"Who Eats Whom and by How Much" Is Important but Not Enough: Why It Is Critical for the Arctic Research Synthesis Efforts to Consider the Social Impacts of Climate Change

Sveta Yamin-Pasternak

Pacific Marine Arctic Regional Synthesis (PacMARS) and Synthesis of Arctic Research (SOAR) Workshop, 2013 Alaska Marine Science Symposium, Anchorage, AK [Presentation Notes]

The geopolitical area covered by the Pacific Marine Arctic Regional Synthesis project, as defined by the North Pacific Research Board, encompasses the following contemporary human settlements:

Nome		**Kotzebue**	**Barrow**
Diomede	Teller	Kotzebue	Barrow
Gambell	Shishmaref	Point Hope	Wainwright
Savoonga	King Island	Kivalina	Nuiqsut
Brevig Mission		Buckland	Kaktovik
Wales			Point Lay

The majority of the settlements are inhabited predominantly by the Inupiat - a self-identification of people likely speaking a local or regional variety of the Inupiaq language as their heritage language. The Saint Lawrence Island communities of Savoonga and Gambell are inhabited predominantly by the speakers of Siberian Yupik as their heritage language. Speakers of Siberian Yupik also live in Nome and, in fewer numbers, in other communities in the study region. Although Siberian Yupik is an international language, with close to half of the speakers living in Chukotka, on the Russian side of the Bering Strait, a review of the research done in Chukotka is not part of the PacMARS effort.

The impacts of climate change on the subsistence ways of life is the unifying direction intended to integrate the synthesis of the research efforts that involve the communities listed above. Whereas we are actively investigating the processes behind the keyword of "climate change," the meanings of "impact" and "subsistence" were largely being held implicit by everyone involved, myself included. Transitioning from the implicit assumptions to the explicit understanding of differences, in the course of discussion and reading one another's work is one of greatest strengths of collaborative research. The goal should not necessarily be succumbing to one person's opinion, or even arriving at a mutually compromised common point of view, but to become aware of the specifics of one's own subjectivity by taking into consideration the - no less subjective perspectives of one's collaborators.

State of Alaska claims is unique in the US in having both state and federal laws that provide priorities for customary and traditional subsistence over other uses. In great part due to that reason, we are fortunate to have commendable intellectual resources devoted to documenting various subsistence practices around

the state. A constructive feature of the myriad subsistence studies conducted in Alaska, be they historical inquiries or contemporary case studies – including the technical reports of agencies like BOEM or Alaska Department of Fish and Game is that rather than taking the understanding of "subsistence" for granted, the reader is typically offered both theoretical and ethnographic groundings to ponder the term "subsistence." Among some frequently sited definitions is that of Marshall Sahlins, who says that subsistence is a form of production for both use and exchange, where the objective is neither total self-sufficiency nor capital formation but a perpetual flow of goods, services, and other products (in Lonner 1980). In "Subsistence as an Economic System in Alaska: Theoretical and Policy Implications," Thomas Lonner (1980) expands on Sahlins's discussion, noting that:

> distribution provides nutritional and other materials, and social products among households, within communities, within regions, and so on. Without an effective distribution system, much of production loses its purpose… Subsistence labor is based on a pattern, division, or distribution of labor of men, women, and children determined by age, sex, task, skill, training, equipment, kinship, social organization, capital, time, season, location, reciprocity and distribution system, and so on. Subsistence labor is communally organized according to skills, interests, kinship, and planning. Vital skills cannot be removed without altering the efficiency and productivity of the group (ibid. 1980:10).

Although the underlying purpose of much of the agency research in Alaska is resource management, the understanding of subsistence in Alaska extends far beyond it being the harvesting of resources (this is not to downplay the tremendous effort and skill required to procure food and other necessities from sea and land). The understanding is derived from the work of cultural anthropologists and human ecologists who in turn draw on the explanatory modes of the people whose ways of life they are trying to understand. It embraces a comprehensive milieu through which people develop a sense of who they are, where they live, what they anticipate, enjoy, and put up with in their day to day activities, how they relate to one another, how they interpret and value the place where they live.

A 2004 synopsis of subsistence research by the State of Alaska (ADFG TN 284), authored by Robert Wolfe, concludes that Alaska has a multitude of subsistence traditions linked to particular localities and that creators and principal users of these localized subsistence traditions are the long-term residents in the communities and areas where they occur. Hence the acknowledgement of group identities, tied through their subsistence practices to a specific locale within our study area, has been an important factor in the course of the synthesis activity.

Another factor is tied to a question raised at the December 2012 PacMARS data meeting at the Earth Observing Laboratories in Boulder, Colorado. What is the purpose of the human-focused dimension of PacMARS? Is it to better understand the biological processes of climate change by tapping, among other approaches and resources, into the indigenous, local, and traditional ecological knowledge? Or is it

to understand the social impacts of climate change, and the social processes – be they adaptive, destructive, or multi-directional – being reported in our study region?

Although the two directions are not mutually exclusive, the social issues often fall outside of the ecosystem thinking. For example, I view the housing crises and the increasing cost and difficulty of local travel, arising in connection with coastal erosion and the thawing of permafrost, as at once inherently social and biological processes. Unlike in former times, the contemporary human settlements in Alaska are tied to the educational, legal, and administrative needs bound by permanent infrastructure. A range of their everyday concerns is that of any contemporary citizen: commuting from home to work for those who are engaged in wage employment, delivering the children to school for those who have them, getting the mail, doing laundry, keeping the utilities in operational order. Yet for the residents of rural Alaska these no-small hurdles fall alongside or on the top of the vulnerabilities, efforts, and commitments connected with subsistence.

One of the recent projects underwritten by Mineral Management Service, edited by Stephen Braund and Jake Kruse and completed in 2009, is a synthesis of the thirty years of research on socioeconomic effects related to offshore petroleum development in coastal Alaska. A consistent theme that emerges in this review of close to 200 sociocultural studies is that "despite much change in rural communities in the second half of the twentieth century, the cultural value of subsistence has persisted as an essential organizing element of Native culture and community… (Braund and Moorehead 2009:112)." One of the cited reports on the comparative socioeconomics of the North Slope finds that throughout the history of wage employment being an option in Arctic Alaska, income earned from employment has, in great part, gone to support subsistence and enable the individuals who had less time to hunt and fish because of jobs to harvest resources "more efficiently with the purchase and use of all-terrain vehicles, faster snowmachines and bigger boats and motors" (Braund and Kruse 2009:30). Through the decades of rapid, broad-sweeping change, "subsistence – along with sharing and kinship – remained central Iñupiat values" (Braund and Kruse 2009:30).

Considering within the broader findings of food and culture research, the observations made in our study region speak to the assertion that human food preferences are very resilient, tending to persist after other aspects of culture, such as housing, language, and clothing go through change. I will site two influential anthropologists. Sidney Mintz (1996, 1986) observes that while periodic additions to the diet can be rather inconsequential for the overall pattern, notable changes in eating practices usually result from a major shift in the entire scope of everyday routines. Following this premise, Ellen Messer proposes that "to change food preferences and dietary structures there probably need to be not only the right ecological and political conditions but also some major social rupture that creates an opening for a new food or nutrition pattern and a reason for abandoning the old" (1997:102). Whereas the indigenous ways of procuring, preparing, and sharing "whom"/what they eat, and how much, has remained central to local cultural values

through several intense periods of social change, how will it fair in the face of climate change, understood as a social disruption? To get a better grasp on how subsistence is being affected by climate change, this is the question we ought to be asking. Why then regard the transportation and housing needs of the people whose very sense of themselves is tied to being an agent acting and being acted up by the ecosystem of which his life is a part extraneous to the investigation of climate change impact? A stance supported widely by sociocultural research in and outside of our study region is that we should not. Yet the discussions in our earlier meetings and the language of the PacMARS advisor report indicate that is premise is yet to be widely embraced.

<u>References</u>:

Braund, Stephen and Jack Kruse "Synthesis: Three Decades of Research on Socioeconomic Effects Related to Offshore Petroleum Development in Coastal Alaska," OSC Study MMS 2009-006. Anchorage: Stephen Braund and Associates.

Braund, Stephen and Elizabeth Moorehead, 2009, "Sociocultural Research," in Braund, Stephen and Jack Kruse "Synthesis: Three Decades of Research on Socioeconomic Effects Related to Offshore Petroleum Development in Coastal Alaska, OSC Study MMS 2009-006." Anchorage: Stephen Braund and Associates.

Lonner, Thomas, 1980 "Subsistence as an Economic System in Alaska: Theoretical and Policy Implications," Alaska Department of Fish and Game Technical Paper 67, Anchorage AK.

Messer, Ellen.
1997 Three Centuries of Changing European Taste for the Potato. Food Preferences and Taste: Continuity and Change MacBeth, Helen, ed. Providence: Berhahn Books.

Mintz, Sidney W.
1986 Sweetness and Power: the Place of Sugar in Modern History. New York, N.Y.: Viking.

1996 Tasting Food, Tasting Freedom : Excursions into Eating, Culture, and the Past. Boston: Beacon Press.

Wolfe, Robert, 2004 "Local Traditions and Subsistence: Synopses of 25 Years of Research by the State of Alaska," Alaska Department of Fish and Game Technical Paper 284.