

19. SHARING ELEPHANT MEAT AND THE ONTOLOGY OF HUNTING AMONG THE BAKA HUNTER-GATHERERS IN THE CONGO BASIN RAINFOREST

Hirokazu Yasuoka^{1,*}

¹The Center for African Area Studies, Kyoto University, Kyoto 606-8501, Japan

*yasuoka.hirokazu.7n@kyoto-u.ac.jp

<https://dx.doi.org/10.15496/publikation-55580>

KEYWORDS | egalitarian; food transfer; reciprocity; taboo; zero-to-all division

ABSTRACT

Among the Baka hunter-gatherers, the sharing of elephant meat is associated with a taboo that forbids the hunter who killed an elephant from eating its meat. Previous studies examined the taboo in relation to the paradox of egalitarians: the impossibility of dual equality, that is, on economic and social grounds. The paradox arises from the gift-giving theory, which assumes feelings of indebtedness in the receiver of the gift. However, some researchers argue that sharing is neither a variation of gift-giving nor a reciprocal exchange. Taking this position, I explore the roots of the taboo in the Baka's ontology of hunting. The taboo likely originated from the hunter's indeterminate state between humans and spirits and the ambivalent character of spirits as bringers of both food and death. According to their ontology, the hunter's act of eating meat would result in determining whether he is a human or a spirit, thus causing undesirable consequences anyway. The hunter,

therefore, abstains from eating the meat and remain in the indeterminate state. At the site of the elephant feast, the taboo creates a sharp contrast between the hunter with an empty stomach and others who have sated themselves with the meat. There, the hunter never sees himself as having given the meat to the others, and the others never see the meat as having been given to them by the hunter. He is excluded from the community of sharing, without being identified as the giver of the meat. This way, practicing the taboo realizes zero-to-all division, which is in contrast to the reciprocal one-to-one giving.

19.1 INTRODUCTION

In the Baka, a Central African hunter-gatherer group also known as "Pygmies", a strange taboo is observed: the man who delivers the first spear blow or gunshot to an elephant or a red river hog is forbidden from consuming any of its meat. His



older relatives, except for his maternal uncles and grandparents, cannot consume it either. Should this taboo be broken, they believe, the hunter will never be able to kill another one again. The taboo about the red river hog can be lifted for men who have enough experience killing hogs, while it is less so for the elephant.

Sato (1993) first documented this taboo and argued that sharing meat under this taboo serves as a levelling mechanism for egalitarian hunter-gatherers, who live in an immediate-return system (Woodburn, 1982). The egalitarian hunter-gatherers achieve dual equality: economic equality through the thoroughly equal distribution of food, and social equality through the prevention of power and authority being bestowed on certain individuals. In this sense, they are egalitarians. However, a paradox arises when we adopt the theory of gifts (Mauss, 1923/1924), one of the most influential anthropological theories, to interpret the practice of food sharing among hunter-gatherers. When something is given, feelings of indebtedness arise in the receiver, and elevates the giver to a position of superiority. The receiver gives back something equivalent to offset the imbalance, or something more valuable to turn over the relationship. This way, gifts generate reciprocal exchanges. If this is the case for hunter-gatherers, they cannot achieve dual equality in a straightforward fashion. The meat undermines this dual equality. It is quite normal that considerable disparities exist between individuals in their ability to procure meat and, therefore, the meat tends to be transferred in fixed directions through consecutive sharing. According to the gift-giving theory, numerous individuals thus become indebted to a skilled hunter. Should this occur, social equality would become unsustainable.

As Sato (1993) argued, some rules, norms, or institutions of egalitarian hunter-gatherers have been interpreted as social apparatuses aimed at averting this paradox. One of the most sophisticated examples reported concerns the !Kung in Kalahari (Lee, 1979). Among the !Kung, a hunted animal belongs to the owner of the first arrow. The

crafting of arrows is an easy task for them. They frequently lend arrows among one another, so that each man has arrows of others in his quiver. The point concerning the paradox is that, to avoid the risk of accusations when the distribution of the meat is not to everybody's liking, hunters are not reluctant to hunt with someone else's arrow and pass him the responsibility for distributing the meat (Lee, 1979). Consequently, when an animal is hunted, it is usual that not the man who killed the animal, but another individual is appointed as the owner of the meat. Even when one man kills several animals in succession, ownership is credited to multiple men. This way, the directions of meat transfer disperse, and the amounts of meat given and received among the members will remain balanced in the long term.

In the case of the Baka, an elephant yields such large quantities of meat that many people are involved in sharing. The opportunities to kill elephants are limited to skilled hunters and few for others. Therefore, even if ownership of the meat is ascribed to the weapon's owner, it is unrealistic to balance the amounts of meat given and received even in the long term. Sato (1993) argued that the taboo works to prevent the provocation of feelings of indebtedness among those who share meat.

However, this argument is insufficient on some grounds. When the meat is shared, according to Sato, (1) receivers of the meat, in theory, must feel indebted to the hunter. However, in practice, (2) they never feel thus. The reason for this is (3) the hunter who killed the elephant does not possess the right to eat its meat. Contrary to Sato's argument, Proposition (3) is neutral with regard to both (1) and (2) or may even support (1). A rule that forbids the hunter from consuming meat can serve to increase his authority like a generous chief, or a big man, who works hard and gives his harvest to others, thus maintaining his elevated status. Therefore, to maintain Proposition (2), it must be assumed that the Baka are *a priori* egalitarians. If so, however, why do they not employ a more egalitarian-seeming rule that

allows the hunter to get a share of the meat equal to that of the others?

An alternative approach to treating the paradox is to presume that it does not exist at all. This position may seem too radical because many studies have assumed the gift-giving theory, or reciprocity, while analyzing sharing among hunter-gatherers. However, some researchers have argued that sharing is neither a form of gift-giving or exchange, nor reciprocity (Price, 1975; Bird-David, 1990; Woodburn, 1998; Hunt, 2000; Tanno, 2004; Belk, 2010; Widlok, 2017). While taking this position, it is no longer important to demonstrate how the taboo functions to neutralize the imbalance in meat transfers, but it is necessary to explain how the Baka experience the taboo and how they can practice sharing without feelings of indebtedness to the hunter.

In this paper, I first explore the roots of the taboo in the Baka's ontology of hunting, which is based on the relationships between humans, animals, and spirits, and explain why those who consume meat do not feel indebted to the hunter who killed the animal. Second, I examine the structure of the Baka's sharing practice and identify a prototype of sharing, that is, the zero-to-all division, which is in contrast to the reciprocal one-to-one giving.

19.2 ELEPHANT HUNTS OF THE BAKA

The fieldwork on which this paper is based was conducted in Z Village in southeast Cameroon between 2001 and 2003. The study area comprises a gently sloping hilly terrain covered by tropical rainforests at elevations between 400 and 600 m. Today, most Baka lead sedentary lifestyles, making their homes in settlements close to those of neighboring farmers. Despite the considerable regional variation, the Baka in Z Village continues to spend several months in the forest foraging for wild food (Yasuoka, 2006a, 2009, 2012, 2013). As of 2001, the population of the village stood at 144 Baka and 11 Bantu-speaking farmers. Since the 1970s, most

farmers have relocated to newer villages along the main road that runs between the region's major towns. Until the logging road was laid in 2002, journeys to Z Village necessitated travelling tens of miles on foot. Immediately after the logging road was opened, many poachers and merchants trading in bushmeat began to arrive in Z Village (Yasuoka, 2006b). These years were an extraordinary period when the measures against elephant poaching were not well enforced. I was in one of the hottest spots of elephant hunting.

Although the spear is the traditional hunting weapon among the Baka, they seldom hunt elephants with spears anymore. As of 2002, out of around 30 adult men in Z Village, 6 had killed elephants. Whereas over 10 men had stabbed elephants with their spears, only 3 had succeeded in killing them. Experienced master-hunters are called *tuma* in the Baka language, as well as in other hunter-gatherers of the Congo Basin (Bahuchet, 1985; Ichikawa, this volume; Lewis, this volume). In most instances, hunts are carried out using guns, that is, rifles, provided by neighboring farmers, merchants, and so on. Although elders mentioned that they had also used a shotgun loaded with a spear in earlier times, this method was not found during the fieldwork. Along with the weapon, the gun owner provided three, or at most, ten bullets. It is the gun owners who decided whether they took only the tusks or both the meat and tusks. Even in the case of those demanding both, half the meat was left to the Baka.

An elephant hunt expedition is called *màka*. In the 25 elephant hunts carried out in Z Village in 2003, the number of people who participated in a hunt ranged from 1 to 22 people, with the average being 7 people, including a few young boys who did not carry spears. The *nganga* who locates the game using the fur of the African palm civet often participated in these hunts. Even in a large-scale hunting group, only a single individual is responsible for firing the gun, having been entrusted with it by its owner. The other men are usually armed with spears alone. Joiris (1996) reported that the hunter who had to kill the prey was appointed in

a hunting ritual before the hunt. However, during my fieldwork, the non-Baka gun owner decided whom he would entrust the hunt to, and it was usually the *tuma*.

The elephant hunt begins with the hunters walking through the forest for several days in search of fresh traces of elephants. Larger groups are more readily able to find traces and track elephants. Searching and tracking are carried out in small groups of several individuals, while remaining aware of the other groups' movements. The primary purpose of this hunt does not prevent men from undertaking other activities on the way. Even while tracking their prey, they always scan trunks and branches in search of honey. As rations provided by the gun owner diminish rapidly when the hunting group is large, the members subsist on honey alone for a couple of days, at times.

The Baka can recognize whether elephant traces were left fresh that day or not. Once they chance upon traces that have been left on the given day, they begin tracking the elephant. The expeditions arrive at an area located 20–30 km, and sometimes 50 km away from the village. In the 25 cases recorded, the elephants were shot in 4.4 days on average after the departure, and the expeditions lasted 10.3 days on average before the hunters returned to the village. The hunters most often found elephants in wet grasslands, called *bayi* in Baka. Once they track down an elephant, the participants erect a camp some distance away and wait until dusk. Only the man who shoots the elephant, sometimes with a few others, approaches the target. The shooter aims at the animal's heart from the diagonal rear. He may also choose to aim for the head. Although a single shot can kill an elephant, he shoots a couple of bullets, if available, to avert the danger of a counterattack.

I witnessed the scene of a hunter returning to the camp where the others were waiting after he had killed an elephant, on two occasions. The people waiting at the camp continued to prepare the beds and food quietly, even when they heard the shots, as though voicing their expectations may jinx the hunt. If the hunter returns without

killing the elephant, they continue doing their tasks with indifference. If the hunter is successful in killing the elephant, everyone is delighted with the expectation of eating the meat, except the hunter himself. On neither occasion does the man engage in boastful behavior, join in the elation of the others at the hunt's success, or receive words of praise or thanks. The scene shares a number of similarities with that described by Ichikawa (1982) in his work on the Mbuti of the Ituri Forest in the northeastern Congo Basin: "[...] Salambongo returned. He was carrying the spear on his shoulder, which indicated that the prey had been killed. The people, finally free of the tension of waiting, began to make merry, jumping up and down. I had thought that Salambongo would return to bask in the cheers and applause, exulting in his success. Contrary to my expectations, however, nothing in his demeanor suggested as much as a shred of this. When I waved my hand to greet him, he was embarrassed and lowered his gaze. If I had not known the meaning of the manner of holding the spear, or if I had not known what kind of person Salambongo was, I never would have noticed that he had hunted an elephant [...]" (Ichikawa, 1982: p. 93, translated by the author).

The following morning, the camp relocates to nearby the hunted elephant. Each participant, except the hunter who killed the animal, builds a rack for smoking the meat and butchers the elephant. Each cuts a piece of the meat for himself. All of them take comparable amounts. At this time, a few of the participants may return to the village and speak in the voice of a forest spirit who makes the elephant's death known to the people. Those who come from the village meet others at the butchering camp, where the elephant meat feast begins. As the hunter who killed the elephant must not eat the meat, he does not join the feast. He goes off alone to fish or forage for honey. The others make no particular mention of him while enjoying their share of the meat. His older relatives, who are also forbidden from eating the meat, are not present at the camp.



Figure 19.1: The *jengi*.

19.3 ROOTS OF THE TABOO IN BAKA'S ONTOLOGY OF HUNTING

19.3.1 ELEPHANT HUNTS AND SPIRITS

As mentioned above, the Baka adheres to the taboo because a transgression causes the hunter to lose his ability of killing another animal again. The consequences of this taboo differ from those of other food restrictions among the Baka, which are generally because of anxiety that their infants or unborn children may suffer various illnesses. In the interviews I conducted with 85 adult men and women in Z Village, I found that they avoid eating 55 animal species out of the 63 that are normally considered edible for them, in certain circumstances. The remaining eight species that everyone consumes are Peters's duiker, blue duiker, water chevrotain, brush-tailed porcupine, giant pangolin, spot-nosed monkey, red river hog, and elephant. Like other hunter-gatherers in the Congo Basin, who have similar food restrictions (Bahuchet, 1985; Ichikawa, 1987; Takeuchi, 1994; Lewis, 2008), the Baka practice restrictions in varying degrees of seriousness based on the different situations and experiences of individuals. However, the taboo under consideration, which applies only to the elephant and the red river hog, is distinct from

food restrictions of this nature: all the Baka strictly adhere to the taboo.

This taboo is likely rooted in the Baka's hunting tradition and related rituals. While the elephant is the largest animal that is hunted with a spear, the traditional hunting tool of the Baka, the hog is most frequently hunted with a spear. The Baka do not think a spear blow or a gunshot necessarily results in death. It often fails in reality. Failure is, they recognize, because of *gbòkò*, which means "bad luck" (Brisson, 2010). What brings good luck to the Baka then? Their rituals. The Baka usually carries out a hunting ritual as a form of the *bè*, communal singing-and-dancing gatherings. The *bè* is held to cure diseases, sometimes, and just for entertainment on other occasions. Above all, the *bè* has been organized as a hunting ritual associated with the *mɛ*, the forest spirits (Joiris, 1993, 1996, 1998). Tsuru (1998) recorded over 50 different *mɛ* in southeast Cameroon. A single Baka residential group possessed between zero and nine different kinds of *mɛ*, with an average of three (Tsuru, 1998). Several types of *mɛ* were widely spread over southeast Cameroon, while others were more recently created and limited to a small area. In Z Village, four kinds of *mɛ* were observed: the *jengi*, the *mòkondi*, the *bùmà*, and the *ʔèmbòàmbòà*, all of which are widely spread in southeast Camer-

	NUMBER OF ELEPHANTS KILLED	NUMBER OF ELEPHANTS SHOT BUT ESCAPED	SUCCESS RATE
January	0	0	38%
February	4	4	
March	1	4	
April	6	2	83%
May	2	0	
June	5	0	
July	5	3	
August	6	0	

Table 19.1: Results of elephant hunts in Z Village, January–August 2003.

oon. The *mòkondi* is the same spirit as *ʔàbàlèè* or *kòse* recorded in other areas and is sometimes used to refer to spirits collectively instead of *mɛ* (Joiris, 1996, 1998).

The night before an elephant hunt begins, the Baka carries out the *bè* to ensure a successful hunt, which is organized by the ritual association of the concerned *mɛ*. The *mòkondi* (*ʔàbàlèè* or *kòse*) dance is widely performed to attract and locate game animals, which is led by the *nganga* who locates the game (Joiris, 1996, 1998). During my fieldwork in 2003, at first, the *mòkondi* appeared and danced at the *bè* for elephant hunts. Between the end of February and the middle of March, all gunshots aiming at the six elephants failed. Then, a master-hunter, who is also the head of the *jengi* ritual association, invited the *jengi*, and sought to reverse their “bad luck” in the hunt. The *jengi* appeared in Z Village, where it remained until the beginning of September 2003 (Fig. 19.1). Although each gathering of *bè* of the *jengi* did not directly correspond with each hunting expedition, for the first three months of his stay, from mid-March to mid-June, the *bè* were held almost every night and occasionally early in the morning. At this time, boys and I were initiated into the *jengi* ritual association.

The *jengi* is considered the father of the other *mɛ* and the *mɛ* of elephants (Joiris, 1998; Tsuru, 1998). It is violent and aggressive toward women, in particular (Tsuru, 1998). During *jengi* dancing, the men form a wall to protect the singing

women from the *jengi*. Although the Baka’s ritual practice is generally fluid, flexible, malleable, and not always well organized (Joiris, 1996, 1998; Tsuru, 1998, 2001b; Fürniss and Joiris, 2011), the *bè* of the *jengi* in which I participated were much more tense and serious than those invoking other kinds of *mɛ*. Joiris (1996) mentioned that the *bè* of the *jengi* aims to contribute to the preservation of peace and harmony in the community. Besides, the *jengi* plays an important role in the hunt by walking alongside the elephant; the *jengi* not only protects the Baka from all perils of the forest, but also guides them to the game using visionary power (Joiris, 1996).

The presence of the *jengi* seemed to have had a large influence on their hunting performance. The elephant is the largest, strongest, and most dangerous animal in the forest. Therefore, approaching it is equivalent to approaching a danger that may result in death. Even while using a gun, a hunter must come within five meters of the target. It is likely that, by dancing with the *jengi* every night and perceiving its power in proximity, the hunters became sufficiently courageous to draw closer to the elephants and administer fatal shots with precision. As shown in Table 19.1, the difference in the success rates in the two periods is evident. In February and March, when hunting results were poor, only 38% of the elephant shots were killed (5 out of 13). After the arrival of the *jengi* at the end of March, however, the rate jumped to 83% (24 out of 29).

As soon as an elephant is killed, the *pèmbè*, also called *nyabolà* in other areas (Joiris, 1993, 1996), come to the site. The *pèmbè*, the *mɛ* of deceased master-hunters, does not make an appearance, but rather shout to make the elephant's death known to the people. The Baka tell the *jengì* and other kinds of *mɛ* to come to the site to eat the meat, but they do not show themselves as they do when they dance in the village. When I joined a group that left the village to the butchering sites, the voices of the *jengì* resonated through the forest during the trip. Although only the voices were present in the forest, women, who were not initiated into the *jengì* association, were afraid of it. Usually, while walking in the forest, women split into small groups and forage for various foods. On this occasion, however, all the women walked together. They seemed fearful of the *jengì*'s presence.

To the *mɛ* who come to the site, the Baka offer pieces of meat, which is called *likàbò*, to thank them for their protection and assistance (Joiris, 1993, 1996). I did not directly observe this practice. Joris (1993, 1996) noted that the parts of the meat that are offered to different *mɛ* are predetermined; for example, the *jengì* takes cooked unseasoned ribs and heart pieces. However, no *likàbò* is offered to *pèmbè* (*nyabolà*) because they do not eat the meat at all. This is suggestive because the taboo forbids the hunter's older relatives as well from eating the meat. Considering that *pèmbè* are deceased master-hunters, likely the forefathers of the hunter who killed the elephant, their abstaining from eating the meat is consistent with the description of the taboo.

19.3.2 THE TABOO AND THE SPIRIT

The Baka practice their taboo based on the relationships between humans, animals, and the *mɛ*. The hidden logic of the taboo seems to lie in these relationships, particularly between humans and the *mɛ*. According to Joiris (1993, 1996, 1998) and Tsuru (1998, 2001a), the *mɛ* are anthropomorphic. They live in the forest and appear as na-

ked humans with bushy beards, have two genders, and age as human beings do. Their shyness induces them to wear costumes when they come to human settlements. They are often considered ancestral spirits. They possess the abilities that humans do not, but these are nothing like the omnipotence of the creator god. Occasionally, they appear in Baka's dreams and teach them ritual songs and medical plants. They approach humans who are alone in the forest and ask them to eat together, to make love, and to marry them, which often causes human death. A *mɛ* occasionally becomes a human, and in its place, a human becomes a *mɛ*. Tsuru (2001a) argued that the transformability into the *mɛ* lies at the root of the Baka's fear that if one is stranded alone in the forest and meets a *mɛ*, one will then become a *mɛ* and be unable to return to the human community. The Baka, therefore, find the *mɛ* eerie and ominous.

As mentioned above, the *mɛ* bestow luck on the Baka's hunt. However, it is not without the ambivalent characteristics of the *mɛ*. Tsuru (2001a: pp. 173–174) recorded a song-fable that encapsulated the ambivalence of the *mɛ*'s involvement in the elephant hunt:

1. There was a man who lived with his wife's family. After a visit to his parents, while walking in the forest to his in-law's camp, he encountered a *mɛ*.
2. The *mɛ* peeled off the man's skin and placed it on himself. The *mɛ* placed its skin with boils and wens on the man.
3. The two arrived together at the camp. The man's in-laws thought that the *mɛ* wearing the man's skin was the man himself.
4. The *mɛ* lay with the man's wife. The man instead lay with his wife's sister.
5. The following day, the *mɛ*, still in the man's skin, participated in the *màka*, a hunt for elephants and hogs, with the man's in-laws.
6. The man in the *mɛ*'s skin spoke to his wife's parents, and they removed the skin.
7. The man, in his usual appearance, carried out a *màka* and hunted an elephant and hogs.

8. The *mε* wearing the man's skin failed to kill an elephant and returned to the village.
9. The in-laws realized that a *mε* was wearing the man's skin. They captured it and beat it. The *mε* shed the man's skin.
10. His wife's sister died as a result of engaging in sexual contact with him in the *mε*'s skin.

I also collected the same song-fable in Z Village, with a small variation in sections 7–9.

- 7'. The *mε* wearing the man's skin killed an elephant and hogs and provided abundant meat for the man's in-laws.
- 8'. = 9.
- 9'. = 7.

This song-fable includes many points that are relevant to the taboo in question. First, a mutual transformation occurred between the *mε* and man. There is a difference in hunting results between the variations: the *mε* failed in the hunt in section 8, while the *mε* provided abundant food to the Baka in section 7'. However, the common element between both stories was the man who had successfully hunted the elephant, and who had spent the previous night as a *mε*, having donned its skin. When an elephant and hogs are hunted in both variations (sections 7 and 7'), the man and the *mε* look identical. The others may not be able to discern whether the figure that actually killed the elephants and hogs is the man himself or the *mε* wearing the man's skin.

Second, the *mε* was regarded as a cause of death. The woman died from sexual contact with the man wearing the *mε*'s skin. This motif is not limited to this song-fable alone. In those collected by Tsuru (2001a), the *mε* frequently has sexual relationships with, proposes marriage to, and shares meals with the Baka, who eventually die as a result. These consequences probably reflect the Baka's belief that the *mε* are humans who have died and gone to live in the forest and, therefore, to engage in a relationship too closely with the *mε* is to approach death. Joiris (1993) recorded the discourse of a Baka woman that men do not have sexual intercourse before a hunt. This is because, according

to the woman, the men are ready for the struggle with elephants under the guidance of the *mε*. Her discourse seems consistent with the consequence referred to in the above song-fable.

This song-fable appears to encapsulate the Baka's anxiety that a skilled hunter who provides abundant meat may not be a pure human being and may cause death as well. This interpretation is also supported by Köhler's (2001) report on the Baka in northwest Congo-Brazzaville that a master-hunter was thought to have the privileged abilities of accessing the spirit world and shapeshifting. Therefore, on occasion, such as a series of unexpected deaths of people close to him, he was suspected of having "eaten" them to enhance his ability.

Here are the keys to untangling the hidden logic of the taboo: the hunter's indeterminate state between a human and the *mε*, and the *mε*'s ambivalent character as bringers of both food and death. Let us conduct a thought experiment: what will happen when the man who has killed an elephant shares the meat with others? If any of them die or become seriously ill after consuming the meat together, the hunter will reveal himself to be a *mε*, or at least to be a dangerous person who "eats" others. Were this to occur, he could no longer live with others. On the other hand, if nothing noteworthy happens when the hunter consumes the meat, he will prove himself to be an ordinary human without the privileged abilities anymore. He decided in contradiction to the power of the *mε*. Consequently, he will fall into "bad luck" forever and never again be able to kill another. To avert both undesirable consequences, the hunter must abstain from eating the meat and remain in the indeterminate state between human and the *mε*. Everyone I interviewed explicitly referred to only one side of the logic behind the taboo: "if the hunter eats the meat, he will never be able to kill another animal again". The other side of the logic is not what the Baka explained themselves, but what I deciphered based on the abovementioned ethnographic descriptions.

The hunter's indeterminate state and *mε*'s ambivalent character are not only indicated in

song-fables but are also embodied in every Baka through the contrast at the elephant feast generated by the taboo. At the feast, there is a sharp contrast between the hunter with an empty stomach and others who have sated themselves with meat. This way, practicing the taboo reproduces and reinforces the relationships between humans, animals, and the *mε*, which lies at the core of the Baka's ontology of hunting. We should also note that, although only small numbers of the Baka have experienced killing an elephant, many men have killed red river hogs and have been temporarily excluded from the community of sharing. Thus, not only the master-hunters of the elephant, but also many others have commonly experienced being on both sides. Their comprehensive involvement in practicing the taboo ensures the continuity of the ontology underlying the taboo.

19.4 SHARING AS ZERO-TO-ALL DIVISION

19.4.1 SHARING IS NOT RECIPROCAL ONE-TO-ONE GIVING

Previous studies have pointed out the regional diversity in the Baka's ritual practices and the neighboring farmers' influences on them (Joiris, 1993, 1996, 1998, 2003; Tsuru, 1998, 2001a, b; Köhler, 2001; Fürniss and Joiris, 2011). However, it is confirmed that the Baka practice the taboo we focus on in this study, not only in Cameroon but also in northwest Congo-Brazzaville (Sato, 1993; Köhler, 2001). The *jengi* refer to the most widely distributed spirits among the Baka (Tsuru, 1998, 2001b) and are supposed to be identical to the spirits called *Ejengi* among other hunter-gatherers in the western Congo Basin (Lewis, 2015, 2019, this volume). Therefore, we can assume that the core of the taboo and related hunting rituals is common among the Baka.

Distributing elephant meat among the Baka takes place over several phases. After a hunter

kills an elephant, others who participated in the hunt butcher the animal. There are no particular rules governing the butchering phase. Each gets any portion of meat he cuts off, and all participants divide the elephant's meat almost evenly, except for the hunter who killed the animal. This is the first phase. Those who did not participate in the hunt arrive at the butchering camp, and the original participants transfer pieces of meat to them. They consume some of the meat and take the rest to the village, where the meat is transferred to others. This is the second phase. Finally, cooked meals are given to the neighbors or are eaten together, which is the third phase. The distinction between the first phase of "dividing the meat" and the second phase of "giving the meat" is important. The former is practiced based on a zero-to-all interaction (Fig. 19.2), whereas the latter appears to be performed based on a one-to-one interaction.

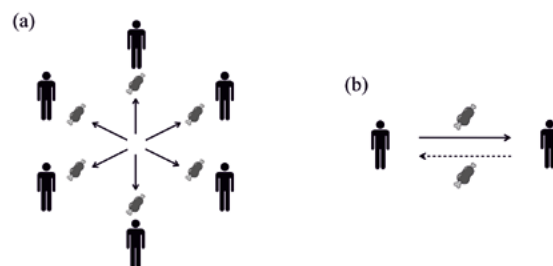


Figure 19.2: Different models of food transfer: a, sharing based on a zero-to-all division; and b, reciprocal exchanges based on one-to-one interactions. A dotted arrow indicates an expected counter-gift

In the first phase, the people divide the meat without identifying anyone as the giver. It may seem unrealistic, but it is possible because the hunter is excluded from the community of sharing without being identified as the giver. A similar practice of sharing among peoples of the North American Arctic and Subarctic has been documented (Tanner, 1979, this volume; Nadasdy, 2007; Omura, 2013). Omura (2013) argued that sharing food requires the presence of an outsider who does not take a share of the meat; for the Inuit, it is the hunted wild animal itself. According to



Figure 19.3: Dividing honey among everyone on the spot.

the Inuit's ontology of hunting, what hunters have to do to hunt wild animals is to tempt them to give their bodies to humans. Animals that succumb to the temptation offer themselves to the Inuit, thus issuing an order for their meat to be shared and consumed. If this does not happen, wild animals will never be reborn, and their population will not be replenished. The Inuit share the meat and the techniques used to tempt the wild animals as well, and forge social ties among themselves. Whereas the Inuit identifies the hunted animal as the giver that orders them to share the meat, the Baka does not say that either the animal or the hunter behaves that way. Although the Baka does not say that the *mε* order them to share the meat among themselves, they offer portions of meat to the *mε*. We may say that *mε* plays the role of an outsider in the community of sharing that Omura indicated. However, the most important common point in both cases is that the hunter who killed the animal is not identified as the giver of the meat and, thus, no giver exists in the community of sharing. Each has their ontological framework wherein the hunter never perceives himself as having given the meat to the others, and the others never perceive the meat as having been given to them by the hunter. Thus, zero-to-all division is achieved.

Food sharing among hunter-gatherers is often explained as a variant of gift-giving or reciprocal exchanges, which are typical of one-to-one interactions that generate and are generated by the feelings of indebtedness (Widlök, 2017). In contrast, I argue that the Baka's practice of meat sharing is not one of the variants of one-to-one giving, but a demonstrably different interaction, namely the zero-to-all division. Unlike the reciprocal one-to-one giving, no functions of the giver exist in the community of sharing created by the zero-to-all division.

19.4.2 WHY DOES THE "OWNER" EXIST?

The Baka likely practice the zero-to-all division in sharing other foods as well, in which the *mε* is not directly involved. As mentioned above, the taboo about the red river hog can be lifted for men who have enough experience killing hogs. This means that, unlike the elephant, the hog can be killed by mature men alone. The taboo is lifted by eating hog meat with a special remedy, generally after getting a child. However, even after being freed from the taboo, the hunter who killed a hog does not behave as the giver of the meat.

Generally, the hunter passes the animal to someone else, who butchers it and divides the meat for everyone, while the hunter behaves merely as one of those who receives a share of the meat. In sharing honey, the individual who found the honey is identified as its “owner”. The “owner” can decide to harvest it and, after the harvest, divide the honey among everyone on the spot (Fig. 19.3). The “owner” is allotted a portion of the honey equal to those received by the others. In each case, although the hunter or the “owner” joins the community of sharing, the people do not recognize him as the “giver”, but merely as an agent of distribution.

While addressing the function of the “owner” among hunter-gatherers, Kitanishi (1998) reported an interesting case involving the Aka in north Congo-Brazzaville. A Bantu farmer asked several Aka people to carry a canoe to the river. He filled a pail with cassava fufu for the workers. Normally, a Bantu farmer himself distributes the food to all workers or nominates someone else as a distributor. However, in the case observed, the farmer simply put the pail down and left without saying anything. Then, each of the Aka workers rushed up to the food and took all that they could each hold in their hands. Workers who were absent at the time got nothing.

This exceptional case shows what happens if there is no “owner”, that is, no distributor, in the zero-to-all division. When the food source is as large as an elephant, the uncontrolled butchering of the meat by everyone can still result in everyone being satisfied. However, if the food source is not large enough, uncontrolled division likely results in an imbalanced distribution of the food, which may trigger a conflict. In such cases, the “owner”, who divides the food himself or nominates a distributor, is necessary. Generally, there is a person who is granted legitimacy as the “owner” by the community of sharing—not necessarily the man who hunted the animal. For example, in the case of !Kung, the man who crafted the arrow that killed an animal is appointed as the “owner” (Lee, 1979). The Aka (Bahuchet, 1990; Kitanishi,

1998) and the Mbuti (Ichikawa, 1983, 2005) follow the same approach toward defining the ownership of prey.

19.4.3 ONE-TO-ONE OR EXTENDED ZERO-TO-ALL?

The Aka has a taboo that is similar to the one we have examined thus far (Bahuchet, 1990; Takeuchi, 1994; Kitanishi, 1998). Although there are some variations by regions and hunting methods, in principle, the owner of the weapon that immobilized the animal becomes the “acquirer”, who is in charge of sharing. If the hunter used a borrowed weapon, its absent owner is the “acquirer”. If the “acquirer” of the animal is an adolescent, he and adult women are forbidden from eating the meat. There is a difference between the Aka and the Baka. Among the Aka, weapon ownership defines who cannot eat the meat, whereas, among the Baka, the hunter cannot eat the meat, regardless of the ownership of the weapon. However, in both groups, someone is excluded from the community of sharing.

Among the Aka and the Mbuti, roles in hunting predetermine who gets to take what parts of the meat (Ichikawa, 1983, 2005; Bahuchet, 1990; Kitanishi, 1998). For example, according to Kitanishi (1998), when Aka hunted a red river hog with spears, the owner of the spear that dealt the second blow takes its dorsal midriff, and the owner of the spear that dealt the third blow takes the head. If the first blow is dealt with by a borrowed spear, the borrower (hunter) takes the rump. The owner of the spear of the first blow obtains all the remaining parts. This first phase of sharing results in only a few people obtaining the meat. In contrast, when the Baka hunt a hog, they divide the meat among everyone on the spot (the hunter who killed the hog takes no share if he is young). However, the final results of both are comparable because Aka carries out the second phase of sharing so thoroughly that the meat does not concentrate in the hands of specific persons or families (Kitanishi, 1998,

2000). The difference is that the first phase of sharing plays a relatively minor role among the Aka.

We should not overemphasize this difference by inventing an insurmountable gap between “dividing the meat” and “giving the meat” which occur successively in the Baka’s meat sharing practice, though I have pointed out the distinction between zero-to-all and one-to-one interactions above. The Baka practice “dividing the meat” in the first phase, and “giving the meat” in the second. In the latter phase, those who have the meat give pieces to others who do not participate in the hunt. If feelings of indebtedness were to arise among those who received the meat, they would have practiced “giving the meat” as reciprocal one-to-one giving, wherein the giver and the receiver contrast sharply. However, this does not seem to be the case. Re-transferring pieces of meat are likely practiced as an extended sequence of “dividing the meat”. When the Baka “give” someone else a piece of meat, or cooked meals, the “givers” usually have children carry the food to the receivers. While passing and receiving food, there are few conversations, and no remarks of thanks are mentioned to the “giver”. They seem very careful about avoiding manifesting the asymmetry between the actors that would be emphasized if it were to be one-to-one giving. Interestingly, they do not appear to minimize occasions of food transfer. Instead, they transfer food far more frequently than needed to level food distribution among them, as documented for the Mbuti (Ichikawa, 1981) and the Aka (Kitanishi, 1998, 2000).

These features, that is, the inexpressive attitude and excessive frequency, which contrast sharply with those of ostentatious gift-giving practiced in non-egalitarian societies, are understandable from the perspective that re-transferring food is a repetition of the zero-to-all division out to the extended community of sharing. Multiple models of food transfer coexist in a society, and an appropriate model varies based on the context and relationships among the actors. According to my observations, the Baka hunters transfer the meat to other Baka as though extend-

ing the community of sharing (i.e., a repetition of the zero-to-all division). They give the meat to a Bantu farmer with the aim of cultivating a relationship with a particular person (i.e., the reciprocal one-to-one giving). They sell the meat to a merchant as a commodity (i.e., another model of one-to-one interactions). In situations where different models of food transfers coexist, the potential problem for the actors is that the intent of each is different or misunderstood. Specifically, even if the “giver” intends to pass on a piece of meat as a repetition of the zero-to-all division, the meat necessarily moves from one person to another, which appears like a one-to-one giving. Then, the “giver” supposes that the receiver may suspect that the “giver” seeks to attain superiority over the receiver. Being anxious about the arousal of such an inferiority complex in the receiver, the “giver” passes a piece of meat in a manner as indifferent and as un-expressively as possible. Thus, they tacitly emphasize that they transfer the food not as a part of one-to-one giving, but as a repetition of zero-to-all division.

Another point that induces excessive frequency in food transfer is the absence of the perspective of centralized redistribution, which is more efficient, but often coercive. In other words, each transfer of food occurs between independent individuals, and no one controls the overall allocation of harvests among the members. As Ichikawa (1981) described, for the Mbuti, it is quite often the case that one who gives a piece of honey to another is given another piece of honey from someone else on the same day. What is critical for initiating zero-to-all division (and its repetitions) is the visualized imbalance of food allocation between individuals on the spot. When someone is with food and seen by someone else without food, he or she can do nothing but divide it up. However, egalitarians are not necessarily “ethical”. I sometimes observed that the Baka youngsters hid packages of honey outside the campsite to eat at night. Even if they notice it, others do not condemn them for doing so, at least publicly. Although concealing honey is sometimes possible,

it is not realistic to conceal meat or other types of food that should be cooked. Against this background, repetitive food transfers, and bubbles of sharing, are practiced among individuals, thus extending the community of sharing.

19.4.4 FROM ZERO-TO-ALL TO ONE-TO-ALL?

The Baka divides elephant meat without the consciousness of giving or receiving the meat. Their ontology of hunting enables this by creating a temporary community of sharing and placing the hunter who killed the elephant outside it. Omura (2013) pointed out that sharing food is realized under the “order” of someone outside the community of sharing. As long as it is granted legitimacy, anything can issue the “order”; for example, the hunted animal, as is the case for the Inuit, a counterpart group of reciprocal exchanges, or a transcendent being, such as the king, the god, and the state. The status of the hunter who killed an elephant should be examined in this light as well. He is outside the community of sharing, but unlike the *mε* who receive the *likàbò* offering, he is not a counterpart of reciprocal exchanges. Offering meat to the hunter means that the people identify the hunter as a *mε*, which makes it too dangerous to live together with him. Of course, he is not normal enough to share the meat. Therefore, he remains in an indeterminate state between humans and the *mε* and never consumes the meat.

Then, can he be a transcendent being? If so, it would be difficult for the Baka to remain egalitarian. We should recall that many Baka experience the indeterminate state. Almost all the Baka men have killed red river hogs and have consequently been temporarily excluded from the community of sharing. The hunter does not play any role in the process of sharing. This is likely why he appears to lose sociability while others consume meat. However, the hunter’s exclusion from the community of sharing lasts only for a short while until the meat is all consumed. We should say, rather, practicing the zero-to-all division creates a temporary com-

munity of sharing. The hunter who kills the animal and is excluded for this time will join the newly created community next time, unless he is the hunter again. Being indeterminate is ordinary for all of them. Furthermore, killing many hogs sets men free from the taboo. In other words, gaining hunting experience does not mean that the hunters are becoming transcendent, but rather becoming incorporated into the community of sharing.

Non-linguistic transmission between generations is important while examining the stability of egalitarian societies (Lewis, 2008). In societies that depend heavily on linguistic transmission, individuals with authority who evaluate the correctness of cultural practices may emerge, which contradicts the egalitarian approach (Brunton, 1989). In the context of the taboo we focus on, the Baka only refer to the final consequences of the transgression, and its logic remains tacit even for the Baka themselves. Involvement in various practices concerning the taboo, such as listening to song-fables, being initiated into ritual associations, dancing and singing with various *mε*, seeing his fathers and older brothers being forbidden from eating the meat, hunting red river hogs and elephants, and being excluded from meat sharing as a hunter or as the hunter’s older relative, stimulate every Baka to embody the ontology behind the taboo. If master-hunters begin to employ explicit terms to explain the logic of the taboo, the zero-to-all division may transition into the one-to-all redistribution, thus situating the hunters in a place transcendent from the community.

19.5 CONCLUSIONS

Among the Baka hunter-gatherers in the Congo Basin Rainforest, elephant meat sharing is closely related to a taboo that forbids the hunter who killed the elephant from eating the meat. The analysis revealed that the taboo originates from the hunter’s indeterminate state between humans and spirits and the spirit’s ambivalent character as bringers of both food and death. According to

their ontology, the hunter's eating of meat would result in determining whether he is a human or a spirit, thus causing undesirable consequences anyway. Therefore, the hunter must abstain from eating the meat and remain indeterminate. At the site of the elephant feast, the taboo creates a sharp contrast between the hunter with an empty stomach and others who have sated themselves with meat. There, the hunter never sees himself as having given the meat to others, and the others never see the meat as having been given to them by the hunter. He is excluded from the community of sharing without being identified as the giver of the meat. This way, practicing the taboo realizes zero-to-all division, where no giver of the meat exists. Thus, excluding the hunter, practicing zero-to-all division creates a temporary community of sharing, and its repetitions extend to the entire community involving many people.

Food sharing among hunter-gatherers is often explained as a variant of gift-giving (Widlök, 2017). Zero-to-all division is an alternative prototype of sharing, which is distinct from the reciprocal one-to-one giving that generates feelings of indebtedness toward the giver. Comparable arguments have been made for other African hunter-gatherers (Woodburn, 1998; Tanno, 2004) and broader societies (Blurton Jones, 1987; Bird-David, 1990, 1992, 2005; Peterson, 1993, 2013; Hunt, 2000, 2012; Kishigami, 2004; Widlok, 2004, 2017; Belk, 2010). However, no studies have explicitly identified the zero-to-all division as a prototype of the hunter-gatherer's practice of sharing. Besides sociocultural anthropological studies, behavioral ecological models of food sharing, such as kin selection-based nepotism, reciprocal altruism, tolerated scrounging, and costly signaling (Gurven, 2004; Kaplan and Gurven, 2005), generally assume that the receivers recognize the producer of the food as the owner, and the owner of the food as the giver. However, the alternative model I proposed here indicates that a social institution that separates these concepts, or even erases the giver, is essential for a human way of sharing.

Food sharing is considered one of the fundamental aspects of human sociality (Jaeggi and Gurven, 2013), and egalitarian hunter-gatherers practice food sharing on a daily basis (Widlök, 2017). However, the fact that many present or recent hunter-gatherers are egalitarians does not mean that most archaic hunter-gatherers were the same. Given that some non-human primates practice one-to-one food transfer (Jaeggi and Gurven, 2013), it is plausible that archaic hunter-gatherers also practiced one-to-one food transfer and an unsophisticated mixture of zero-to-all and one-to-one interactions as well. Gradually, the zero-to-all division became sophisticated and dominant in some groups, and the reciprocal one-to-one giving became dominant in others.

Then, when and why was each group compelled to choose one model of food transfer as a dominant one? A possible hypothesis for future study is that the expansion of big-game hunting induced it, as Barkai (2019) suggested. Large mammals provided archaic hunter-gatherers with a quantity of meat and oil that filled many people's bellies, which was potentially enormous wealth (Agam and Barkai, 2018). As the disordered distribution of wealth began to confuse economic and social relations, each group had to establish a manner of regulating relationships between the hunter who killed an animal and others who got shares of meat. Egalitarian hunter-gatherers likely emerged from groups that chose the zero-to-all division. They have persistently practiced it and resisted the transition to the one-to-one giving or the one-to-all redistribution. Those who chose or shifted to other models went different ways and established hierarchical societies. This does not mean that egalitarian hunter-gatherers have practiced only a single economic model. They have likely developed a dual economy in which other models are incorporated, especially for circulating non-local products (Lewis, 2019). However, those who developed a consistent ontology with zero-to-all division and succeeded in preventing other models from being predominant in daily life have remained egalitarian.

ACKNOWLEDGEMENTS

I would like to express the deepest appreciation to an anonymous reviewer whose comments contributed significantly toward improving my arguments.

REFERENCES

- AGAM, A., Barkai, R., 2018. Elephant and mammoth hunting during the Paleolithic: A review of the relevant archaeological, ethnographic and ethno-historical records. *Quaternary* 1, 3.
- BAHUCHET, S., 1985. Les Pygmées Aka et la forêt centrafricaine. SELAF, Paris.
- BAHUCHET, S., 1990. Food sharing among the Pygmies of central Africa. *African Study Monographs* 11, 27–53.
- BARKAI, R., 2019. An elephant to share: rethinking the origins of meat and fat sharing in Palaeolithic societies, in: Lavi, N., Friesem, D. E. (Eds.), *Towards a broader view of hunter-gatherer sharing*. McDonald Institute Conversations, Cambridge, pp. 153–167.
- BELK, R., 2010. Sharing. *Journal of Consumer Research* 36, 715–734.
- BIRD-DAVID, N., 1990. The giving environment: another perspective on the economic system of gatherer-hunters. *Current Anthropology* 31, 189–196.
- BIRD-DAVID, N., 1992. Beyond “the original affluent society”: a culturalist reformulation. *Current Anthropology* 33, 25–47.
- BIRD-DAVID, N., 2005. The property of sharing: western analytical notions, Nayaka contexts, in: Widlok, T., Tadesse, W. G. (Eds.), *Property and equality Volume 1: Ritualisation, sharing, egalitarianism*. Berghahn Books, New York and Oxford, pp. 201–216.
- BRISSON, R., 2010. *Petit dictionnaire Baka-Français: Sud-Cameroun*. Editions L’Harmattan, Paris.
- BRUNTON, R., 1989. The cultural instability of egalitarian societies. *Man, New Series* 24, 673–681.
- BLURTON JONES, N. G., 1987. Tolerated theft, suggestions about the ecology and evolution of sharing, hoarding and scrounging. *Social Science Information* 26, 31–54.
- FÜRNIS, S., Joiris, D. V., 2011. A dynamic culture: Ritual and musical creation in the Baka context. *Before Farming* 4, 1–12.
- GURVEN, M., 2004. To give and to give not: the behavioral ecology of human food transfers. *Behavioral and Brain Sciences* 27, 543–583.
- KAPLAN, H., Gurven, M., 2005. The natural history of human food sharing and cooperation: a review and a new multi-individual approach to the negotiation of norms, in: Gintis, H., Bowles, S., Boyd, R. T., Fehr, E. (Eds.), *Moral sentiments and material interests: The foundations of cooperation in economic life*. MIT Press, Cambridge, pp. 75–113.
- HUNT, R. C., 2000. Forager food sharing economy: transfers and exchanges. *Senri Ethnological Studies* 53, 7–26.
- HUNT, R. C., 2012. One-way economic transfers, in: Carrier, J. G. (Ed.), *A handbook of economic anthropology*, Second Edition. Edward Elgar Publishing, Cheltenham, pp. 290–301.
- ICHIKAWA, M., 1981. Ecological and sociological importance of honey to the Mbuti net hunters, eastern Zaire. *African Study Monographs* 1, 55–68.
- ICHIKAWA, M., 1982. *The forest hunters: Subsistence of the Mbuti Pygmies*. Jimbun Shoin, Kyoto [in Japanese].
- ICHIKAWA, M., 1983. An examination of the hunting-dependent life of the Mbuti Pygmies, eastern Zaire. *African Study Monographs* 4, 55–76.
- ICHIKAWA, M., 1987. Food restrictions of the Mbuti Pygmies, eastern Zaire. *African Study Monographs, Supplementary Issue* 6, 97–121.
- ICHIKAWA, M., 2005. Food sharing and ownership among central African hunter-gatherers: An evolutionary perspective, in: Widlok, T., Tadesse, W. G. (Eds.), *Property and equality Volume 1: Ritualisation, sharing, egalitarianism*. Berghahn Books, New York and Oxford, pp. 151–164.

- ICHIKAWA, M., this volume. Elephant hunting by the Mbuti hunter-gatherers in the eastern Congo Basin.
- JAEGGI, A. V., Gurven, M., 2013. Natural cooperators: food sharing in humans and other primates. *Evolutionary Anthropology* 22, 186–195.
- JOIRIS, D. V., 1993. Baka Pygmy hunting rituals in southern Cameroon: How to walk side by side with the elephant. *Civilisations* 41, 51–81.
- JOIRIS, D. V., 1996. A comparable approach to hunting rituals among Baka, in: Kent, S. (Ed.), *Cultural diversity among twentieth-century foragers*. Cambridge University Press, Cambridge, pp. 245–275.
- JOIRIS, D. V., 1998. La chasse, la chance, le chant: aspects du système rituel des Baka du Cameroun. Ph.D. dissertation, Université Libre de Bruxelles, Bruxelles.
- JOIRIS, D. V., 2003. The framework of central African hunter-gatherers and neighbouring societies. *African Study Monographs, Supplementary Issue* 28, 57–79.
- KITANISHI, K., 1998. Food sharing among the Aka hunter-gatherers in northeastern Congo. *African Study Monographs, Supplementary Issue* 25, 3–32.
- KITANISHI, K., 2000. The Aka and Baka: food sharing among two central Africa hunter-gatherer groups. *Senri Ethnological Studies* 53, 149–169.
- KISHIGAMI, N., 2004. A new typology of food-sharing practices among hunter-gatherers, with a special focus on Inuit examples. *Journal of Anthropological Research* 60, 341–358.
- KÖHLER, A., 2001. Half-man, half-elephant: shapshifting among the Baka of Congo, in: Knight, J. (Ed.), *Natural enemies: people-wildlife conflicts in anthropological perspective*, Routledge, London, pp. 50–77.
- LEE, R. B., 1979. *The !Kung San: men, women and work in a foraging society*. Cambridge University Press, Cambridge.
- LEWIS, J., 2008. *Ekila: Blood, bodies, and egalitarian societies*. *Journal of the Royal Anthropological Institute (N.S.)* 14, 297–315.
- LEWIS, J., 2015. Where goods are free but knowledge costs: hunter-gatherer ritual economics in Western Central Africa. *Hunter Gatherer Research* 1, 1–27.
- LEWIS, J., 2019. Sharing pleasures to share rare things: Hunter-gatherers' dual distribution systems in Africa, in: Lavi, N., Friesem, D. E. (Eds.), *Towards a broader view of hunter-gatherer sharing*. McDonald Institute for Archaeological Research, Cambridge, pp. 99–111.
- LEWIS, J., this volume. BaYaka elephant hunting in Congo: the importance of ritual and technique.
- MAUSS, M., 1923/1924. Essai sur le don: Forme et raison de l'échange dans les sociétés archaïques. *L'Année Sociologique, Nouvelle Série* 1, 30–186.
- NADASDY, P., 2007. The gift in the animal: the ontology of hunting and human–animal sociality. *American Ethnologist* 34, 25–43.
- OMURA, K., 2013. The ontology of sociality: “sharing” and subsistence mechanisms, in: Kawai, K. (Ed.), *Groups: the evolution of human sociality*. Kyoto University Press, Kyoto, pp. 123–142.
- PETERSON, N., 1993. Demand sharing: reciprocity and the pressure for generosity among foragers. *American Anthropologist* 95, 860–874.
- PETERSON, N., 2013. On the persistence of sharing: personhood, asymmetrical reciprocity, and demand sharing in the indigenous Australian domestic moral economy. *The Australian Journal of Anthropology* 24, 166–176.
- PRICE, J. A., 1975. Sharing: the integration of intimate economies. *Anthropologica, New Series* 17, 3–27.
- SATO, H., 1993. Food restriction on elephants among the Baka Pygmies in the northwestern Congo. *Bulletin of Hamamatsu University School of Medicine* 7, 19–30 [in Japanese].
- TAKEUCHI, K., 1994. Dietary avoidance among the Aka hunter-gatherers, northeastern Congo. *Journal of African Studies* 44, 1–28 [in Japanese].
- TANNER, A., 1979. Bringing home animals: religious ideology and mode of production of the

- Mistassini Cree hunters. St. Martin's Press, New York.
- TANNER, A., this volume. An embarrassment of riches: the ontological aspect of meat and fat harvesting among subarctic hunters.
- TANNO, T., 2004. Sharing, gift, exchange: community, intimate relationship, society. *Regional Studies* 1, 63–80 [in Japanese].
- TSURU, D., 1998. Diversity of ritual spirit performances among the Baka pygmies of southeastern Cameroon. *African Study Monographs, Supplementary Issue* 25, 47–84.
- TSURU, D., 2001a. What is the *me?*: a study on the concept of forest spirits among the Baka Pygmies, in: Ichikawa, M., Sato, H. (Eds.), *The coexistence of man and forest in Africa*. Kyoto University Press, Kyoto, pp. 141–185 [in Japanese].
- TSURU, D., 2001b. Generation and transaction processes in the spirit. *African Study Monographs, Supplementary Issue* 27, 103–123.
- WIDLÖK, T., 2004. Sharing by default?: Outline of an anthropology of virtue. *Anthropological Theory* 4, 53–70.
- WIDLÖK, T., 2017. *Anthropology and the economy of sharing*. Routledge, London.
- WOODBURN, J., 1982. Egalitarian societies. *Man, New Series* 17, 431–451.
- WOODBURN, J., 1998. 'Sharing is not a form of exchange': an analysis of property-sharing in immediate-return hunter-gatherer societies, in: Hann, C. M. (Ed.), *Property relations: renewing the anthropological tradition*. Cambridge University Press, Cambridge, pp. 48–63.
- YASUOKA, H., 2006a. Long-term foraging expedition (*molongo*) among the Baka hunter-gatherers in the northwestern Congo Basin, with special reference to the "wild yam question". *Human Ecology* 34, 275–296.
- YASUOKA, H., 2006b. The sustainability of duiker (*Cephalophus* spp.) hunting for the Baka hunter-gatherers in southeastern Cameroon. *African Study Monographs, Supplementary Issue* 33, 95–120.
- YASUOKA, H., 2009. Concentrated distribution of wild yam patches: historical ecology and the subsistence of African rainforest hunter-gatherers. *Human Ecology* 37, 577–587.
- YASUOKA, H., 2012. Fledging agriculturalists?: Rethinking the adoption of cultivation by the Baka hunter-gatherers. *African Study Monographs, Supplementary Issue* 43, 85–114.
- YASUOKA, H., 2013. Dense wild yam patches established by hunter-gatherer camps: beyond the wild yam question, toward the historical ecology of rainforests. *Human Ecology* 41, 465–475.

