate further the four core beliefs, and (3) thirty-eight fundamental values supported by natural laws and IQ.

MALIGAIT

McMillan & Sheppard (2020) offers some insight into *maligait.* They describe "IQ frames a worldview around Nuna [land] by four maligarjuat which is translated as "big things that must be followed". These include:

- → Maintaining harmony in communities and in the mind
- → Working for the common good
- → Being respectful of all living things.
- → Continuously planning for the future in the changing environment" (p. 198).

Six of the 82 descriptions selected for this analysis referenced Maligait/natural laws. Their iterations were very consistent, however each left room for their meaning, significance, and impact to be further explored.

KEY INUIT VALUES

Topkok (2015) discusses how IQ and Inuit values work together simultaneously. This is demonstrated and articulated through the use of the Nalukauq (blanket toss). Topkok states, "[t]here are 38 values and beliefs for Inuit cultural values developed by Canadian Inuit Elders and educators (Aboriginal Learning Knowledge Centre, 2007). These Inuit values are centered on connection, work, coping, and government. According to the Inuit Qaujimajatuqangit, each value represents a person holding a skin blanket (learning) for a blanket toss (journey). In order for a successful pull, each individual (value) needs to pull equally in order to help the one on the blanket" (p. 21).

INFLUENCE: ELDERS

> *"Elder. A person identified by the community as a "culture bearer" as they exemplify the values and lifestyle (not just their chronological age. According to Inuit Qaujimajatuqangit, elders serve as advisors, philosophers, and professors" (Meis, 2015, p. xvi).*

Past, present, and future Elders are responsible for sharing the knowledge and concepts regarding the intricacies of Inuit Qaujimajatuqangit. Numerous texts have dedicated a plethora of information to help understand elder influence, responsibility, stories, and experiences. **Baikie (2020)** shares a quote explaining the connection between Inuit Qaujimajatuqangit and Elders. It reads, "Fortunately, when the Canadian territory of Nunavut was established in 1999, its government made a priority, through engaging with Elders as traditional knowledge keepers, to identify and articulate an Inuit ethnophilosophy as the means to develop Inuit-centered policies and practices. Inuit Qaujimajatuqangit (IQ) was the outcome and is "defined as Inuit ways past, present and future (Tagalik, 2009-2010, p. 2)" (**p. 43**).

In the past and modern day, Elders are considered "authorities on knowledge" (**Laugrand & Oosten, 2010, p. 17**), "As Elders are regarded as the keepers of Inuit Qaujimajatuqangit (IQ), language, culture, and knowledge" (Brown, 2016, p. 23). Aikens (2019) and DeLorenzo (2016), share the same perspective. They both quote, "The Elders are not advocating a return to the past, but a grounding of education in the strengths of the Inuit so that their children will survive and successfully negotiate the world in which they find themselves today (**Nunavut Department of Education, 2007 as cited in Aikens, 2019, p. 63**) and (**Piercy, 2012 as cited in DeLorenzo, 2016, p. 15**).

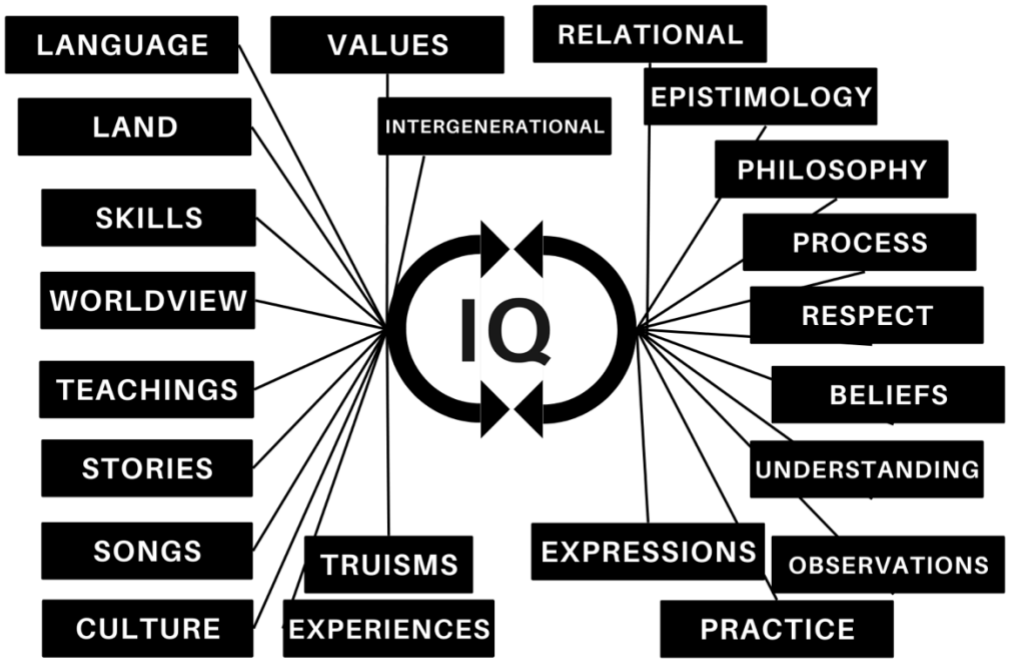
A V A L U Q A N N G I T T U Q[4]

that which has no circle or border around it

Several authors use expansive or encompassing descriptions of Inuit Qaujimajatuqangit that speak to it as a complexity of many aspects.

[4] Tester, F. J., & Irniq, P. (2008). Inuit Qaujimajatuqangit: Social history, politics and the practice of resistance. *Arctic*, 48-61.

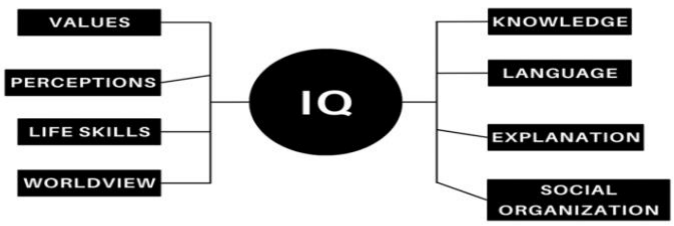
Figure 2. *Visualizing the Process: Communicating Concepts < Inuit Qaujimajatuqangit*



Several authors elaborate on the notion that Inuit Qaujimajatuqangit encompasses all aspects of Inuit culture and experience. Many source insights from Government of Nunavut (1998, 2005) documents **(Henshaw, 2006; Higdon, and Ferguson, 2014; McGregor, 2013; McCarney, 2018; and Kelley, 2009).**

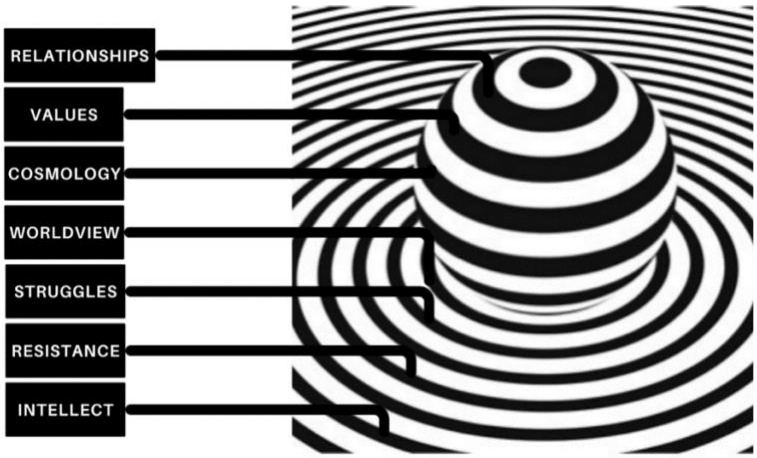
The government of Nunavut has worked to develop a unified understanding of IQ and the role of Inuit culture in government operations. A meeting on Traditional Knowledge in Igloolik, Nunavut in 1998 that was convened by the Nunavut Social Development Council, brought together Elders from all Nunavut communities to address this need. Wenzel (2004) quotes an anonymous meeting participant who conceptualized IQ as a way of knowing that encompasses "all aspects of traditional Inuit culture including values, worldview, language, social organization, knowledge, life skills, perceptions, and expectations" **(McCarney, 2018, pg. 8).**

Figure 3. *Visualizing the Process: Inuit Qaujimajatuqangit encompasses many aspects*



Many authors rely on one of the many Inuktut representations and translations found in Tester and Irniq (2008) (**Grimwood, 2012; McCarney, 2018; Rosen, 2013).** For example, the concept of *avaluqanngittuq* (that which has no circle or border around it) is a descriptive term meant to represent IQ as 'all-encompassing or seamless. IQ is a "seamless" unity with no discernable parts and where everything is related to everything else in such a way that nothing can stand alone, even in the interest of gaining an appreciation of the whole" **(pp. 88-89, p. 8, p. 8).** "In other words, everything is related to everything else in such a way that...nothing can stand alone" **(Tester & Irniq, 2008, p.49).**

Figure 4. *Visualizing the Process: imagining seamlessness*



PROCESS

Some authors introduce an element of 'process' to the understanding of an all-encompassing or seamless belief system. **Meis (2015)** quotes **Arnakak (2001):** "IQ is more than traditional knowledge or wisdom; it is about process" **(p. 137).** Explanations of IQ by writers including **Dunning (2012), Gearheard et al. (2010), and Grimwood (2012)** all recognize a 'process' led by elders using oral tradition, observation, and practice and connect it to how Inuit knowledge, values, beliefs, and skills are shared. Similarly, **Obed (2017)** writes, "This study, guided by Inuit knowledge and understandings of the land as pedagogy, meaning a process of relationship building that is specific to the principles of Inuit Qaujimajatuqangit (IQ), supports us as Inuit to tell stories from our own worldviews while also honing and demonstrating our inherent competencies" **(p. 4).** Processes evolve over generations and continue to play a crucial role in maintaining the vitality of IQ and the sustainability of Inuit communities. Process is discussed in terms of how Inuit Qaujimajatuqangit is developed, transmitted, and applied, and how it shapes Inuit practices, beliefs, and more.

ILIQQUSIQ[5]

our patterns of behaviour and being.

PATTERNS/INTERCONNECTING

Several authors extend the notion of 'process' by describing IQ in terms of continuums and patterns within the interconnected elements of systems. Expansive or encompassing descriptions are often found in use in the research literature by system theorists who aim to capture the complexity and interconnectedness of various phenomena and connect the different elements interacting within a system. Authors like **Brooker (2018)** specifically connect "systems theory" to "Inuit Qaujimajatuqangit" in that individuals are seen "in the context of their relationships [which] align with Inuit culture" **(p.11).** Other authors reference the systematic nature of IQ in their explanations. For example: **Okalik (2007)** explains Inuit Qaujimajatuqangit in terms of being a "developed social code and knowledge system" **(p. 12).** They add that "[it] is this belief system that continues to define our Inuit societal values," and it is "closely tied to [Inuit] land and the family bonds that have allowed [Inuit] to flourish where others have not" **(p. 12).** Similarly, **Tagalik (2010)** describes IQ "as a system of belief which considers the importance of relationship/interconnectedness to the environment/Sila and to other people" **(p. 8). Brooker (2018)** goes on to explain that the "guiding seven principles" of IQ "overlap, revealing the foundation of this society that values the interconnected nature of all involved" (p. 11). **Sbert (2020)** adds, "Inuit Qaujimajatuqangit (IQ) reflects a worldview based on interconnectedness with, and respect and responsibility towards the natural world **(p.75).**

Several authors also recognize that Inuit Qaujimajatuqangit can be understood along three continuums that are pertinent to the Inuit Worldview. For example, **Knopf (2018)** cites **Tagalik (2014)** in explaining "that Inuit Qaujimajatuqangit — Inuit epistemology or the Indigenous knowledge of the Inuit - is based on three continuums: knowledge continuum, time continuum, and relationship continuum. Inuit Qaujimajatuqangit is 'knowledge embedded in process' and 'reliant on the cultural expectation of iqaqqaukkaringnig (deep thinking that leads to innovation). This is a dynamic process of knowing, applying, experiencing, evaluating, and creating new knowledge grounded in a continuum of knowing and continually improving' **(p. 194).** That is, the patterns that emerge from the three continuums generate a space that provides Inuit the means to acquire knowledge by adapting to the experiences of past, present, and future Inuit. The processes manifest in health and well-being to establish self-reliant individuals who can share their wisdom with their community and honour the fact that knowledge must be ongoing **(Aikens, 2019; Aporta, 2002; Brooker, 2018; Gold, 2007; McCarney, 2018; Okalik, 2007; Semple, 2020; Tagalik, 2014).**

[5] Kaluraq, M. K. (2020). *Nunami Ilinniarniq: Inuit Community Control of Education through Land-based Education*. Gordon Foundation.

Abele & Gladstone (2021) describe a more common process that is characteristic of Indigenous Knowledge in general: "it is an understanding of the world and of the human place in the world…. From observations, people everywhere find patterns and similarities and associations, from which they develop a view of how the world works, a view that explains the mysteries surrounding them, that gives them a sense of place" **(p.33).**

TUKISIUMANIQ[6]

building understanding or making meaning in life

EPISTEMOLOGY

Inuit epistemology refers to how Inuit perceive and understand the world, acquire knowledge, and make meaning of their experiences. It shares ways of knowing, learning, and organizing knowledge that are deeply rooted in culture, society, and environment. Inuit epistemology reflects the worldview, philosophies, and cosmologies of the Inuit communities **(Arnakak, 2003; Johnston, 2011; Healy & Tagak, 2014; Knopf, 2018; Metals, 2018; Baikie, 2020; Williamson, 2022).** Inuit epistemology is brought into discussion is various ways. For example:

'WORLDVIEW' IN THE LITERATURE

> **Cowan (2005)** states that "Inuit Qaujimajatuqangit refers to the traditional worldview of the Inuit prior to colonisation and defines the essential relationships between individuals, families and the environment" **(p. 53).**
>
> "While there are variations amongst the diverse Inuit societies, IQ 'has been recognized as being consistent with Inuit worldview as it is described in various Inuit circumpolar jurisdictions' (Tagalik, 2009-2010, p.1)" **(Baikie, 2020, p. 43).**
>
> **Sbert (2020)** writes, "Inuit Qaujimajatuqangit (IQ) reflects a worldview based on interconnectedness with, and respect and responsibility towards the natural world" **(p. 75).**

'PHILOSOPHY' IN THE LITERATURE

> **McCall (2014)** draws on the perspective of Alisa Henderson to explain, "As a holistic philosophy, IQ encompasses a vast range of ideas and actions, including knowledge of land, kinship patterns, and customary law, as well as the elders' accumulated 'memories, knowledge, stories, and skills'" **(Report from the September IQ Workshop 1999, qtd. in A. Henderson 192 as cited in McCall, 2014, pp. 200 -201).**

[6] Tagalik, S. (2012). *Inunnguiniq: Caring for children the Inuit way*. National Collaborating Centre for Aboriginal Health.

Semple (2020) writes, "Inuit Qaujimajatuqangit is about knowledge that is embedded in process; a dynamic system that links Inuit philosophy and action in the evolving contemporary context" **(p. 102).**

'COSMOLOGY' IN THE LITERATURE

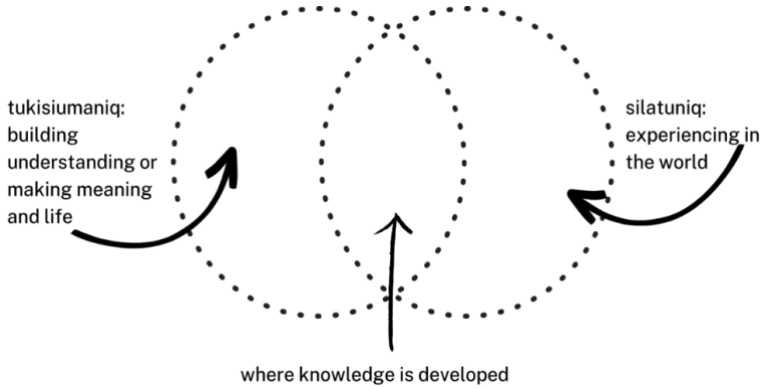
Arnakak (2003) also includes cosmology in his definition of IQ: "It is the corpus of Inuit epistemology and cosmology" (p 176). A similar perspective is put forth by **Grimwood and Doubleday (2013)** as they reiterate Tester and Irniq's (2008) notion of IQ as the entanglement of Inuit beliefs and cosmology.

Inuit Qaujimajatuqangit is associated with Inuit epistemology, or how Inuit perceive and comprehend the world, learn, and interpret their experiences. It is comprehensive and shares ways of knowing, learning, and organizing information that are deeply ingrained in their cultural, social, and environmental contexts. Inuit epistemology is a reflection of the Inuit communities' worldview, philosophies, and cosmologies.

SILATUNIQ[7]

experiencing the world

Figure 6. *Visualizing process: Inunnginiq – the making of a human being.*

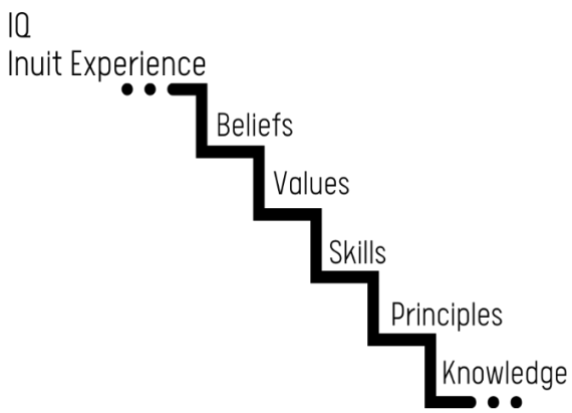


Inuit have a profound knowledge of their surroundings through firsthand experiences. Interacting, experimenting, reflecting, or engaging with relationships amid individuals, families, places, the universe, and spiritual realms determines Inuit realities and is reflected in Inuit Qaujimajatuqangit (**Arnakak, 2003; Baikie, 2020; Cowan, 2005; Dunning, 2012; Gearheard et al., 2010; Gold et al., 2005; Grimwood et al., 2012; Grimwood, 2013; Healy, and Tagak, 2014; Higdon, and Ferguson, 2014; Kelley, 2009;**

[7] Tagalik, S. (2012). *Inunnguiniq: Caring for children the Inuit way*. National Collaborating Centre for Aboriginal Health.

Kilbourne, 2008; Knopf, 2018; McGregor, 2013; McCall, 2014; Meis, 2015; Tremblay et al, 2018; Van Dam, 2005; White, 2006; Woynarski, 2020).

Figure 7. *Visualizing the process: experience and resulting knowledge/ wisdom.*



"Tagalik (2009-2010) explains "IQ encompasses the entire realm of Inuit experience in the world and the values, principles, beliefs and skills which have evolved as a result of that experience. It is the experience and resulting knowledge/wisdom that prepares us for success in the future and establishes the possible survival of Inuit (p.2)" (Baikie, 2020, p. 43).

SILATURNIQ

collective level of wisdom

McGregor (2013) defines Inuit Qaujimajatuqangit as an "Inuit Conceptual Paradigm" (p. 97). An Inuit conceptual paradigm could be understood as representing the "…epistemological conceptions embedded in IQ" (Ferrazzi et al., 2019, p. 3). McGregor agrees that communicating Inuit Qaujimajatuqangit as a conceptual framework enables a more comprehensive understanding and appreciation of the knowledge, values, and practices inherent in IQ. Examples of contributions to this discourse include:

> "IQ is also considered as a type of conceptual framework, and remains a changing concept, evolving as Inuit face new challenges and new opportunities (Wenzel, 2004)" **(Kelley, 2009, p. 44).**
>
> **Hearne (2017)** reiterates, "the IQ framework describes the quality of Qanuqtuurniq, or 'a quality of resourcefulness in problem-solving,' suggestive of resilience or plasticity; as Qitsualik-Tinsley asserts, 'Inuit are the embodiment of adaptability itself'" (qtd. in Martin 3, 8). The IQ report foregrounds a model of traditional Inuit conceptions of knowledge that already encodes systems for incorporating the new because its very definition as knowledge entails the ability to adapt resourcefully to changed circumstances as a central value" **(p.188).**
>
> "IQ involves respecting traditional and contemporary perspectives, thoughts and actions, decision-making, resourcefulness, and environmental stewardship (Wenzel, 2004). IQ is also

considered as a type of conceptual framework, and remains a changing concept, evolving as Inuit face new challenges and new opportunities (Wenzel, 2004)" (Kelley, 2009, p. 45).

Presenting Inuit Qaujimajatuqangit as a conceptual framework serves to bridge understanding, preservation, and integration. It respects the Inuit culture, enhances cross-cultural communication, and offers valuable insights contributing to sustainable practices and informed decision-making.

Benefits of presenting IQ as a conceptual framework:

1. It allows individuals to grasp the interconnectedness of its components and how they work together to share the Inuit way of life.
2. Provides a structure that facilitates cross-cultural communication and understanding for those outside the Inuit community.
3. Creates a curriculum for teaching and learning opportunities in which the content resonates with Inuit realities.
4. Conceptual frameworks provide context, helping individuals understand the historical, cultural, and environmental factors that have shaped IQ. This contextualization enhances comprehension and appreciation.
5. To preserve and transmit Inuit beliefs, practices, and knowledge.
6. To give guidance regarding decision-making and perpetuating ethical behaviour.
7. Uplift and give voice to Inuit cultural identity.

A K U N I[8]

time between events; distance between objects

"One elder suggests that to appreciate the evolving nature of Inuit Qaujumajatuqanjut we should think of it as Inuit experiences rather than traditional knowledge" (Gold et al., 2005, p. 17).

The perspectives, experiences, thoughts, and actions of past, present, and future Inuit are connected by processes and purpose that synthesize time and space. Several authors suggest that the manifestation of Inuit knowledge is intergenerational and many describe the primary purpose of Inuit Qaujimajatuqangit as sustaining Inuit and Inuit culture for generations **(Aikens, 2019; Derman, 2015; Martin, 2009; Tagalik, 2010; Tremblay et al., 2017).**

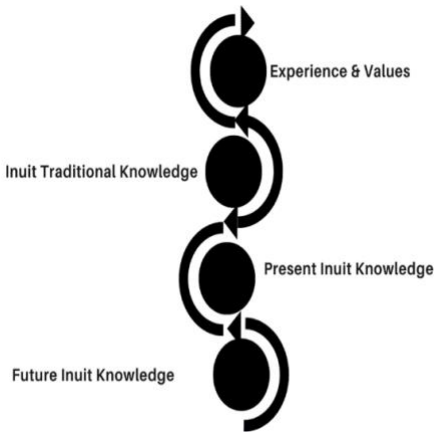
According to **Rosen (2013),** IQ has two essential elements: emphasizing the 'process or doing' and relating to time as the synthesis of past, present, and future. IQ combines experiences and values as the knowledge of past, present, and future Inuit. Time and space are essential considerations to integrating past, present, and future Inuit perspectives, experiences, thoughts, and actions. **White (2006)** uses an explanation previously published by the Government of Nunavut, stating that IQ combines experiences and values as the knowledge of past, present, and future Inuit. **Meis (2015)** contributes to this

[8] Translation by: https://tusaalanga.ca/glossary

conversation by reiterating, "this definition makes clear that it is the combining of the traditional knowledge, experience, and values of Inuit society, along with the present Inuit knowledge, experience and values that prepare the way for future knowledge, experience and values" **(Meis, 2015, p. 137).**

Several authors dismantle the idea of IQ being of the past by presenting arguments that bring it into the present. According to **Laugrand & Oosten (2010)**, "researching Inuit Qaujimajatuqangit" is considered "as a way to recover a cultural heritage. In this way, Inuit will be enabled "to create a modern society based on their own traditions and values" **(p. 17).** Similarly, Inuit Qaujimajatuqangit "…helps us to better understand and adapt to today's changes and challenges" **(Jeannotte, 2017, p. 205).** **Steiner et al. (2021)** write that IQ "provides a wealth of information to help understand ongoing and future changes..." **(p. 30).**

Figure 8. *Visualizing Process: IQ combines experiences and values from the knowledge of past, present, and future Inuit.*



ISUMASAQSAYUQ[9]

passing along knowledge through observation and imitation.

Inuit Qaujimajatuqangit is described as more than just content. That is, it is not just what is known, it is also how it becomes known. Jose Kusugak wrote, "All this new knowledge had to be taught from one Inuk generation to the next. It also had to be taught and learnt in the most practical way respectable to the culture, in which it is taught and learned" (Kusugak, 2004, p. n/a)

Arlene Stairs' definition of Isumasaqsayuq is from Williamson (2022):

> Isumasaqsayuq means *"[as] the way of passing knowledge, through observation, and imitation embedded in daily family and community activities with integration into the immediate, shared social structure and ecology as the principal goal. The focus is on values developed through the learner's relationships to other people and to the environment"* (p. 203).

Gearheard et al. (2010) writes, "For generations, Inuit have lived off the land. Through activities such as hunting, fishing, preparing food and skins, and travelling the land, ice, and waters of the Arctic, Inuit have developed a complex understanding of the environment. Constant observation and experience over time accumulate to form Inuit knowledge (Inuit Qaujimajatuqangit), which also incorporates Inuit values and beliefs. Inuit knowledge and skills are passed down through generations through oral tradition, observation, and practice. This knowledge is dynamic, constantly evolving as each knowledge-holder engages with their environment and integrates their own experiences (Berkes 1999; Ingold and Kurtilla 2000; GN 1999)" (p. 271).

Brown (2016), Obed (2017), Tester and Irniq (2008) are among many authors who stress the experience of relations with land, people, and others in the learning of IQ. Table 3 provides an overview of the process of turning Inuit experience into Inuit knowledge as explained by Tagalik (2009 – 2010).

There is a consensus among many texts that for Inuit Qaujimajatuqangit to continue through the generations, there must be opportunities for teaching and learning. Pedagogy is therefore meant to pass on the tools and skills to survive in such as way that Inuit belief systems retain meaning relevant to the present. Furthermore, Tagalik (2011) describes the process as Inunnginiq – the making of a human being. When learning is centred on "building understanding, or making meaning of life, along with experiencing in the world, knowledge is thus created. However, for knowledge to emerge, the belief, and actions of Inuit values and principles for wisdom must be adhered to" **(Tagalik, 2011, p. 1).**

Several authors agree on the purposes of practices and beliefs in Inuit pedagogy **(Abele and Gladstone, 2021; Arnakak, 2002; Martin, 2009).** Since time immemorial, Inuit have created opportunities to share their experiences, observations, and actions with the incoming generation, just as the generation before

[9] Williamson, C. (2022). *Sewing in Arviat: Inuit Women's Work through Stories and Parkas* [Doctoral dissertation, Carleton University].

them. Whether for purposes of survival, the development of living well, the particularities for a successful hunt, or carrying a name forward, each practice shares deep-rooted meaning. In addition, the teaching and learning of these practices enacts a sense of care.

Figure 9. *Visualizing the Process: processing pedagogy*

IQQAUMAQATIGIINNIQ[10]

all thoughts, or all knowing, coming into one.

This analysis was conducted with the intension of finding meaning for the term 'Inuit Qaujimajatuqangit' by considering the descriptions offered by many authors, several of who themselves have grappled with pairing IQ with a purposed definition(s). An aggregate description of IQ based on an analysis of 82 'notable descriptions' might include:

Inuit Qaujimajatuqangit is a unique framework that interweaves Inuit knowledges, culture, values, and ways of being into an evolving approach to understanding and interacting with the world. It prescribes processes and practices that synthesize the past, present, and future. It is expressed through a complexity of deeply involved concepts that are purpose driven and affect behavior, relations, survival, well-being, and much more.

[10] Healy, G., & Tagak Sr, A. (2014). PILIRIQATIGIINNIQ 'Working in a collaborative way for the common good': A perspective on the space where health research methodology and Inuit epistemology come together. *International Journal of Critical Indigenous Studies*, *7*(1), 1-14.

ISUMAGIYAIT[11]

remembering

The points below are among the many take aways from this analysis of 'notable descriptions' found in the Nunavut research literature.

- → IQ is the traditional as well as the contemporary knowledge of Inuit. As a guiding practice, Inuit are the experts in their experiences.
- → The word knowledge derives from Western thought, which comes with a standard definition that is limiting when applied to Inuktitut. IQ is Inuit knowledge and much more.
- → By considering IQ as a conceptual framework, one that embraces change is a variable among interrelated components, we can recognize how IQ is evolving/adapting to create new opportunities to manage both new and reoccurring challenges.
- → A standard definition of IQ can place it within unintentional boundaries. However, by examining the points of intersect (i.e., the shared terms or concepts) between descriptions of IQ, we were able to see the collective literature as a medium that refracts a broad spectrum of meaning that is both more representative and expansile than a consistent definition.

Prominent IQ themes in the literature

From the appendices of Kilabuk, Tapisa, Darlene Jacque, Tuttu Hunter, Christine Qillasiq Lussier, Edward Allen. 2023. *The Nunavut Arctic College and the mobilization of Inuit Qaujimajatuqangit in Nunavut research: A systematic review of research literature (1996-2022)*.

This literature review surveys peer-reviewed and grey literature including books, scholarly articles, and other products of Nunavut research conducted between 1996 and 2022.

Introduction

An analysis was undertaken to gain insights regarding how 'Inuit Qaujimajatuqangit' appears (i.e., is defined, described, engaged, used, applied, represented, discussed, etc.) in Nunavut research. Themes emerged within the text obtained from 1384 research records. We selected descriptive and/or unique examples[12] to illustrate the more prominent themes. We present them here as a supplemental resource for new researchers seeking a general understanding of Inuit Qaujimajatuqangit as it is discussed in the Nunavut research literature.

In the interest of knowledge mobility, we reduced repetition by using solitary yet representative examples of how Inuit Qaujimajatuqangit appears in the Nunavut research literature. These

[11] Translation provided by Mattutsi Kilabuk (personal communication, 2023)

[12] Our abundant use of direct quotes represents our effort to respect research authors' original articulations. We also mirror the language use by authors when not directly quoting them. This has allowed us to present our findings in a tone similar to those conducting the research in Nunavut.

examples do not encapsulate the entirety of a literary discussion, qualify a particular discourse, or bring closure to existing debates. In addition, the themes are interconnected and interdependent and our arrangement below is not meant to suggest that the concepts, discourses, or applications can be understood in isolation. Instead, these often-overlapping accounts help to better imagine the whole of Inuit Qaujimajatuqangit from what is shown in the Nunavut research literature.

Summary of findings

• The modern origins and the political contexts in which the term 'IQ' developed is generally agreed upon in the literature. Yet, we also found that IQ is defined and described with some inconsistency, and this has impacted the application of IQ in established systems and institutions.

• The research literature largely acknowledges the colonial history of research in Nunavut. It also shows that as Inuit self-determination in research grows, so does the confidence among Inuit that research will be beneficial to Inuit.

• Land is a central component of IQ and Inuit-land relationality is emphasized in climate change research, Ice studies, and discourses on resource sustainability. Similarly, Inuit-animal relationality also informs discussions on food security, however there are overt examples of the clash between IQ and western knowledge within these discussions.

• The application of IQ in education and government is discussed in the research literature, and the difference between the successes and challenges of each can be associated with how IQ is accommodated.

• The role of Inuit Elders as authorities in Inuit Qaujimajatuqangit is reflected in the research literature. In addition, an inventory of the known pathways in which IQ disseminates from Elders can be drawn from the literature.

• The connecting between IQ and youth development and family well-being is emphasized in the research literature and this gives rise to calls for culturally congruent family services and health care.

• IQ and Western knowledge are often compared in the literature, and it is argued that outward differences reflect fundamental differences in the how reality and knowledge creation is perceived. These differences tend to appear in optimistic but cautious discussions around the co-creation of knowledge.

The (modern) origin of 'Inuit Qaujimajatuqangit'

The origin of the term Inuit Qaujimajatuqangit is frequently attributed to the 1998 Nunavut Traditional Knowledge Conference/Committee meeting (Arnakak, 2002; Lévesque, 2014; Peletz-Bohbot, 2019). The term was proposed by the Nunavut Social Development Council following discussions on how to move past the limitations of using 'Inuit Traditional knowledge' in discussions of contemporary realities (Arnakak, 2002; Peletz-Bohbot, 2019). Stevenson (2014) adds, "…in 1998 Qaujimajatuqangit was coined to encompass all aspects of traditional Inuit culture including values, worldview, language, social organization, knowledge, life-skills, perceptions and expectations" (p. 181). Laugrand & Oosten (2010) describes that this change in "concept demonstrated a new valorization of the Inuit cultural heritage and a rejection of the

notion that modernization implied an unconditional acceptance of Qallunaat ideas and values" (p.xviii).

With the settlement of the Nunavut Land Claims Agreement in 1999, the creation of Nunavut as a 'legal' territory "represented the fruition of 25 years of Inuit effort to move towards political autonomy" (Wihak & Merali, 2003; p. 243). The Nunavut Government's first Cabinet presented the Bathurst mandate which identifies "IQ as the principles that will guide the development of the Nunavut Government" (Gowen, 2003). It was further mandated that Inuit culture and worldviews would be integrated in all areas of its public system (Wihak & Merali, 2003; Cameron, 2015; Arnakak, 2002; Levesque, 2014). Committees (including the Inuit Qaujimajatuqangit Task Force and the Sustainable Development IQ Working Group) consisting of Elders and community representatives were gathered to document Inuit culture and worldviews to "flesh out their vision for how to govern in the Inuit way..." (Cameron, 2015, p. 181). The result of this process gave way to IQ's working definition: "the past, present, and future knowledge, experience, and values of Inuit Society" (Arnakak, 2002, p. 34) and the creation of an IQ framework loosely based on tuqturausiit (kinship structures... the principles, which describe the "interconnections among all aspects of life and place" (p. 40).

Many iterations of values, concepts, and principles of Inuit Qaujimajatuqangit can now be found in research articles spanning a variety of disciplines, including Education, Law, Environment, Health, and Economics. The literature does indicate that research authors continue to rely on the Nunavut Government for descriptions of IQ with many authors directly transcribing content from materials like the Government of Nunavut's (2013) resource 'Incorporating Inuit Societal Values' (Cancel 2009; Lackenbauer & Kikkert 2020; Burrows 2005; Jeannotte 2017).

INUIT SOCIETAL VALUES AND INUIT QAUJIMAJATUQANGIT (IQ) PRINCIPLES

a) Inuuqatigiitsiarniq (respecting others, relationships and caring for people);
b) Tunnganarniq (fostering good spirit by being open, welcoming, and inclusive);
c) Pijitsirniq (serving and providing for family or community, or both);
d) Aajiiqatigiinniq (decision making through discussion and consensus);
e) Pilimmaksarniq or Pijariuqsarniq (development of skills through practice, effort, and action);
f) Piliriqatigiinniq or Ikajuqtigiinniq (working together for a common cause);
g) Qanuqtuurniq (being innovative and resourceful);
h) Avatittinnik Kamatsiarniq (respect and care for the land, animals, and the environment).

Adapted from Government of Nunavut, Incorporating Inuit Societal Values (2013) as cited in Lackenbauer & Kikkert (2020)

Several authors (Government of Nunavut, 2007; McGregor, 2012; Tagalik, 2009-2010) also present these principles as being founded on four Inuit Maligait (things that must be done): "(1) working for the common good, (2) respecting all living things, (3) maintaining harmony and balance and (4) continually planning and preparing for the future" (Tagalik 2009, as cited in Jeannotte, 2017 p. 203).

IQ as old Adaptative Knowledge

The literature describes Inuit Qaujimajatuqangit from several perspectives, some of which presents it as an established knowledge that has been relatively consistent through time. Others portray Inuit Qaujimajatuqangit as adaptive knowledge that is fluid and evolving. Examples of the ways that Inuit Qaujimajatuqangit is useful for Inuit in the present are often found when it is discussed as adaptive knowledge.

Gold, O'Neil, & Van Wagner (2005) assert that Inuit Qaujimajatuqangit is too frequently "reduced to the ways in which things were done long ago" (p. 17). Several authors point out that this oversimplification misrepresents the evolving, fluid[13] quality of Inuit knowledge, expertise, and experience (Gold, O'Neil, & Van Wagner, 2005; Tester & Irniq, 2008; Stuckenberger, 2009; Grimwood, 2012). When conceptualized as adaptive knowledge, IQ's benefits become timeless.

IQ is more than traditional knowledge: In an early description, Bravo (2000) differentiates between IQ and traditional knowledge by reaffirming that IQ is specifically Inuit and "explicitly rooted in Inuit ways of doing things" (P472). Thiessen, Noble, & Hanna (2020) and other research authors (Tester & Irniq, 2009; Barry, 2016; Karetak & Tester, 2017; Egede Dahl & Hansen, 2019; Kourantidou, Hoover, & Bailey, 2020) suggest that Traditional knowledge typically has a narrow conception, whereas IQ consists of Inuit knowledge, worldviews, cosmology, experiences, and values all of which guides us on how to live a good life. Bravo (2000) adds that Traditional knowledge is too often characterized in terms of "what can be made commensurable and accommodated within the frameworks of the sciences, leaving behind the cultural context which gave rise to it" (P472). While Bravo (2000) feels, "it is a mistake to suppose that IQ is an epistemological innovation that will redress the TK-science relationship problems" (p. 472), the "concept['s]" "strength" is ensuring that "policymaking reflects the aspirations and traditions of Inuit life as lived in northern communities" (P. 472).

Kelley (2009) reiterates Wenzel (2004) when saying "IQ is also considered as a type of conceptual framework, and remains a changing concept, evolving as Inuit face new challenges and new opportunities" (p.45). Thomas (2008) describes IQ as an evolving knowledge base that is continually being supplemented by new information and observations. IQ is constantly evolving as each knowledge-holder engages with their environment and integrates their own experiences, insights, and elements (Stuckenberger 2009; Gearheard, Pocernich, Stewart, Sanguya, & Huntington, 2010). Stuckenberger (2009) states that IQ is also considered "conservative with respect to values. While open to new elements, these elements are subsequently integrated into the framework of Inuit values to make them part of Inuit lifeways" (p.18) to help them "understand and productively (and safely) negotiate the world around them" (Desjardins, Friesen, & Jordan, 2020; p. 246).

When IQ is held as knowledge on the ways things used to be done, it is consequently placed in opposition to modernity. For example, Anang, Gottlieb, Putulik, Iguptak, & Gordon (2021) report

[13] As reported by Stern & Stevenson (2006), Inuit people view memory as a means of preserving their culture, although Inuit identity is anchored more by the memory of a way of life than by a series of historical occurrences. Although there are events that actually occur and possible sequences to follow based on Inuit tradition and knowledge, the manner of life is fluid, which implies that IQ is fluid.

that “the dialectic of being rooted in Inuit Qaujimajatuqangit (“What Inuit always have known to be true”) on the one hand, and on the other hand needing to adapt to modern day challenges is ongoing for young people in Naujaat” (p. 7). Similarly, Jewell (2021) is among many authors that express a shared fear that Traditional knowledge has become less reliable “as weather becomes more unpredictable” and this “is impacting the transfer of generational knowledge" (p. 50).

Desjardins, Friesen, & Jordan (2020) agree that “the dominant social and economic system—relatively recently imposed upon Inuit—demands they negotiate two often complementary and parallel, but sometimes starkly different and conflicting ways-of-knowing and ways-of-organizing information” (p. 246). But they also speak to the dynamic nature of traditional knowledge, and its capacity to equip Inuit for rapidly changing climates. But IQ’s applicability is not restricted to a motionless environment. In fact, Desjardins, Friesen, & Jordan (2020) argue quite the opposite:

> “[The] utility in such insights is not the promise of fixed rules or neat packages of ancient strategies that can be applied uncritically to the challenges of the present. Instead, the power of traditional knowledge, such as IQ among Inuit, for addressing the relationship between past and present climate change may lie in its capacity to bestow wisdom about how and why decisions were made, as well as to consider the consequences such actions had for people, communities and environments” (p. 246).

In addressing the transfer of generational knowledge, Nunavummiut youth are being connected to experienced hunters and Elders, not only in a classroom setting, but on the land, sea, and ice. Elder and archaeologist-led visits to archaeological sites also facilitate an understanding of the adaptive power of IQ. Desjardins, Friesen, & Jordan (2020) hold that learning about past resilience to extreme climate change facilitates agency, innovation, and perseverance (precisely what youth need in the changing modern world). Laidler, Ford, Gough, Ikummaq, Gagnon, Kowal, Qrunnut, & Irngaut (2009) add that for youth in Igloolik, IQ prescribes the relations of trust and reciprocity that enable people to act collectively and thereby contributes to their capacity for adapting to change. Inuit have demonstrated remarkable resilience and strength, having thrived in a constantly changing environment for centuries. Throughout history, Inuit have successfully adapted to change in ways that allowed them to maintain their core values and traditions while integrating new ideas and practices (Young, 2020). Former ITK president Terry Audla (2014) describes Inuit knowledge as “adaptable and resilient, transforming over time as the world and landscape around us changes” (as cited in Young, 2020; p.243). “It is also highly practical, pragmatic and applicable. […] I am here today – because our knowledge taught us how to survive and thrive in one of the most challenging environments on the planet” (as cited in Young, 2020; p.243). To borrow Palsson’s (2016) phrasing, IQ is then much less “a romantic adherence to the past” or the “fetishizing of traditional knowledge” (p.165) and more a collection of evidenced-based practices.

Land and Inuit Qaujimajatuqangit

The research literature repeatedly acknowledges that Land is a significant and vital component of Inuit Qaujimajatuqangit. The literature offers examples of how relations to the land act on Nunavummiut well-being, skill development, mobility, and more. These examples often appear in research on climate change, sea ice, and resource sustainability.
Blakney (2010) is one of many research authors that detail the relationship between Land and Inuit well-being:

> Among Arviat Inuit (Arviarmiut), IQ, health and wellbeing and the land are tightly interconnected. When one relationship is stressed, disruptions occur throughout the whole system. IQ is embedded in Inuit perceptions of health and wellbeing, and to be healthy, Inuit maintain they must interact with the land in Inuit ways (abstract).

Thomas (2008) relays that Inuit "who have close relationships with the land are keen observers of the natural environment due to their reliance on it for economic, cultural, social and subsistence ways of life" (p.87).
The literature also acknowledges that "many of the skills that Inuit and Northern residents have are actually taught through experiences on the land and from elders" (Tait, 2008; Tester & Imiq, 2008 as cited in Johnston, 2011, p113). For example, Grimwood & Doubleday (2013) connect Inuit knowledge to the Thelon River which they describe "as a place where Inuit knowledge is produced, stored, transmitted, and revised" (p. 11). They observe that IQ is 'relational and adaptive' and not 'bound' by 'traditional' notion[s]", and this "was mirrored in the ways that Inuit participants use and relate to the Thelon" (p. 11). Grimwood & Doubleday (2013) add that "amongst other landscape features and resources, using the Thelon fosters Inuit knowledge expressed as observations of change at diverse scales (e.g., environmental-cultural, local-global)" (p. 11).

Some research authors have sought an understanding of IQ and Inuit land relations by focusing on how Inuit travel on the Land. Tremblay, Ford, Statham, pearce, Ljubicic, Gauthier, & Braithwaite (2018) draw on several authors and relate that "[d]espite changes in the modes of travel (i.e., dog sled to snowmobile) and means of navigation (i.e., Global Positioning System (GPS)), many trail networks remain the same and [IQ] continues to be important for safe and successful travel (Aporta and Higgs 2005, Ford, Smit & Wandel, 2006; Laidler, Ford, Gough, Ikummaq, Gagnon, Kowal, Qrunnut, & Irngaut, 2009)" (p.307). Aporta (2004) adds: "[s]ince travelling has been, and in many ways still is, one of the most important activities of Inuit daily life, the study of Inuit knowledge and use of routes, trails and tracks seems relevant in order to have a better understanding of how Inuit relate to their environment, and of the Arctic environment itself" (p. 11).

IQ and Climate Change

> *Derman (2015) states "IQ encodes sophisticated understanding of weather, climate, and the ecological conditions they influence, which are in turn described as fundamental to Inuit practices of hunting, travel, and shelter. These practices are essential to the maintenance of community, health, and intergenerational cohesion" (p79).*

The literature shows that Inuit Qaujimajatuqangit is engaged in research from multiple disciplines, however, there has been a substantial interest in IQ and Inuit land knowledge in the context of climate change.

Young (2020) acknowledges IQ as a "seamless and comprehensive epistemological system" which contains "profound implications for environmental management" given that "it inherently grounds environmental and governance decisions in normative values such as respecting others (inuuqatigiitsiarniq), serving the community (pijitsirniq), and respect for the land (avatimik kamatsiarniq)" (see Tester and Irniq, 2008; White, 2006, 2009 as cited in Young 2020; p. 233). Young (2020) cites Cameron, Mearns, McGrath (2005) and relays that these values are even emphasized in language, as 'climate change' is translated into the Inuktitut as silaup asijjirluktauninga, meaning 'the unethical abuse of the environment'. Young (2020) maintains that "[t]his close empirical and normative relationship with the natural world ensures that Inuit

have an expansive view of both the environment and environmental resilience" (p. 238). Young (2020) adding further, states that "[b]y engaging with notions of resilience across these topics, Inuit improve their control over the environment as viewed through IQ" (p238).

Inuit knowledge includes rich insights and detailed information on climate change and adaptation. As such, Inuit are in a unique position to understand climate change and help support climate change action. The Government of Nunavut (2010) states:

> Inuit Qaujimajatuqangit […] is based upon a long and close relationship with the land and environment. It provides rich and detailed insight into climate change and adaptation, and provides context to help understand how climate change will impact Inuit culture, communities, and individuals. Interviews with elders, hunters and community members have supplemented and enhanced scientific research on climate change (p. 13).

Leduc (2008) shares that "IQ is described by Riedlinger and Berkes as important to climate science for at least three reasons: the Arctic is an early ecological indicator of climate changes, science has insufficient knowledge "of physical and ecological processes in the Arctic" and there is a lack of historical baseline data against which to measure data" (p. 2). Leduc (2008) further relays that "[t]hese difficulties lead them to propose that IQ can be helpful to scientists since its assessments of change are based on cumulative knowledge of local trends, patterns, and processes, derived from generations of reliance on the land" (p. 2).

Research authors express a "deep respect" for Inuit knowledge and the ability "to report not only changes in weather, ice, and natural resources but also changes in their communities as a result of climate change" (Sansoulet, Therrien, Delgove, Pouxviel, Desriac, Sardet Vanderlinden, 2020; p. 1). Desjardins, Friesen, & Jordan (2020) elaborates:

> Knowledge about the environment can also be placed in a longer-term historical context. Modern Inuit of Inuit Nunangat […] are the direct cultural and genetic descendants of Thule Inuit populations (ca. 820-350 BP) that already survived major episodes of climate change in the past, including the Little Ice Age and Medieval Warm Period (see Desjardins and Jordan, 2019).

The Government of Nunavut (2010) reports that "Inuit observations have provided useful information at different time scales and levels of detail that have significantly contributed to our understanding of climate change in Nunavut. Recurring themes with respect to Inuit knowledge of climate change include:

- Sea ice conditions have changed; the ice is thinner, freezes up later and melts earlier. Similar observations have been made for lake ice.
- Aniuvat (permanent snow patches) are decreasing in size. There is more rain, and the snow and ice form later in the year and melt earlier.
- The weather is unpredictable. It changes faster than it used to with storms blowing up unexpectedly.
- Water levels have gone down, making it hard or impossible to travel by boat in certain areas.
- Temperatures are warmer throughout the year.
- New species have been observed.
- The land has been observed to be drier and the stability of the permafrost is changing.

- The length and timing of the traditional Inuit seasons have changed" (p. 13).

Adaption is very much a part of the IQ/climate change discussion. The Government of Nunavut (2010) offers a rich description of IQ and climate change adaptation. It maintains that "Inuit Qaujimajatuqangit is reinforcing and supporting scientific observations of these changes. [IQ] is also providing valuable insight on adaptation, and information on how these changes may affect Nunavummiut and the ecosystems on which we rely" (p. 4). Henshaw (2006) adds that "Maliqattarnikkut iliniarniq, the process by which Inuit learn the names, is just one aspect of Inuit Qaujimajatuqangit, but one that underscores the important role accumulated and experiential knowledge play in adapting to northern environments. Without such knowledge the risks of traveling in unpredictable and ever changing conditions make individuals and groups that much more vulnerable to the extreme climate change currently being forecasted for the Arctic" (p. 64).

> *"Individuals from Repulse Bay discussed the value of Inuit knowledge as an adaptive strategy, emphasizing the importance of using Inuit Qaujimajatuqangit (IQ) more often and in a more consistent manner to reduce hunters' vulnerability to sudden weather changes" (Nickels and Furgal, 2005, p. 10)*

Some challenges associated with incorporating IQ into climate change discourses are identified in the literature. Thomas (2008) relays that much of community knowledge is based on the environment. The ability to anticipate weather and environmental conditions is in danger. Thomas (2008) concedes "There is an understanding that the environment is always evolving and is not static, therefore IQ cannot be considered static" (IPCC. 2001 : ACIA. 2005 as cited in Thomas, 2008). However, many authors share the concern that the environment is changing so quickly that IQ's evolution cannot keep up (Thomas, 2008; Kronlid, 2009; Desjardins, Friesen, Jordan 2020). Desjardins, Friesen, Jordan (2020) shares this concern:

> Many modern Inuit are well versed in [IQ], which draws from and builds on past experiences, to inform contemporary life and aid in planning for the future. However, dramatic new social and environmental stressors (e.g., the combined effects of Euro-Canadian colonialism and modern climate change) may be pushing IQ to its operative limit in terms of its ability to inform responses to some human-environment relationships (p. 241)

Gearhead, Pocernich , Stewart , Sanguya & Huntington (2010) relay that "Inuit recognize that the rapid social and cultural changes of recent decades have eroded some Inuit knowledge and skills. However, in terms of traditional weather forecasting, elders and experienced hunters argue that traditional knowledge erosion is not the cause of faulty forecasts. Inuit have been living in a modern community setting for over 30 years and forecasting skills were reliable enough during that time to advise hunting parties and to teach until the 1990s (Fox 2004). During that decade, weather patterns changed and many local forecasters say their predictions became less reliable. Second, Inuit note that recent conditions are not unprecedented; there has always been unpredictable weather. What is unprecedented is how quickly conditions change from one to the next and the persistence of this unpredictability over time" (p. 8).

Kronlid (2009) cites Leduc (2007) in recognizing that the changing climate influences the adaptation of Inuit knowledge. While Ford, Smit & Wandel (2006) explain that the "increasing unpredictability of climatic and environmental conditions is now part of the collective social memory that frames individual practice and decision-making in Arctic Bay" (p.153). Ford, Smit &

Wandel (2006) quote Tagoonak Qavavauq who contends: “I think the hunters now are more aware of [the changing climatic conditions] so they are preparing” (p.153). They also maintain that “as a repository of accumulated experience and knowledge of changing conditions and experience of successful adaptations, IQ allows ‘response with experience’ to changing exposure. This increases adaptive capacity” (Ford, Smit, & Wandel, 2006; p.153). Pointedly, Ford, Smit & Wandel (2006) state that “[i]t is this dynamic nature of IQ, its ability to learn and adapt to change, which confers adaptability" (p.153).

Research authors prescribe the meaningful inclusion of IQ in discussions on climate change. Henshaw (2006) suggests that this starts with a closer “explorat[ion] of the full breadth of Inuit knowledge particularly sensitive to changing environmental conditions" (p. 58). Young (2020) identifies the need for Western science to “learn from Inuit in order to better adapt […] to climate change” (p. 244). He refers to “Inuit Websites” that acknowledge “Inuit [as] valuable partners in the global struggle against climate change” (p. 240) and adds that in understanding that the Arctic ecosystem is the indicator of global environmental health” (p. 244). “Inuit organizations describe themselves as leaders in solving environmental problems that will soon affect southern societies” (p. 244). Inuit maintain that they “can help southern societies react to the environmental and socio-political effects of environmental shifts as they begin to experience them” (p. 240).

Higgins (2011) posits “[the] need to be both resilient and adaptive” while recognizing "my [Inuit Qaujimajatuqangit] and your [Western modern science] go together” (p. 303). Young (2020) believes that this requires “opening up pluralistic and global spaces to discuss IQ as it might apply to southern attempts at adaptation” (p. 240). This must extend “beyond opening space for IQ within Arctic policy” (p. 240). Young (2020) reiterates Sheila Watt-Cloutier’s (former chair of the ICC) perspective whereby IQ can be “leverage[d]” as a “system to force colonial societies to expand their view past the technical and environmental aspects of climate change” (p. 245). Cameron (2012) suggests that “this change in orientation” would also be “a first step toward recognizing, and addressing, the role that colonialism plays in producing climate vulnerabilities” (Cameron, 2012 as cited in Young, 2020; p. 245). Furthermore, the Government of Nunavut has done much work in relation to IQ and climate change. They have developed documents outlining future plans that incorporate IQ guiding principles with the intent of “help[ing] to facilitate increased resilience and adaptive capacity in Nunavut” (The Government of Nunavut, 2010; p. 8).

The Government of Nunavut (2020) outlines how each IQ principle is enacted in climate change action: “Inuuqatigiitsiarniq – Respecting others, relationships and caring for people. The Government of Nunavut recognizes climate change as an issue that stands to impact the lives of Nunavummiut. Strategic planning is being done out of care for Nunavummiut and their needs. Upagiaqtavut – respects Inuit knowledge and takes into consideration the important contributions that all Nunavummiut can make toward planning for the future. Tunnganarniq – Fostering good spirit by being open, welcoming and inclusive. The government will take an inclusive and collaborative approach to climate change adaptation planning and research. Pijitsirniq – Serving and providing for family and/or community. Upagiaqtavut demonstrates the government’s commitment to providing Nunavut families and communities with the tools and resources needed to successfully adapt to a changing climate. Aajiiqatigiinniq – Decision making through discussion and consensus. Individuals, community governments and other organizations will be given meaningful opportunities to share ideas and participate in decision making that will directly affect them and their communities. Pillimmaksaniq/Pijariuqsarniq –

> Development of skills through observation, mentoring, practice and effort. Participation in the development and implementation of adaptive measures will enhance individual and community self-reliance, empowerment and capacity. Training, capacity building and skills acquisition are key factors to increasing local adaptive capacity. Piliriqatigiinniq/Ikajuqtigiinniq – Working Together for a common cause. Collaborative relationships that are based on the integrated application of Inuit Qaujimajatuqangit, local knowledge and scientific research will help us work together in innovative partnerships towards increased resilience. Qanuqtuurniq – Being innovative and resourceful. Upagiaqtavut ensures the wise use of human, natural and financial resources through innovative partnerships and collaboration. This innovation and resourcefulness will maximize our climate change knowledge and our potential to successfully adapt. Avatittinnik Kamatsiarniq – Respect and care for the land, animals and the environment. The Government of Nunavut will demonstrate leadership by continuing to diligently and responsibly take actions to control its own emissions of greenhouse gases and adapt to climate change impacts. Through collaboration by all stakeholders, decisions will be made that help ensure the long-term sustainability of Nunavut's people and the land and wildlife on which we all depend" (pp. 8-9).

IQ and Ice knowledge

The meaningful contributions of Inuit Qaujimajatuqangit are presented with more certainty in discussions around ice knowledge. Rathwell (2020) is among many research authors (Riedlinger and Berkes, 2001; Laidler, 2006; Krupnik, Aporta, & Laidler, 2010) who acknowledge that "Inuit expertise (Inuit Qaujimajatugangit) has made significant contributions to understanding the complexity of Arctic sea ice change" (p. 68). Rathwell (2020) recognizes that "honouring a plurality of knowledge in the context of efforts to understand and respond to environmental change is a challenging process" (p. 68). However, she explains that "there are diverse settings that bridge knowledge systems, including various methods and processes (e.g., scenarios, workshops), bridging organizations that link different knowledge holders, and institutional or governance arrangements (e.g., co-management boards)" (Rathwell, Armitage, & Berkes, 2015 as referenced in Rathwell, 2020; p. 68)." Many examples of the overt benefits of resolving these challenges are also found with in the research on ice travel. For instance, Wilson, Arreak, Bell & Ljubicic (2021) describe their work with sea ice travel safety maps as part of the Sikumiut (people of the ice) project. The act of including IQ to this type project entailed

> "**The Sikumiut maps** that were co-produced in 2018 share the IQ of known locations of safe and hazardous ice conditions by season. […] The winter travel map highlights dangerous areas such as reoccurring naggutiit (cracks in the ice that can be easily crossed), ivujuk (ridges, high areas of rough ice you have to travel around), and siku saattuq aragulimaamik (thin ice all year) […]. The spring maps show new and expanding dangerous travel areas such as aajurait (leads, cracks in the sea ice that get wider in the spring are always possible to cross), siku saattuq upingaat pigiarningani (thin ice in spring), and imaqainnaujattuq ukiutamaa (water that runs from the glaciers). […] These maps provide an IQ-based climatology for the region of Mittimatalik; however, the information on which they are based is not in a database, they exist in the

collective memory of Sikumiut members" (Wilson, Arreak, Bell, Ljubicic, 2021; p. 8).

adding "more than locations of safe and hazardous ice conditions" (p. 2), as important information for sea ice travel and survival is embedded in Inuktitut place names and sea ice terms. Wilson, Arreak, Bell & Ljubicic (2021) add that "maps also provide a time-integrated baseline of the winter and spring sea ice travel conditions" (p. 2). Interestingly, Wilson, Arreak, Bell & Ljubicic (2021) detail "Sikumiut's IQ-based sea ice climatology is maintained by passing down their IQ through generations, and orally sharing their extensive and recent travel experiences on the sea ice" (p. 2). They clarify that "Sikumiut's sea ice climatology is therefore not in a database, but exits in the collective minds of these expert sea ice travelers. Also, their climatology is not focused on ice conditions in a general scientific sense, but more specifically on ice conditions supporting safe travel and spatio-temporal patterns of ice features that support hunting" (p. 2). This work was made possible by collaboration and inclusivity as exemplified by "a novel approach [being] co-developed to document for the first time their sea ice IQ to create the **Mittimatalik siku asijjipallianinga** (sea ice climate atlas)" all of which was completed "[t]o support Sikumiut's climate change adaptation needs" (Wilson, Arreak, Bell, Ljubicic, 2021; p. 2).

Bishop, Owen , Wilson , Eccles , Chircop , Fanning (2022) suggest how four IQ principles could be directly applicable for governance of icebreaking activities:
"Inuuqatigiitsiarniq (respecting others, relationships and caring for people) can be interpreted and implemented to better situate respectful relationships with Inuit as the basis of icebreaking policy development so that governance can be inclusive of Inuit participation and perspectives. Aajiiqatigiinniq (decision making through discussion and consensus) can be interpreted and implemented to improve transparency and legitimacy in decision-making. Although consensus may not be achievable, an amicable compromise may be. Decision making through discussions is important so that Inuit are well informed of the shipping routes and icebreaking policies that will ultimately impact their livelihood and wildlife, and so that vessel operators are aware of Inuit use of the marine spaces within which they operate. Piliriqatigiinniq or ikajuqtigiinniq (working together for a common cause) can be interpreted as the basis of working together to create policies and decision making that draw from IQ and are respectful to Inuit lives and livelihoods. Through applying piliriqatigiinniq or ikajuqtigiinniq, policies can better involve Inuit in collaborative icebreaking governance. Lastly, avatittinnik kamatsiarniq can be implemented to develop policies that respect and care for the land, animals, and the environment, which supports Inuit lives and livelihoods. While these IQ principles are suggested based on our analysis, meaningful engagement and respectful collaboration with communities in Nunavut will be essential to establish a legitimate approach" (p. 9).

IQ in the context of resource sustainability

The research literature also discusses Land use in the context of responsible sustainability. This is particularly significant in that (within these conversations) Land is characterized as a matter of renewable and non-renewable resources; terms that carry connotations of Western worldviews. Jacobsen (2018) describes the significance of worldview within a sustainability framework. He draws on material from the Nunavut Planning commission and states that:

> "in Nunavut's official mining strategy and in the Land Use Plan, the dominating Western WCED [World Commission on Environment and Development] understanding of sustainable development is particularly visible, but when Inuit Qaujimajatuqangit is included, the hegemonic perception is contested: '[s]ustainable development is not a fixed understanding. As communities change, their relationship with the land and with each other will continue to develop and evolve' (Nunavut Planning Commission, 2016; p41)" (p. 62).

Jacobsen (2018) further adds that "as in the Thule Laws, the sustainability principle is closely linked to food security and social sustainability through covering the basic needs of the local community" (p.n.a.). Jacobsen (2018) adds that this is also related to the "hunting and harvesting of renewable resources". However, it is "open to interpretation" in relation to non-renewable resources – and even more so when adding the perception that the concept is in flux." Perrin, Ljubicic & Ogden (2021) explain how IQ "has sustainability principles embedded within Inuit societal values", particularly the principle of avatimik kamattiarniq, which "encourages sustainable social/environmental stewardship" (p. 30).

> "[T]he Inuktitut translation of 'sustainable' is quite clear. Ikupik, as it is called, means 'to conserve and not take all at once; what is brought in from a hunt. Everyone takes a piece for their family, ensuring there is enough to go around" (Nunavut Planning Commission 2016; 42, as cited in Jacobsen, 2018).

Matthijsse (2010) adds to "the importance of avatimik kamatiarniq" which cautions "economic development through mining that could make the territory a large amount of money very quickly and would likely bring opportunities for male employment, but that would destroy the environment, which is at the very core of Inuit culture and identity" (p. 187). Pointedly, Matthijsse (2010) references Arnakak (2005; p. 178) in describing "the responsibility to leave the environment as natural and intact as possible for future generations" (Arnakak 2005: p. 178).

> Example: Vanderkaden (2019) draws from materials from the Government of Nunavut (n.d.c.) to report that "[t]he current model for resource management of sealing is based on Inuit Qaujimajatuqangit and reflected through the three key principles of sustainable harvest, complete use, and humane harvest, that guide the seal hunt in Nunavut (p. 45).
>
> Peterson (2012) states "[d]espite higher numbers of hunters enabled to participate in harvesting activities, the amount of meat harvested in the community has not increased significantly, reflecting their adherence to IQ principles" (pp. 107-108).

IQ and Inuit-animal relationality

Inuit-animal relations in the north are also discussed in the research literature. In these discussions, Inuit Qaujimajatuqangit is often linked to wildlife harvesting and management. In

addition, the harvesting, processing, and consumption of wild foods are components of a larger discussion in the literature that connects Inuit Qaujimajatuqangit to food security/sovereignty. These discussions provide some notable examples of disagreements between Inuit Qaujimajatuqangit and Western knowledge. In several of these cases, it is shown how Inuit Qaujimajatuqangit has developed as a platform to legitimize Inuit perspective and authority in resource management. Instances of collaborative successes (built on both Inuit Qaujimajatuqangit and Western knowledge) appear to outweigh instances of contention in the literature when it comes to the co-management of wildlife, parks, and protected areas in Nunavut.

Inuit-animal relationality in Northern landscapes is articulated in the research literature and tends to inform discussions on wildlife harvesting and management. Wong (2017) states that "[Inuit Qaujimajatuqangit] is defined as a guiding principle for how Inuit conceptualize human-wildlife relationships and how this affects their interactions with and perceptions of animals" (Wenzel, 2004 as cited in Wong, 2017; p. 100). Dowsley (2008) discusses this connection from the perspective of hunters. They explain that "for northern hunters, animal-human relationships are most obviously expressed through hunting and, in order to be successful hunters, humans must have a proper attitude towards animals" (Fienup-Riordan 1990; Stairs and Wenzel 1992 as cited in Dowsley, 2008; p. 108).

Several researchers have sought to understand the Inuit perception of wildlife in relation to IQ. Dowsley (2008) describes that Inuit understand "all animals (…) to be sentient" which differs from "Euro-Canadian ideology" (Wenzel 1991; Fienup-Riordan 1999; Zavaleta 1999 as cited in Dowsley, 2008; p. 108). This understanding is reflected in IQ principles that serve as "references to proper behaviour in relation to animals, including recognizing that there are consequences of one's actions, one should harvest without malice, and one should avoid unnecessary harm" (Wenzel 2004 as cited in Dowsley, 2008; p. 108). Vanderkaden (2019) adds that hunting "offers not only economic return" (p. 52) but it is also "an important cultural activity for passing on Inuit ways of knowing through generations, referred to as Inuit Qaujimajatuqangit" (p. 5). Henri, Carter, Ljubicic, Smith & Johnston (2020) emphasizes a "complex web of relationships between people, land, and all living beings" (p. 175) that is acquired and shared through personal experience, careful observation, and oral histories.

> The obligation of guardianship or stewardship that a person may owe in relation to something that does not belong to the person ... that people must work together in harmony to achieve a common purpose ... and that people are stewards of the environment and must treat all of nature holistically and with respect, because humans, wildlife and habitat are inter-connected and each person's actions and intentions towards everything else have consequences, for good or ill (Dylan, 2018; p. 87).

Dowsley (2008) cites Wenzel (2004) in recognizing that the Inuit Qaujimajatuqangit principles prescribe appropriate behaviour in relation to animals, such as harvesting without malice, avoiding needless harm, and acknowledging the repercussions for one's actions. Dowsley (2008) further adds:

> Two related themes, arising from this cultural construct, appeared in the interviews and consultations: the recognition of polar bears as sentient and deserving of respect, and the incorporation of new information into traditional understandings of the relationship between humans and polar bears (p. 108).

IQ and food security/sovereignty

The harvesting, processing, and consumption of wild foods are important components of a larger discussion on food security found in the literature. The high nutritional value of wild foods is extremely important in the Inuit diet and, as Matta (2011) explains: “consumption is also indicative of an adherence to a traditional lifestyle” (p. 60). The literature suggests that IQ prescribes food security through historic and contemporary practices, social relations, and knowledge sharing.

Desjardins, Friesen & Jordan (2020) provide a historic example of how IQ contributed to food security. They describe that “a long and innovative tradition of caching walrus meat in beach-gravel caches may have provided local populations with a far greater degree of food security during the Little Ice Age than Inuit elsewhere experienced” (Desjardins, 2018 as cited in Desjardins Desjardins, Friesen, Jordan 2020, p. 246). Desjardins, Friesen & Jordan (2020) add that:

> [T]he caching process—and the butchery preceding it—is laborious; IQ demands it be carried out in relatively precise and ordered steps. These provisions (including the depth and capacity of caches, grade of the beach gravel, approximate timing of each step, etc.) likely evolved at least in part to ensure the resulting meat—excavated and consumed months later—was not only tasty, but also safe to eat. Over time, the logic of following these provisions is clear: they have kept generations of Inuit safely fed for centuries (p. 246).

Daborn (2017) relates food security to the ongoing Inuit practice of food sharing in social networks. Daborn (2017) explains that the “relationality that is expressed through the practice of sharing is a key component of Inuit ontology, or how Inuit theorize being Inuk, which is further reflected in the values of Inuit Qaujimajatuqangit” ([p. ?]). Egeland, Charbonneau-Roberts, Kuluguqtuq, Kilabuk, Okalik, Soueida & Kuhnlein (2009) document important connections between food security and the prescriptive stories told by Elders. For example, Elders’ stories contain "Inuit Qaujimajatuqangit regarding the role of country food in health, including spiritual, mental and physical health” (p. 14). Vaudry (2015) recognizes important “aspects of Inuit cosmology that explicate hunting as a means of subsistence and economic development that is intimately connected to Inuit identity” (p.161).

Panikkar and Lemmond (2020) relay that "food sovereignty in the Arctic is deeply tied to an ethic of subsistence, of being able to harvest fresh food from the immediate environment year-round” (p. 1). They acknowledge that Inuit have been self-sufficient for generations by working hard, being resourceful and passing on ‘land and sea’ knowledge” (p. 1). They further add that:

> Subsistence (…) holds a deep cultural and spiritual tie that provides a source for recreation, connection, therapy, beauty, and knowledge and hence is central to the physical as well as social, cultural, and spiritual wellbeing of Inuit communities. Subsistence is a way of life that binds Inuit to the natural world (p. 1).

However, there are identified challenges associated with food governance and food security in Nunavut.

Henri, carter, Irkok, Nipisar, Emiktaut, Saviakjuk, Ljubicic, Smith, & Johnston (2020) speak of a time when “Canada did not value IQ” and looked to “impose without Inuit input (…) by educating Inuit on sustainable harvesting practices” (p.176). Further adding that “past [Canadian]

legislation restricted Indigenous harvesting rights related to migratory birds (…) which negatively impacted Inuit cultural practices, food security, and self-determination" (p.176).

Daborn (2017) explains that the federal government continues to hold autonomy in matters of food security:

> [T]he federal government operates the Department of Health, the Department of Agriculture and Agri-Food, and the Department of Aboriginal Affairs and Northern Development – all of which impact the governing of food for Inuit living in Nunavut. For instance, Nutrition North is operated by the Department of Aboriginal Affairs and Northern Development. Even though Nunavut can be considered autonomous in many regards, when it comes to issues of food insecurity, the territory is still impacted by federal governing (p. 10).

Nunavut Tunngavik Inc. (2020) report that a lack of infrastructure is another challenge affecting food security. They report that a "lack of space to store or prepare country food undermines food sovereignty" (p. 31). This gap in infrastructure impacts both Inuit and their capacity to maintain the practices associated with IQ (Nunavut Tunngavik Inc., 2020). Shin & Lee (2020) convey that food security is threatened by the competing practices from Western worldviews. They report that "due to the inflow of monetary economy, [Inuit] began to sell animals for a fee instead of sharing them with local residents" (Shin, Lim, & Lee, 2020; p.n.a.). They add that the presence of grocery stores and restaurants reduced time spent in the cultural procurement and distribution of food. As a result, the sense of community and culture of sharing that is largely perpetuated by the respective practices have suffered (Shin, Lim, & Lee, 2020).

Notable IQ and Western knowledge clashes

There are several discussions in the research literature that detail disagreements between Inuit Qaujimajatuqangit and Western knowledge as it relates to wildlife management. A well reported example comes from research literature on polar bear co-management.

Dowsley (2008) reports that IQ had taken on a substantial role in polar bear management through its direct use in quota setting procedures.[14] However, in the mid 2000s, quotas were reduced based on scientific information that suggested that polar bears were in decline because of over-hunting and the effects of climate change. Inuit indicated their lack of support for quota reductions given that their observation[15] of population size justified the previous increase in quota. Their argument was dismissed with the notion that climate change has concentrated

[14] Florko, Derocher, Breiter, Ghazal, Hedman, Higdon, Petersen (2020) acknowledges that "For polar bears, additional information is held within communities as traditional ecological knowledge" (TEK; a component of Inuit Qaujimajatuqangit; Usher 2000 as cited in Florko, Derocher, Breiter, Ghazal, Hedman, Higdon, Petersen, 2020; p. 618). Keith (2009) presents two projects whereby they "recorded aspects of Inuit Qaujimajatuqangit (IQ) related to polar bears and their habitat" (p. 11). These projects "benefited from the participation of active hunters (…) who grew up during the time prior to Inuit moving into permanent settlements and who participated in polar bear hunting using traditional methods" (p. 11). Their contributors noted "significant changes" in not only the polar bear but also the ice and snow. They connected a reduction in "multi-year ice in the forms of piqalujait and hikutuqait" to the "quality of polar bear habitat" (p. 11).

[15] Carter, Henri, Johnston, Emiktaut, Saviakjuk, Smith, Chaudhary, Murray, and Ljubicic (2018) report on the IQ centered management strategies for light geese in the Kivalliq region is one of several documents that attempts to explain the diversity of perspectives found among Inuit Knowledge bearers. They suggest a diversity of perspectives can be attributed to factors including the age of knowledge bearers, as it related to the number of years of experience that they had on the Land, and the depth and breadth of oral history and IQ they had been able to acquire in their lifetimes. Worboys, Lockwood, Kothari, Feary, & Pulsford, 2015) suggest that the degree of contact with the species was an important factor in determining the quality of observation. In a study of migratory birds, local knowledge was credited with identifying population shifts that had been previously unknown to Western science, yet the distribution of another species was thought to be poorly understood. This variation suggests that local knowledge, as with any other source of information, must be scrutinized for reliability (Worboys, Lockwood, Kothari, Feary, & Pulsford, 2015).

polar bears in areas where humans are more likely to encounter them. Clark, Tyrrell, Dowsley, Foote, Freeman & Clark (2008) discuss how the increased quota "was criticized heavily by individual non-Inuit biologists and environmental groups in the media" (p. 3). What followed was an International Union for Conservation of Nature resolution that included "a precautionary approach when setting catch levels in a warming Arctic" (p. 3) and dictated that "polar bear harvests can be increased on the basis of local and traditional knowledge only if supported by scientifically collected information" (p. 3). However, Nirlungayuk and Lee (2009) note that there have been foundational

> [D]isagreements over: (1) the methods used to estimate polar bear population numbers; (2) the time period used in management (i.e., the posited 'base-line' population used to determine any increasing or decreasing trend in population levels); and, (3) disputes with management agencies over the appropriate use of [IQ] in their analyses and decision-making (p. 142).

Wong (2017) explains Inuit discontent with research and management practices suggests a need to improve collaborative relationships and incorporate Inuit perspectives on research, monitoring, and management, as well as Inuit methods that enrich interpretations of [polar bear] behavior. Dowsley (2008) adds that subsequent "discussions with Inuit reveal two categories of problems that, though couched in the polar bear management issue, involve the co-management system and the integration of Inuit and scientific knowledge more generally. The first relates to direct observations of the environment by both Inuit and scientists and the synthesis of such information. The second relates to Inuit conceptualizations of human-animal relationships and the incorporation of scientific studies and management into that relationship" (p. 86).

Inuit Qaujimajatuqangit as a platform

Centuries of foreign commercial harvesting, government prohibitions, and a disregard for customary practices where among the many social changes that "may have led to degradation of traditional governance structures and cohesion that empowered the strength and adherence of Inuit practices" (Ferguson & Viventsova, 2007 as cited in Herrmann, Ferguson, Raygorodetsky, & Mulrennan, 2012; p. 15).

> You see, we don't want to change the world - we just want our rightful place in it. And the easiest part is that we simply want it back. But it seems we need to assimilate non-Inuit ways to assert ourselves as a people within a system that might not do anything about it for us otherwise" (letter to the editor of Nunatsiaq News, name withheld, March 5, 2004 as cited in Matthijsse, 2010; p. 184).

Weber (2013) states that "Northern and native populations have fought to introduce traditional knowledge, Inuit Qaujimajatuqangit (IQ), as a form of everyday environmental authority and a legitimate description of the reality of the north and of the environmental trends taking place there" (p. 33). But as Matthijisse (2010) explains, in order to be incorporated into modern governance structures, IQ has to be modified to align with Euro-Canadian structures and values and is empowered by Euro-Canadian structures only to the degree in which it can do so. Hence, the application of IQ remains on the terms set by Euro-Canadian society (Matthijisse, 2010). In their discussion of resource co-management, Gombay (2014) suggests that the non-renewal of an Inuit chair of a resource co-management board (because he was deemed to be too supportive of IQ) is one example of how Euro-Canadian

structures maintain their position. In the context of this disparity, some research authors suggest that the contemporary iteration of IQ developed in response to or as a platform against scientific authority (Stuckenburg, 2009; Gombay, 2014). For example, Stuckenburg (2009) suggests that Inuit Qaujimajatuqangit is a "term recently developed to carve out the specificity of Inuit knowledge in comparison with scientific or Western cultural knowledge" (Stuckenburg, 2009; p. 18). This implies that IQ, as an Inuk axiology, must be communicated in ways that fit it into the mainstream Western one.

On the other hand, Inuit may solidify their own understanding when prompted to articulate IQ. Stewart, Dawson & Draper (2011) provide a simple example of this through their examination of Nunavut tourism. They state "…another resident thought local people talked more about 'IQ' […] because "tourists ask questions" (Stewart, Dawson & Draper, 2011; p. 101). In the practice of codifying collective cultural memory, certain elements of Inuit knowledge become standardized across communities. Not only does this facilitate social cohesion and offer reference points for Inuit identity, but standardized knowledge is also more apt to be operationalized in systems and institutions (Stern & Stevenson, 2006). Furthermore, Martin (2019) the canonization of IQ has preserved ancient ideals.

Henri, Carter, Ljubicic, Smith & Johnston (2020) report that, to address government concerns over population declines, the Migratory Birds Convention Act and the Northwest Game Act of 1917 imposed seasonal restrictions on geese and eggs that prohibited Inuit from harvesting unless they were "actually in need of such game or eggs to prevent starvation" (Northwest Game Act, sect. 3, cited in Kulchyski & Tester 2007, p. 32). "As a result, Inuit often had to starve or hunt illegally, and hide their catches from the authorities, because otherwise they could face significant fines or threats of incarceration" (Qikiqtani Inuit Association 2013, p. 37). Henri, Carter, Ljubicic, Smith & Johnston (2020) report that "today, within Inuit Nunangat, Inuit are assured of their rights to harvest light geese and eggs for domestic use, which includes areas within federally regulated Migratory Bird Sanctuaries (MBS) and National Wildlife Areas. Environment and Climate Change Canada (ECCC) established nine Area Co-Management Committees to manage protected National Wildlife Areas and MBS in partnership with Nunavut Inuit (Government of Canada 2016). As co-management organizations, the committees advise ECCC on all aspects of the management of these protected areas, and develop procedures ensuring that IQ substantially informs decision-making (Government of Canada, 2014)."

Successes co-management and governance

Collaborative successes and complimentary knowledge use appear to outweigh instances of conflict and contention in literary discourses on the co-management of wildlife, parks, and protected areas in Nunavut.

> It is important to collaborate anyway possible, regardless of who we are—organization, group or school, scientists. We need to work together and collect much information, as much as possible for our next generation. This way, we can build up Qaujimajatuqangit (Inuit traditional knowledge). (Inuit adult from Pangniqtuuq) (Sansoulet, Therrien, Delgove, Pouxviel, Desriac, Sardet Vanderlinden, 2020; p. 11).

Henri, Carter, Ljubicic, Smith & Johnston (2020) are among many research authors (Henshaw, 2006; Houde, 2007; Gagnon & Berteaux 2009; Wenzel, 2009; Campbell, Goorts, Lee, Boulanger, & Pretzlaw, 2015; Sansoulet, Therrien, Delgove, Pouxviel, Desriac, Sardet, & Vanderlinden, 2020) who express that holistic ecological perspectives contribute unique

information to environmental and wildlife research and decision-making. For example, Inuit Qaujimajatuqangit and traditional or community ecological knowledge[16] can provide important information on the location, distribution, and behavior of wildlife that produces outcomes well beyond that of typical survey approaches (Gilchrist & Robertson, 2000; Usher, 2000; Stern & Gaden, 2015). These contributions have led to, among other successes, unique/novel methods of monitoring a high-profile at-risk species (Wong, 2017) and an increase in the cumulative knowledge of mutually concerning species (Florko, Derocher, Breiter, Ghazal, Hedman, Higdon & Petersen, 2020).

> …[T]he development of some of the 'best in class' caribou protection measures that Nunavut has ever seen" relied on "the collective efforts of Sabina, the KIA, Elders, harvesters and community members to ensuring that Inuit Qaujimaningit and Traditional Knowledge contributions have been incorporated into this assessment in a meaningful way (Prno, Pickard, Kaiyogana, 2021; p. 1004).

The integration of IQ into park management is celebrated in the literature. Jacobson, Manseau, Mouland, Brown, Nakashuk, Etooangat, Nakashuk, Siivola, Kaki, Kapik, Evic, Kennianak, & Koonelieusee, 2016) detail how IQ is a key aspect of park management in Nunavut. Jacobson, Manseau, Mouland, Brown, Nakashuk, Etooangat, Nakashuk, Siivola, Kaki, Kapik, Evic, Kennianak, & Koonelieusee (2016) quote Willie Nakoolak, chairman of the Wildlife Resources Management Council of Nunavut: "The inclusion on an equal footing of Inuit knowledge (Inuit Qaujimajatuqangit), is a source of great satisfaction […]. The cooperative, holistic approach adopted by the Inuit and Parks Canada for purposes of managing the park is faithfully reflected in the master plan […]. This type of partnership will ensure that the Inuit will always be an integral part of the rich, healthy and unique ecosystems that Auyuttuq National Park is home to" (Auyuittuq Park: 2010; p. iv).

Inuit Qaujimajatuqangit as the basis of the Nunavut Government

The history of Inuit Qaujimajatuqangit is frequently articulated in the research literature and many authors speak to the origins and development of the term in the context of the Nunavut Government. There are many examples where the successes and challenges of using Inuit Qaujimajatuqangit to guide governmental processes are debated. However, by following this debate over time, we found the successes were linked to Inuit representation in policy development and the challenges were linked to the everyday use of Inuit Qaujimajatuqangit by workers using those policies.

"Inuit Qaujimajatuqangit encompasses the traditional philosophies, values and wisdom of Nunavut's founding people" (Morse & Zakrison, 2010; p. 54). As foundational principles, IQ prescribes "how the government should function, to transact business and engage in other matters of daily life relations among the Inuit" (Morse & Zakrison, 2010; p. 54), and serve Nunavut's needs, with the most effective use of resources (Timpson, 2003).

[16] Dowsley (2008) describes four categories of knowledge encapsulated in the term 'Traditional Ecological Knowledge (TEK)'. They are: "1. Knowledge about the environment, 2. Knowledge of the use of the environment, 3. Environmental values, Environmental values, and 4. The knowledge system itself" (p.87). Knowledge in the first two categories have been used to improve wildlife management (Usher, 2000; Dowsley, 2008).

Inuit Qaujimajatuqangit and the accumulated wisdom of the elders can provide the context for an open, accountable government[17] (Timpson, 2003) that reflects "the Inuit approach to collective life and collective decision making [and] the importance of working together"[18] (Fuji-Johnson, 2018, p. 112). Morse & Zakrison (2010) suggests that "In this vein, the government strives to operate using a consensus model, which combines parliamentary democracy with principles derived from traditional Inuit values including cooperation, common accountability, and effective use of leadership resources" (p. 54).

The guidance from Inuit Qaujimajatuqangit in the structuring of government entities has meant to privilege Inuit language, knowledge, and culture (Boyer 2010; Timpson 2009; Burrows 2005; McGregor 2012; Waller 2018). In describing the creation of the Nunavut government, Dorais (2006) reports:

> Its public symbols (flag, coat of arms) are Inuit inspired, Inuktitut is official (alongside English and French) and its administrative and legislative practices are supposed to be inspired by Inuit Qaujimajatuqangit ("old stock Inuit knowledge"), traditional knowledge. This means that far from having been a strictly political act, the creation of Nunavut brought about or confirmed (by extending the legal status inherited from the Northwest Territories) the formal recognition of the language, culture, and social organization of its Inuit residents, within the limits of a territory where they constituted the vast majority of the population (Dorais, 2006; p. 165).

Many authors connect an IQ-guided government with Inuit aspirations for a return to self-determination (Waller 2018; Stern and Stevenson 2006; McGregor 2012). For example, Stern & Stevenson (2006) state that "IQ has become the guiding ethical and intellectual template for building a new government and society, one that many Inuit believe is a formula for both cultural preservation and greater self-determination" (p. 97). Former premier Paul Okalik asserts that "IQ [is] providing a cultural 'foundation' to counteract colonial policies of displacement and social fragmentation" (as cited in McCall, 2004; p. 201). Its presence in government allows Inuit to reclaim a modern form of self-reliance and renew their identity (Arnakak, 2002; Selin & Davey, 2012).

> "While the values are steeped in tradition its application is contemporary and continues to evolve" (Okalik, 2003 in Van Dam, 2005 p. 204).

Inuit Qaujimajatuqangit serves as a purpose; "from the outset, there was an implicit understanding that the Inuit need and want to take the best of traditional Inuit values (social, political, economic, and environmental) as well as contemporary methods and means of governance and adapt them to the changing environment" (Arnakak, 2002, p. 36). Matthijsse

[17] Bishop, Owen, Wilson, Eccles, Chircop, & Fanning (2022) explains "The social and cultural values expressed through IQ contain governance values that are grounded in "a morality that is the base for Inuit existence. It is the knowledge, belief system, principles, and values at the core of Inuit identity and that guide/govern Inuit society" (p. 4)

[18] "Inuit Qaujimajatuqangit does not box things in; it tries to keep everything interconnected and related. Because it's all for the sole purpose of Inuusiqattiamiq,... to be healthy, to be independent so we can work well with others. To be contributing to our community... (Government of Nunavut Employee, 1999, p. 43)" (Thompson, 2008, pg. 62).

(2010) states that, for Inuit and government policy makers, IQ can serve as “a bridge to the past and a key to a better future” (n.p.a.).

IQ-based governmental policy “reflects the aspirations and traditions of Inuit life as lived in northern communities” (Bravo, 2000; p. 472) and “make sense to the people we serve” (Arnakak, 2002; p. 36). Paul Okalik shares: “as a government, and as a matter of policy, we endeavor to view every piece of proposed legislation and policy decisions are screened through the prism of IQ” (2003 cited in Van Dam, 2005, p. 124). Dyer (2016) states that “Nunavut’s political and legal structures are officially dedicated to incorporating principles and practices of Inuit knowledge (Inuit Qaujimajatuqangit)" (p. 267). But for many Inuit, the ability to incorporate Inuit Qaujimajatuqangit into policy and then put that policy into practice will persist as the measure of success for the Nunavut Government (Stern & Stevenson, 2006; Rice, 2016) and what makes it specifically Inuit (Stern & Stevenson, 2006).

> With the creation of Nunavut, government aspirations were bold, and expectations were raised. Some Inuit anticipated that implementation would ensure Inuit dominance in social and economic terms, absolute Inuit control, full Inuit employment, recognition of Inuktitut as the official (and some suggested, only) language, and/or the operationalisation of Inuit Qaujimajatuqangit (Doubleday, 2003; n.p.a.).

Application and challenges in government

In the creation of Nunavut, Sabourin (2012) explains, “it was important that Inuit Qaujimajatuqangit (IQ) be incorporated into decision-making and activities, thereby enabling Inuit culture and values to be reflected in its governmental processes” (p. 30). Sabourin (2012) adds that “the goal of incorporating IQ is to force people to reflect if their actions are consistent with this term” (p. 30). The mobilization of Inuit Qaujimajatuqangit in government is not without challenges.

“In subcommittees within departments and interdepartmental committees, Inuit public servants involved in developing strategies to integrate IQ into government operations have been able to work together in the Inuit Language (despite having to translate their recommendations into English to ensure they become more widely known)” (Timpson, 2009, p. 173). But Altamirano-Jiménez (2013) explains that, while there may be extensive use of Inuktitut all the way up to the Legislative Assembly, many of the staff are from the south and may not possess adequate training to understand Inuit culture and language. Johnston (2021) estimates that more than half of the government employees are Qallunaat (i.e., people who are not Inuit that come from outside the territory) and that they rarely possess Inuit knowledge, wisdom or values. Staff require training and a more in-depth understanding of what Inuit Qaujimajatuqangit means not just to the organization but to the community as well in order to combat the difficulties of merging such values within the tiers of government. A packet of information about IQ is provided to both Inuit and non-Inuit employees of the Nunavut government (Stern & Stevenson, 2006) with expectation that employees use IQ in the workplace and in the design and implementation of new programs and policies" (p. 97). Zizman (2010) wrote that the purpose of the ‘cultural orientation tool kit’ is to provide staff of the Government of Nunavut with a brief history of the territory. IQ, how Inuit culture and values are implemented into the workplace, government services and programs, the history of Inuit, and instructing the Inuktitut language are some of the subjects covered in the toolkit (Zizman, 2010). In addition, each government department is to “invite at least one Elder to consult on all policy, strategic planning, business planning

meetings and development sessions to ensure Inuit traditions and beliefs are respected during program delivery" (Thompson, 2008, p. 62). Yet, Government of Nunavut employees struggle to incorporate IQ into their practices (Stern and Stevenson, 2006). Altamirano-Jiménez (2013) warns that Inuit Qaujimajatuqangit is easily written in Nunavut Government policies and regulations, but it is not easily put into practice. Particularly, the NG priorities are expressed vaguely and there is no guidance on how to incorporate IQ into everyday work or ensure that work is consistent with IQ (Johnston, 2011; Altamirano-Jiménez (2013). Furthermore, "the implementation commission recommended the creation of departments that would translate IQ into public policy." Although these "departments were central to the creation of Inuit-sensitive institutions of governance, they have since been dismantled." Leaving the responsible for "Inuitizing" government policy and programs solely on the office of Nunavut's Director of IQ (Rice, 2016).

The literature also suggests that the application of Inuit Qaujimajatuqangit in government operations has been problematic, because the tenets of IQ have been limited by the standards of Euro-Canadian structures in government (Altamirano-Jiménez, 2013; Cancel 2009; Haycock-Chavez 2021; White 2009; Kathan 2015; Palaudeix 2012). This challenge may lie in how Inuit Qaujimajatuqangit has been previously presented. Pelaudeix (2012) explains that, because the concept of IQ is not specified in an operative way, the application of IQ in Western political institutions is problematic. Furthermore, how one person or system interprets the meaning of Inuit Qaujimajatuqangit may not reflect that of the community. Leduc, (2010) explains that Inuit Qaujimajatuqangit has been categorized in silos to serve certain purposes of operations. This has caused confusion in areas such as Traditional Ecological Knowledge, where a divide between usage and meaning has emerged.

In an example from maritime policy development, Bishop, Owen, Wilson, Eccles, Chircop, & Fanning (2022) draw on the eight IQ principles in their policy review of icebreaking governance and Inuit rights and livelihoods. They recognize that relating Inuit governance values to maritime policy development "requires a nuanced understanding of IQ achieved through meaningful engagement with and by Inuit" (p. 4) but warn "the application of these values would be challenging given the current asymmetrical influence of non-Inuit driven policies and practices in place for icebreaking" (p. 4).

White (2009) argues that the fundamental characteristics of Westminster politics have been modified but not displaced fully with IQ because there is a lack of guides or manuals to accurately reflect IQ in Government. This may be only part of the challenge though, as in education, "new curricula" was developed and "many additional resources in Inuit languages," all guided by "four Inuit Elders" and "a territory-wide Elders Advisory Committee" (McGregor, 2015; p. 69). Yet structural challenges associated with implementing IQ not unlike those identified in Bishop, Owen, Wilson, Eccles, Chircop, & Fanning (2022) have surfaced in Nunavut's educational system (McKechnie, 2014). These challenges have been associated with "the continued dominance of Eurocentric epistemologies within the structures of the school system" and the reliance "on Qallunaat (non-Inuit) teachers and administrators for the education system to function" (p. 61).

Jean-François Létourneau's (2021) exploration of the relationship between IQ and literary studies, Létourneau asks the same of literary studies as he does of the Nunavut government: should the effort be to fit decontextualized fragments of cultural practice into an imposed system, or should accommodations be sought in "the larger Inuit system that has since long preceded in the territory[?]" (p. 160). "Alert to the potential for Inuit ways to be simply "added on" as a kind of supplement to fundamentally Qablunaaq institutions, the IQ Task Force challenged the government of Nunavut to "incorporate itself into the Inuit Culture" rather than try to incorporate Inuit culture into itself" (Cameron, 2015; p. 181). The reality remains that many Inuit are frustrated with western bureaucracy, "[t]ell the GN that our culture is disappearing. Find ways to make laws that reflect Inuit culture — if it's good for Inuit culture it will be good for everyone and it won't violate the laws of Canada" (Rondon, 2014, p. 105).

> "I urge scientists not to come to our communities and ask how our knowledge can be integrated into science. We have invited you into our regions to help us. We are grateful for that. But maybe Inuit need to turn the paradigm around as well, at least from time to time. So help us find ways to integrate your knowledge into the Inuit way of seeing the world. Help us turn the question around. This way, science can indeed be relevant to us" (Former ITK president Terry Audla as quoted in Young, 2020; p.240).

School/formal education

Inuit Qaujimajatuqangit is discussed in the context of 'Inuitizing' education in Nunavut. Discussions about Inuit Qaujimajatuqangit in formal education are unique from discussions about IQ in other areas (like governmental departments or established institutions). In education, Inuit Qaujimajatuqangit is not usually talked about as an additional approach to education that has to be fit into what already exists. It is more often discussed as the foundation of a modern system. The research literature describes a lot of the successes, but cautions are also made about how IQ does not always fit within the classroom setting.

Chen (2010) stated that prior to the creation of Nunavut, the government of the Northwest Territories and the regional boards of education had begun implementing and promoting initiatives such as Inuuqatiqiit[19] to incorporate traditional knowledge and culture into the school curriculum. With the establishment of the Nunavut territory in 1999, the education system began to be reconceptualized and redesigned so that the entire curriculum would reflect Inuit perspectives and be delivered in a setting that supported Inuit identity (Carry, 2011). The Department of Education understood that a curriculum based on IQ would provide learners with a greater feeling of self-worth, direction, and optimism, which would lead to greater academic performance (Yamamura, 2003). Daitch (2013) and Copland, White, Crawford, Mueller, Van Wychen, Thomson, & Vincent (2018) add that, in addition to practical skills and problem solving, students learn who they are and what society expects from them when IQ concepts are at the center of the curriculum.).

[19] " Innuuqatiqiit: The Curriculum from an Inuit Perspective (Education, Culture, and Employment, 1996) describes Inuit values and beliefs. Inuit value strong family ties, family unity and responsibility, respect for the land and sea, sharing and generosity, life, traditional knowledge and values, their language, and continuous learning" (Gerein, 1998; p. 81).

“Nunavut is the only jurisdiction in Canada with education legislation calling for all public education to be based on Indigenous knowledge” (McGregor, 2012, p. 299). This meant that schools could not obtain their curricula, teaching materials, and learning resources from other jurisdictions or the for-profit educational publishing sector. The Department of Education started by compiling what little institutional information was available, to make it accessible to educators (Carry, 2011). Educators and curriculum developers were given direction and resources to work with Elders[20] to actively reconceptualize K-12 schooling based on Inuit foundations (McGregor, 2012). McGregor (2012) reports that the Department of Education's curriculum development was organized by four integrated curriculum "strands" rather than a variety of topic categories, allowing for a “closer approximation of the holistic nature of Inuit knowledge:

> • Nunavusiutit: heritage, culture, history, geography, environmental science, civics, economics, current events, world news.
> • Iqqaqqaukkaringniq: math, innovation, problem-solving, technology, practical arts.
> • Aulajaaqtut: wellness, safety, society, survival, volunteerism.
> • Uqausiliriniq: communication, creative and artistic expression, critical thinking” (McGregor, 2012; p. 297).

McGregor (2013) describes several important initiatives intended to effect change in other areas of the education system:

In response to earlier systematic barriers, a process was developed to certify Elders as co-instructors. Certification legitimizes Elders’ place in the school system and ensures that learners can avail of Elders’ expertise in the classroom setting (Aylward, 2018).

- the provision of sustainable funding to communities for early childhood language and culture programs
- the made-for-Nunavut principal / vice-principal educational leadership certification program
- school community counselor training program
- new educator orientation program
- certification of and special funding for Elders as co-instructors (McGregor, 2013; p. 99).

These systematic changes have lessened the divide between schools and communities. Collaborative program development has increased the representation of community interests in educational programming. Howard (2008) provides a practical example of this when describing the development of the music program at the Qitiqliq High School. The instructor tasked with developing the music program engaged with Elders and sought the expertise of several community members. The collaboration produced a culturally rich music program that featured,

[20] McGregor explains that Elders do not seek a return to the past, but rather an IQ-informed strengths-based education so that their children can survive and thrive in today's world. By incorporating IQ beliefs and principles into systems and curricula, the intention is to create a learning environment that promotes siratunik (becoming wise) and develops the strength of the inumalik (capable person) (McGregor, 2012).

among other things, throat singing, contemporary songs in Inuktitut, and drum dancing (Howard 2008).

McAuley (2011) observed that family and community obligations and the socio-cultural way of life make it difficult for students to attend graduate programs at southern universities. This emphasizes the need for Nunavut based graduate programs, not only to facilitate accessibility but also to 'Inuitize' academic education at higher levels (McAuley, 2011). According to Roden (2018), students at the post-secondary level embrace curricula when they feel the content is relevant to them. Students place a high priority on programs that use IQ-based materials, have more open timetables, and flexible assessments. Roden (2018) adds that schools that are 'Inuitizing' programs, like Akitisiraq Law School, Nunavut Sivuniksavut, and others, have higher graduation rates.

> Elders in the Classroom: "Encounters with elders over photographs have indeed 'shed a new light' on Inuit culture for Kevin Iksiktaaryuk and his classmates. They have illuminated dark spaces of silence while helping students see their families and communities anew…The interviews have allowed them to revisit a traumatic period in recent Inuit history, which, although before their time, has shaped much of their experience as Inuit and in relation to non-Inuit. In turn, these postmemory encounters have allowed them to reframe representations of that past from a new position informed by the tenets of IQ, the Government of Nunavut's strategy of rendering government policies, procedures, and values in terms of Inuit culture. In this way, photographs and the oral histories they have sparked have transformed affect into cultural and political engagement not only for the elders, but also for the youth interviewers" (Payne, 2011; p. 621).

Although the literature widely agrees that centering IQ in curriculum has been a positive development, Stern & Stevenson (2006) remind us that not all Inuit knowledge/education can be delivered in classroom settings with written materials. Stern & Stevenson (2006) cite Rasmussen (2000) to convey that Inuit should be wary of the notion that established forms of knowledge exchange can be replaced with books or that literacy is equivalent to competence and attunement. Nevertheless, a system-wide IQ framework and bilingual approaches have fostered innovation in educational structures, facilitated greater consistency across communities, and enabled students and parents to see themselves in the school system (McGregor, 2016).

Elders

Inuit Elders are recognized in the research literature as authorities in Inuit Qaujimajatuqangit. The research literature shows that they are sought after research collaborators and that research produces richer results when they are involved. The literature also shows that Elders share (verbally) their knowledge about Inuit Qaujimajatuqangit while, at the same time, demonstrating key values and principles in their way of being (through non-verbal actions). Inuit Elders are acting as research collaborators and informing discussions on the application of IQ in the past, the present, and the future.

According to Meis Mason (2015), Inuit Elders are regarded as culture bearers because they exemplify cultural ideals and way of life. A similar perspective is conveyed by Oosten (2005), who notes that Inuit Qaujimajatuqangit is believed to be both preserved and embodied by Elders. Waddell (2017) explains that Elders have "innate knowledge, knowledge that transforms and is dictated by social circumstances, and community relationships as it is passed through generations" (p. 10). Accordingly, Elders are revered in Inuit society as interpreters of Inuit relationality; knowledge bearers who pass on teachings to younger generations (Grimwood, 2012). Snow & Tootoo (2021) cite the Pauktuutit Inuit Women's Association (2002) in explaining that "to become Inummarik (respected Elder/real or genuine person) is a life-long learning process [...] This was traditionally achieved holistically through mentorship and practice with Elders as part of a community working together in daily life (Pauktuutit Inuit Women's Association, 2002)" (Snow, & Tootoo, 2021; p. 10).

They act as instructors, philosophers, and advisers[21] (Meis Mason, 2015) and pass on personal life experience and collective Inuit knowledge (Matta, 2011). Vaudry (2015) cites Martin (2009) to report that "Fundamentally, Inuit knowledge comes from the elders' memory" (p.151). Oosten (2005) describes that this knowledge is different for each Inuk elder, and that:

> it did not matter whether the elders came from different places. Variation is an essential characteristic of the knowledge of the elders. As each one has his or her own knowledge, it is absolutely essential that this knowledge be seen as related only to that particular elder. Once the source – or more specifically the name of the elder – is lost, the knowledge loses its roots and becomes devoid of value to most Inuit (p. 193).

In an effort to preserve the oral history of Inuit Elders, Elders' stories[22] are being recorded in a number of research projects and community initiatives (Matta, 2011; Norwood, 2014). Norwood (2014) states that:

"Elders […] have experienced the life of the true Inuit, the Inumariit of the past, out on the land" (p.192). As such, younger generations often defer to "Elders as the real holders of qaujimajatuqangit" (Oosten, 2005; p. 192).

> "[a] major concern of Inuit, and one that would seem to be the basis for other forms of their wellbeing is the preservation of their stories. Inuit scholars are in the midst of transposing their oral culture to written texts in an effort to record what is known as Inuit Qaujimajatuqangit (…) or Inuit traditional knowledge held by elders who remember life on the land before settling in communities (p. 18).

[21] "In Nunavut, the Department of Justice involves Inuit Elders as policy consultants and has adopted a vision statement expressing the following commitment: Our vision reflects Inuit Qaujimajatuqangit values, and promotes fairness, equality and a safe society supported by a justice system that is trusted and understood. The vision is respectful of and responsive to diversity, individual and collective rites, and community needs" (Stratton, 2006; p.18).

[22] "The primary sources for [IQ] principles are the memories of Inuit elders, and as a result, the years of political organizing that resulted in the creation of Nunavut were also marked by a renewed interest in the collection of oral traditions (Nunavut Department of Human Resources as cited by Martin, 2009; p. 130).

Elders are essential to the dissemination of IQ, not only in the sharing of Inuit knowledge, but in demonstrating the application of values[23], decision making processes, and more. Regrettably, Elders' roles do not typically fit in Western systems and institutions (Tagalik, 2012). Policy makers, program developers, and research collaborators often desire consultation with elders to better reflect Inuit values and relationships in their pursuits. Making place for Elders in Western systems and institutions would make Elders and other knowledge bearers accessible when available to fulfill their guidance role, and thereby reduce challenges associated with consultation fatigue (Peletz, Hanna, & Noble, 2020).

Inuit art and the transfer of IQ

The transmission of Inuit Qaujimajatuqangit is discussed in the research literature in several different contexts. The literature shows that Inuit art has been a method for transmitting Inuit Qaujimajatuqangit, but not one without challenges. Other methods described in the literature include music and song, video games, websites, and social media. There has also been a growing interest in how Inuit Qaujimajatuqangit is transmitted through research and research practices.

The literature portrays Inuit art as an established medium for Inuit Qaujimajatuqangit dissemination, but not one without challenges. The literature both describes these challenges and prescribes potential ways forward.

> "Our ancestors – shamans, hunters, storytellers – were the keepers of collective social memory; now our artists share that responsibility for preserving Inuit Qaujimajatuqangit in their works, by asserting themselves as the true authorities on Inuit culture and confronting the legacies of colonial influence and the more recent mediation of Inuit identity by both the media and the art markets" (Igloliorte, 2010, p. 44).

Inuit artistic expression is a "symbiosis of knowledge and cultures, transmitted from generation to generation and translated by the Inuit word Qaujimajatuqangit" (Dubois, 2020; p. 35- translated from original). There is agreement in the literature that IQ is embedded and embodied in Inuit artwork, storytelling, and artmaking (Igloliorte, 2010; Igloliorte, 2014; Rathwell, 2016; Dubois, 2020; Yunes, 2019). Furthermore, Inuit "arts and crafts express oral tradition, personal narratives, and Inuit worldviews and transfer those values intergenerationally" (Yunes, 2019; p. ii). Rathwell (2016) affirms that IQ in these forms tends to resist ecological or social pressures and "function[s] to maintain traditional knowledge between generations of Inuit" (p. 4), provided that Inuit retain control over interpretation.

The Inuit art market emerged during a time when Inuit communities were transitioning from a nomadic sharing-based economy to a capitalist, wage-based economy to satisfy the demand of southern institutions (Yunes, 2019). Inuit art has since become internationally recognized and has flourished into a multimillion-dollar industry (Yunes, 2019). In her discussion on mobilizing Inuit knowledge, Wilson (2007) draws on material from the Inuit Qaujimajatuqanginnut Task Force (2002) and asserts that "the goal of economic development is not to preserve traditional activities as such, but rather to provide for the continued exercise of the 'relationships' and 'values' that characterized pre-contact life, such as providing for family and community, taking counsel, and resourcefulness" (p. 40). Yunes (2019) states that "in spite of the inherent

[23]Salliq born scholar Saimanaaq Patricia Netser (2013) explains that Elders share knowledge but also demonstrate IQ principles and Inuit values in their actions: "they have so much to share, and they are so full of wisdom, and yet they always speak with humility" (p. 15).

importance of art for Inuit cultural health and wellbeing, the Inuit art market continues to run on the antiquated, colonial, third party distribution system introduced to the territory in the 1950s by southern institutions" (p. 132). In addition, "the frameworks, policies, and methodologies used to determine the value of Inuit art are all colonialist and, for the most part, ignore IQ" (Yunes; 2019; p. 132).

Inuk art historian Heather Igloliorte (2010) suggests that there is an extensive literature on Inuit art in Canada, including hundreds of exhibition catalogues and scholarly texts, publications in the popular media, journal articles, and edited volumes, yet only a small portion is produced by Inuit. The research, study, and dissemination of Inuit art has largely been done by non-Inuit scholars, curators, critics, and museum staff (Yunes, 2019). Rosen (2013) adds: "As the act of research is inseparable from the researcher, Western ways of thinking about people, material objects, and meaning have largely directed the discourse on Inuit art in the south" (Rosen, 2013; p. 8).

Yunes (2019) prescribes "decolonizing the market; shifting to a community-first, Inuit-created model that will support artistic movements such as Inuit futurisms; and ensuring that artists have access to the resources they need to experiment with new media" (p. 4). This will enable space for "innovations in strategy, distribution, and methods introduced by and for the Inuit arts community" (Yunes, 2019; p. 4).

Igloliorte (2017) explains that efforts toward Inuit independence, and a return to a self-determined existence, have been propelled by a number of issues (including climate change, food insecurity, and the ongoing legacy of colonialism) that bear on the quality of life of Inuit. As many feel that Inuit independence and self-determinacy is brought about in the practice of IQ, Inuit art also serves as a tool for resisting colonialism and recovering from the associated trauma. Igloliorte further states that when "Inuit continue to practice Inuit Qaujimajatuqangit and ensure its continuation and relevance in daily life, our artistic practices thrive" (p. 113).

"It is important that Inuit perspectives on art making, as well as the narratives represented in art are respected[24]" (Rosen, 2013; p. 87). Studies of Annie Pootoogook's drawings provide practical examples that speak to what Inuit art can accomplish as well as how non-Inuit art interpreters can appreciate Inuit art in a way that facilitates its intended function. For example, Lefebvre (2019) examines Pootoogook's visual representations of girlhood and shows that these images represent Annie's life experience and are reflective of IQ concepts related to cultural continuity and wellbeing. As a consequence, these images "disrupt sexualized stereotypes of Indigenous women" (p. 242). Emily Lawrence (2018), "as a qallunaat scholar" (p. 8), felt that she did "not possess the integral Inuit knowledge needed to fully catch all of the nuances that an Inuk scholar may extract from the artist's work" (p. 8). She therefore formulated a frame to appreciate Pootoogook's work based on the writings of Inuit and Indigenous scholars. For example, Lawrence (2018) follows Igloliorte's lead in "approaching Inuit artmaking as [an expression of] resilience and cultural sovereignty" (p. 8). Framing art with the tenets of IQ, instead of those offered by the western art historical tradition, encourages deeper and more locally specific

[24] Placing story at the centre of a discussion of Inuit art making leads to a consideration of what these stories accomplish" (Rosen, 2013; p87). Alena Rosen (2013) explains that a variety of unikkaat (stories) are represented in Inuit art "relating to Inuit Qaujimajatuqangit and oral history, to considerations of the impact of colonialism, to dreams and the spirit world, imagined worlds and beyond. These diverse narratives are expressions of experiences and communicate different areas of Inuit knowledge" (p. 87).

readings of Inuit artwork (Igloliorte, 2010, 2014). From this frame, Lawrence (2018) found that Pootoogook's art documents how love for family and culture persists as fundamental integral aspects being Inuit despite encroaching influence from the South" (n.p.a.).

Other routes of IQ transmission

Russell (2006) reports that music has long been an effective avenue for bringing the past and present together. Russell (2006) adds that music and song has aided the retention of the teachings, stories, and other information that reinforces language, culture, and spirituality.[25] Today, as Indigenous people have become more widely acknowledged by the video game industry, video games have become a platform to share Inuit specific cultural content, stories, and values (MacKenzie, 2016). Digital design has become increasingly user friendly and accessible to local governments and communities, who are producing interactive websites that gather and share Inuit relevant content including Inuit knowledge and IQ (Yunes, 2019). Young (2019) reports that a great deal of Inuit cultural knowledge is now being channeled through social media. Many of these platforms are accessible to people who are unfamiliar with Inuit culture and customs. As such, social media platforms provide an avenue for Inuit to share IQ and Inuit practices with each other and people with limited previous exposure. However, unlike other mediums, social media also provide an avenue for people to openly express disapproval or agitation with Inuit practices (Young, 2019).

Youth and IQ

The research literature provides many examples of Inuit Qaujimajatuqangit as discussed in the context of youth perspective, identity, and development. There is agreement among many research collaborators that youth are spending less time on the Land, and this affects the transmission of Inuit Qaujimajatuqangit.

Perrin, Ljubicic, & Ogden (2021) discuss how Nunavut youth view IQ as "more than just knowledge" adding that "[it] incorporates knowledge, customs and values. It is a way of life. It is as much about how we interact with one another, our attitudes and behaviours, as it is about what we know" (p. 21). Snow and Tootoo (2021) relay:

> Youth we spoke to identified eight critical factors in their personal definition of identity, this included: knowledge of shared history, IQ values, cohesion, language, physical well-being, self-efficacy, deep connections to land and connections to one another. […] Youth identified pride in identity associated with IQ values and traditional activities. Understanding and practicing traditional values helped youth recognise a path towards identity and adulthood (p. 15).

The research literature also indicates that IQ is contributing to youth resiliency and social adaptation. Ulrich (2017) states that Inuit youth are demonstrating their resilience while remaining rooted in Inuit societal values as they continue to adjust to the shifting social context in which they live. Piqujat (communal laws), for instance, aid young Inuit in how to live one's life

[25] Kunsugak (2004) explains that music and song was commonly used to help Inuit travel long distances before the arrival of maps, radios or other transmitted technology. Descriptions of objects, the locations of Inuksuit, and the unique characteristics of places were put into song. The songs were memorized and taught to others. The descriptions in the songs helped people to navigate across large areas that may have been initially unfamiliar to them.

as an Inuk and act in accordance with behavioral expectations. Thomas, Bohr, Hankey, Oskalns, Barnhardt & Singoorie (2022) furthers this discourse by emphasizing the relational aspect youth resilience: "[c]onceptions of resilience described by Inuit youth in previous studies are relational and ecological; resilience is centred on relationships and cation among friends and family, being on the land, forging strong communities, connecting to Inuit culture, and keeping busy" (p. 3).

Research collaborators recognize that Inuit youth are valuable contributors to research and research processes, and that they should be prepared to assume leading roles in future research. Sadowsky (2019) for example, places significant focus on "mobiliz[ing] Inuit youth's scientific knowledge and research skills" (p. 123) while looking to "uplift them to envision and take on academic and professional roles" within their respective "communit[ies] and/or the scientific community" in ways which "they find to be meaningful" (p. 124). Sadowsky (2019) recommends that research partnerships concentrate on "youth capacity development" which she sees as foundational for youth's autonomy, self-reliance, and ability to "support themselves and their families in tangible ways" (p. 124). Sadowsky (2019) further adds that "capacity development should empower youth to make decisions that uphold their Inuit values and are beneficial for their community and the environment" (p. 124).

> "[W]hen youth's basic needs are met, they are in turn afforded the freedom to choose to pursue research and higher levels of training and education. Ideally, youth would ultimately become prepared to partake in meaningful, skilled work that allows them to achieve socio-economic security" (Sadowsky, 2019; p. 124).

Respondents from Pond Inlet stressed the need to foster youth's learning pathways in ways that transcend perceived boundaries between Western science and Inuit Qaujimajatuqangit. The incorporation of Inuit Qaujimajatuqangit into scientific literacy for Inuit youth further ensures that Inuit values and research priorities are upheld in the long-term, underpinning the wellbeing and resilience of Inuit communities (Sadowsky, 2019; p. 124).

Land and transmission

Youth are spending less time on the Land, and this affects the transmission of Inuit Qaujimajatuqangit. The research literature suggests that trips on the land are shorter and occur less frequently given changes in technology, skill level, and climate (Stern & Stevenson, 2006; Tremblay, 2018; Clavijo, 2020; Desjardins at al., 2020).

Time on the land tends to be shorter given that technology has expedited hunting and travel. For instance, "motorized boats ha[ve] reduced the duration of walrus hunts from several days to several hours" (Desjardins at al., 2020; p. 246). Elders, hunters, and knowledge bearers have expressed concern that this abbreviates opportunities to learn from others and practice the skills associated with risk reduction. In turn, far more youth are less confident in their ability to safely navigate those risks (Tremblay, 2018; Clavijo, 2020). In addition, climate change is demanding the rapid adaptation of Inuit TEK and the modification of many of the practices that TEK informs (Jewell, 2011). Youth need continued opportunities to engage with the Land because, although IQ is "a set of values and practices, […] and ways of being and looking at things that are timeless" (Karetak, Tester, & Tagalik, 2017; p.1), its application (the processes that create self-reliant, capable individuals (Crump, 2016)) is advancing in time.

Because being on the land also impels youth to engage and bond with others (elders, teachers, etc.) it advances both intellectual attainment and socioemotional development (Sisco, 2010; Southcott, 2018). Stern & Stevenson (2006) report that youth lack access to the Land, and this is affecting their identity and their very concept of what it means to be Inuk. Despite this, when given the chance to spend time on the land and learn, they do so (Potter, Johnston, & Dawson, 2020). Inuit guardians continue honing their traditional abilities by matching up youth with more experienced mentors to aid in the transmission of IQ.

Sellheim (2018) describes how seal hunting provides food for families and communities, reinforces IQ, and contributes to Inuit wellbeing: “[t]he sophisticated hunting tools and methods” and “[o]ther skills, such as the processing of seal skins (…) made the seal a significant contributor to the wellbeing of the Inuit by providing the raw material for tools, clothing and food” (Sellheim; p. 57).

IQ and Family

The literature emphasizes the importance of Inuit Qaujimajatuqangit in relation to family, kinship structures, communication, and family well-being. Connections between the family, Inuit Qaujimajatuqangit, and early childhood development are also recognized in the literature. There is a lot of agreement between research authors about the benefits of incorporating Inuit Qaujimajatuqangit into services related to family preservation, but many also identify that it has been challenging to do so.

Johnston (2011) describes Inuit Qaujimajatuqangit as being “particularly important to Nunavummiut families today” (p.69). Johnston (2011) cites Arnakak (2001), adding that “the traditional kinship structure is the means whereby goods and services are transacted and exchanged” but that it is also a “means of transmitting ideas, values, knowledge and skills from one generation to the next. In other words, individual, family and society are linked by the kinship structure” (p.69). The role of communication in family relations is also presented in the literature as being central to IQ. Kral, Adams, Akearok, Allen, Arnatsiaq, Cooper, Dyck, Ellsworth, Fletcher, Idlout, Kunuk, & Kirmayer (2003) note in their research that "[t]he third most common theme related to well-being concerned Inuit traditional knowledge or Inuit Qaujimajatuqangit (IQ) (…) [with] family and communication [being] central to this” (p. 17). They further add: “It should be noted that family/kinship and communication are also an integral part of IQ" (p. 17). They continue, adding that “the land, hunting, camping, eating country food (meat from the land or water), spending time with Elders, knowledge and practice related to making traditional tools, skin clothing, building the igloo, and knowledge of Inuit belief and cosmology” are all interrelated to family communication and cohesion (p. 17).

The literature also describes family as a domain of early child development and ongoing learning. McGregor (2012) reports that education “was integrated into the daily lives, daily responsibilities and daily relationships within families” (p. 290). Children learned experientially by playing games, imitating adults, and observing activities and the world around them (Snow, & Tootoo, 2021). This learning took place in an environment that prioritized caring interactions with others and emphasized good social relations, including encouraging members to be helpful and accountable to those around them (Matthijje, 2010; McGregor, 2012). Bauer & Giles (2018) add that Inuit children continue to be raised according to the idea that wisdom is gained through life experiences and is contextualized within the Inuit community (p. 238). They state, for example, that children’s outdoor play may be described as “risky”, but the mitigation of risk is

conceptualized as a childhood developmental milestone within the experienced-based learning framework of IQ (p. 238).

The research also identifies a need to incorporate IQ in services related to family preservation, however this can be challenging give the established systemic parameters. For instance, Gowan (2003) reports that some family services may lack the holistic approach prescribed by IQ. In speaking about emergency shelter services: "Nuturak asserted the need for both men and women to receive counseling. […] Approaching the issues holistically by looking at both the right and left hand is Inuit Qaujimajatuqangit" (p. 104). While meaningful attempts are being made to incorporate Inuit ways into social programs, there are pre-existing rules and regulations that preclude male participation in settings like women's shelters (Gowan, 2003).

Patricia Johnston (2011; 2014) details how IQ is considered in child welfare and social work practice. Johnston (2011) associated a lack of cultural relevance in Nunavut's child welfare system to a subsequent harm to kinship structures and the intergenerational transmission of Inuit culture.

Johnston (2014) has stated that this has generated a "significant amount of talk" surrounding IQ "and its importance to the development and delivery of the child welfare (child protection) regime" (p. 267). The Nunavut Government has mandated the inclusion of IQ as a priority, but because priorities were expressed vaguely, non-Inuit have had difficulty incorporating them into practice. The current system is still forced to mimic southern Canada's child welfare systems while it reconciles "the distance between Inuit culture and the Qallunaat (non-Inuit) or Western worldview" (p. 268). Johnston states, that:

> [U]ltimately, Inuit Qaujimajatuqangit may, if truly given the opportunity to lead and give direction for the territory, show how a new approach, or rather a very old approach, to child welfare could better meet the needs of Inuit children, youth and families (p. 97).

Child abuse and neglect, when it occurred, was also traditionally addressed within extended family camps as Ekho and Ottokie (2000) describe: Some of the parents had their children taken away, because the whole camp could see that the child was often very hungry and it was obvious that the child was being mistreated. Sometimes the child would be taken away and placed with another family. There are a few parents who only mistreat one of their children…so we have to show them love…they would tell the parents in a kind way that they would take the child for a while to provide for him or her. They would do this in a way so that the parents didn't start hating the child" (Johnston, 2011; p. 97).

Health and Wellness

In the Nunavut research literature, Inuit health and wellness is often discussed in terms of balance, reciprocity, and interconnectedness. Many of these discussions acknowledge the difference between Inuit perspectives of health and well-being from those from Western worldviews. Inuit Qaujimajatuqangit provides a framework for achieving well-being and many research collaborators feel that including it will make health care more suitable for Inuit. In addition to the literature calling for culturally relevant health care, there have been calls for additional Inuit service providers and more Inuit-specific materials and resources for health education.

Inuit worldviews are holistic and "ecological, social, economic, and spiritual aspects of life are closely intertwined (Berkes, 1999; Tester and Kulchyski, 1994; Nunavut Arctic College, 2008 as cited in Rixen & Blangy, 2016, p. 301). In the surveyed literature, Inuit health and wellness is often discussed in terms of balance, reciprocity, and interconnectedness. Many of these discussions recognize the conceptual difference between Inuit perspectives of health and wellbeing and those associated with Western worldviews. In the context of Health and wellness, Inuit Qaujimajatuqangit is prescriptive and many feel that its inclusion will make health care culturally congruent.

Inuit conceptions of wellness extend beyond a biomedical focus on patient-centred causes and treatments for disease. Wellness is conceived as a function of interpersonal relationships at individual, community, and environmental levels.

> Romain (2016) relays "the ideologies of Inuit wellness (…) and biomedicine" differ significantly. Inuit have values that are guided by "a distinct world-view which is relational" and is "embedded in Inuit life" (Romain, 2016; p. 76).

Individual health is realized in relation to others[26] and Inuit [personal development] goals are seated in creating harmony for the community; a "we" rather than "me" positionality (Snow, & Tootoo, 2021; p. 10). For Inuit, "living well is a lifelong process guided by relationships with others and is ultimately for the greater good of all" (Peliter, 2021; p. 347). This contrasts the tendency in Western cultures to think of healing and living well as individualistic pursuits (Peliter, 2021) tied to processes of individual self-actualization (Snow, & Tootoo, 2021).

Kral & Idlout (2012) describe IQ "as central to [Inuit] wellbeing" (p. 393); it embodies the relational ontology that informs Inuit conceptions of health and wellbeing, it prescribes a manner for achieving wellness, and its application is healing and identity forming. To understand IQ in the context of health and wellness, Kusugak (2013) draws on Shirley Tagalik (2010) to explain that "a sense of personal health and wellness is reliant on a strong sense of identity and belonging" (p. 6). Kusugak (2013) adds that understanding one's purpose and role comes from an appreciation of what specific skills and abilities one can offer to service others and support a common good. Yunes (2019) adds that "Inuit in Nunavut have come to measure community health culturally in accordance with IQ" (p.132).

> Romain (2016) cites the Government of Nunavut (2013) in relaying that Inuit wellness is guided by the IQ values of collaboration (Piliriqatigiingniq), sharing and reciprocity (Pijitsirniq/Pikutigiktot), balance and interconnectedness (Elagikatigiyut).

Kral & Idlout (2012) found that a "salient theme for [Inuit] happiness and wellbeing had to do with the values and practices of Inuit traditional knowledge, known among Inuit as [IQ]. This knowledge and practice had to do with things such as going on the land, hunting, sewing clothes, eating "country food" hunted from the land, spending time with elders and hearing their stories, and being able to build an igloo in order to survive on the land" (p. 393).

> Obed & Leroix (2019) describe how Inuit continue to tap into the earth's resonance to improve mental health and well-being and enact their accumulated generational knowledge, skill sets, and wisdom (Obed & Leroix, 2019).

[26] "Elders [place] emphasis on holism but also on interconnectedness and reciprocity in their conception of what it means to live a good life" (Peliter, 2021; p. 347).

Parlee & Furgal (2012) illustrate how cultural continuity and community wellbeing is connected to the health of the environment. As an example, Romain (2016) cites Kirmayer, Fletcher, & Watt (2009) to explain that IQ concept of Avatittinnik Kamatsiarniq (stewardship, respect and care for the land, animals and environment) influences and emphasizes one's relationship and connection to the land and situates wellness practices outside of institutional spaces.

Calls for culturally congruent health care

The dominance of Western models (and their corresponding values and viewpoints) in health care have destabilized Inuit conceptions of wellbeing and led to the unwellness of Inuit (Kral, 2003; Matthijsse, 2010). The research literature documents an ongoing and multilateral lateral desire for culturally congruent health care and service delivery in Nunavut (Kinnon, 2002; Bird, Wiles, Okalik, Kilabuk, & Egeland, 2008; Matthijsse, 2010; Geraci, 2011).

Matthijsse (2010) conveys that "the reappropriation of Inuit values, laws and culture is seen as a key means of making the people of Nunavut healthy again, and proud of who they are: thus building their spirits" (p. 188). Matthijsse (2010) cites Igah (2007) to add "[Inuit] really need to go through the process of cleansing. For us to become proud and healthy again, and to take on all the positions and to raise our children well, we have to be proud of who we are as a people (Igah, 45, justice sector worker, 07/06/07 as cited in Matthijsse, 2010; p. 188). Karetak, Tester, & Tagalik (2017) add that "providing Inuit with access to their own process of healing [will] reconnect […] them with the unique knowledge and perspective of Inuit Qaujimajatuqangit" (p.XV). "[T]he process of knowing IQ and reclaiming […] culture is a first step to decolonizing and healing who [Inuit] are as People" (Karetak, Tester, & Tagalik, 2017; p.n.a).

Calls for Inuit service providers

The roles of those engaged in Inuit wellness require participation in reciprocal relationships and partnerships with members of the community (Romain, 2016). Marchildon & Torgerson (2013) relay that:

> Applying IQ means that elders and other residents are included with government officials in planning health services in individual communities. Moreover, as part of the government of Nunavut's legal commitment under the Nunavut Land Claims Agreement and the territorial government's desire to ensure that residents receive services by individuals who understand Inuit culture and language, the Department of Health and Social Services (DHSS) is committed to increasing the proportion of Inuit within the health workforce (pp. 17-18).

Ha, Ahenakew, & Campbell (2019) confirm the "need [to] not only recruit and retain Indigenous nursing students, but also recognize Indigenous knowledge within the curriculum and train culturally competent practitioners (Canadian Nurses Association, 2014)" (p. 2). A developed understanding of IQ can serve as "…a vehicle to understand motivation and health-seeking behaviours" (Bird, Wiles, Okalik, Kilabuk, & Egeland, 2008; p. 19) and close gaps between health practice and the well-being (Healey, 2006).

Calls for Inuit specific materials and resources

Ward (2016) reasons that Inuit Qaujimajatuqangit is "the foundation upon which social/emotional, spiritual cognitive and physical wellbeing is built" (Tagalik, 2009 as cited in Ward, 2016, p. 24). Therefore, "health promotion resources must reflect understandings of health and wellness specific to a target audience and explicitly engage participants to share

their understandings of health" (p. 24). Ward (2016) argues it is not enough to simply use a holistic health model in health education or resource promotion. Egeland, Roberts, Kuluguqtuq, Kilabuk, Okalik, Soueida, Kuhnlein (2009) provide an example of a culturally specific approach to resource development in which they "utilize[d] traditional knowledge, Inuit storytelling, and country food to promote the health and well-being of community members" (p. 12). They did this by "document[ing] traditional knowledge of country food and its spiritual and health-giving attributes and use[d] this knowledge to promote country food use and healthy market food choices in the community" (p. 22).

Matta (2011) is among those researcher authors who link community well-being with the intergenerational transfer of IQ (Kral & Idlout, 2012; Parlee & Furgal 2012; Yunes, 2019; Newell & Doubleday; 2020). Matta (2011) feels that Elder story telling "is an effective way to teach health messaging to Inuit as it is a culturally acceptable vehicle that [adheres to the values of IQ and] also helps to preserve culture and identity" (p. 29). In particular, Matta (2011) availed of "[p]reviously recorded Elder stories" at part of their "culturally-appropriate community health promotion" work. Peliter (2021) adds that this type of "effective intergenerational communication […] facilitates both healing and transferring traditional Inuit knowledge between generations" (p. 347).

Inuit Qaujimajatuqangit and Western knowledge comparisons

Comparisons of Inuit Qaujimajatuqangit and Western science can be found in the Nunavut research literature. These comparisons are often made along the lines of their characteristics and/or their use. The literature shows that Inuit Qaujimajatuqangit and Western science can be complementary in some ways. However, the literature provides evidence of a number of basic differences that suggest that a cautious approach to bridging IQ and Western science (use them together/at the same time) is the most productive.

Comparisons of Inuit Qaujimajatuqangit and Western science in the literature remain in the realm of 'characteristics' and/or 'application'. This may be because, although in some ways complementary, IQ and Western science remain incommensurate due to a number of fundamental differences suggested throughout the literature. As such, comparisons found in the literature are often expressed as stated differences. Discussions of bridging (i.e., the tandem use of complementary methods in the co-creation of knowledge) IQ and Western science often emerge in consideration of these differences.

Outward differences reflect fundamental differences

The research literature does present a compelling argument for the incommensurability of Inuit Qaujimajatuqangit and Western science. This argument considers how distinct views of how knowledge is acquired, and of reality itself, amount to disparities in values and ways of being/doing/knowing. At the same time, disparate values and ways of being/doing/knowing reinforce distinct views of reality and knowledge acquisition.

Healy & Tagak (2014) cite Wilson (2008) and Getty (2010) when suggesting that "knowledge comes from the people's histories, stories, observations of the environment, visions and spiritual insights" (p. 3). Each of which has interacting implications for how knowledge is generated.

In the context of knowledge about caribou, Ferguson (1999) adds that an

> Inuit understanding of ecology is distinct from scientific understanding partially because of the rationale for its collection: human survival. […] Survival needs emphasizes the question 'Are there enough?' over 'How many are there?' (Unaaluq pers. comm., to R. Williamson pers. comm.) […] Once survival needs are met, hunters continue to observe population trends and changing ecological conditions accurately, but without numerical quantification (p. 42).

Authors regularly stress the interaction between history, culture, worldview, and practices when describing the generation and regeneration of knowledge (Furgal, Powell, & Myers, 2005; Omura, 2013; Yunes, 2019; Semple, 2020), however social relationality seems emphasized most often in the literature. Furgal, Powell, & Myers (2005) offer an example of how differences in knowledge link to differences in culture:

> Western (and in this case Southern) culture is information-based, whereas Inuit culture (based on IQ) is relationship-based. One places value on information in the form of paper, policies, contracts, etc. ("you are what you know"), and the other places value on the spoken word and the quality of relationships ("you are who you know") (Furgal, Powell, & Myers, 2005; p. 111).

With understanding how Inuit culture and IQ work together, Yunes (2019) states that "Inuit Qaujimajatuqangit positions communities first; creates strong, robust cultural connections; and places the power of decision making in collaboration and discussion. Similarly, Semple (2020) suggests that Inuit cultural worldview is partly a function of social relations:

> Inuit worldview is strongly grounded in social accountability and unity. All individuals have a responsibility to those around them. This includes sharing what they have, serving and caring for others and contributing to the collective well-being through their efforts and activities. Working for the common good is an expectation for all ages and central to why Inuit were such a successful society. Unity speaks to the importance of collective identity and collaboration across time (pp. 102-103).

The emphasis on social relations separates the particular and personal, relational and reciprocal qualities of IQ (Kral, 2009) from the general, abstract, and hierarchically authoritative qualities (Kublu, Laugrand & Oosten, 2004) of Western knowledge.

Omura (2013) explains that IQ is different from modern science, stating "[it] is qualitative, intuitive, holistic, subjective, spiritualistic, and based on a monistic ontology, in which humans are viewed as part of nature" (p.3). While "modern science" is considered "quantitative, rational, analytical, objective, mechanistic, reductionistic, and based on a dualistic ontology, in which nature is regarded as separate from the human realm" (Omura, 2013; p. 3). Healy and Tagak (2014) add an epistemological consideration to this discussion: "A relational epistemology draws our attention to relational forms of knowing. This differs from the common Western practice of focusing on individual descriptions of knowing" (p.3). Healy and Tagak (2014) cite Thayer-Bacon (2003) in adding that Inuit knowing is "informed by the multiple connections of knowers with other beings and the environment, by participating in events and observing nature, such as the birds, animals, rivers and mountains (Thayer-Bacon, 2003; p. 183)" (p.3).

The co-creation of knowledge

While outward and fundamental differences are observed in the research literature, they typically appear in optimistic but cautious discussions around the co-creation of knowledge (i.e., the tandem use of complementary methods to inform understanding).

Higgins (2010) believes that "Inuit Qaujimajatuqangit, the deep Inuit worldview, and Western science, a worldview that closely and minutely investigates the physical world, are both valuable, yet different culturally responsive paths to knowledge of the world that can be walked upon and viewed simultaneously" (p. 4). Weber (2013) also views science and Indigenous or local knowledge as two separate modes of knowledge generation but appreciates the recognition that these "separate branches of knowledge" (p. 190) can be complementary to one another, share the same pursuit in developing better understandings, and work together to inform prescriptive policy based on collaborative research.[27]

Gadoua (2013) reports that in the academic realm, IQ is often described in opposition to Western scientific knowledge. While acknowledging the extensive efforts to reconcile differences, Gadoua (2013) suggests that a dualistic perspective is unnecessary based on western scientific knowledge being a heterogeneous body of theories and methodologies among which there are a "growing number of approaches that have multiple intersections with Inuit perspectives" (p. 173). Many see the value in these intersecting points. For example, Ferrazzi (2015) quotes a knowledge bearer in their dissertation: "It's very important to have that bridge from the Western culture to the Inuit culture, to Inuit Qaujimajatuqangit. […] If you have a good bridge and you have good communication for the two that's how I would see it succeeding" (p. 161). Jose Kusugak (2004) proposes that "discoveries and inventions are found by trial and error [and] much hypothesis are afterthoughts of errors" (p. 1). He further supposes that "these experiments were all conducted like any western science" but instead of recording "…an accident that led to the discovery that it was the most effective method" into written laws, Inuit kept only the conclusion (the practical, tangible element) and expressed it within social conventions.

Bishop, Owen, Wilson, Eccles, Chircop, and Fanning (2022) support bridging approaches to knowledge creation but acknowledge that Western institutions tend to adopt narrowly focused interpretations/applications of IQ based on management needs thereby disregarding the cosmological implications of IQ. They propose that fuller understanding of IQ is necessary for bridging knowledges and that this requires meaningful engagement with and by Inuit.

While some authors support the blending of knowledges, there are several cautions in literature to consider. Most concerning, Young (2017) warns of the power dynamics at play in the blending efforts within studies and management regimes. Young (2017) feels that because Inuit views of the Arctic tend to be subordinated to dominant southern narratives, the inclusion of

[27] Notably, Peletz, Hanna, & Noble (2020) adds perspective to the bridging discussion. They explain that, to make assessment and decision-making processes more meaningful, IQ should be used beyond an attempt to "fulfill guideline requirements" (p. 419). IQ should be used as available knowledge in its own right "regardless of the availability of Western science" (p. 419). It does not have to be limited to "fill[ing] gaps" or as an "add-on' to Western science (Peletz, Hanna, & Noble, 2020). The use and treatment of IQ and western science should be equally valued and viewed "as complementary rather than contradictory" (p418).

Inuit Qaujimajatuqangit is done so in a manner which legitimizes its assimilation and co-optation.

In an act of co-optation, Leduc (2006) suggests that IQ is sometimes reduced to 'Inuit knowledge'[28] (thereby disassociating components like societal values, traditional cultural understandings, and culturally specific forms of learning) so that it can be accommodated more as observational data in Western knowledge systems.[29] As an example, when IQ is largely conceived as Traditional Ecological Knowledge (TEK), then the 'natural sciences' tend to be an accepted interface between Inuit knowledge and Western. Natural sciences inherently tend to discourage subjectivity, value guided conclusions, theories grounded in cosmology, etc. in the generation of knowledge. Although essential to IQ, these features get trimmed off for a better fit in the dominant system. Furthermore, when the terms IQ, TK, and TEK are treated as interchangeable, it is easy to emphasize the specific aspects of IQ that are compatible with Western science while referencing IQ in a general sense (Tester and Irniq, 2009). When detached from values and the non-empirical cultural aspects of IQ, TK/TEK can be used as a tool for dominant institutions to realize economic and environmental assumptions under the screen of cultural congruence (Leduc, 2006; Dowsley, 2007; Jacobson, Manseau, Mouland, Brown, Nakashuk, Etooangat, Nakashuk, Siivola, Kaki, Kapik, Evic, Kennianak, & Koonelieusee, 2016). Peletz-Bohbot (2019) reminds us of yet another challenge with referring to IQ as traditional knowledge. The term 'traditional' implies old knowledge that while useful in some contexts, may be dated in reference to modern developments and therefore easily dismissed within a dominant narrative. Arnakak (2000) advises "Separating IQ from the contemporary realities renders something that is profound, enriching and alive into something that is meaningless, sterile, and awkwardly exclusionary" (p. 1).

[28]Stuckenberger (2009) explains that "IQ includes a combination of features of knowledge, values, and skills, such as the knowledge of the environment, competence in the Inuktitut language, values of social conduct, and subsistence skills" (p.18). Young (2020) is among several research authors (Gearheard, Matumeak, Angutikjuaq, Maslanik, Huntington, Leavitt, Kagak, Tigullaraq, & Barry, 2006; Gadoua, 2013) that remind us that, even when reduced and compared as "knowledge', Inuit knowledge is by nature unlike scientific knowledge. For example, Gearheard, Matumeak, Angutikjuaq, Maslanik, Huntington, Leavitt, Kagak, Tigullaraq, & Barry (2006) state "despite generally being in agreement or even complementary to one another in some respects, these knowledges reflect different perspectives and emphases" (p.203).

[29] In practice, 'Traditional knowledge' tends to be used to confirm data already collected in scientific research processes (Jacobson, Manseau, Mouland, Brown, Nakashuk, Etooangat, Nakashuk, Siivola, Kaki, Kapik, Evic, Kennianak, & Koonelieusee, 2016), or in a review process, "like peer review in the university system" (Weber, 2013; p.190). Jacobson, Manseau, Mouland, Brown, Nakashuk, Etooangat, Nakashuk, Siivola, Kaki, Kapik, Evic, Kennianak, & Koonelieusee (2016) report that TK is not typically a determining factor in decision making processes, as it is scientific knowledge that ultimately validates results.

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