



The role of flexibility in enabling transformational social change: Perspectives from an Indigenous community using Q-methodology



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ABSTRACT

What makes some communities more resilient and transformative than others? This paper explores the hypothesis that the flexibility of perspectives is central to enable the kind of changes called for by current and future environmental and socio-economic challenges. The paper reports on findings from a Q-study conducted with the Indigenous community of Igiugig, Alaska, focusing on perceptions of social change. The study reveals three main narratives concerning drivers of social change, focusing on the role of individuals, the importance of cultural values, and community visioning. The findings from the Q study point to the importance of flexibility, understood as the capacity to take different perspectives, in enabling deliberate action in situations where the correct path to take is often contested. This kind of flexibility, grounded in an Indigenous worldview, is seen to contribute to community resilience through supporting cultural cohesion, collective leadership and enacting alternatives in the here and now. Strong community narratives that allow for individual interpretation is seen as important and highlights the interrelatedness between the individual and the collective and the role of collective agency. Drawing on the critiques of the concept of resilience in an Indigenous context, the paper further points to the need for transformational change occurring at multiple scales and extends a call for flexibility to be fostered among researchers and practitioners alike. The lessons from this community have implications for understandings of community resilience and agency in social-ecological systems and the potential for transformations towards sustainability.

1. Introduction

What is holding us back from imagining and enacting different societies characterized by social justice, well-being and healthy ecosystems? Path dependence, rigid institutions, vested interests and lack of agency are often highlighted as central barriers to change (Smith and Stirling, 2010; Marshall, 2013). While these observations are important, they miss the nuances of change processes happening at smaller scales. Change is already happening; change that challenges dominant social and economic systems and human-environment relationships in various ways. Some changes are large-scale and visible, while others remain under the radar and in the making. Although social change is often assessed based on global or national trends, such as economic growth and consumption patterns (Katz-Gerro et al., 2017), communities, understood both as networks of people and as geographical places where people live, have increasingly been recognized as fruitful units of analysis (Maton, 2008; Warburton, 2013; El Khoury, 2015; Ingram et al., 2015). Focusing on the community allows for a bottom-up approach that can capture the complexities of social change, recognizing that “people’s actions across various scales help make the world in various ways and also co-produce space” by “enacting alternatives in the here and now” (El Khoury, 2015, p. xviii, 13).

What makes some communities more resilient and transformative than others? One hypothesis is that the flexibility of perspectives is

central to enable the kind of changes called for by current and future environmental and socio-economic challenges. Flexibility, not understood as bending uncritically to various pressures, but rather as a conscious engagement with different perspectives and approaches to change. In this paper, I explore the role of flexibility of perspectives, as can be seen through narratives, in creating transformational social change. I do so through a Q study on local views of what drives social change in the Indigenous community of Igiugig, Alaska. I use Q-methodology to capture subjective viewpoints of community members, having each participant imprint their unique perspective onto the data material in a holistic manner, reviewing different aspects of community change and making sense of sometimes contradicting perspectives.

Focusing on people and communities in the analysis of social change enables insights into the worlds that exist outside of the ‘public transcript’ (Scott, 1990; El Khoury, 2015). Igiugig is a community of approximately 70 year-round residents, most of whom identify as Yup’ik Alaska Natives. On many levels, Igiugig is enacting transformational social change. Transformational in the sense that the very nature of community systems, how they look and function, differs from what is otherwise common for communities in the region and across the state. In a context characterized by social and economic disparity and political marginalization, Igiugig is decreasing their dependence on fossil fuels, diversifying their economy, keeping their youth living in the community and increasing their engagement with Yup’ik worldviews,

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cultural practices and language. While all efforts are local and community-based, they have ripple effects at the regional level and beyond.

Igiugig is a good example of a community engaged in deliberate transformation towards enhanced resilience. In this context, I define *deliberate transformation* as consciously working towards reducing community vulnerability to environmental and socioeconomic stressors; taking charge of community development through local initiatives guided by sustainability goals; and enacting alternatives in the here and now (as oppose to solely resisting or reacting to outside pressures). By *resilience*, I mean having the ability to remain a thriving community despite unpredictable socio-economic and environmental pressures, including maintaining certain community aspects while altering others.

I start out by exploring the concept of community resilience as it has been applied in an Alaskan context, pointing to the benefits of a narrative approach to understanding deliberate transformations. I then introduce Q-methodology and provide an analysis of community narratives of social change in an Indigenous context. This is followed by a discussion, in which I highlight the role of flexibility in deliberately transforming community systems and point to the ways in which this quality contributes to community resilience. In discussing the role of flexibility, I also investigate the ‘dark side’ of this mode of being, in terms of getting overpowered by other less flexible systems, people and ideas. As with the concepts of resilience, transformation and adaptation, calling for more flexibility is especially problematic in an Indigenous context, since this can be interpreted as ‘victim blaming’ (Shah et al., 2017) or a call for assimilation (Cameron, 2012). Taking this into account, I argue for a mode of being that is flexible while paying careful attention to when it is necessary to exchange flexibility for firm determination. This mode of being enacts social change that is both informed by what is and has been, while also envisioning radically different futures. I end up by shining a critical light on the very idea of community resilience, arguing for a broader and deeper analysis of social change at multiple scales.

2. Role of narratives in community resilience

In rural Alaska, questions of social and environmental change are overwhelmingly placed within the frame of social-ecological systems and community resilience (Berkes and Jolly, 2001; Robards and Alessa, 2004; Chapin et al., 2016). Community resilience is an especially important area of work in the Arctic, where economic and social stressors of globalization are increasingly coupled with dramatic environmental changes driven by climate change (Chapin et al., 2004; Hovelsrud and Smit, 2010). In an Indigenous context, these challenges take on extra dimensions through past and present colonial relationships as well as the high reliance on and deep relationship to the natural environment (Ford et al., 2010; Cameron, 2012). Taken together, Arctic Indigenous communities have much at stake in the face of unpredictable, large-scale changes to the social-ecological systems of which they are a part.

While resilience has been used as a concept in ecology and psychology for several decades, its application for communities is more recent (Berkes and Ross, 2013; Brown, 2014). As a feature of ecosystems, resilience is understood as the capacity of a system to bounce back and retain essentially the same function and structure in the face of a disturbance (Walker et al., 2004). In psychology, resilience most often refers to positive adaptation and an individual’s ability to overcome adversity (Fletcher and Sarkar, 2013). Berkes and Ross (2013) draw on both social-ecological resilience and individual resilience in their suggested framework of community resilience. They argue that community resilience is a function of the strengths of a handful of characteristics, including values and beliefs, social networks, infrastructure and economic diversity, which come together through agency and self-organization.

In broadening the frame for community resilience, Berkes and Ross (2013) partially respond to the criticism directed at the resilience concept from social science disciplines as part of ‘the social turn in

resilience’ (Brown, 2014). In moving from ecological to social analysis, the concept of resilience has been critiqued for a lack of attention to power relations (Cote and Nightingale, 2012); uncritically assuming that ecological and social systems have similar qualities (Davidson, 2010); favoring incremental change over deeper structural change (MacKinnon and Derickson, 2013); and overlooking important interior human dimensions (Shah et al., 2017). Other concepts have been suggested as replacements for or additions to resilience in a community context, such as ‘resourcefulness’ (MacKinnon and Derickson, 2013) ‘community work’ (Loring et al., 2016) or ‘worlding’ (Shah et al., 2017).

Despite terminology, moving communities towards increased well-being and sustainability is likely to include maintaining certain aspects while fundamentally changing others. More recent developments within resilience thinking recognize this and emphasize the role of both adaptation and transformation in a resilient system (Folke et al., 2010). Folke et al. (2010) specify that while overall resilience requires transformational change at smaller scales, the very capacity to transform depends on resilience at multiple scales. Deliberate transformation, they argue, requires resilience thinking and “involves breaking down the resilience of the old and building the resilience of the new.” Thus, a resilient system is increasingly understood as one characterized by dynamism and flexibility.

In a community context, these qualities are not only attributed to the community at large, but extends to community members. How do community members respond to the need for “rapid and flexible response at all levels”? (Berkes and Ross, 2013, p. 6) What characterizes a flexible response in a community context? One possible answer is that the flexibility of responses is likely to depend on the flexibility of perspectives, which can be seen through narratives. Narratives are crucial for meaning making and help structure human comprehension by ordering otherwise diverse experiences into a coherent storyline (Paschen and Ison, 2014), shaping identities and relationships in the process (Ingram et al., 2015). Narratives often justify activities and support decisions, sometimes drawing legitimacy from larger societal discourses or intentionally challenging conventional wisdom. At the same time, they provide a window into shared values and ideas about progress and development, including what can be considered legitimate approaches to possible and desirable futures (Veland et al., 2018). In contexts where responses need to be flexible, the narratives surrounding what the problems are and what solutions might be viable are likely to need some degree of flexibility as well.

Exploring narratives of change also potentially make visible existing power relations, both between community members and between the community and outside actors. The lack of attention to the political nature of transformation within social-ecological systems has been extensively criticized (Moore et al., 2014). This is especially so in an Indigenous context, where processes of change cannot be understood outside the context of colonization and decolonizing efforts. For instance, as Parsons and Nalau (2016) point out, Indigenous peoples have experienced their share of transformational changes, and far from all have left them more thriving and resilient. The global environmental change literature has been accused of overlooking and in some cases perpetuating colonial systems and structures (Cameron, 2012). This has led to a call for more political and empowering research agendas that acknowledge the colonial past and present of the Indigenous reality and link this critically with current and future vulnerability to climate change and other global stressors (Cameron, 2012; Golden et al., 2015; Parsons and Nalau, 2016). Similarly, Kirmayer et al. (2011) point out that the classical understanding of resiliency as belonging to individuals is somewhat misleading in an Indigenous context where individuality is seen as inherently tied to collective identity, history, language and the land. Thus, inquiries into what supports community resilience and transformations towards sustainability in an Indigenous context ought to apply a collective lens and pay attention to the relationship between individual and collective agency for change. In this perspective, narrative research can serve as a window into historical identity and future

visioning.

The issues outlined in the previous paragraphs indicate certain gaps in our understanding of community resilience in an Arctic Indigenous context, especially pertaining to the role of narratives in support of transformational change. There is a need for identifying what underlying qualities and conditions enable some communities to engage deliberately with transformational social change; qualities and conditions that are potentially applicable to other geographical and cultural contexts as well. The coevolved nature of Indigenous peoples and ecosystems can provide inspiration for how to potentially manage social-ecological systems towards resilience and sustainability on a global scale (Apgar et al., 2015).

Before diving into the research itself, the next paragraphs outline some of the ways in which the community of Igiugig stands out, making them an interesting case for exploring community resilience and deliberate transformations.

3. Research context: The curious case of Igiugig, Alaska

The story of rural Alaska most commonly reflected in both popular and academic discourse is not one of resilience and sustainability but rather of economic disparity, social and health problems, loss of culture and identity and dangerous climate change (Wexler, 2006; Sarche and Spicer, 2008; Hutchinson and Shin, 2014; Melvin et al., 2017). This grim picture is attributed to Alaska's colonial legacy, persistent marginalizing state policies, dependency and lack of local initiative as well as the geographical and political isolation of these communities, among others (Huskey, 2005; Wexler, 2009; Knaus and Hund, 2015). This story is a partial representation of reality in rural Alaska. While most communities across the state deal with these issues to some extent, in several communities other stories are equally or more present. This is the case in Igiugig, where the community story reflects less of the hopeless narrative described above and instead many aspects of a resilient and thriving community.

Igiugig is small and geographically isolated, located in southwest Alaska where Lake Iliamna feeds into the Kvichak River. Leaving the village means taking a one-hour flight to Anchorage on a bush plane, although nearby villages can be reached using four-wheelers, boats and snow-mobiles. As with all other communities in the region, Igiugig relies extensively on what the land provides in terms of food and other natural resources. Igiugig is located in some of the richest salmon-spawning grounds in the world and subsistence, commercial and sport fishing all constitute important sources of livelihoods and culture. While Igiugig can be considered a Yup'ik community, many community members identify with several cultures and ethnicities, including Caucasian and other Alaska Native cultures. Due to its geographical isolation, Igiugig has much of the physical infrastructure otherwise characteristic of a larger town, such as a bulk fuel farm, an airstrip, a dump, and a health clinic. Igiugig also has a school grades K-12, which in the 2017–2018 school year had 20 students and employed three teachers.

For the past two decades, Igiugig has worked to enhance their resilience through creating local economic opportunities, fostering self-reliance, engaging in cultural revitalization and enabling the next generation of youth to establish themselves in the community. Local economic opportunities include establishing a local construction business under the Disadvantaged Business Enterprise (DBE) scheme in 1998, followed by an environmental restoration business in 2007, both aimed at providing training and jobs for community members while furthering community and region specific development needs. Enhancing self-reliance include the establishment of a wind-powered community greenhouse in 2009, providing fresh produce to residents and several of the sport fishing lodges in the area, as well as collaborating with business and university partners on alternative energy sources such as solar and hydropower to reduce dependence on fossil fuels. Cultural revitalization includes culture camps and a Yup'ik

language program, enabling adults and children to learn the regional dialect in order to better communicate with community Elders and pass on cultural knowledge. Finally, youth retention is exemplified through the strong involvement of youth and young adults in community work, starting with job shadowing, internships and student jobs, offering college scholarships and training opportunities, and creating local jobs for returning youth, making it possible and attractive for young people to stay in or return to the village. The result of this latter effort is evident in that the majority of leadership positions in the community are held by residents younger than 35. For a more detailed description of community history and activities, see Gram-Hanssen (2012). For an in-depth analysis of the community's educational efforts and its relation to community resilience, see Gram-Hanssen (2017).

Despite its geographical isolation, Igiugig is tightly connected to actors and processes from the local to the global levels. Some 50 miles northeast of the community, the mining company Pebble Partnership hopes to establish an open-pit gold and copper mine, estimated to be in production for a minimum of 20 years and employing some 2000 individuals ("Pebble Partnership: Why Mine?" n/d). The project has divided the region, with proponents hoping for jobs and opponents fearing negative environmental and cultural impacts. Since the site is on state land, none of the nine communities situated within the watershed of the site has any direct influence on the decision-making process. Thus, while this paper focuses on the deliberate transformations happening at the local level, it is crucial to take a broader perspective for a comprehensive understanding of the limitations to such processes. This will be explored further in the discussion section of the paper.

4. Methods

In order to understand how the positive changes – and indeed transformations – described in the section above have emerged and are emerging, I sought to draw on the perspectives of Igiugig residents themselves. Asking them to make sense of their own change processes not only prompts a potential reflection process, it also honors these individuals as experts on rural community development (Smith, 2013). In an Indigenous context, resilience and sustainability must also imply moving away from colonial systems of thought and practice. This is no less the case in a research context, especially as a non-Indigenous researcher working with an Indigenous community (Brown and Strenge, 2005). My wish for the research process to be empowering and supportive of ongoing social change processes, in line with action research (Chevalier and Buckles, 2013) and community-based research (Grimwood et al., 2012), drew me to using Q-methodology.

4.1. Q-method

Q-methodology (also referred to as 'Q') is a mixed method that takes the subjective opinions of research participants as its starting point. Rather than getting bits of information about participants and comparing them across the group, Q focuses on the whole viewpoints of individuals and aims to identify different types of people in a holistic manner (Watts and Stenner, 2005) based on "whole aspects of their personality" (Stephenson, 1936, p. 278). Through by-person factor analysis, a sample of statements is exposed to measurement by a selected group of individuals who rank the statements in relation to one another based on a specific research question (Watts and Stenner, 2012), in this case focusing on drivers of social change. Rather than being passively measured, the individuals thereby take an active role and project their subjective understanding of the topic onto the statements, which in and of themselves have no 'inherent' meaning. While Q was originally developed and used within the field of psychology, a large amount of work has been published in recent years using Q to investigate environmental issues, especially issues of conservation. For recent literature reviews, see Vaas et al. (2018) and Zabala et al.

(2018). Q has also recently been used to explore the subjective opinions concerning the engagement with and management of social-ecological systems in an Indigenous context (e.g. Bischoff-Mattson et al., 2018; Loring and Hinzman, 2018). However, the focus on social change within this context is somewhat novel.

Participants rank the statements using a set grid representing a standard distribution. For this study, a grid of 38 statements was used, ranging from -4 (mostly disagree) to $+4$ (mostly agree) (see Fig. 1 below). By ranking the statements relative to one another, the statements are made homogeneous relative to the individual doing the ranking, such that the configuration of statements as a whole represents the opinion of that individual (Watts and Stenner, 2005). When the sample of statements covers the range of different possible opinions, the subsequent ranking presents a complex, but easily comparable picture of an individual's subjective opinion on a given topic. Through specialized software, rankings from different people are compared using correlation statistics and grouped based on similarities and differences relative to the ranking of statements as a whole. In the subsequent factor analysis, rankings are grouped together and reduced to a couple of central viewpoints that represent latent factors underlying the complex and qualitatively rich data material. This allows for reductionist and comparable results without eliminating the qualitative richness that gives nuance and meaning to the given opinion type. In the context of Q-methodology, a factor is a weighted average sort based on a group of participants who sorted their statements similarly. Each factor represents an archetypical or ideal viewpoint drawing from the similarities of these participants. Although no participant match the factor perfectly, most participants load higher on one factor than the rest (ranging from -1 to $+1$) (Zabala and Pascual, 2016). The set of factors that emerge from the factor analysis thereby provide a plausible theoretical explanation for the appearance of statistical association between individual rankings (Watts and Stenner, 2012).

4.2. Data collection

During summer 2017, I conducted qualitative interviews with 15 Igiugig community members, 11 women and four men ages 20–70. This accounts for the majority of adults present in the community at the time, which due to fishing season was somewhat reduced. Additionally, some of the Elders were not interviewed due to health issues, while a few individuals declined to participate. The interviewees ranged in age, educational level, occupation as well as ethnicity, thus giving a broad insight into the different perspectives present in the community. The process of recruiting interviewees was based on previous contacts and word of mouth, and all community members older than 18 were invited to participate.¹ All interviews were conducted in English and usually took place in people's homes. Some interviewees were interviewed together. Interviews were based on a broad inquiry into the drivers of social change and perceptions of historical and future possible changes. Interviewees were asked to describe their community and reflect over past and current social change as well as give projections for future changes. They were also asked to identify the main drivers of such changes and reflect on their own ability to create change. Following transcription, I built a database of the various perspectives expressed in the interviews – in Q called a *concourse*. The concourse mainly consisted of quotes from the interviews, although I also reviewed the village website for relevant statements, as well as the website of Pebble Partnership, a mining company that hopes to establish an open-pit gold and copper mine in the region. This particular industrial development was included as a theme since it is highly debated in the region and could have big implications for the future resiliency of Igiugig.

Through several rounds of revision, the concourse was reduced from

¹ In this research, I built on an existing relationship with the community from previous research projects, see Gram-Hanssen (2012, 2017).

an initial 228 statements to a final set of 38 statements – in Q referred to as the *Q-set* – divided into four overarching themes: community culture, outside influence, agency and leadership and vision. The themes were informed by the statements themselves and the literature on community resilience and social change. See Table 1 below for the list of statements.

I cut the Q-set into cards about half the size of a normal deck of playing cards and brought it to Igiugig for another visit during fall 2017. The statements were written in English and the ranking process was most often completed in the home of the participants. The ranking process, which had no time restriction, took an average of 45 min. Twenty-eight community members completed the ranking process, 20 women and eight men ages 17–70. This accounts for the vast majority of adults who were living in the community at the time. I aimed at getting as many participants as possible in order to gain a rich and nuanced picture of the perspectives present in the community. As with the initial interviews, participants ranged in age, educational level, occupation as well as ethnicity (as visible in Table 3 below). The process of recruiting interviewees was based on previous contacts and word of mouth. The ranking process occurred in silence unless the participants had questions about the meaning of a statement, in which case I gave simple clarifications or asked the participants to interpret the statement themselves. After each ranking, in which participants produced a *Q-sort* (a complete configuration of statements into the grid), I asked the participants to speak to their ranking, enabling them to explain their unique interpretation of the statements and their relationship to one another. These interviews were recorded and later transcribed and used in the analysis process.

4.3. Analysis

I ran a centroid factor analysis, using the specialized software program PQMethod (<http://schmolck.userweb.mwn.de/qmethod/>). I conducted an exploratory factor analysis and proceeded with an inductive strategy for extracting and analyzing the factors (Watts and Stenner, 2012). Thus, rather than testing a hypothesis, I largely let the data indicate the number of factors and drive the analysis process, guided by the research question. The data supported the identification of three factors. Following the software calculation of how much variance could be explained by each factor, I identified the Q-sorts where half or more of the variance could be explained by a single factor. These sorts thus informed the viewpoint of that particular factor. The three factor solution was further supported through a calculation of eigenvalues and how much of the data as a whole could be explained by the different factors. For each factor, the software produced an ideal Q-sort with statements configured according to that particular viewpoint. Table 2 below shows how each participant loaded on the three factors, with an X indicating a defining sort (half or more of the variance explained). I analyzed the factors according to the question of what drives social change in the community, triangulating the data from the software analysis with the follow-up interviews and my own knowledge of the community context. I relied heavily on the follow-up interviews to make sense of each statement in the context of all three factors in order to capture the unique perspectives of each participant. Based on this analysis process, I wrote coherent narratives for the factors, summarized in the results section below.

5. Results

Based on the 28 different configurations of the 38 statements, three main factors emerged. As described above, each factor represents an ideal sort informed by the individual Q-sorts where half or more of the variance is explained by the given factor. The three factors are summarized by the short titles: F1 “Walking the talk”, F2 “Strength in culture” and F3 “Visioning the future”. All factors represent different perspectives on the question of what drives positive social change in

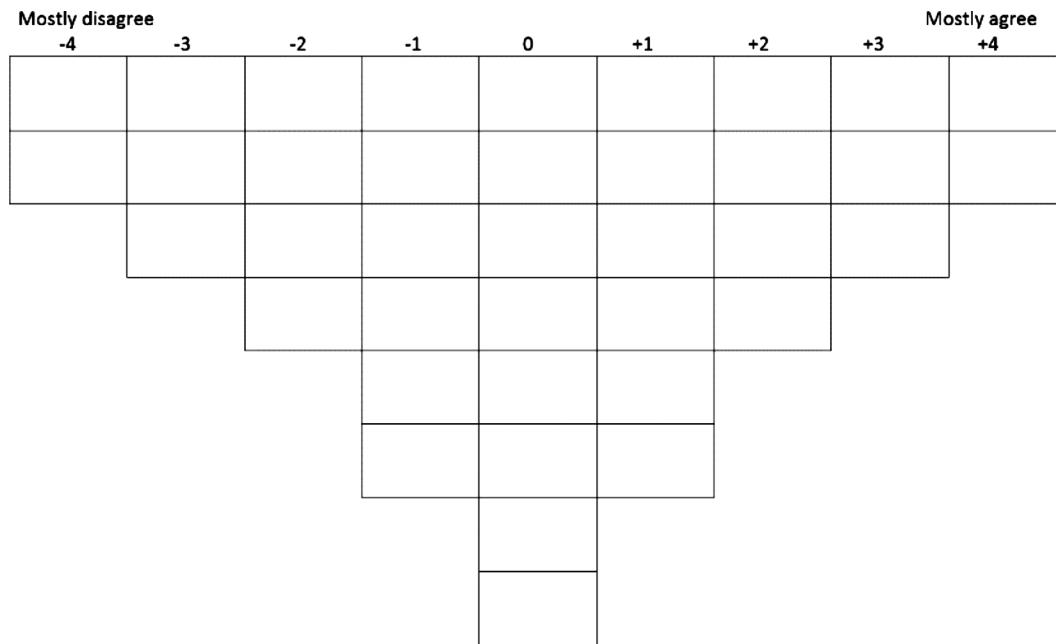


Fig. 1. Ranking grid for 38 statements.

Table 1
Factor and ranking scores for Q-sort statements.

#	Statement	F1		F2		F3	
		Z	Rank	Z	Rank	Z	Rank
S01	State politics are preventing Igiugig from moving forward	-0.6	-1	-0.53	-1	-0.72	-2
S02	It is best for the community if everything can be done by locals	-0.55	-1	0.53	1	1.17	2
S03	Cultural diversity makes the community stronger	1.44	3	1.07	2	0.7	1
S04	Passionate individuals drive community change	1.5	3	1.37	3	1.27	3
S05	We need outside experts to help us develop	0.06	0	-1.05	-2	-0.64	-1
S06	Igiugig has no influence when it comes to Pebble	-1.84	-4	-0.68	-2	-0.22	0
S07	It is important for the new generation to both keep up with modern technology and Yup'ik culture	0.58	1	0.49	1	1.53	4
S08	The Pebble Mine will make our community prosper	-1.46	-3	-2.13	-4	-1.83	-4
S09	In Igiugig, everyone is a leader	0.27	0	-0.13	0	0.09	0
S10	By controlling our village lands, we can influence what happens in the region	0.37	1	0.32	1	0.6	1
S11	If our water gets poisoned by the Pebble Mine, our village will slowly die	-0.04	0	1.1	2	0.13	0
S12	We have to be able to see our vision for the future in order to get there	0.85	2	0.33	1	1.88	4
S13	If you lose your cultural heritage, you lose your identity	1.24	2	1.62	4	-0.34	-1
S14	If all community members learn to speak Yup'ik, the community will grow stronger	0.15	0	1.21	3	-0.24	0
S15	We are creating our own opportunities	0.79	1	1.14	2	0.44	1
S16	Everyone who comes to this community from the outside should go through "cultural awareness training"	-0.83	-1	-0.91	-2	0.23	0
S17	We should have nothing to do with the Pebble Mine	-1.06	-2	1.31	3	-0.4	-1
S18	We are very good at adapting to change	0.66	1	0.01	0	0.72	1
S19	We think more positively than other communities	0.9	2	0.38	1	0.28	1
S20	We have to be cautious about what kind of change we allow into the community	-0.13	0	0.61	1	0.69	1
S21	The future is bright for Igiugig	1.7	4	0.3	0	0.94	2
S22	The knowledge of our Elders will become less relevant for us in the future	-1.13	-2	-1.78	-3	-1.42	-3
S23	Igiugig should stay out of regional politics	-1.36	-2	-1.42	-3	-1.26	-2
S24	It is important that community members share basic values	1.2	2	1.05	2	0.7	1
S25	Sport fishing brings more bad than good to our community	-0.77	-1	-0.37	-1	-1.36	-3
S26	The only way to change the system is to lead by example	1.66	4	0.21	0	1.34	3
S27	Lack of money is the biggest community problem	-1.2	-3	-1.63	-3	-1.66	-3
S28	The state plays an important role in creating positive change in the community	-0.1	0	-0.67	-1	-0.46	-1
S29	The church sets a good example for how to live	-0.45	-1	-0.16	0	-0.25	0
S30	Climate change is of no concern to us	-1.62	-4	-1.8	-4	-1.84	-4
S31	Community change will always happen slowly	-0.52	-1	-0.22	-1	-0.71	-1
S32	Western ideas of leadership have a negative impact on our community culture	-0.84	-2	-0.69	-2	-0.66	-1
S33	Powerful people outside the community are important drivers of local change	-0.12	0	-0.38	-1	-1.08	-2
S34	Technology makes us too westernized	-1.14	-2	0.18	0	-0.92	-2
S35	Positive change is driven by young people who take on responsibility	1.48	3	0.15	0	0.97	2
S36	Our number one priority is securing the land-base for future generations	0.55	1	1.77	4	0.77	2
S37	It is important to have a seat at the table in order to influence the Pebble Mine	0.09	0	-0.02	0	0.25	0
S38	Positive change can only happen when everyone agrees on what to do	0.28	1	-0.6	-1	1.3	3

Table 2
Rotated factor loadings.^a

	#	Q-sort	F1	F2	F3
Loading significantly on one factor	1	Q06	0.6768X	0.2464	0.4035
	2	Q12	0.6188X	0.3162	0.3121
	3	Q18	0.6163X	0.1872	0.4285
	4	Q22	0.5978X	0.2877	0.1219
	5	Q05	0.5892X	0.1946	0.4135
	6	Q03	0.5165X	0.2821	0.4739
	7	Q24	0.2373	0.8541X	0.1273
	8	Q21	0.3421	0.7042X	0.2605
	9	Q20	0.1198	0.6821X	0.2461
	10	Q19	0.3527	0.5421X	0.3094
	11	Q09	0.4378	0.5209X	0.2312
	12	Q13	0.4652	0.4972X	0.3371
	13	Q17	0.2455	0.142	0.7979X
	14	Q02	0.4309	0.3897	0.6586X
	15	Q28	0.1772	0.424	0.6507X
	16	Q11	0.3114	0.2455	0.6152X
	17	Q23	0.4647	0.435	0.5679X
	18	Q08	0.2569	0.2305	0.5400X
	19	Q10	0.4026	-0.0333	0.5029X
Confounding	20	Q01	0.5656	0.5899	0.2365
	21	Q14	0.4955	0.5064	0.4763
	22	Q15	0.2822	0.5898	0.5039
	23	Q16	0.1067	0.5885	0.5021
	24	Q27	0.2204	0.5032	0.5898
Non-significant	25	Q04	0.4102	0.3983	0.2244
	26	Q07	0.4436	0.4571	0.0162
	27	Q25	0.1341	0.3435	0.4317
	28	Q26	0.4505	0.1515	0.4038

^a Values grouped by defining sorts (X) then sorted in decreasing order.

Table 3
Statistical and demographic information for the three factors.

	F1	F2	F3
Eigenvalue	5.05	5.61	5.53
Study variance	18%	20%	19.8%
Community members with significant loading (≥0.5)	6	6	7
Gender			
Women	5	5	4
Men	1	1	3
Age			
Average age	43	36.7	38.6
Ethnicity			
Alaska Native	1	4	3
Alaska Native and Caucasian	2	1	3
Caucasian	3	1	1
Upbringing			
Community	2	4	4
Region	1	1	2
Outside Alaska	3	1	1
Formal education			
Some college experience	6	3	5
Bachelor's degree	2	2	2

Igiugig. Together the factors explain 57.8% of the study variance. A total of 19 community members were significantly associated with one of the three factors (68% of the study participants), while five community members were found to have confounding association (significantly associated with more than one factor) and four had no significant association to any factor. See Table 2 for the rotated factor loadings and Table 3 for an overview of statistical and demographic information for the three factors.

There was high correlation between all three factors: 0.6534 between F1 and F2, 0.7495 between F1 and F3, and 0.6334 between F2 and F3. This high correlation suggests that the actual difference in

opinions expressed through these three factors can be seen as nuances on the same general opinion. While in a Q study, one normally hopes for factors with low correlation to be able to identify differences, the high degree of correlation between these three factors is highly relevant when talking about resilience, since it indicates high community cohesion. Additionally, the nuances expressed within the factors still present important variety and subtlety existing within a large-scale community narrative, which might be important when it comes to the flexibility of perspectives on community change. This will be discussed later in the paper.

Below is a summary of the perspectives represented by the three factors, presented as three narratives. To ensure transparency of the analysis process, information about statement number and ranking, ([Statement], [Ranking]), has been added every time a statement has formed the basis for a particular interpretation. All rankings can be seen in Table 1 above, with “Z” indicating the weighted average of the values that the Q-sorts that loaded most heavily on the factor give to a statement, and “Rank” indicating how each statement was sorted for the three factors. Besides the rankings themselves, the follow-up interviews have informed the final interpretation of the three narratives.

5.1. Factor 1: Walking the talk – individual agency and community influence

Within this narrative, individuals ‘walking the talk’ is seen as the main way of creating positive social change in the community. Rather than telling other people what to do, this narrative focuses on leading by example and ‘being the change you want to see’ (26, +4). This also extends to the youth. Young people who take on responsibilities and leadership positions are seen as key drivers to creating positive social change (35, +3).

The narrative emphasizes the ability of the community to take charge of their own development and influence what happens in the region, both through political processes and by inspiring other communities (10, +1 and 23, -3). The community’s success and high degree of influence is attributed to the ‘can-do’ attitude of community members (4, +3 and 19, +2), again emphasizing the importance of dedicated individuals.

The narrative also emphasizes the importance of outside expertise (5, 0; 28, 0; 33, 0 and 2, -1) in solving problems and creating opportunities (15, +1). A wide range of cultural backgrounds and skillsets is seen as an important asset for community development (3, +3) and there is not much concern with opening up to outside influence (20, 0), neither in the form of ideas (32, -2) or technologies (34, -2). While protecting the land is considered important, access to and control over communal lands is not perceived to be threatened by outside development (36, +1).

Despite the openness to change and outside influence, this narrative also emphasizes that community members should share some kind of basic values (24, +2), and that these values can form the foundation for a community vision guiding community development efforts (12, +2). There needs to be room for individual community members to express their values and particular cultures in their unique ways, however, and becoming too fixated on certain cultural values is not seen as conducive to positive community change (14, 0).

On the issue of Pebble Mine, this narrative suggests that the community is capable of influencing the process by keeping a close eye on the company and engaging in regional politics (17, -2), even if they have little say in whether the mine gets established (6, -4). However, ultimately there is no wish to work with or for the mine to any extent (37, 0) and this narrative does not see the mine bringing any real benefit to the community in the long term (8, -3).

Despite the negative feelings towards the mine, this narrative presents a strong belief in the resilience and adaptability of the community (18, +1) and a belief that the future is bright for the village (21, +4), even with potential environmental damages caused by the mine (11, 0).

The confidence in the future is largely informed by the high number of motivated and passionate individuals, who are seen to form the backbone of positive community change, and the way in which the community enables youth to contribute to this process; empowering them by offering opportunities and including them in the community's sustainability efforts.

5.2. Factor 2: Strength in culture – taking a stand and protecting what matters

Within this narrative, knowledge of cultural heritage and engagement with cultural activities, such as language learning and Native dancing, is of immense importance for positive social change in the community. Knowledge of cultural heritage is seen as intimately linked to self-knowledge and personal health (13, +4), which in turn is seen as a prerequisite for contributing to a healthy community. Increased engagement with cultural activities and knowledge of cultural heritage is therefore seen as a necessary step towards community sustainability, and the more community members who engage in such activities the better (14, +3).

Community Elders are seen as an important and direct source of knowledge about cultural heritage in the form of knowledge and skills as well as values, all of which are seen as important now and in the future (22, –3). While Alaska Native cultures and 'Western' cultures are not necessarily seen to be at odds, and cultural diversity is seen as a strength to the community (3, +2), knowledge of Alaska Native cultures and values is prioritized over knowledge associated with mainstream society (7, +1). The overemphasis of the latter form of knowledge in the school curriculum and state politics (34, 0) makes it necessary for the community to be deliberate about enhancing Alaska Native perspectives. The values of the Elders is thus seen to be an important starting point for engagement with the outside world and as important basic values for community members to share in order to ensure culturally appropriate community development (24, +2).

An important aspect of Alaska Native cultures is spending time on the land through activities such as hunting, fishing and berry picking. Therefore, securing the current and future generation's access to and control over village lands is seen as the number one priority (36, +4). Maintaining control over village lands is also seen as a way to influence what happens in the region by allowing or preventing access of certain actors (6, –2 and 10, +1).

Because of the strong emphasis on being connected to the land, Pebble Mine is seen as a dangerous development with high potential risks, not only for the environment but also for the community culture (8, –4). This narrative therefore wants no engagement with the mine, fearful that any contact might help legitimize the project and can be used against the community at a later stage (17, +3). In general, this narrative reflects suspicion towards outside industries offering monetary compensation for what is perceived as extractive use of natural resources, such as sport fishing (25, –1), although some such activities are seen as 'necessary evils' in today's mixed economy.

The narrative emphasizes caution when it comes to allowing outside change into the community (20, +1) and community work is preferred done by locals (2, +1) rather than outside experts (5, –2 and 33, –1). The State is not seen as particularly helpful in furthering community goals (1, –1 and 28, –1). Rather than looking outside for help and guidance, this narrative emphasizes that the village should be more outspoken about their values and approaches to community development and that they have an important role to play in the region (23, –3).

Despite believing in the community's ability to create continuous opportunities for positive change (15, +2), external threats such as Pebble Mine makes this narrative come across as cautious about projections for the future (21, 0) and the ability to adapt to dramatic changes to the land and culture (11, +2 and 18, 0).

5.3. Factor 3: Visioning the future – bridging divides through flexibility in perspectives and worldviews

The third narrative emphasizes having a vision for the future and setting clear goals for community development work (12, +4). It is important that this vision is based on the needs and wants of all community members. Having the community as a whole in mind is a re-occurring theme within this narrative, which emphasizes the importance of consensus decision-making and reaching an agreement before moving ahead with development project (38, +3).

It is important that the community vision is guided by shared basic values (24, +1). However, it is equally important to have room for difference in values and that individuals can live out their particular values even if they divert from the values of other community members. Diverging values are not seen as inherently problematic as long as there is room for dialogue.

Within this narrative, having community members involved and engaged in community development efforts is of utmost importance, and whenever possible local capacity and knowledge should be enhanced and applied (2, +2 and 5, –1). This does not mean, however, that there is never a need for outside input (15, +1). Rather, whether or not to call on outside help should be decided upon on a case-by-case basis.

Being well versed in multiple cultures is seen as a great strength. It is important to be educated in both Native and non-Native culture in order to increase possibilities and self-sufficiency (7, +4). While some ideas and structures from the outside can have a negative impact on the community (32, –1), this will depend on how these are applied. How such ideas and structures are used and the vision guiding their use is crucial for what impact they will have (34, –2). This makes having a vision and engaging consciously with this vision increasingly important.

This perspective shines through in other areas as well. While cultural diversity can be a positive thing for the community, too much diversity that makes it difficult to reach agreement can weaken the community (3, +1). Similarly, while the State is not seen as an important driver of positive community change (28, –1), it is not seen as a hindrance either (1, –2). Instead, how the community is able to engage with the State on a particular issue is what matters. On a similar note, while sport fishing is seen as bringing significant benefits to the community (25, –3), there is definite room for improving community relations with the lodges and tourists (16, 0).

While cultural heritage and knowledge of language and dance is seen as important, now and in the future (22, –3), not being knowledgeable about these cultural aspects is not seen as a threat to individuals and their identity (13, –1). Personal identity and cultural identity is seen as two different things that interact with rather than determine each other. Having all community members be knowledgeable about Yup'ik culture is therefore not seen as critical to community sustainability (14, 0).

Despite being open to change, this narrative also emphasizes the need to be cautious about certain kinds of community change, for instance pointing to the risk of letting just anyone move to the community. Due to the small population size, the community is dependent on good dynamics between each and every community member (20, +1), leading back to the importance of reaching agreement and sharing basic values.

On the issue of Pebble Mine, this narrative presents a pessimistic view on the possible benefits for the community (8, –4), although there are both positives and negatives associated with engaging with the company (17, –1 and 37, 0). Despite perceiving their capacity to influence the mine as relatively low (6, 0), this narrative is essentially positive when it comes to the future of the community (21, +2) and their ability to adapt to changing environmental and social conditions (11, 0 and 18, +1).

6. Discussion

In this section, I pick up central findings from the Q-study and discuss them in relation to the role of flexibility in enabling transformational social change towards enhanced community resilience. I do so firstly by discussing how the concept of flexibility comes across in the data, and secondly exploring how flexibility might contribute towards resilience through community cohesion, collective leadership and enacting alternatives in the here and now. At the end of the discussion, I explore the role of worldviews and problematize the flexibility concept in an Indigenous context, drawing on critiques of community resilience when seen in isolation from larger societal transformations.

6.1. Flexibility of perspectives

Through the Q study, it becomes clear that community members have somewhat different perspectives on what drives social change in Igiugig. This might reflect differences in life experiences and worldviews with some emphasizing the importance of individual action while others focus on preserving a specific set of collective practices. While it makes little sense to talk about differences along cultural and ethnic lines on the basis of such a small group of people, it is interesting to notice that the factor emphasizing the role of individual leadership and the so-called ‘can-do’ attitude (factor 1) is also the factor with most community members identifying as Caucasian. The factor emphasizing cultural heritage and preservation (factor 2) is the factor with the highest proportion of community members identifying as Alaska Native. The factor taking a both/and stand and emphasizing community visioning (factor 3) is the one with the highest number of community members who identify as both Alaska Native and Caucasian (see [Table 3](#) for demographic information for the three factors).

Of particular interest here is not so much that Natives and non-Natives differ on this particular point, but that the community members that identify with both (or more) cultures and ethnicities advocate for a both/and position in many instances, exhibiting a high level of flexibility in how to understand and engage with issues of community development. In the follow-up interviews, several of the participants who loaded on this third factor highlighted the importance of context in evaluating the statements and reflected on the importance of the community coming together rather than holding on to a particular stance on an issue. The fact that one of the central community leaders loads highly on this third factor (a 65% match) is an interesting observation, which speaks to this individual’s approach to leading and might contribute to the high degree of cohesion in the community. Speaking about the logic of her leadership style, she emphasizes the Yup’ik tradition of consensus decision-making and the importance of having the full support of community members before embarking on new development projects or taking a political stance. She also speaks of her late father, a non-Native who was instrumental in bringing the community on its current development path by coupling Native and ‘Western’ values and approaches. The community continuously looks for new and innovative ways to increase their resilience and wellbeing, but in this process pays close attention to sentiments among community members and the needs of individuals. There is an acute awareness of what is still unknown and beyond the horizon, making the community both proactive and open to change.

In this context, *flexibility* thereby refers to a capacity to take on a range of different perspectives on a given matter, including subjective opinions and identities. Thus, rather than simply bending to different pressures, flexibility implies a conscious and critical engagement with the given situation. The capacity to take on different perspectives and be flexible in how problems and solutions are viewed is identified by [O’Brien \(2012\)](#) as an essential part of deliberate transformation, recognizing that this involves a willingness to *engage in* rather than simply *argue for* innovative thinking. This active engagement has several implications for community resilience, discussed below.

6.1.1. Community cohesion

Community cohesion emerges as an obvious theme through the high correlation between the three factors. While the factors represent nuances in how community change is perceived, only a few statements were ranked significantly different. When looking at the cultural make-up of Igiugig, this cohesion is not obvious. The community Elders grew up on the land and did not encounter mainstream US culture until they were forcefully removed from their homes in order to attend school. Most of the non-Natives living in the community grew up in mainland US in fairly conventional settings. The new generations of Igiugig youth are growing up in a rural setting but with much exposure to urban lifestyles through technology, education and popular culture. Thus, cohesion does not imply that community members are ‘the same’ or even can relate to each other’s life experiences and individual goals. What it implies is an ability to link one’s own ambitions with that of the community, tending to the alignment between the individual and the collective. This relates to [Ingram et al.’s \(2015\)](#) notion of the importance of plurivocity in narrative networks, enabling diverse actors to tell their version of the common story, allowing networks to draw on diverse sources of knowledge and encouraging participation towards a common goal - in this case the goal of supporting community wellbeing and self-sufficiency now and into the future. The present study suggests that this process is aided by the ability to take on different perspectives than one’s own – what I define as flexibility. Cohesion has implications for resilience through the ability to move forward as a collective, enabling the community to agree on otherwise contested issues.

6.1.2. Collective leadership

Flexibility also plays a role in supporting collective leadership and action in the community. There is no question that certain individuals are very important in furthering community change, such as the community leader referenced above. Several Elders are also regarded highly, especially in terms of their knowledge of Yup’ik cultural practices and values. Several prominent community members that have now passed away remain a source of inspiration and in a sense continue to drive change. On a similar note, future generations act as a driver of change by inspiring community members to secure the community into the future. These latter groups of social change ‘drivers’ reflect a holistic worldview where past, present and future are not linear and isolated entities but rather interact and influence one another. This seems to give community members a wider operating space by drawing on both past and future realities to create alternatives for the present moment.

Despite the significance of certain individuals, and despite the high level of independence and self-sufficiency among individual households, the community is working as a collective. Some work to create community change through individual action, some are guided by a strong sense of cultural identity, and others still take a bird’s eye perspective on community development and work to build bridges between different knowledge systems and traditions. The community leaders are not leaders in the conventional sense of the word, convincing others of their own ideas and preferences, but adhere to the collective field, applying their individual leadership skills to enable collective action.

This highlights the tension between perceptions of individual and collective agency and action in enhancing community resilience. In the social-ecological systems literature this has not been thoroughly explored. [Westley et al. \(2013\)](#) argue that the role played by individual agency in terms of community resilience and sustainability is an important next focus area in resilience research. However, going back to the point made by [Kirmayer et al. \(2009\)](#), in an Indigenous context where notions of individuality differ from that of a ‘Western’ perspective, informed by a Newtonian-Cartesian worldview of humans as separated from nature and one another ([Alfred and Corntassel, 2005](#)), the role of agency in moving communities and society towards sustainability might be better understood in a collective frame.

6.1.3. Enacting alternatives in the here and now

The flexibility described in this study does not mean that any idea or solution is welcomed uncritically into the community. Rather, the flexibility of Igiugig is characterized by a high level of reflexivity and dialogue among community members as to the pros and cons of a situation. Sometimes this means contesting systems of capitalism and colonialism, while other times it means working for change within such systems. Working within a northern Alaskan context, Hillmer-Pegram (2016) argues that the relationship between capitalism and community resilience is complex and conflicted with capitalism both at odds with traditional values and a valid strategy for maintaining adaptive capacity. In Igiugig, considerations for how to proceed within this conflicted context are guided by the continuously developing community vision, which draws on ideas and wishes of community members. An underlying theme of this vision is self-sufficiency and independence, informed by a desire to decolonize both political institutions and mental and emotional patterns.

Igiugig is not engaged in decolonization via resistance alone, although some resistance is necessary, but by building a vision of what a truly decolonized community could look like and taking steps towards realizing that vision. This aligns with calls from some Indigenous activists and scholars to “move beyond a resurgent Indigenous politics that seeks to inhibit the destructive effects of capital to one that strives to create *Indigenous alternatives* to it” (Coulthard, 2014, p. 170). According to Alfred (2009, p. 80, xviii) a de-colonized present and future is dependent on a critical resurgence based on what he terms “self-conscious traditionalism”, both recognizing that culture changes while identifying certain “beliefs, values and principles that form the persistent core of a community’s culture.” In Igiugig, this includes their efforts to incorporate Yup’ik language into the classroom, and bringing the classroom into nature to combine academic knowledge with skills and knowledge associated with a life on the land. Some such ideas are slowly realized through official political channels, while others are implemented under the radar of potentially critical voices. In the context of the school, this latter approach has been rather successful in shifting political opinion on curriculum development and teaching approaches in the school district, largely influenced by the fact that the Igiugig School has one of the highest grade point averages in the district. Thus, efforts at the community-level influence regional development by not only articulating new ideas and approaches but enacting them in the community and showing the positive results – making them an undeniable force of change.

The ability of Igiugig to enact alternatives to the mainstream narrative of rural Alaskan villages invites further questioning of the assumptions inherent to a Newtonian worldview. For instance, rather than accepting the notion that no two objects can occupy the same space at the same time, a view on space as co-constructed allows for an investigation of alternative realities occupying the ‘same’ space (El Khoury, 2015). This becomes important when talking about deliberately transforming social and economic systems in a community context. Reflecting on alternative enactments of globalization, El Khoury (2015, p. 5) argues that “while it is true that virtually anything that can generate an income stream can be capitalized and thus subsumed (...) it need not colonize our imaginations and ability to conceive and practice alternatives also.” Similarly, referring to the concept of a ‘multicentric’ economy, in which the economic system is subjected to a moral hierarchy, Hornborg (2007, p. 65) reminds us that “it is entirely possible to transform the idea and institution of money.” In Igiugig, imaginations of a different reality, economic and otherwise, is materializing in many ways, aided in part by the capacity to take on different perspectives of what is and could be. The community is thus engaged in what could be called “the affirmative *enactment* of another modality of being, a different way of relating to and with the world” (Coulthard, 2014, p. 169) – not by way of isolation from the rest of society but by way of flexible and critical engagement with it.

6.2. The importance of worldviews

Notions of an Indigenous worldview is present throughout the previous paragraphs. Although Igiugig is not an all-Indigenous community and many community members identify as partially or fully Caucasian, community development is guided by visions and values closely related to a Yup’ik and Alaska Native worldview, with implications for how individuals engage with the collective as well as how the past and future relate to the present. The ability of Igiugig residents to engage in deliberately transforming their community towards increased resilience seems to be inherently linked to this worldview. Other research on adaptation and transformation in Indigenous cultures point to similar implications. Apgar et al. (2015), found the capacity for adaptation and transformation among the Guna people in Panama to be enabled through social cohesion, characterized by individuals having a collective identity and the existence of diverse groups within the collective, and an ability to manage the relationship between own knowledge systems and that of others, characterized by collective decision making with input from diverse views. These qualities and practices largely mirror those in Igiugig where social cohesion and flexible perspective-taking are some of the central findings from the Q-study.

Worldviews have also been found to be of particular importance for individual resilience in an Indigenous context. Exploring resilience among Alaska Native youth, Wexler (2014, p. 87) found that culture understood narrowly as certain activities and skills do not necessarily translate to individual resilience, whereas culture understood in a larger perspective as part of an Indigenous worldview that transcends time and space provides “flexible sources of strength” in dealing with both community and personal hardship. The role of worldviews and perspective-taking capacities in the context of global environmental and social change and the need for deliberate transformation is an understudied phenomenon ripe for further investigation (Scoville-Simonds, 2018; Hochachka, Unpublished results).

6.3. Community resilience revisited

Finally, a note on the concept of community resilience and the potential pitfalls of such a focus in research on global environmental change. Throughout the paper, I have argued that Igiugig is engaged with transformational social change that enhances their resilience and that their high degree of flexibility is part of what enables such processes. However, this community does not exist in a vacuum, and the political, economic and social policies and trends happening at various scales have very real implications for the kind of changes the community is able to enact. The Pebble Mine, mentioned in all three narratives in the Q study as something community members are wary of, represents possible large-scale social and environmental changes happening outside the sphere of influence of the community. Worst-case scenario, this development could pose a direct threat to the deliberate transformations happening at the community level through disruptive socio-economic and environmental impacts.

The academic discussions about community resilience tend to place all responsibility for building such resilience on the communities themselves (Kirmayer et al., 2009; MacKinnon and Derickson, 2013). Building community resilience is not only dependent on community members, but depends on relationships with other communities and outside institutions (Wilson, 2012). Similarly, building community resilience is not *the* solution to issues of economic disparity, social problems and climate change. While much is possible at the community level, as is exemplified in Igiugig, this work must be coupled with supportive processes happening at the other scales. Supportive not only in the sense that they support the efforts of the community, but that they support the large-scale societal transitions and transformations that will have to happen alongside local initiatives. Thus, it is problematic when the State of Alaska rhetorically supports community

resilience (Igiugig has received several awards for their sustainability efforts), while cutting funding for such work to be financed as well as supporting large-scale industrial activity likely to jeopardize the viability of local economic activities, such as commercial, sport and subsistence fishing. This observation mirrors ongoing debates within anti-oppression and decolonization literature on the limits of concepts such as empowerment and self-efficacy, arguing that they tend to “turn attention inward and mobilize people to change themselves and better adapt to situations of oppression (...) rather than mobilizing people to dismantle the environmental or structural sources of oppression” (Phillips et al., 2015, p. 369).

Thus, there are limits to agency in a rural community, be it individual or collective, no matter the flexibility and creativity applied. In our analyses of how transformational social change happens and can be supported, we need to identify exactly where these limits exist so that our case studies can inform large-scale transformations towards sustainability. This need is well established within the social-ecological systems literature, where the concept of panarchy brings our attention to the ways in which states and dynamics at other scales influence the system through cross-scale interactions (Walker et al., 2004). Similarly, although this study has focused on the role of flexibility in community resilience, there is no reason to assume that this quality is limited to local initiatives and Indigenous contexts. Rather, what this research indicates is that a call for flexibility should be extended beyond the community context, to include practitioners and politicians at all levels working with social-ecological systems, whether the topic is decarbonization, resource management or poverty reduction. This requires an investigation of own worldviews and perspectives, critically reviewing assumptions about what the problems are and what solutions might be appropriate, daring to ask ‘what if?’ and take steps towards enacting alternatives in the here and now, rather than waiting for ‘the system’ to change.

7. Conclusion

This paper set out to explore what enables deliberate transformations towards enhanced community resilience in an Indigenous context, focusing on the role of flexibility in this process. The Q-study shows that opinions on what drives social change in the community of Igiugig can be boiled down to three distinct narratives, pointing to great community cohesion as well as space for diversified expression of community culture. While the first two narratives focus on individual agency and cultural heritage, respectively, the third narrative expresses a meta-perspective where more emphasis is placed on community visions and collective community building than any one stance on community changes as ‘good’ or ‘bad.’ Based on the Q-study, flexibility of perspectives is identified as a central quality enabling the community to engage in deliberate transformation and supporting resilience in various ways, including through cultural cohesion, collective leadership and enacting alternatives in the here and now. These factors are in turn seen to be deeply tied to an Indigenous worldview based on an understanding of humans and nature as connected, entangled and situated within a cyclical notion of time, in which past, present and future are all present at any moment, giving direction and inspiration to community development.

The high level of flexibility is visible in how the community interact with existing structures and systems. While engaged in a process of decolonization – breaking with notions of western superiority and capitalist extractive economies – they do not do so through resistance alone. Rather, they do this through the active creation of alternatives, sometimes within the frames of the colonial and capitalist system. This often requires the community taking a ‘both/and’ position in terms of engagement with outside actors and decisions on community development.

The findings allude to the need for more research on how worldviews and perspective-taking capacities translate into transformations

at various scales, including the link between individual and collective agency in this process. More research is also needed on the ongoing enactments of alternative realities that are occurring across the globe, and in that process identifying both the enabling conditions of such work as well as the limitations. Such research is likely to aid in the necessary efforts of scaling up and out.

Finally, since deliberate transformation is not reserved to the local level, but needs to occur at every scale simultaneously, flexible perspective taking is likely to be a relevant quality of people in a wide range of positions across multiple scales. This opens up questions of how to critically engage with worldviews, perspectives and values, in an effort to align interior and exterior transformations towards sustainability.

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