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Dene Hunting Organization in Fort Good Hope, Northwest Territories: "Ways We Help Each Other and Share What We Can"

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ABSTRACT. Social inquiry into hunting dynamics in northern indigenous communities in Canada has tended to focus on hunting individually or in small kinship groups, although the role of more formal community hunts is increasingly recognized. Descriptive data are limited, however, on the mechanisms by which foods harvested on such hunts are shared out. This paper considers whether or not the dynamics of sharing meat differed between a community hunt (September 2009) and a series of household-organized hunts (November 2009) in the *K'asho Got'ine* Dene community of Fort Good Hope (*Radilih Koe*), Northwest Territories. We consider how sharing might differ in terms of interactions initiated by a request from a recipient (discussed in other literature as "demand sharing"), versus those initiated by a harvester ("giving"). Results reveal that the number of sharing interactions was similar in each case and represented a substantial portion of the total harvest, but the greater number of requests for meat after the community hunt indicates there was more pressure on the community harvesters' supply than on household hunters' supply. At the same time, requests were made especially by elders and those in need, reflecting complex norms of resource management and flexible social networks. This study affirms the continued relevance of Dene norms of sharing within contemporary communities and increases our knowledge of the social dimension of community-based resource management.

Key words: barren-ground caribou, *K'asho Got'ine*, Fort Good Hope, harvesting, food sharing, giving, demand sharing, resource management, social norms, social networks, community hunt

RÉSUMÉ. De manière générale, l'étude sociale de la dynamique de la chasse dans les collectivités indigènes du nord du Canada porte principalement sur la chasse individuelle ou en petits groupes composés de personnes apparentées, bien que le rôle de la chasse communautaire davantage organisée soit de plus en plus reconnu. Il existe toutefois peu de données descriptives sur les mécanismes en vertu desquels la nourriture recueillie dans le cadre de la chasse est partagée. La présente communication tente d'établir si la dynamique du partage de la viande diffère ou non entre une chasse communautaire (septembre 2009) et une série de chasses organisées par des ménages (novembre 2009) au sein de la collectivité dénée *K'asho Got'ine* de Fort Good Hope (*Radilih Koe*), dans les Territoires du Nord-Ouest. Nous examinons en quoi le partage peut différer sur le plan des interactions déclenchées par un receveur (que l'on nomme « partager sur demande » dans d'autres documents), par opposition aux interactions déclenchées par un récolteur (« donner »). Les résultats ont révélé que le nombre d'interactions de partage était semblable dans chaque cas, et qu'elles représentaient une portion substantielle de la récolte totale, mais que le plus grand nombre de demandes de viande après la chasse communautaire indique qu'il y avait plus de pressions sur l'approvisionnement des récolteurs communautaires que sur l'approvisionnement des chasseurs faisant partie des ménages. Par la même occasion, les aînés et les personnes dans le besoin avaient fait des demandes particulières, ce qui illustre les normes complexes de la gestion des ressources et la souplesse des réseaux sociaux. Cette étude affirme la pertinence continue des normes de partage des Dénés au sein des collectivités contemporaines et enrichit nos connaissances de la dimension sociale de la gestion communautaire des ressources.

Mots clés : caribou de la toundra, *K'asho Got'ine*, Fort Good Hope, récolte, partage de la nourriture, donner, partager sur demande, gestion des ressources, normes sociales, réseaux sociaux, chasse communautaire

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INTRODUCTION

While many contemporary studies document the importance of sharing within northern communities, few report details of how norms of sharing among Dene groups can vary according to social, ecological, or organizational circumstances. Accounting for variations in sharing practices was certainly a focus for some ethnographical work during the last century (Osgood, [1936] 1970; Helm, 1965; Savishinsky, 1974), but recently many references

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to food-sharing norms have only indicated broadly their importance for Arctic peoples in buffering against variations in resource availability (Berkes and Jolly, 2001; Nuttall et al., 2005; Chapin et al., 2006). Also, the recent literature that does in fact examine the variations and dynamics of sharing in contemporary northern communities usually refers to Inuit, Inuvialuit, or Iñupiat groups (Burch, 1988; Condon et al., 1995; Collings et al., 1998; Bodenhorn, 2000; Wenzel, 1995, 2000; Magdanz et al., 2002, 2004; Kishigami, 2004; Collings, 2011; Ford and Beaumier, 2011). This study in a contemporary Dene community broadens the academic understanding of sharing norms among Arctic peoples and shows that the social context of resource production processes may influence the dynamics of resource distribution. In considering the social context of resource production, we focus specifically on two types of hunting organization: a community hunt and household-organized hunts.

Formal community hunts are popular in the Northwest Territories and have been used by some communities particularly in response to reduced availability of barren-ground caribou, which continues to be a high-priority species for subsistence. This hunting strategy gained importance in the Sahtú Settlement Area in the 1970s by facilitating harvesters' continued access to caribou from newly settled communities far away from traditional hunting areas (Rushforth, 1977). In Fort Good Hope recently, community hunts have been organized each autumn (from 2007 to 2009) and sometimes also during other seasons. In addition to this pattern of organizing into formal groups, harvesters also commonly hunt caribou and other wildlife such as moose individually or in informal groups. These forays are typically supported and funded through harvesters' households and extended family, and we refer to them as household-organized hunts.

Community Context

Fort Good Hope is a *K'asho Got'ine* Dene community located in the Sahtú Settlement Area, on the Mackenzie River near the Arctic Circle. According to census data, 585 people live in the community within approximately 180 households (GNWT Bureau of Statistics, 2011). Harvesting continues to provide residents with a significant proportion of their food. Analysis of a harvesting survey conducted between 1999 and 2002 suggests an annual harvest of 100 kg of edible country meat per capita (SRRB, 2004; edible weight estimates from Usher, 2000 and Ashley, 2002). Sources of this meat (in declining order) were barren-ground caribou, moose, fish, small game (i.e., rabbits), birds, and woodland caribou. A total of 106 people reported harvesting large game (such as caribou or moose) between 1999 and 2002. Of these harvesters, 26 were responsible for 70% of the large game harvests. Key features missing from the survey, however, were indications of whether harvests were made on community hunts or household-organized hunts and the dynamics of distributing the meat.

LITERATURE REVIEW

Harvester Organization

In the ethnographic literature, Dene harvesting patterns have most often been characterized as hunting individually or in small kinship-based groups. Although Helm (1965) does describe collective hunting forays made by groups of Dogrib Dene hunters, Osgood ([1936] 1970), Savishinsky (1974), Christian and Gardner (1977), and Rushforth and Chisholm (1991) describe hunting as a relatively solitary endeavour, in which the harvester is provisioned by his family and supplies the group with meat.

Community hunting strategies may be increasingly important, however, particularly in the context of highly variable resources and sedentary communities. Rushforth (1977) explains that Délı̨ne harvesters who faced difficulties accessing traditional hunting areas were assisted through community-organized hunts supported by Game Management officials, while Kruse et al. (2004) tie community hunts directly to shortages of meat in Old Crow, Yukon, where households use their combined resources to hunt collectively in areas where caribou are abundant. Community hunts in Fort Good Hope are typically sponsored by local offices such as the Band Council and Land Corporation, however, so they would be better characterized as the result of the community pooling its resources. These hunts are certainly similar to community hunts elsewhere in the North in other important aspects, such as providing opportunities for knowledge transmission between generations (Peloquin and Berkes, 2009) and reducing local inequities in access to Dene foods by bringing back meat for elders, single mothers, and those in need (Kishigami, 2000; D. Castro, pers. comm. 2011). But while those accounts describe monetary payments made to harvesters and centralized redistribution of harvested meats, the 2009 Fort Good Hope autumn community hunt had no payments to harvesters and used a more decentralized system of sharing meat premised on the willingness of harvesters to share (although a more centralized redistribution had been used in previous years).

Regarding the property characteristics of the harvested meats, Kishigami's (2000) and D. Castro's (pers. comm. 2011) descriptions imply that meat becomes common property because community institutions pay for it directly. The Fort Good Hope community hunt was on the surface more ambiguous, as hunters are not paid for their labour, but substantial public funding is nevertheless put towards hunting-related travel costs. These differences between the Fort Good Hope community hunt and others noted above may pose a challenge to arriving at a commonly acceptable definition of what a "community hunt" actually is. As we use the term here, it is meant to encompass any collective hunt that involves support from or coordination through community offices and is designed to benefit the wider community (although perspectives regarding the ways it does this might differ). Further details on the community hunt

and comparative household-organized hunts are presented below.

The Dynamics of Sharing

Food-sharing practices in northern communities have been often characterized broadly as a coping mechanism to mitigate the effects of variability in resource procurement (Nuttall et al., 2005) and, in local settings, in terms of "insurance" (Jarvenpa, 2004) and equity (Berkes et al., 1994). Food sharing is thus part of a suite of strategies, including flexible harvesting techniques (Brinkman et al., 2007), that in combination have been successful in helping communities contend with the harsh ecological uncertainties of the Arctic (Berkes and Jolly, 2001). Among the *K'asho Got'ine* people, Savishinsky (1974:78) suggests that "flexible implementation of generosity as a cultural value allows for the redistribution of scarce goods and services in a way that maximizes the well-being of all concerned." These norms continue in Fort Good Hope, and "people are expected to share" in accordance with Dene law (Barnaby et al., 1977:120).

Specific studies that link sharing dynamics to resource availability within contemporary non-Inuit northern contexts include Nelson et al. (2005), who observe that in a northern Alberta Cree community, sharing becomes limited when overall harvest levels decline. In a Dene context, specifically the Gwich'in community of Fort McPherson, Parlee et al. (2006) similarly report that for berry harvests, norms of sharing are less stringent when berries are abundant (so they are shared more widely), while in lean years social norms restrict sharing to special groups and close family.

Request Sharing

Much food sharing between households in northern Dene communities occurs in response to a request or demand. Helm (1965:34–35), for instance, reports that:

> [Items shared] from one household to another are occasionally volunteered but usually solicited… Solicitation appears often to take the form of a simple statement of lack, or need; that this is a request is understood. Generally, there is no promise actual or implied, or repayment in kind or value. Those families that seldom ask others for goods seem to be those more likely to voluntarily "repay" in some form equivalent at a later time, but "repayment"… is not seen as obligatory, or even to be expected.

Similar examples have been recorded in other communities in the Sahtú, such as Colville Lake and Déljne, as well as among the neighbouring Gwich'in (Osgood, [1936] 1970; Savishinsky 1974; Rushforth and Chisholm, 1991). In forager societies more generally, Barnard and Woodburn (1988:11) remark, it is relatively common that a carcass "is recognized as being individually owned and yet at the same time the various members of the camp in which the owner lives have socially recognized rights to a share in the meat which cannot be refused by the owner." These characteristics, sometimes associated with what has been termed "demand sharing," have posed a significant challenge to Western assumptions of property and ownership. Winterhalder (1997, 2001) takes pervasive demand sharing as evidence of "tolerated theft" or "scrounging," which sees large harvested items as communal on the basis that the harvester cannot effectively defend them (Hawkes, 1993). The stability of the tolerated theft and scrounging models, however, remains contingent upon personal benefits accruing to harvesters (who otherwise would not continue to harvest), which raises secondary issues of what these benefits are and who provides them (Hawkes, 1993). While Hawkes (1991) suggests that hunters may gain a procreation advantage by sharing, other studies suggest that sharing is necessary to avoid concentration of authority and maintain an egalitarian social context (Davis and Attenborough in Bliege-Bird and Bird, 1997). Savishinsky's (1974) account of redistributive sharing in Colville Lake, within the *K'asho Got'ine* cultural context, also suggests that sharing serves an equalizing function.

"Tolerated scrounging" is only one of four or five explanatory models on the evolutionary basis for sharing; other models are kin selection, reciprocal altruism, costly signaling, and group selection (Wilson, 1998; Winterhalder, 2001; Gurven, 2004). The lack of firm conclusions from efforts to discern which models operate in which contexts (Bliege-Bird and Bird, 1997; Gurven, 2004) has led some writers to argue that the models are not necessarily mutually exclusive (Hill et al., 1993; Wilson, 1998; Gurven, 2004). Further, these models have not effectively linked distributional processes to the necessarily cooperative production processes on which they rely (Ingold, 1983, 1988; Gurven, 2004). In contrast, Ingold (1983:563) considers collective access a principle that is "built into the productive relations of hunting" and which obliges hunters to distribute the harvest.

"Demand sharing" has also been a contested subject in the ethnographic literature on sharing, given the complex potential meanings of "demand" in different cultures. Woodburn (1998) explains that simple perpetuation of social relations may be a motivation for asking for food. Peterson (1993), in compiling accounts of demand sharing in various indigenous societies, found a diversity of meanings for "demand": in some cases, a demand may even be interpreted as a gift. Regional studies to date have not provided much more clarity. On one hand, Rushforth and Chisholm (1991) in their detailed study of the Slavey language note that blunt direct speech symbolizes close friendship and therefore does not have the negative connotations it might have in English. On the other hand, Osgood ([1936] 1970:112) mentions that in the Gwich'in region, direct requests were considered bad form and involved a loss of pride for the needful party. Thus, although the literature repeatedly remarks upon this form of sharing among Dene

groups, it does not clarify how requests for meat are appropriate or inappropriate in different circumstances.

Network Analysis

Analyzing food-sharing patterns at a network level within northern communities is an increasingly popular technique, although it has most often been employed in Inuit, Innu, or Iñupiat contexts (Magdanz et al., 2002, 2004; D. Castro, pers. comm. 2011; Collings, 2011). Network analysis techniques aim to uncover complexities within social systems that emerge from interactions between social actors (Collings, 2011)—in these cases, interactions involving the transfer of food. Network analysis often assesses the components of a network that are essential to its integrity as a single structure. This assessment involves examining the links that tie the network together to identify "cut-points": points whose removal would leave the network vulnerable or cause it to disintegrate (Brede and de Vries, 2009). Denser networks, in which fewer cut-points are evident, are therefore usually considered more robust, or cohesive, than sparse networks (Moody and White, 2003). Similarly, within a network, clusters of "nested" nodes are considered more resilient than nodes on the periphery.

Network analyses on sharing dynamics have been conducted with several interests in mind. Magdanz et al. (2002, 2004) worked on broadly identifying the social organization of food sharing in Alaskan Iñupiat communities. Meanwhile in Labrador, D. Castro (pers. comm. 2011) used a network analysis to discern that sharing clusters are more centralized when community institutions assume control of sharing processes. He argues that this feature has negative implications for the resilience of the network as a whole, as there is less redundancy if that institution fails or is removed. Collings (2011) makes a similar case by identifying the kinship relations between harvesters in Ulukhaktok and those with whom they share meat: while full-time hunters share widely (thereby associating with more people and contributing to dense social connections within the settlement), part-time harvesters tend to limit sharing to their kinship group.

METHODS

This study compares sharing by harvesters after two types of hunts: a community hunt in September 2009 and a series of household-organized hunts for caribou in November 2009. Descriptions of the hunts are based on field notes, as the lead author resided in Fort Good Hope for four months in late 2009 and was fortunate enough to join in both hunting activities. He interviewed harvesters one to two weeks after they returned from the hunts, by which time most sharing had occurred. They were asked first with whom they had shared meat, and in follow-up questions, how the interactions had taken place, the quantities and pieces involved, and how long the remaining meat would last them. A key interest in these semi-structured

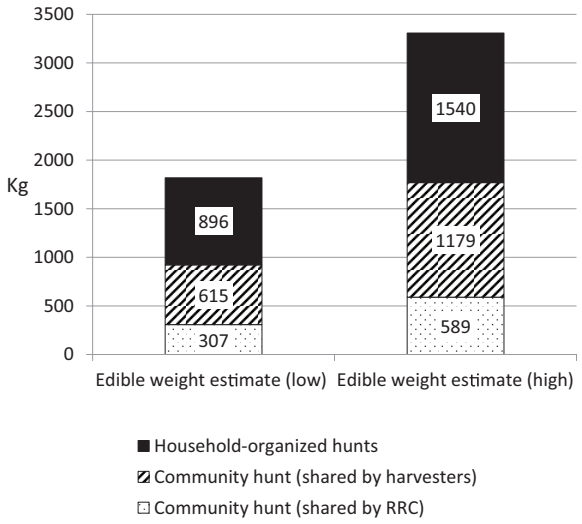

FIG. 1. Low and high estimates of edible weights (kg) of harvested meat shared after the household-organized hunt and the community hunt. The community hunt estimate distinguishes meat distributed by the Renewable Resource Council from meat distributed by harvesters, but it is not adjusted for meat that harvesters consumed during the hunt.

interviews was to learn more about the mechanisms of sharing by request vs. giving outlined above. In retrospect, more consistent follow-up questions would have been useful at the analysis stage, but they might also have compromised participants' comfort with the interviews. Because the topic is sensitive, we refer to harvesters' transcripts only by number. Several follow-up interviews were done with recipients of meat, and some of this additional information has been used to refine the data provided by harvesters, but information regarding subsequent redistribution of meat by initial recipients has not been included because it was not collected consistently. Preliminary results were presented for discussion and feedback at a public meeting held in Fort Good Hope in September 2011.

At a household level of analysis, sharing interactions are considered to happen between a harvester's household and other households, and we thus exclude interactions in which meat was eaten or shared within a household (such as at meals). Although not all community hunt participants were hunters, everyone who received meat at the end of the hunt is considered here to be a harvester (n = 10 households). After the community hunt interviews had been conducted, a comparative sample was sought from household-organized harvesters, which began with the first known hunter to bring back barren-ground caribou meat to Fort Good Hope in the early winter of 2009. The household harvester sample (totaling seven households) was complete once these harvesters had brought back as much edible meat (estimated in the field as described by Usher, 2000) as the community hunt. One household was present in both samples. Given the numerous issues that surround edible weight calculations (Usher, 2000), estimates have since been expanded on the basis of Ashley (2002), Larter and Allaire (2009), and A. Veitch (pers. comm. 2010), and a low estimate and high estimate are shown in Figure 1. In both hunting cases, if

equal portions had been distributed to every person in the community, each portion would have amounted to 1–2 kg of meat. A small number of recipient households (six after the community hunt, seven after household-organized hunts) were located in other communities.

Of the 17 harvesters' households interviewed, 16 reported sharing with specific recipients. In addition to the specific recipients, many harvesters also mentioned that they "would have shared," or "will share," or "do share." Using only the descriptions specific to the hunting cases, it was possible to construct a data set of food-sharing interactions, but given that we cannot know what was not reported, it is admittedly more dubious to assert that they represent a specific proportion of the total incidents of sharing. After excluding sharing interactions by the Renewable Resources Council and vague responses, 57 interactions with specifically identified recipients are considered for each hunt (that they are the same number is by chance). Accounting for recipients who are mentioned by multiple harvesters will be addressed below through a network comparison.

In many cases, harvesters would indicate that people had requested meat but were unwilling to discuss the details of who did so or how the interactions had occurred. Therefore, in the first set of quantitative results we present the numbers of requesters reported in each case and also the number of requesters who were reported by name. A request was identified if a participant described a recipient calling, phoning, asking, or saying that he or she wanted meat. Interactions that were not characterized by such indicators are described here as gifts, in the sense that they appear to have been initiated by the giver. We acknowledge that there are other definitions of "giving" in the literature on sharing, many of which contrast giving to a reciprocal arrangement (e.g., Sahlins, 1972; Winterhalder, 1997; Gurven, 2004; Kishigami, 2004), but accounting for specific reciprocities is not the focus of this paper.

In the second set of results, we have also included whether or not a recipient might belong to demographic groups in particular need of meat, such as elders, single mothers, and those less able to hunt for themselves. Elders were identified by either the interviewee or a local research assistant, or were known by the researcher to be 60 years old or older. Others in need were identified from interviewees' comments that "they don't go out for themselves," "they've got no one to hunt for them," or mention of sickness, pregnancy, or widowing (descriptions that were later validated by a local research assistant). In a very small number of cases, two harvesters reported sharing with the same household, but only one would describe the household as in particular need. Given the exigencies of network analysis, in these instances both of the interactions were considered to have a recipient in particular need.

In the third set of results, we have indicated the available details on portion sizes of meat shared and how long harvesters expected the remaining meat to last in their households. As with descriptions of requested sharing interactions, details regarding portions were not given for every interaction. For interactions with details available, we created two possible categories: smaller portions and larger portions. The smaller portion category includes quantities of one or two pieces (e.g., "moose ribs and meat"), while the larger portion category includes descriptions of three or more pieces, portions relating to an entire animal (e.g., "half a caribou"), or descriptions accompanied by an exclamation of "lots," a "whole bunch," or "everything." We were unable to gather consistent information about the relative quality of portions, however, and we also recognize the difficulty of comparing processed to non-processed meat. Community hunt meat had been dried and processed for several days, while meat from household hunts arrived in larger, raw chunks. In addition, the interactions for which portion sizes were explained were not consistently the same interactions for which requests were noted, and therefore it is not possible to comment on any interrelationships between these characteristics.

In the fourth set of results, we present a comparative network analysis. Methods of collecting network data on food-sharing dynamics have typically used a series of short-term recall surveys (Collings, 2011) or a single long-term recall survey (Magdanz et al., 2002, 2004). We constructed network diagrams on the basis of the interviews with hunters about the households to which they shared out meat from the specific hunts. There are three common measures of centrality that assess the extent to which nodes (households) are nested in the overall network: degree, closeness, and betweenness (Hanneman and Riddle, 2005). For directed networks, in which connections are based on a flow from one node to another, these measures are assessed both inwards and outwards from nodes (Hanneman and Riddle, 2005). Betweenness and closeness ("reach") may be useful measures in dense networks, where most nodes have non-zero in-degrees and out-degrees; however, for the relatively sparse networks considered here (which do not include subsequent redistributions of meat), we focus on the degree centrality of the recipients (in-degree centrality, or the number of different harvesters from whom a recipient receives meat). In the resulting diagrams, the size of a node is thus dependent on its in-degree. On the basis of work by Costenbader and Valente (2003), we consider in-degree centrality a prudent measure for incomplete data sets such as these that do not include subsequent redistributions; in their study this measure correlated well between sampled and complete data sets. Network connections (edges) in the diagrams indicate which sharing interactions were based on requests, and interactions with the Renewable Resources Council, which were excluded in the other analyses, are also included.

SUMMARY OF HUNTS

The 2009 Autumn Community Hunt

Recent autumn community hunts in Fort Good Hope have usually subsidized harvesters' travel costs, either as

fuel provided for household riverboats or as charters on the local air service provider. Hunters do not receive payment for their labour, and they are also expected to provide their own personal equipment (tents, stoves, rifles, food, etc.). Typically, funding proposals for community hunts are made to the Charter Community Council (which also acts as the Band Council), Land Corporation, and the Renewable Resources Council (RRC). In 2009, in fact, the RRC spearheaded the hunt itself, booking air charters for the interested harvesters to fly out to Tabasco Lake in the Mackenzie Mountains in early September. Bringing elders and youth was a priority for hunt organizers, who sought to stimulate intergenerational learning and bolster traditional skills among young people in the community. In subsequent interviews, study participants also overwhelmingly described community hunts as particularly important to provide food to elders and those in need. The hunt, which lasted nine days, required a sturdy bush camp that took a day or two to construct and to dismantle at the end. Daily hunting forays would then comb the surrounding steep mountains and valleys for moose, mountain caribou, and Dall's sheep. Women were essential participants in the hunt, maintaining camp and drying and processing the harvested meat. On the last day, the harvested meat was divided into allocations and packed into sacks or coolers. About two-thirds was allocated to the harvesters and one-third to the RRC, which focused on providing for local elders. Air charters then brought the hunt participants back to Fort Good Hope over the course of a day, landing on the river at "The Point," which bustled with vehicles, equipment, people, and meat.

Household-Organized Caribou Hunts

Household-organized hunts in November 2009 were altogether different. As the first snows settled on frozen muskeg and reports were heard of barren-ground caribou beginning to cross Colville Lake, hunters in Fort Good Hope with working skidoos would make the trip to Colville (176 km) in about five hours. Hunters normally went on weekends, some going alone, some in pairs, and in some cases teaming up with others along the way. Most would stay with friends or relatives in Colville Lake and make daily skidoo trips up to the north shore looking for caribou emerging onto the lake. Harvesters took an average of four caribou each; they would load the meat into sleighs for their return trip back to Fort Good Hope, often arriving late in the evening. The usual duration of such hunts was two to three days, and the costs were borne primarily by the harvesters and their own households. In comparison with the community hunt, then, these hunts were relatively short, requiring no bush camp and less labour by harvesters. The main goals of the hunters seemed to be to provide their households and families with meat and to visit friends and family in Colville Lake. Table 1 summarizes attributes of the household-organized hunts compared to those of the community hunt.

RESULTS

Norms of Sharing in Fort Good Hope

It became evident very quickly during the fieldwork that the sharing of traditional foods is a critical part of the social fabric of Fort Good Hope. Introductions made about the project focus would often meet with confirmatory replies that "we all share," sometimes followed by examples of personal generosity. Many would emphasize that selling traditional foods is against local custom, although some noted that the high financial costs of harvesting were challenging this norm. The prevalence of local sharing was often contrasted to the more impersonal Southern lifestyle, and several people also remarked on differences with other northern communities, such as Aklavik, Tulita, and Hay River. While these comments seemed to suggest that sharing is relatively more pervasive in Fort Good Hope, other people referred to Colville Lake as a place where appropriate norms of sharing were strongest.

Privilege, Recognition, or "Just to be out there"?

One younger interviewee emphasized that it was a privilege to provide for other people. After a successful harvest, "Family will be happy, and plus, some... people that don't have the... I don't know, the privilege I guess... don't have skidoos and that… they're going to want meat too… as soon as they hear somebody got some meat, they're happy—then they know who to ask for meat" (30). It seems apparent that harvesters enjoy an esteemed position in the community and appreciate recognition for their exploits. A lack of recognition was problematic for one participant, who complained, "I wasn't... too happy about it… he's my uncle too... he didn't even ... say thank-you for the meat. Didn't tell me stuff like that…" (15). However, another harvester balked at the question about appropriate ways of appreciating a harvester's skills and efforts. He jokingly changed the subject, explaining "Yeah, well we enjoy [hunting], you know… Sometimes… we go in the wintertime, and we just give [meat] out. We enjoy… just [being] out there and… making some tea, and eating the good parts before we come home! Ha ha!" (41).

"A little piece for myself"

It is clearly socially desirable to be known as someone who shares, and certainly the ideal is that nothing is expected in return. It also seems to be relatively common to refer to someone as "stingy" with their meat in a general expression of disapproval. Thus, sharing and perceptions of sharing may be seen as symbolic, which further complicates inquiry into what happened in particular cases. One interviewee seemed to offer an explanation closest to what the lead author interpreted as the norm for sharing most generally. After giving pieces out to those who contributed equipment to his hunting effort, the harvester reported that

TABLE 1. Summary comparison of community hunt and household-organized hunts by harvesters from Fort Good Hope, Northwest Territories, in autumn 2009.

	Community hunt (September 2009)	Household-organized hunts (November 2009)
Number of trips	1	5–6
Means of travel	Twin Otter (aircraft)	skidoos
Number of participants	15[1]	9–10
Time on the land (per trip)	9 days	1–5 days
Funding source	RRC/donations/researchers	Harvesters' households
Harvest	4 moose, 3 mountain caribou, 1 Dall's sheep	28 barren-ground caribou (total)
Total edible weight of harvest	922–1768 kg	896–1540 kg
Households with meat at end of hunt	10	7

[1] Excluding three researchers.

he "kept the rest. Then I handed them out to elders... people that… can't go hunting… have no kids to go hunting... So I gave out some meat to, yeah, some elders, [my wife's] grandparents, and that. Handed… most of those out. Kept a little piece for myself" (36).

Giving to "those who cannot provide for themselves"

In describing specific sharing interactions, too, harvesters often mentioned the circumstances of recipients, particularly conditions of ill-health, being a widower, a single mother, a resident in another community, a full-time wage worker, or a student, "being stuck," and especially old age. In contrast, some participants asserted that they had not shared meat with family members (in other communities, for instance), who had closer sources of meat and therefore "didn't need it." Expectations about peoples' roles in the sharing interaction itself also seemed to be linked with their abilities. One participant summarized as follows: "Most likely I'll tell them to come pick it up, if they have a vehicle, or skidoo... and they do—they do come around…[to] pick it up. But if it's somebody like an elder or something like that, I'll drop [it] off for them" (38). Harvesters also remarked on the prudence of providing elders with softer meat, as many had lost their teeth.

Claiming and Requesting

Anyone who lends fuel or equipment to a harvester is virtually assured a portion of meat in return. Intermediaries in the process of distribution, or helpers who might assist with cutting up meat, drying it, or giving hunters a ride in from "The Point" also earn the option of claiming some as well. But importantly, the process of claiming is an active one. As an outsider, I (the lead author) took some time to become comfortable with this. I would help out on hunting trips, but typically not receive meat for my labour. Eventually, I learned that I did have the right to claim some meat, and I gained approval from the group when I exercised it. Requesting meat seems similar to claiming meat in terms of being an active process, although requesting operates in contexts where portions of meat have already undergone some initial allocation. During my interviews and conversations with people in Fort Good Hope, just about all noted that they would oblige any request for meat. This response, in fact, was one of the most consistent features of conversations about sharing, but it was evidently contingent upon requests, as opposed to "demands," and we therefore deviate somewhat from the literature in referring to the practice as "request sharing" and not "demand sharing." In contrast to some of the ethnographic literature reviewed above, we never perceived any hesitation or taboo against directly requesting meat; instead, requests seemed to be relatively straightforward, usually made with a phone call. One elder remarked in a community workshop that sharing with "whoever wants meat" has become commonplace, replacing former norms of redistributing harvests through an intermediary (see Osgood, [1936] 1970 and Savishinsky, 1974 for descriptions of such redistribution).

When we returned to Fort Good Hope after the community hunt in September 2009, we began to perceive a strong prevalence of sharing initiated by requests to harvesters. This was most evident in an interviewee's report that "as soon as I got in, people were calling me for meat, so... they just came over and dug in the fridge, and starting grabbing everything, and within four hours all the meat was gone…" (07). In subsequent comparative interviews with harvesters who had arranged their own hunting trips for barren-ground caribou in November 2009, a similar urgency was rarely present.

Request-Sharing Comparison

Table 2 shows the number of sharing interactions initiated by requests recipients after community and household hunts. Only 14 of the 17 harvesters' households reported receiving requests for meat, and 12 of these households indicated a particular number of requests. The number of requesters identified by name was slightly smaller than the number of requests. As noted above, 57 interactions with specifically identified recipients were reported for each hunt in total, and Table 2 shows that more of these interactions (19 of 57) were initiated by a request after the community hunt than after the household-organized hunts (5 of 57).

Figure 2 expands on the above result, showing the number of identified requesters of meat in relation to total

TABLE 2. Comparison of requests for meat after community and household hunts in Fort Good Hope, Northwest Territories, in autumn 2009.

	Community hunts	Household-organized hunts
Harvester households interviewed	10	7
Harvester households reporting number of requests	7	5
Total number of requesters reported	26	5
Total number of requesters named	19	5

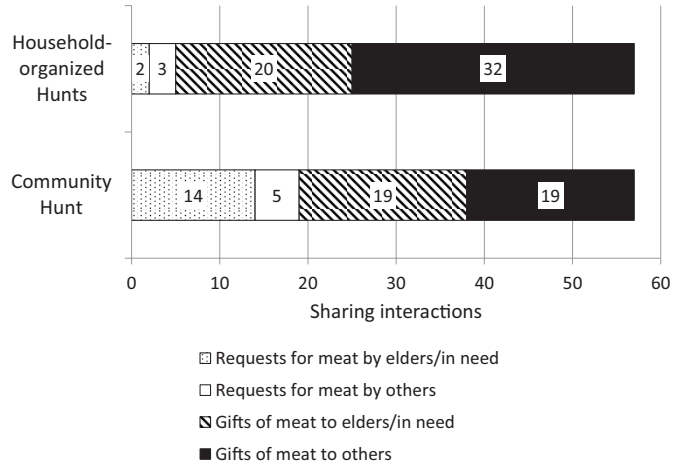

FIG. 2. Comparison of requests for meat and gifts of meat after the household hunts and the community hunt. More requests for meat followed the community hunt.

sharing with identified recipients. It also shows whether or not recipients belonged to categories emphasized in the community as the most in need of meat. Requests for meat from those in circumstances of increased need are especially prevalent after the community hunt (14 of 57, versus 2 of 57 for the household-organized hunts). Conversely, more "giving" interactions, especially to those who are not noted as in special circumstances of need, are evident in the caribou hunting cases (32 of 57, versus 19 of 57). Importantly, in both cases a high proportion of sharing interactions (about 35%) were with elders or those in need although no request was reported.

Portion Size Comparison

Portion sizes were indicated for 27 of 57 interactions after the community hunt and 21 of 57 interactions after household-organized hunts. In these sub-sets of interactions, community hunt participants shared 18 small portions and 9 large portions, while the household hunt participants shared 8 small portions and 13 large portions. Although community harvesters on average brought home less meat because one-third of the total harvest was redistributed through the RRC, the number of subsequent sharing interactions by community harvesters was similar to that of household-organized harvesters. Smaller portions would be one means of accomplishing this.

Another means would be to save less meat for household use. But in terms of harvester reports of the lengths of time the harvested meat would last their households, the groups were similar. Six community harvesters and four household-organized harvesters reported the meat would last their households less than one month, while four community harvesters and three household harvesters reported it would last at least one month. Although this result is certainly a function of many variables (such as household size, diet preference, and existing or anticipated meat supplies), it is consistent with the average amount of meat reserved by harvesters being similar in the two hunts.

For the household-organized group, within the 21 interactions (37% of total) for which portion sizes were reported, descriptions of the raw pieces (e.g., hindquarter, leg, or backstrap) seemed to accumulate to approximately nine whole caribou, or 32% of the total household-organized harvest. Even allowing for some overstating of shared amounts (Collings, 2011), this figure represents a significant proportion of the total harvest. For the community hunt, as we have no standard edible weight information for processed portions of meat from the community hunt (i.e., "a bag of dry meat" or "some bones") we cannot infer that the pieces shared represented any specific ratio of the total. However, the results of portion sizes and average duration of household meat supplies are consistent with similarly large proportions of the total harvest being shared out by harvesters' households in both hunting cases.

Network Comparison

Network characteristics of the sharing interactions help to clarify the degree to which they involved the same households repeatedly. The community hunt network is fragmented (in two parts) and is composed of 63 nodes and 67 edges, aggregating RRC and harvesters' sharing (Fig. 3), while the household hunt network is integrated and composed of 55 nodes and 57 edges (Fig. 4). Comparing in-degrees of elder and in-need households with in-degrees of other households reveals opposite and statistically significant characteristics in the two hunting cases, as shown in Table 3. After the community hunt, elder or in-need households received meat from more sharers than other households, while the reverse occurred after household-organized hunts.

Within the elder or in-need household groups, the 31 receiving meat from the community hunt had 40 in-degrees, while the 19 receiving meat from the household-organized hunts had 22 in-degrees. On average, then, elder or in-need households had more in-degrees after the community hunt. Although this sample is too small for the result to be statistically significant, overall the comparisons demonstrate that elder or in-need households were more "central" within both networks compared to other households, and that the group was especially central after the community hunt.

The specific network structures shown in Figures 3 and 4 reflect the extent to which sharing interactions occurred

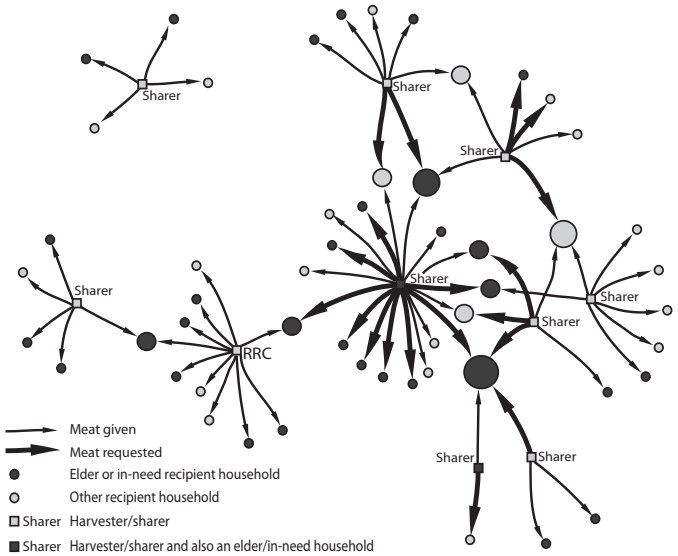

FIG. 3. Network diagram of sharing after the community hunt. The square nodes represent sharing households, and the round nodes, recipient households. Larger nodes indicate higher in-degrees. Dark shading distinguishes households with elders or people in need from other households (light shading). For the edges, heavy lines represent meat requested, and light lines, meat given. Arrowheads show direction from sharer to recipient.

TABLE 3. Number of meat sources for recipient households (in-degrees). Elder or in-need households received meat from more sharers than other households after the community hunt, but from fewer sharers than others after the household-organized hunts. The chi-squared value of 5.48 at one degree of freedom indicates a significant difference between the observed in-degrees between the two hunts, with 98% confidence ($p < 0.02$).

	Recipient households		
	With elders or in need	Other	Total
Community hunt	40	27	67
Household-organized hunts	22	35	57
Total	62	62	124

with the same cluster of recipients. In the community hunt diagram, elder or in-need households appear far more central in this regard than they are in the household hunts diagram, which implies they are more resilient in that case to any single disruption in food sharing. The role of requests in the community hunt diagram is also evident. Interactions prompted by a request tend to be clustered in the centre of the diagram, particularly around one harvesting household (of an elder with a relatively large amount of meat). If we assume that without a request for meat such transactions would not have occurred, it is clear that the contribution of requests to the characteristics of the network as a whole is significant.

DISCUSSION

We have considered whether there are differences in sharing patterns between two forms of hunting

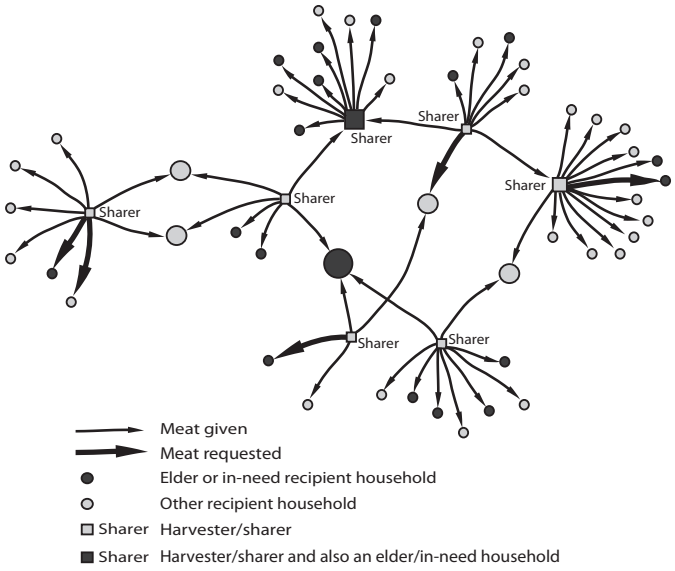

FIG. 4. Network diagram of sharing after the household-organized hunts. Details as in Figure 3. If sharers are also recipients, the square nodes are correspondingly larger.

organization: a community hunt and household-organized hunts. We found several differences in meat-sharing patterns, but importantly, there is also an overarching similarity: that both cases involve a high incidence of sharing interactions that represent significant proportions of the total harvests. These results show the strength of social norms for sharing that operate in multiple hunting contexts, whether hunts were publically financed or paid for by harvesters' households.

The two types of hunt also display much consistency in the number of reported interactions in which meat was given to elders and those in need without a request; such interactions were in fact more numerous in each case than those initiated by a request. The fact that more sharing interactions with those in need occurred as gifts is consistent with the local norms of sharing, which emphasize the generosity of harvesters and the correctness of giving to those in need.

More requests for meat were made to harvesters after the community hunt, which indicates greater pressure on their allocation of meat than that harvested by household hunters. Thus, the community hunt meat could be considered scarcer than meat returned on household-organized hunts, as scarcity can be recognized by more relative demand for resources, as well as by less relative supply. A smaller supply of meat may also have been a factor for community hunt harvesters, as the RRC managed about one-third of the total community hunt harvest, leaving the harvesters with less meat on average than the household-organized hunters. However, as the RRC did share out its allocation of meat, it is primarily the increased number of requests that we see as indicating more scarcity in the community hunt case.

Although meat brought back from the community hunt may be considered relatively scarce compared to meat

brought back from household-organized hunts, most of the pressure of scarcity was generated by the demographic groups already identified as priority groups to receive meat. Altogether these results represent significant consistency between the hunt organizers, community, and harvesters about who should receive the meat to be shared out. Clearly, there is a widespread understanding that elders and vulnerable demographic groups are the most "eligible recipients" for meat in this case, and as there are no accounts of harvesters' denying any requests after the community hunt, those who did not belong to widely recognized priority categories may have actually excluded themselves. It is also important to note that the sharing by community hunt participants was additional to the RRC distribution, which also focused on providing meat to elders.

There are indications that the portions of meat shared out by community harvesters tended to be smaller than those shared by household harvesters. One respondent above describes a relatively unmoderated sharing process, but on the whole, portions were moderated in many instances. Given the apparent scarcity of meat, as indicated by more requests, distributing smaller portions may have been an entirely prudent response in order to ensure that sharing could continue over a longer term.

The priority for elders and those in need to receive meat is evident in the characteristics of the community hunt sharing network diagram, which shows more clustering of these recipients than the household hunt diagram. Moreover, requests for meat are also clustered in the center, and if we assume that those interactions would not have occurred without a request, it is clear that they are integral to the network. This pattern demonstrates the recipients of meat are not simply passive, but can alter their position within sharing networks, in this case by making requests. As Wellman and Frank (2001:18) noted, "People maneuver to form relationships and find support from them."

Implications for Community-Based Resource Management

The combination of the greater number of requests for meat after the community hunt, smaller portion sizes shared, and similar quantities reserved for household consumption points to complex processes of community resource management operating between harvesters and their communities. Evidently, meat held in harvesters' households after the community hunt was considered to be slightly less "theirs" than meat harvested by household harvesters, but at the same time requests appear to have allowed many harvesters to maintain some control of the portions shared. This result and the high incidence of sharing after both publically financed and household-financed hunts show that harvested meats "belong" (to a variable extent) to both the harvesters and community at the same time.

Parlee et al. (2006) found that managing scarce resources within a group necessitates restrictions of one form or another. The community hunt meat-sharing case explored here demonstrates both limitations on beneficiaries and restrictions on portion sizes. Community-based resource management practices are gaining increased recognition in the Canadian North, which should raise awareness of the secondary levels of resource distribution that operate along with the primary resource allocations among harvesters. Local institutions and social norms that address the needs of vulnerable populations through these secondary processes are clearly influential in Fort Good Hope, particularly in the example of the community hunt illustrated here. These results actually challenge to some extent the "tolerated theft" or "scrounging" characterizations of sharing prompted by requests (Hawkes et al., 1993; Winterhalder, 1997, 2001), as the very people against whom harvesters would most easily be able to "defend" their meat (and also those less likely to reciprocate) are the ones who seem to have the greatest claim to it.

LIMITATIONS

First, as this study does not account for meals eaten within households, a significant factor in the dynamics of sharing has been excluded; certainly many households hosted guests for meals. Second, as we cannot know what was not reported, we do not claim that the number of sharing interactions was the same in the two hunts, but only that the two numbers were likely similar. Third, no clear interrelationships between harvesters' and recipients' relative control over the moderation of shared portions are available from the data. One harvester recounts that

> [Colville Lake elders] most of them got their own... share of caribou, before we came in... but still, they were asking for meat, the elders.... so... I was hunting for them... that kind of surprised me... they just wanted some frymeat, so I just... cut a piece of... cut-up arm inside the fridge; it was already cut up and stuff… and the meat was frozen. They wanted meat right away, I guess, I just gave them that meat… plus I had... cooked some caribou head before that, and they took all that too (39).

Harvesters may thus choose particular pieces of meat to give to requesters, recipients might simply help themselves, or combinations of these actions can apparently occur at once. The situation is further complicated when harvesters store meat with relatives who have more freezer space, and who are then likely to have more or less open access to it. Fourth, we estimate that the monetary travel cost per kilogram of meat (adapted from A. Chiu, pers. comm. 2011) was substantially different between the hunting cases, and much higher for meat harvested on the community hunt. Fifth, we could not fully explore the many variations of "request sharing" in this study. For example, requests for meat can be implicit in pre-emptive reciprocal contributions towards a hunting effort. The lead author on two occasions

prior to the community hunt was given items to use in the hunt with the explicit corollary that he could then bring the donors back some meat. It was difficult to assess the degree to which this form of request was prevalent for local harvesters in either type of hunt.

Considering the subtleties of what constitutes a request, as well as the variable connection to actual control or moderation over the sharing interaction itself, the continuum of sharing from items requested to items given is certainly not straightforward, although we have divided interactions into these two categories for purposes of analysis. Local harvesters themselves would rarely communicate that there was any difference in social significance for them between giving meat and acquiescing to a request. In either case, their generosity would be affirmed, and thus this paper's parsing out of such forms of sharing is likely less coherent from a local perspective. Kishigami (2004) also includes the possibility that non-requested sharing interactions are not necessarily gifts given, but could be based on strict, mutually understood social rules, and we certainly cannot rule out this potential factor. Thus, even the most apparent examples of giving are left somewhat ambiguous to the outside researcher. In the academic field of sharing characterized by social pressures, social histories, pride, power, and evolutionary advantage (Winterhalder, 1997), much will always remain unclear.

CONCLUSIONS

This paper has demonstrated request sharing as a mechanism that connects hunting contexts with sharing dynamics within a northern Dene community. Findings suggest that meat harvested on a community hunt was scarcer than meat harvested on household-organized hunts because, although the amount harvested was similar between cases, there were more requests for meat after the community hunt. Requests were made primarily by those belonging to a widely recognized priority group: elders and those in need. This finding is somewhat different from what would be expected according to one evolutionary formulation (the tolerated theft/scrounging model). Social norms thus appear to have influenced who is eligible to request meat from the harvesters. We have suggested that these norms, as well as norms that permit harvesters to moderate the portions they share, may be part of a social mechanism of exclusion necessary to manage common resources that are scarce or costly.

In literature on community methods of coping with and responding to ecological change, hunting and sharing practices are often described as flexible. Little work, however, identifies the actual mechanisms that underpin such flexibility. Although problems of scarcity cannot be resolved completely through sharing processes, they can be temporarily mitigated, and in a modern context that includes food alternatives within communities, the relative role of sharing networks in addressing shortfalls in country food may actually be augmented. Clearly, for such networks to continue to operate, they must be based on widely understood social norms. However, this research shows how such norms can lead to different patterns of distribution in different circumstances, patterns that reveal mutual responsibilities for both harvesters and potential recipients of meat.

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