

Monkeys on the Move: The Natural Symbolism of People-Macaque Conflict in Japan

Author(s): John Knight

Source: The Journal of Asian Studies, Vol. 58, No. 3 (Aug., 1999), pp. 622-647

Published by: Association for Asian Studies Stable URL: http://www.jstor.org/stable/2659114

Accessed: 12/08/2011 05:36

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at http://www.jstor.org/page/info/about/policies/terms.jsp

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



Association for Asian Studies is collaborating with JSTOR to digitize, preserve and extend access to The Journal of Asian Studies.

Monkeys on the Move: The Natural Symbolism of People-Macaque Conflict in Japan

JOHN KNIGHT

Introduction

 ${f I}$ N THE VILLAGE OF UKEGAWA there stood, until recently, a large chestnut tree up on the hillside in the garden of the village doctor's family. In the 1960s macaques started to descend from the mountains to feed on the tree every autumn. The old doctor, a kindly man with a well-known fondness for animals, at first indulged the little monkeys. The visitors from the forest also appealed to his curiosity in matters of science, and he even took the opportunity to observe them from the house as they fed. But as their numbers grew and their boldness increased, the doctor's attitude towards the monkeys began to change. His wife made clear her feelings to him about the monkeys stealing all the family's chestnuts, while all he could do was watch them with his binoculars! The doctor reacted by chasing the monkeys away. This seemed effective at first, until he realized that the monkeys simply returned to the tree later on when nobody was looking. The doctor was now getting annoyed with the defiant monkeys which were making a fool of him. Finally, his patience ran out, and he decided to teach the monkeys a lesson by having the great chestnut tree cut down. The doctor's revenge for all the lost chestnut harvests was complete when he planted in its place a crape myrtle tree, known in Japanese as sarusuberi or "monkey slide" a tree which, on maturity, develops a slippery red-brown trunk. If any monkey tried to climb this tree, it would soon slide right back down! But the doctor's actions did not solve the problem because when they returned the following year the monkeys simply turned their attention to his nearby persimmon tree.

John Knight is Research Fellow at the International Institute for Asian Studies, Leiden, The Netherlands. From September 1999 he will be a Lecturer at the School of Anthropology Studies, Queen's University of Belfast, Northern Ireland.

The author would like to thank Hayama Shin'ichi, Ihobe Hiroshi, Nakagawa Naofumi, David Sprague, Takahata Yukio, and Watanabe Kunio, for providing materials, references, and the benefit of their primatological expertise on the *engai* problem. The author would also like to express his gratitude to Mizutani Tomo of the Environment Agency for making available printed materials.

The Journal of Asian Studies 58, no. 3 (August 1999):622–647. © 1999 by the Association for Asian Studies, Inc.

The incident, told to me some years later by the doctor's daughter, was perhaps an early skirmish in what has come to be widely viewed as a "war" with crop-raiding monkeys. The doctor's house, lying on the edge of the forest, represents the front line in the village conflict with monkeys, and it may well be this extreme vulnerability which accounts for his actions. But the story can also be seen as an inadvertent allegory for the monkey conflict in upland Japan.

Far from stopping monkey damage, the doctor's tree-cutting only exacerbated it, as the monkeys, instead of retreating to the forest, came further into the village to feed on his other trees. Similarly, the large-scale invasions of the village by cropraiding monkeys might also be seen as a simian *reaction* to earlier human tree-felling actions. The doctor's house forms part of a village of foresters, many of whom played their part, first, in the logging of the fruit-bearing forest trees on which the monkeys fed and, then, in their later replacement with timber plantations of inedible conifers. Monkeys respond to the loss of their trees in the forest by coming to feed on fruit trees (and other edible plants) in the village.

The doctor's village, Ukegawa forms part of Hongū-chō, a remote municipality on the Kii Peninsula. Like most upland parts of Japan, in recent years Hongū has lost much of its population to the cities. Yet the conflict between monkeys and these migrant villages is intensifying. As if taking advantage of the new vulnerability of the aging village, monkeys are stepping up their raids. However, monkey visits to some farms are likely to be met with stones and even guns. Some of the doctor's neighbors, whose return of farming has been disrupted by monkeys, would like to increase culling and remove monkeys from the area altogether.

The people-monkey conflict in rural Japan has become a national controversy. The macaque has long been held to have a special place in Japanese culture. Japanese primatologists have claimed a special cultural affinity for and insight into macaque behavior (Asquith 1986; Dale 1986, 191–98), a cultural argument which has often been extended to the area of macaque conservation. Conservationist reports on Japanese macaques typically refer, in their preface, to "our nation's special mammal" (waga kuni koyū no ho'nyūrui) (IHSHS 1995, ii), while regional macaque populations have been designated "national natural monuments" (JPN 1993, 4). The macaque is also something of a "celebrity" animal in Japan, which forms part of the Japanese entertainment industry, often appearing on television, in magazine features, and in news coverage more generally.

It is against this background that the people-monkey conflict has become an object of national concern. Following much-publicized monkey-culling campaigns in some areas, villagers have found themselves the object of anonymous phone calls in the middle of the night denouncing them and their village for killing an innocent animal (IHSHS 1995, 67). Culling is also denounced in the mass media on conservationist grounds. Japanese primatologists and conservationists have warned that the wild monkey is threatened with (regional or even total) extinction (see Suzuki 1972; T. Iwano in Wolfheim 1983, 485; Koganezawa 1991; Sprague 1993, 90; Mori 1993; MKNCR 1995; Asahi Shinbun [hereafter AS] 19/9/1996), and have publicly opposed rural monkey culling (Watanabe 1996, 55; Wada 1994, 182; and AS 29/11/1995). One main conservationist rallying cry is that the monkey belongs not to the regions, but is "the common property of the Japanese people" (Watanabe 1996, 55). From this perspective, the rural monkey "war" disqualifies local people from any role in the management of nation's celebrated wild primate and strengthens the case for further extralocal intervention to protect the monkey from its human neighbors.

Drawing on ethnographic data on the monkey problem from the Kii Peninsula and on secondary reports from other regions, this paper challenges the stark representation of people-monkey conflict in Japan. It shows that, while human violence against monkeys does occur, there is also a range of nonhostile local views and behavior, from opposition to culling to the active feeding of wild monkeys, which contradict the notion of a rural monkey "war" and, by extension, the national conservationist claim to an exclusive concern for wild macaques. Before examining the Japanese monkey conflict in detail, the larger debate on wild primate pestilence and conservation must be outlined, along with the contribution to it of anthropological perspectives.

Wild Primates in Cultural Perspective

People-wildlife conflicts in the late twentieth century tend simultaneously to stigmatize the local peoples party to them and authorize outside intervention to stop them. Whether on the grounds of overhunting, overgrazing, agricultural intensification, or the extension of farming into areas of wildlife habitat, rural dwellers have often been a figure of blame in the field of wildlife conservation (Bodmer et al. 1997; Tinker 1997). A consequence of this has been the emergence of top-down exclusionary forms of wildlife conservation, such as the establishment of national parks and other protected areas "managed with guns and guards" to keep local people out (Guha 1997, 19; cf. Hitchcock 1995, 170). But this representation of local peoples as anticonservationist has come in for serious challenge in recent years. Instead of authoritarian or exclusionary forms of conservationism, many scholars argue for a "participatory" or "co-management" approach which includes the local population in conservation initiatives. Proponents argue that, in addition to reversing local alienation from wildlife, local involvement improves the effectiveness of wildlife conservation (Vandergeest 1996; Tacconi 1997).

Utilitarianism is often invoked as the basis of local conservationism. A pervasive assumption in the voluminous literature on participatory conservation is that local people require "incentives" or "benefits" in order to become committed to conservation initiatives (Heinen 1996; Nepal and Weber 1995, 17–18; Jusoff and Majid 1995). However, a major problem with utilitarian-based conservationism arises in the case of those endangered wild animals which do not benefit local livelihoods (Fox et al. 1996), and a fortiori harmful animals or pests. If wildlife management is to be carried out according to a local utilitarian calculus, it becomes rational for livestock herders to eliminate wild predators (Moore 1994), for farmers to eradicate wild crop-raiders (Grodzins-Gold 1997), and for fishermen to oppose the conservation of fish-eating whales and seals (Einarsson 1993). But these relations of utility, as a function of existing rural economies, are not necessarily immutable, and changing rural economies may permit local assessments of self-interest vis-à-vis hitherto harmful categories of wildlife that are more consistent with conservationist objectives. This second order utilitarian argument is evident in the area of wild primate conservation.

¹Fieldwork was carried out in the mountain villages of Hongū-chō and other parts of the southern Kii Peninsula in western Japan in 1987–89, 1994, 1995, and 1997, while data on the rural monkey problem in other regions is drawn from published secondary sources, including newspaper reports. A database survey of newspaper articles (*Asahi Shinbun* 1984–96) on the rural monkey problem was also carried out.

Wild primates are serious farm pests in many rural areas in Asia, Africa, and America. Documented examples of primate crop-raiders include macaques in Nepal, India, Pakistan, and Sri Lanka (Richard et al. 1989, 580, 583-84; Pirta et al. 1997, 102); macaques in Thailand (Eudey 1986, 243); rhesus monkeys in southern China (Tisdall and Zhu 1998, 111); macaques in Taiwan (Hsu and Agoramoorthy 1997, 835); macaques and orangutans in Sulawesi, Sumatra, and elsewhere in Indonesia (Richard et al. 1989, 578, 582; Rijksen 1995, 294; and Wadley et al. 1997, 257); baboons, redtail monkeys, and chimpanzees in East Africa (Strum 1986, 217-18; Hill 1997; Naughton-Treves et al. 1998); baboons in Saudi Arabia (Biquand et al. 1994); and vervets in Barbados (Horrocks and Baulu 1994). In defense of their livelihoods, farmers patrol their fields, maintain clearings between field and forest, plant different crops, kill primate crop-raiders, and in some cases exterminate local primate populations altogether (Malik and Johnson 1994, 234). On account of these high rates of mortality, and the habitat loss that typically forms the background to these conflicts, many wild primate populations have become the object of conservationist concern.

In response to this situation, some scholars advocate utilitarian solutions by pointing out that wild primates are a "valuable natural resource" that could be sustainably exploited by local populations (Horrocks and Baulu 1994, 292; cf. Naughton-Treves et al. 1998, 604). However, the exploitability of wild primates proves to be limited, for these animals generally make no more than a minor contribution to rural livelihoods as food or medicine. At most, the market uses of wild primates would seem to be as tourist attractions (Wheatley and Harya Putra 1994; Zhao 1994), as experimental animals in biomedical research markets (Horrocks and Baulu 1994, 292), or through the wildlife pet trade. Yet even "tourist primates" can be a mixed blessing to the local community, since their habituation to human food may well lead to unforeseen crop-raiding and other forms of damage (e.g., Zhao 1994; Wada 1998).

An alternative to utilitarian conservationism is offered by cultural arguments for local conservation. Asia is often held up as a model of cultural tolerance towards wild primates. In her discussion of wild primates, Strum praises "appropriate cultural attitudes, like those in Asia, which view nonhuman animals as brethren" (1994, 304). Chinese, Malay, and Balinese cultural appraisals of wild primates have similarly attracted conservationist praise. Wild primates in India are said to have "benefited from India's tradition of veneration for monkeys; extermination campaigns are unthinkable in this predominantly Hindu country" (Malik and Johnson 1994, 234; see also Pirta et al. 1997, 102). And Buddhism has been credited with helping Tibetan macaques in China to survive (Zhao 1994, 259–60) and with facilitating a benign popular disposition to wild primates in Thailand where they are fed by local people as an act of merit-making (Eudey 1994, 273–74).

However, such culturalist claims with regard to primate conservation are problematic for a number of reasons. First, reports of often violent people-primate conflicts in Asia (e.g., Richard et al. 1989, 581, 584; Southwick and Siddiqi 1994, 229; Zhao 1994, 270) somewhat undermine claims of cultural tolerance. Second, these cultural arguments are often ahistorical, representing local people in the static terms

²For examples of the use of monkeys as food and medicine, see McNeely and Sochaczewski (1988, 221–22).

³See, for example, White Miles (1993, 43), Corbey (1993, 129–30), and Wheatley and Harya Putra (1994, 254).

of enduring cultural dispositions or traditions. Third, in historical and anthropological writings, wild primates tend to feature as an object of cultural stigmatization and even moral anxiety. In medieval Europe, the monkey was associated with sin, evil, and the Devil (Rowland 1973, 8-14). In West Africa chimpanzees are "a standing incitement to humans to revert to a barbaric, violent, cunning individualism" (Richards 1993, 151), while in East Africa chimpanzees are "thieves" and "rapists" (Naughton-Treves 1997, 41). In Malawi baboons are perceived as a fearsome enemy (Morris 1995), while in Uganda baboons are "a menace to women and children" (Naughton-Treves 1997, 41). This negative cultural appraisal of wild primates is also reported for Asia. In Pakistan macaques are "unclean and unfit to be touched" (Richard et al. 1989, 575); Thai villagers view macaques as "lost and degenerate human beings" in the forest (Tambiah 1969, 441); and southeast Asian farmers view orangutans as "wild, rude and uncultured" counterparts of Man in the forest (Rijksen 1995, 291).4 Far from a cultural disposition to conserve primates, these examples point to a cultural fear and intolerance of them. Cultural arguments can be used to oppose, as much as support, the claims of an Asian primate conservationism.

This tension between contrasting cultural specifications of primates is clearly illustrated by Japanese macaques. In Japan the monkey has positive religious associations as one of the animal reincarnations of the Buddha. It is also a sacred messenger or *otsukai* in *shintō*, acting as a mediator between the *kami* spirits and human beings (Ishizaki 1991, 240). Ohnuki-Tierney has invoked this sacred association of the monkey in connection with crop-raiding in the past.

The monkeys often shared the human habitat, coming down from the mountains into the fields. In the spatial schema of the Japanese at the time, the mountains were the abode of deities, whereas the fields belonged to the humans. The macaques ate people's crops, thus *sharing* their food. In this cosmos, the monkey was a sacred messenger to humans sent by the Mountain Deity.

(Ohnuki-Tierney 1991, 163, emphasis added)

However, in Japanese folklore monkeys also appear morally dubious or as inauspicious animals. The *sarugami taiji* (monkey spirit conquest) tale (from the twelfth century *Konjaku monogatari*) tells of frightening, monkey-like figures that terrorize villages and demand human sacrifices from them (Nakamura 1989, 54–55). There are many regional tales of dangerous monkey monsters or goblins in the mountains that threaten the lives of the people they encounter (Nagamatsu 1993, 15–18; Suzuki 1986, 275–80; Chiba 1995a, 45). Bad people can be punished by being transformed into monkeys (Higuchi 1991, 118). Monkeys are associated with taboo behavior in upland areas (Ue 1987, 98–99) and have the power to possess people walking through the mountains (Suzuki 1982, 298). Various forms of monkey behavior, especially boundary-crossing movements, such as crossing a river or the village-forest boundary, are associated with misfortune and calamity (Hirose 1993, 66; Suzuki 1982, 299).

⁴In her discussion of people-macaque relationships in Thailand, Eudey has suggested that, despite the practice of merit-making feeding of animals, the Buddhist idea of karma may induce Thais "to believe that other animals deserve the treatment that they receive, including indifference, abuse, and even callous exploitation, because their incarnation is inferior to that of humans" (1994, 276). See also Berkson et al. (1971, 233–34) and McNeely and Sochaczewski (1988, 238–40).

⁵Although in Japan monkey possession is relatively unusual compared with other animals (Ohnuki-Tierney 1995, 300).

Ohnuki-Tierney has incorporated this view of the monkey in her work on changing monkey symbolism in Japan by arguing that the earlier positive view of the monkey as a sacred mediator has been replaced in the modern era by a negative view of the monkey as a scapegoat (Ohnuki-Tierney 1987, 6–7). "By dangerously threatening to cross the line between humans and animals, the monkey constantly challenges the cherished throne on which the Japanese seat themselves" (Ohnuki-Tierney 1990b, 131). In response to this threat to cultural order, Japanese people "create distance by projecting their negative side onto the monkey and turning it into a scapegoat. . . . By shouldering their negative side, the monkey cleanses the self of the Japanese" (Ohnuki-Tierney 1987, 6).

There are certain problems with this historical schema. The claim of a generalized premodern rural tolerance of monkey crop-raiding is open to challenge,⁶ while the analysis of monkey symbolism in modern Japan neglects the rural monkey problem.⁷ Nonetheless, in stark contrast to the romanticized cultural accounts of people-primate relations in other parts of Asia outlined above, Ohnuki-Tierney's argument would at least be consistent with the reality of the present-day monkey conflict in rural Japan and can therefore serve as a useful hypothesis for examining the conflict in cultural terms.

Monkey "Wars"

Since the 1970s the macaque (nihonzaru, Macaca fuscata) has become one of the most serious vertebrate pests in rural Japan. Monkeys damage almost every kind of farm crop, including rice, fruit, and vegetables; a recent survey listed twenty-nine varieties of damaged crop (Idani et al. 1995, 115). Monkey are often responsible for considerable economic loss. In one area, in 1993, "74 monkeys in 3 troops caused about 7 million yen worth of damage (about US \$70,000) to 190 of the 460 farm households in the village" (JPN 1994, 6). In some cases, local people have given up farming as a result or have moved to a different area (Idani et al. 1995, 118-19; AS 15/2/1989; AS 29/11/1995; and Wada 1998 82). Monkeys also damage village houses (roofs, aerials, windows, etc.), telephone cables, and even gravestones. Monkeys enter houses and raid kitchens, take food from village shops and tourist inns, and feed on the edible offerings made to family ancestors in the graveyard. Monkeys sometimes attack people: children on their way to school, housewives hanging out washing, elderly people carrying shopping, and tourists (JPN 1993, 5; AS 13/4/1994; AS 21/ 5/1992). In some regions of Japan there are rumors of monkeys sexually molesting women out herb-picking in the forest.8

⁶Written references to monkey ricefield damage date back at least to the late seventeenth century (*Hyakushō denki*) (Hanai 1995, 55). Even in the Tokugawa era, men guarded fields from monkeys (AS 19/9/1996). Nomoto refers to a mountain villager's diary from 1920 in which "saruban" are routinely mentioned (Nomoto 1994, 138; see also Tabuchi 1992, 47). It is also clear that premodern monkey-culling (sometimes on a large scale)was carried out—see Baba (1991, 117) and Itani (1975, 101).

⁷Indeed, Ohnuki-Tierney tends to suggest that present-day Japanese people have little or no contact with wild monkeys (1987, 199; 1990a, 91).

⁸Eric Laurent, personal communication (cf. JPN 1993, 5). Such claims recall famous tales in Japanese folklore of frightening monkey figures which abduct village women (Yanagita 1961, 114–15; Yanagita 1992, 37; see also Nakashima 1998, 141–47). Although I have heard of no such tales of monkey molestations of women on the Kii Peninsula, some local women

The Japanese mass media often represents monkey damage or engai in sensationalist terms—as a question of "Monkey or Man?" (saru ka hito ka) (Watanabe 1995, 51). Wild monkeys are referred to as "criminals" (hannin) and their crop-raids as "[criminal] incidents" (jiken) (AS 16/12/1993; AS 29/11/1995; AS 12/6/1996; AS 13/11/1996). But engai also attracts the language of all-out confrontation and war. Newspapers refer to a "monkey-people battle" (saruhito gassen) in which a "monkey army" (saru gundan) or "enemy" (teki) "invades" (shin'nyū suru) villages, which in turn are described as preparing "self-defence measures" (ji'ei taisaku) or "[military] strategies" (sakusen) in response to the monkey threat (AS 15/2/1989; AS 3/3/1990; AS 13/4/1994; AS 20/12/1994). Newspaper coverage of engai recalls the more general tendency in the media reporting of wildlife issues to focus on, embellish, and exaggerate people-wildlife conflicts (see Putman 1989, 9; Wolch et al. 1997, 111). But neither the *engai* conflict itself, nor even the idiom of "war," is a media fabrication. The damage to farms and houses is real enough, while the notion of wildlife "wars" finds a clear expression among mountain villagers themselves in relation to a variety of other harmful forest mammals, including the bear, the deer, the serow, and the wild boar.9 Moreover, there are a number of reasons why, for the mountain villagers suffering from engai, the war analogy seems particularly fitting for monkeys.

First, monkeys are organized. They strike in dawn farm raids when much of the village is asleep. The raid is preceded by a reconnaissance mission by a single "scout soldier" (sekkyōhei), who gives the all clear to the others (Matsuyama 1994, 33). When the time comes for the monkey raiders to escape, with the appearance of an irate farmer, another monkey acting as lookout alerts the others with loud cries. This impressive simian division of labor is further expressed in fruit-tree raiding when a number of monkeys climb the tree to shake off fruit for the others to eat on the ground (Nomoto 1994, 138). Raiding monkeys also appear to have a leader in the figure of the monkey "boss" (bosu), whose preeminent status is suggested by the claim that to so much as glance at him is to risk physical attack by the whole troop (Nomoto 1994, 135; Idani et al. 1995, 115), and by stories of large-scale raids suddenly ended when the boss gets shot. The perceived status of the boss as a militaristic leader is evident in local references to him as a "shōgun" (a general) and in the nicknames given to particular animals such as "Hideyoshi" (the name of a famous historical warlord) and even "Fuseyin" (Hussein, i.e., Saddam Hussein)!10

Second, monkey troops are often very large, like "legions" (butai) (Matsuyama 1994, 15, 33). There are local claims of crop-raiding troops of fifty, eighty, and even one hundred monkeys, which cause great damage during their visits. The monkey troops may in fact be getting bigger due to the success of their farm raiding. Primatologists suggest that increased troop size could be accounted for by the nutritious crops on which the monkeys feed that may increase fertility and reduce mortality in the troop (Watanabe 1995, 49; cf. Strum 1994, 300; Biquand et al.

do take precautions against monkey attacks. Women herb-pickers in the interior peninsular villages (such as in the village of Tamakigawa to the north of Hongū) take newspaper and matches with them when they go to the forest in order to frighten off any monkeys they encounter by lighting the newspaper to make a torch. One woman in the same village additionally invokes sacred sources of protection from monkeys (and other animals) when she goes to the forest by carrying a set of Buddhist rosary beads and reciting the Lotus Sutra.

⁹For the bear, see Maita (1996, 152–53); for the deer, *Asahi Shinbun* (25/2/1992); for the serow, Hirasawa (1985, 61); and for the wild boar, Ue (1983, 12).

¹⁰These are, in fact, names given to provisioned monkeys in a monkey park on the peninsula rather than wholly wild monkeys. However, similar names are attributed to monkeys by Hongū farmers.

1994, 215). But the threat to farms and villages is not confined to large monkey "legions," for it also comes from "guerrilla" monkeys (*Asian Primates* 1992, 2). A recognized feature among the "matrilineal" Japanese macaques is the intertroop mobility of young males, related to enhancing their mating prospects and rank status (Itani 1975, 109–12; Sprague 1992), and these aggressive young males are known to raid farms over a wide area (Koganezawa 1991, 137; Mori Akio in AS 13/11/1996; AS 5/6/1994; IHSHS 1995, 67). Such raids tend to go unnoticed until it is too late. Hongū villagers claim that lone monkeys approach the fields next to the house "on tiptoe" (*shinobi'ashi*), a term recalling the *ninja* assassins of the past!¹¹

Third, monkeys seem to be colonizing the village and its surroundings. A bear once chased away seldom returns, but monkeys keep coming back (Nomoto 1994, 138). In the Hongū village of Takayama three monkey troops regularly raid three different areas of the farmland, as though they have divided up the village between them. In another peninsular village, Tamakigawa, an elderly widow told me that monkeys permanently watched her house from the nearby forest, and that as soon as she leaves the house, for example to take the garbage down to the dump in another part of the village, the monkeys appear on her fields! The nearby presence of the monkeys is not only frequently visible, but also disturbingly audible as loud monkey chattering in the surrounding forest keeps villagers awake at night (MKNCR 1995, 153). Monkeys sleep under the eaves of houses, and even occupy houses, resisting efforts to expel them (Mizoguchi 1992, 34–35; MKNCR 1995, 153)!

Village responses to monkey damage only reinforce the impression of war. Human patrols known as "monkey watches" (saruban) or "chaseaway squads" (oiharaitai) physically guard the fields. One district on the northern Shimokita Peninsula "spent 5 million yen to employ people who chase away monkeys from farms" (JPN 1994, 6). But monkey watches are also carried out on a more informal basis. In the Hongū village of Ōtsuga, for example, the members of three farming households take turns patrolling their adjacent ricefields during the weeks leading up to harvest in September. More generally, farming households guard their own fields; the role of field lookout is sometimes assigned to an elderly grandparent who sits out the day in the shade near the fields. Other protective measures include the posting of guard dogs at the field-forest boundary; the placing of monkey corpses and skulls in or around fields as monkey repellents (Watanabe 1995, 52); and the putting up of physical fortifications (including electric fences). In the past many villages had stone walls built around them to keep out wild boars and other forest animals, which made them resemble "forts" (toride) (Ue 1983, 23). The new monkey barriers once again give the impression of a village fortress, yet one which, because of the guile and cunning of the monkey "enemy," is far from impregnable.

Violence is also used against *engai* monkeys. Captured monkeys may be beaten and then released, and farmers are encouraged to throw stones, use sling-shots, and even fire airguns at monkeys in their fields. But it is the shotgun that provides the best defense. The mere sight of a gun is enough to make the boldest of monkeys flee in panic. Rural municipalities form "culling squads" (*kujotai*) consisting of local hunters hired to act as armed cullers. Since the mid-1980s, around 5,000 monkeys have been officially removed each year as "noxious animals" (*yūgai dōbutsu*); in the tenyear period 1983–92, the reported total exceeded 50,000 (JPN 1995, 4), although

¹¹The *ninja* analogy is also applied to other forest animals, for example the serow (Hida 1967, 24), the wild boar (Bekki 1979, 106), and the bear (see Wakida 1989, 154; Azumane 1997, 59).

many primatologists believe the actual figure to be much higher (Watanabe 1995, 53).¹² With their camouflage fatigues, walkie-talkies, and guns, the culling squads often resemble military units.¹³

Certain local understandings of wildlife lend further credence to the idiom of war. On the Kii Peninsula hunting is often characterized as *mabiki* or "thinning," a term originally applied to the removal of inferior stalks from the ricefield, but also to the practice of infanticide in earlier times—the "thinning" of the human population of the village. The term *mabiki*, by pointing to the imperative of forcibly controlling wildlife populations, connotes a natural enemy always tending to overwhelm upland villagers with its potentially prolific numbers.¹⁴ Monkeys, especially, on account of their large troops, readily give the impression that they are proliferating.

Analytical Support for the Monkey "War"

The engai conflict in rural Japan seems at odds with the claims of an Asian cultural disposition to primate conservationism. Far from being treated as a benign sacred visitor, the monkey is killed as a pest. But a possible cultural rationale for the monkey "war" is discernible both in the anthropological model of negative wild primate symbolism in general, and in Ohnuki-Tierney's scapegoat model of modern Japanese monkey symbolism in particular. Indeed, even though Ohnuki-Tierney does not address the engai phenomenon herself, other scholars who have studied this problem do draw on the language of scapegoating to suggest a social or cultural explanation of primate pest control in rural Japan. For the primatologist Koganezawa Masaaki, monkey culling is not really an effective pest control measure at all, but a "sacrifice" (gisei) or "punishment" (korashime) of the monkey which serves only to make farmers feel better (Koganezawa 1991, 150). The rural sociologist Maita Akio similarly attributes to monkey culling a logic other than utilitarian pest control, arguing that engai monkeys play "the role of scapegoat" (warumono no yaku) for present-day upland decline (Maita 1989, 148-49). Villagers are encouraged to direct their anger and frustrations onto the monkey as the cause of "village breakdown" (mura kuzushi), the effect of which is to obscure the failure of state-sponsored rural development efforts.

The rural context of *engai* offers yet further grounds for a structuralist symbolic approach such as Ohnuki-Tierney's scapegoat model. Ohnuki-Tierney herself tends to focus on the monkey's culturally recognized physical resemblance to people as the basis of its threatening, boundary transgressing character. Citing Leach's (1976) well-known discussion of animal anomaly, she argues that in Japan to liken a person to a monkey is to engage a similar sort of "semantic tension" as when someone is likened to a dog in British culture—which becomes an insult (Ohnuki-Tierney 1990a, 99). But this structuralist tradition of symbolic analysis also focuses on the relation between

¹²Most of these monkeys are culled, but some of those captured alive are sold as laboratory animals (*Asian Primates* 1992, 2; Brazil 1992, 335; and Nomoto 1994, 137).

¹³The anthropologist Umeda Yoshimi, who works in Yamagata Prefecture, likens the uniformed appearance of village culling groups to "SWAT teams" (personal communication). Another expression of the soldier-like character of hunters was when, during the visit of the Emperor to the southern Kii Peninsula in 1977 for a large forestry ritual, local hunters joined the police in patrolling the mountain forest around the ritual venue.

¹⁴Another idiom of uncontrollable animal increase is that of "cancer"—for example, applied to deer (AS 23/7/1995) and to bears (Azumane 1997, 117).

spatial mobility and animal anomaly. Mary Douglas's analysis of anomalous Lele wild animals that move across culturally important boundaries is a prime example (1975, 282, 301–2), and similar symbolic interpretations of boundary-crossing animals have been offered for wild animals that transgress the village-forest boundary in rural Asia (Tambiah 1969, 450–51; Condominas 1994, 116–17, 164; Rye 1995). Indeed, there are even indications that this interpretation may have a wider application beyond anthropology, with specialists in the field of mammalian pestilence and pest control beginning to incorporate Mary Douglas's insights into animal classification and boundary transgression.¹⁵

Furthermore, there are a number of reasons why this analysis might be especially applicable to macaque crop-raiders in Japan. First, because the village-forest boundary has an important status in Japanese folk culture (Yagi 1988; Yukawa 1991, 307–12); second, because this kind of analysis has been applied to other wild animals in Japan; ¹⁶ and third, because of the existence of Japanese folklore which, as we saw above, refers precisely to the inauspicious character of spatial boundary-crossing monkey behavior, especially between village and forest.

The representation of *engai* as a monkey "war," far from supporting the claim of an Asian cultural conservationism with respect to wild primates, reinforces the notion of a culturally based antagonism towards them. For it accords both with the negative cultural specification of the monkey in Japan and with the anthropological approach to natural symbolism based on the nature-culture boundary and the cultural imperative of maintaining it. In other words, extrapolated to *engai*, Ohnuki-Tierney's scapegoat model seems to offer a possible cultural rationale for the human-wild primate conflict in Japan. From an anthropological perspective, Japanese mountain villagers appear culturally committed to this wildlife "war"—both to the perception of *engai* monkeys as "enemy" aggressors and to their own combatant role in resisting it. This picture of warring villages—unable either to understand the background to the monkey incursions or to see the consequences of their culling—tends to license outside conservationist criticism of and intervention in people-wildlife relations in upland Japan.

Qualifying the Monkey "War"

There are a number of reasons why the above picture of a people-monkey "war" in rural Japan must be qualified. First of all, there is a local tendency to exaggerate monkey misdemeanors. Everybody in Hongū seems to have their own monkey story: of monkeys raiding fridges, of monkeys using coin-operated drink-vending machines, of monkeys chasing people along the road, and of hillside monkeys deliberately causing rockfalls to injure construction laborers or passing scooter-riders on the road below. But while these stories circulate widely, they often encounter local skepticism if not incredulity. Some of the claims of megatroops raiding farms are also

¹⁵This is in fact suggested by one definition of pests put forward by Putman in an introduction to a book of essays on mammalian pests: "much as we may define a weed as a plant in the wrong place, or a pollutant as a perfectly respectable chemical in the wrong place or in inappropriate concentration, so some animal pests too are only pests when in inappropriate numbers or in the wrong context" (1989, 2).

¹⁶For example, the fox (see Nakamura 1987, 19–20; Nomoto 1996, 224; Eguchi 1991, 428, 433) and the wolf (Nomoto 1996, 224).

questionable; although, as noted above, there are grounds for believing that cropraiding troops have enlarged, claims of troops up to one hundred-strong tend to be dismissed by primatologists as local exaggeration (Takahata Yukio, personal communication). Moreover, as one of the more conspicuous forest animals, there is a tendency for monkeys to be inordinately blamed for crop-damage even though many other animals are also responsible (cf. Hill 1997, 82).

Farm damage too, while in many cases very serious, can be exaggerated. In upland areas like Hongū, *engai* tends to affect small-scale garden produce grown for domestic consumption rather than market produce (see also Idani et al. 1995, 115). Such damage is still distressing to those who suffer it—especially since part of this harvest is given to urban relatives, an important aspect of villager-migrant ties.¹⁷ As an old grandmother in Mie Prefecture put it, "I wanted to give the corn to my grandchildren to eat, but it has all been taken by the monkeys" (Masui 1988, 151; cf. Iguchi 1991, 108). In raiding garden produce in remote hamlets, monkeys deprive elderly villagers of a symbolically important currency in social exchange, but the effect of such damage on local incomes remains limited.

Second, there is a degree of acceptance of monkey crop-feeding in rural Japan. A recent rural survey found that a quarter of farmers believed that monkey damage had to be tolerated to some extent (Watanabe and Ogura 1996, 10). Given the scale of farm damage in the area surveyed, it is likely that some of these tolerant responses came from affected farmers. Similarly, in many Hongū villages this or that persimmon or chestnut tree near the forest is known as "the monkeys's tree" (saru no ki), or its fruit referred to as "the monkey's share" (saru no bun), and nobody complains about monkeys raiding the fruit of such trees.

One reason for this tolerance of monkey crop-raiding is the perception of wild monkeys as hungry animals who come to feed on village crops because they cannot feed in the forest. The head of one household in the Hongū village of Kirihata, 60year-old Sugiyama Ei'ichi, has come to accept monkeys feeding off his chestnut trees, despite his old father's fury, for two reasons. First, there are few children about in today's villages to eat the chestnuts (as he did as a boy), and so the monkeys may as well have them. Second, the monkeys only risk their lives coming to the village because they cannot feed in the mountains any more due to the spread of commercial timber stands. The Sugiyamas are a forestry family that has its share of responsibility for the replacement of the surrounding forest by plantations. But the son, to the dismay of his father, has become a harsh critic of postwar forestry, believing that families like his own, who cut down the trees on which monkeys feed, cannot really complain of farm damage by hungry monkeys. That this view is shared by other foresters is indicated by the fact that foresters have become disproportionately involved in efforts to restore fruit-bearing "monkey trees" to the forest. 18 From this perspective, engai appears not as a war of aggression waged by a simian enemy, but a reaction on the part of wild monkeys to the human destruction of the forest. Monkeys feed on the fruit-trees of the village because villagers cut down the fruit-bearing trees of the forest.

¹⁷Many village grandmothers send off the autumn persimmons or chestnuts to their grandchildren in the city, and in some cases the son's family may pay an autumn visit to come and pick the fruit themselves, but in recent years monkeys get to the tree first, removing its annual fruit in one early morning visit.

¹⁸For example, one such civic tree-planting initiative (for bears as well as monkeys) in Wakayama Prefecture, while inspired by the retired schoolteacher Higashiyama Shōzō, attracted much support from foresters (Higashiyama Shōzō, personal communication). On tree-planting, see AS (6/3/1991), AS 25/3/1993), AS (13/4/1994), and MKNCR (1995, 153).

Voluntary feeding of monkeys also takes place. Sporadic human feeding of monkeys appears to have frequently occurred, especially among forest workers (charcoal-burners, foresters, gatherers, etc.) (see, for example, Togawa 1956). Some primatologists claim that informal, if small-scale, feeding of wild monkeys occurs in many present-day Japanese villages. From his experience travelling across the country, one primatologist based in Japan even suggests that every village has its lonely grandmother who feeds monkeys (David Sprague, personal communication)! Referring to villagers in Aomori Prefecture, who have long suffered from monkey damage, the zoologist Ochiai Keiji comments that "no matter how bad the damage done during the summer, when winter comes, and people see the monkeys out there in the falling snow, they cannot help but give them apples" (Ochiai 1991, 213). On the Kii Peninsula, there are reports of monkeys adopted and nurtured by mountain villagers (Ue 1980, 81-82; Ue 1990, 144-46). One elderly couple in the Hongū village of Minachi, for example, adopted a young monkey (found injured in the forest), named him "Jiro" (a human name given to the second son), taught him to take a bath each night, and brought him up to sleep alongside them in the house. Elsewhere in Japan there are even reports of infant monkeys being suckled by village women (Ota 1997, 196–97). At least in some cases, this compassionate feeding of monkeys by local people is the origin of the organized monkey provisioning carried out by some rural areas.¹⁹

Two sets of monkey imagery were noted above: the negative imagery of an inauspicious animal and the positive imagery of a sacred animal. But for mountain villagers, there also exists a third kind of monkey imagery, that can help to account for the voluntary feeding of monkeys. This centers on the monkey's human appearance, actions, and desires. Monkeys are striking in their physical resemblance to human beings, especially their face, gait, and hands (monkeys are known to have fingerprints). Monkeys are attributed a range of human-like capacities such as healing sick members of the troop using wild herbs (Mori and Tadano 1997, 113); protecting themselves from the hunter's bullets by coating their fur with a kind of natural varnish (Ōta 1997, 193); invading foresters' huts and cooking rice there by themselves (Ōta 1997, 186); stealing and drinking alcohol (a graveyard offering) and even making alcohol (by fermenting berries) (Tabuchi 1992, 53); teasing foresters and farmers by hiding their tools; riding horses; and dressing up in human clothing (Suzuki 1982, 300). Monkeys also seem to share human emotions, and are renowned for their capacity for maternal love and filial love. Many of the regional terms applied to the monkey are affectionate ones: "mountain elder brother" (yama no anii), "elder brother" (aniki), "young man" (wakaishu), and "forest dwarf" (mori no kobito) (see Chiba 1975, 139; Togawa 1956, 92). In particular, monkeys are often viewed as children. Indeed, survey evidence suggests that present-day rural dwellers are more likely to consider monkeys to be "cute" (kawaii) than "scary" (kowai) (Hirose 1993, 234; IHSHS 1995, 70).

The human-like character of the monkey often appears most strikingly in the crop-raids themselves. Of course, the war idiom applied to *engai* represents one kind of anthropomorphization of this behavior, one which has an emphatically negative tone. But monkey crop-raiding can also appear anthropomorphic in a disarmingly amusing way. This is suggested by reports of monkeys carrying away potatoes or radishes in their hands; carrying off bundles of rice stalks over their shoulders; carefully

¹⁹Provisioning of wild monkeys is usually carried out in connection with tourism. The provisioning of the monkeys of the Jigokudani ("Hell Valley") Monkey Park in Nagano Prefecture is said to have begun when a local woman took pity on a deformed mother monkey and offered food to her and her offspring (Danjō 1992, 23).

twisting off a water melon from the calyx and carrying it away tucked into their groin with their two hands, like an old man (Sakusa 1995, 110); or even making use of supermarket plastic bags on their field raids (see also AS 12/6/1996)!

A third qualification of the monkey "war" must be made. Not only are villages divided over whether engai really is enemy aggression, but there is also local unease about the violent human response to it. While there is a national perception of rural communities as collectively engaged in armed combat with monkeys, in fact many villagers are reluctant to throw stones and rocks at crop-raiders (Idani et al. 1995, 115). Foresters in Nagano, for example, refrain from attacking monkeys, even cropraiding ones, believing that the monkeys would remember the affront and at some time in the future avenge the action by striking back when the foresters are at their most vulnerable (Matsuyama 1977, 50-51; see also Togawa 1956, 118-19). As for monkey culling itself, this is not practiced by the village as a whole, but, as noted earlier, by a small part of it—hunters. Despite its supposed defensive purpose, monkey culling does not actually command general support in rural areas, nor among a significant proportion of farmers. In one survey only 29 percent of respondents expressed support for culling, and of those engaged in farming this figure did not exceed 50 percent (Watanabe and Ogura 1996, 10). There are even reports of monkeycullers arriving at a village to dispatch a problem monkey, in response to a farmer's complaint, but then being urged by other villagers not to kill it (Ishikawa 1995, 56), a problem also faced by deer-cullers (Sato 1995, 52). Monkey-culling is an issue that does not simply pit village proponents against outside opponents, but also leads to polarization within rural areas themselves.

One main reason why the cullers' actions appear morally questionable is because of the monkeys' pathetic reactions to the human violence visited on them. A monkey about to be shot puts its hands together to "beg for its life" (inochigoi), wounded monkeys sob like children, dying monkeys groan and scream, "orphaned" monkeys cling on to their dead mother, and "bereaved" mothers carry their dead young around with them for days afterwards (Chiba 1975, 151; Tabuchi 1992, 50; Matsuyama 1994, 40, 44-47)! Although he may claim to be removing threatening pests, the culler nonetheless appears as a killer of loving mothers, a creator of orphans, and a destroyer of families. It is because of the morally dubious character of their actions that monkey cullers are believed to be especially vulnerable to spirit revenge—in the form of assorted misfortunes (death, illness, birth of a monkey-like child, financial ruin, and so on) that befall monkey-killers and their families (Suzuki 1982, 297; Chiba 1995b, 128). There are even reports of monkey-hunters bringing misfortune or disaster to the village as a whole in the form of poor harvests or housefires (Chiba 1975, 142; Tabuchi 1992, 50). If a hunter does incur the monkey's curse in the form of some family calamity, this may well be viewed by his neighbors as not without an element of poetic justice.20

Monkey-culling is also increasingly viewed as counterproductive. The present-day scale of farm damage by lone crop-raiders suggests that, on top of the normal intertroop transfer of adult males, the cause lies in an abnormal, large-scale social fragmentation and atomization of macaque populations brought about by the high level of monkey culling. By destroying the social cohesion of monkey troops, culling actually helps to *create* rogue crop-raiders (AS 5/6/1994; IHSHS 1995, 67).

²⁰The famous film *Himatsuri* or Fire Festival (1985) by Yanagimachi Mitsuo (and screenplay by Nakagami Kenji) is about a monkey hunter (on the Kii Peninsula) who ends up using his hunting shotgun to massacre his family in the village.

If upland villages are at "war" with monkeys, they present a disunited front to the animal. A range of war-like defenses are employed and large-scale culling of the "enemy" takes place, but not all villagers are equally committed to resisting the invaders. Monkey culling does not command general support; there is a degree of tolerance of monkey feeding on village fields; and some people actively feed wild monkeys. Antipathy towards the *engai* monkey in upland Japan coexists with a measure of sympathy for the animal, which the zero-sum language of war obscures. But what is the basis of this sympathy?

The recent history of village decline makes for an alternative perspective on the new monkey mobility. Rural depopulation creates fragmented villages, most of whose natal population has been displaced. In addition to its adverse effects on the home village, urban migration generates isolation and loneliness among many of the migrants in the cities. The potentially traumatic character of migrant displacement in a society like Japan, renowned for its group-centeredness, is suggested by the cultural anthropologist Ogino Kōichi, who describes how migrants from remote villages developed schizophrenia and clinical depression (Ogino 1977).

For the inhabitants of the depopulated mountain villages of Hongū, monkeys suffer displacement from their forest home and social fragmentation in a way that seems to parallel their own experience. Large monkey troops at the edge of the village readily appear as mass migrants from the forest, while the lone crop-raider, because of the group-centered image of the monkey in Japan, recalls the isolated migrant, separated from its group. Village-edge monkeys, like urban migrants, are physically out of place (outside their mountain home), while the lone monkey, like the individual migrant, is also manifestly socially displaced (apart from the group). Hence the observation made in one newspaper report that engai monkeys have lost their furusato ["old village"] (AS 6/3/1991)—the very term applied to the urban migrant who has had to leave his beloved natal village! Engai monkeys seem to reflect the social disorder of the villages they raid.

Reconsidering Natural Symbolism

Anthropological models of natural symbolism offer a potential explanation of people-monkey conflict in which the wild primate features as a negative natural symbol. But while it might provide a cultural rationale for primate pest culling, it would seem to preclude any rural sympathy for wild primates at all. According to its structuralist premises, the very closeness of these animals, whether through physical resemblance or village intrusion, is deeply threatening to human identity and to cosmological order more generally. Cosmological disorder is experienced as a moral threat that demands a violent response. This cultural argument has the effect of *fixing* human dispositions to primates and is unable to account either for variation in local responses to primates or for change in such responses over time.

Within anthropology, there is increasing recognition of the tendency of the discipline to exaggerate the differences between cultures (cf. Boon 1982). But natural symbol theory, I suggest, contains another instance of the anthropological exaggeration of difference—directed at the nature-culture boundary. Natural symbolism is premised on the notion of a human disposition to protect, reassert, or recover the nature-culture boundary. But the effect of this analytical preoccupation with discontinuity is to neglect the human interest in nature-culture continuity and

human-animal commonality (Willis 1990, 18; James 1990, 198). The dogmatic concern with demonstrating the existence of a cultural order based on clear boundaries has tended to conceal the existence of a popular "taxonomic generosity" (Ritvo 1995, 496) towards animals, as expressed in the ubiquitous human fascination with anthropomorphizations, hybridizations, and cross-species relations (Shepard 1996, ch. 14; Doniger 1995). The discipline of anthropology has long played the role of "policing" the human-animal boundary in Western society (Cartmill 1993, 177; Roebroeks 1993, 177). In foregrounding the human concern to maintain a sense of ontological discontinuity, and obscuring the human interest in continuity with the wider animate world, natural symbolism theory continues this tradition.

One anthropological reaction to this approach to natural symbolism has been to challenge it by invoking an alternative worldview or "ecocosmology," according to which this or that culture is held to identify with animals and other nonhuman agencies. In contrast to the "modern" disposition to view humans and animals dichotomously, in such cultures—often foragers—human and animal relatedness is understood in terms of mutuality, interdependence, and sharing (Bird-David 1993; Ingold 1994, 7–12). One objection to this emphasis on sharing is that it seems at odds with the manifestly predatory character of the hunter's relation to the hunted animal. Another objection is that such arguments suggest a theoretical dualism that tends to reinforce the dichotomous conception of nature-culture or people-animal relations in modern contexts. By contrast, here I suggest that the cultural recognition of people-animal "sharing" or "commonality" can potentially arise in modern contexts too, but through the process of symbolic association itself.

One of the main anthropological critiques of symbol theory in recent years has been of the analytical preoccupation with and privileging of metaphorical association. Critics have called for an approach that "avoids the reductionist and idealist tendencies of much symbolic and metaphor theory" by analyzing symbols as "constituents of contextually and historically situated social interaction" (Turner 1991, 122, 123). This historicization of symbolic association can be realized only by means of a more dynamic understanding of symbolic processes in general, and of the changes in domain "geography" in particular. A central feature of this new approach is the idea of the constitutive character of metaphor and the emergent character of domains. There is an increasing recognition that metaphor is generative of metonymy because it can "draw the world together" by joining up what were separate domains (Durham and Fernandez 1991, 197-98; Turner 1991, 127-28). One of the objections to earlier structuralist symbol theory was the way it portrayed human actors as subordinate to cultural structures of meaning—"as inert, preconstituted objects," in Turner's words (1991, 151). But this new dynamic approach to symbols, by recognizing the emergent character of symbolic association, attributes a creative dimension to symbolic activity and allows for the possibility of social actors forging "alternative subjective perspective[s]" (Turner 1991, 128).

This approach can be usefully applied to the field of natural symbolism to challenge the privileged status of key domain distinctions, principally that between "nature" and "culture." Natural symbolism can be shown to work not just across these domains, but also through them. Rather than just associatively connecting existing domains, it also helps to constitute new ones. However, these new domains are not simply artifacts of symbolic association per se, but have a material basis in terms of which symbolism is effective and convincing.

It is in this connection that the full meaning of the *engai* monkey as a natural symbol can be understood. According to the structuralist tenets of anthropological

analyses of natural symbolism, the *engai* monkey is a threatening boundary-crosser whose bold movements recall the aggressive, invasive mobility of a war enemy. Yet, as we have seen, this same pattern of simian movements resembles the kind of migratory movement and displacement that has become typical of postwar mountain villagers, and can therefore come to form the basis of a certain local identification with the monkey.

Anthropological analyses of natural symbolism are typically predicated on an *a priori* nature-culture or nature-society opposition, one which is mediated by certain resemblances symbolically picked out. Animals are often viewed as natural "metaphors" or "mirrors" of human society (Douglas 1990; Tapper 1994, 56–57), and the mirror analogy has been applied especially to nonhuman primates (Corbey 1993, 131; see also Clark 1993, 124). Indeed, Ohnuki-Tierney (1987) titles her book on monkey symbolism in Japan *The Monkey as Mirror*. This idea of the monkey as a "mirror" of society has, in fact, been extended to wild monkey populations in Japan. In his analysis of wild monkeys that have been provisioned by local authorities, Masui Kenichi suggests that the monkeys represent a "mirror" (*kagami*) of modern Japanese society (Masui 1988, 263). Given the similarities between human and monkey mobilities noted above, could not *engai* monkeys also be said to be a natural "mirror" or "metaphor" of the migrant society that mountain villages have become?

The *engai* monkey is not a natural metaphor. This is because, strictly speaking, it is neither natural nor metaphorical. The *engai* monkey appears unnatural and abnormal because mountain villagers know monkeys to be forest dwellers that live in groups, local knowledge which, in the forestry villages of Hongū, is firmly grounded in experience. Physically displaced by forestry and socially fragmented by culling, the behavior of the *engai* monkey appears discrepant relative to its normal status as a group-centered forest animal. *Engai* expresses *change* in monkey society.

Nor is the engai monkey a metaphor. Metaphor assumes a distinction between two domains—in the case of the natural symbol a distinction between a "natural" (source) domain and a "social" (target) domain. In his analysis of chimpanzee symbolism among forest-edge villagers in Sierra Leone, Richards argues that these primates "are seen to be currently evolving deep within the forest a perverted parallel to human forms of community life" (1993, 151, emphases added). The clear assumption here is of different sides or domains across which symbolic association takes place in the form of certain resemblances. But in present-day Japan monkeys and mountain villagers cannot be neatly separated into different domains, whereby the former represents a natural "parallel" or "mirror" to social change among the latter. The village-forest boundary has long coexisted with routine movement across it into the forest for livelihood purposes, but until recent times the boundary has continued to demarcate the humanized space of the village from the wild space of the forest. But in the course of the twentieth century the forest has become an increasingly anthropogenic space, the culmination of which is its postwar transformation into artificial timber forests. Postwar coniferous reforestation redefines the ecological character of upland space; the village-forest boundary, for all its ritual importance, no longer effectively serves as a frontier with the wild forest as before.

It is in terms of this radical transformation of upland space that contemporary movements—human and nonhuman—within it should be understood. De Certeau (1984) has famously likened human mobility to writing, such that movement reconstitutes or "re-writes" the space in which it occurs. First and foremost, one thinks of motorized mobility, in the form of the roads created to facilitate it, but, as De Certeau emphasizes, walking also engraves the space where it occurs. In upland Japan,

roads for motorized traffic profoundly redefine village and forest space, but so too does pedestrian mobility; indeed, there is a saying among foresters on the Kii Peninsula (referring to the importance of tending to timber plantations) that "footprints are the fertilizer of the forest" (ashi'ato wa yama no koyashi). But it is not only human mobility that redefines the character of upland space. I suggest that monkey movements too have the power, cumulatively, to inscribe a new spatial sensibility among Japanese mountain villagers. The depredations of engai monkeys become so many physical statements pointing to the newly merged spatial order in upland Japan. The engai monkey is not a forest "mirror" of the village because it has ceased to be confined to a separate forest domain. Rather, the engai monkey's movements are an announcement of the transformation of upland space, as well as an aspect of it. Far from being merely transgressive, monkey mobility is constitutive of the new, more inclusive spatial domain, encompassing village and forest, that increasingly defines upland Japan.

Engai monkeys, in other words, threaten the village-forest boundary in more ways than one. In this symbolic process the intrusion of the *engai* monkey into human space figures the intrusion of the new forest (and the human forces behind its transformation) into human thought. In the postwar transformation of the Japanese forest, a threshold has been crossed whereby monkey mobility becomes (environmentally) metonymical as much as (socially) metaphorical. The appearance of the simian invader at the edge of the village should alert not just farmers in defense of their fields, but also anthropologists in defense of their orthodoxies. Just as it becomes increasingly possible for monkey movement to be experienced locally as the irruption of forest into village, so it becomes necessary for it to be interpreted analytically as the irruption of history into symbolism. The *engai* monkey is a lens onto nature no less than a "mirror" of society because it *refracts the forest* as much as it *reflects the village*.

Conclusion

At a time when wildlife conservation and biodiversity have become increasingly important themes and discourses affecting the social contexts that anthropologists study, the political importance of anthropological models of natural symbolism has never been greater. Natural symbol theory, in its preoccupation with conflict and attendant neglect of other dimensions of people-wildlife relations, tends to reinforce the impression of rural populations as anticonservationist. Applied to the *engai* monkeys of rural Japan, natural symbol theory provides a cultural codification, if not political legitimation, of rural monkey culling. But in Japan this representation of the monkey as a negative local symbol clashes with the monkey's status as a positive national symbol.

In the 1990s the Japanese government is attempting to project an environmental image internationally, to the point of proclaiming itself a world leader on environmental matters (Brazil 1992, 338), but the claim is undermined by the international criticism it receives, especially in the area of wildlife conservation (e.g., whaling). It is against this background that macaque conservation has become an important conservationist symbol in Japan. "Japan is the only advanced country which has wild monkeys. If Japan, given its wisdom and its money, cannot co-exist with the monkey . . . then there is no other country which can" (AS 22/12/1994). Implicit in this Japanese claim to leadership in primate conservation is the notion of a special cultural disposition to the nation's wild primate. But *engai* and the culling response

to it threaten to undermine Japan's bid for a leadership role in the field of conservation. It is in this connection that the exaggeration of *engai* as a local people-primate war leads to a growing demand for national intervention to protect the macaques.

However, external conservationist intervention in local wildlife issues can prove to be counter-productive. In many cases, local people-wildlife conflicts are polarized and local enmity for wildlife intensified by what appears as illegitimate outside interference. The national conservationist claim to the animal in question can become ironically, but negatively, true. The animal may be locally redefined as a *national and therefore nonlocal* animal, the local presence of which comes to be viewed as illegitimate, to the point where local people demand its relocation to the cities. Such demands have been made by Indian villagers in relation to tigers (Guha 1997, 19), by American ranchers in relation to wolves (Primm and Clark 1996, 1037), and indeed by Japanese villagers in relation to macaques (Iguchi 1991, 106). In other words, national conservationist claims can have the unintended effect of encouraging, if not actually inducing, the local repudiation of wildlife, rather than fostering a local conservationist sentiment towards it.

The more polarized people-wildlife conflicts become, of course, the more that outside intervention may be licensed, leading to situations of incipient and actual civil violence in which wildlife conservation is enforced by the state through military means. People-wildlife "wars" can, in this way, lead to what are, in effect, low-level civil wars! Yet in the long run, such confrontations are likely to be neither politically sustainable nor conservationally effective.

It is in this connection that due recognition of nonhostile people-wild primate relations in upland Japan becomes so important. It is certainly the case that such coexistence may have a utilitarian basis, and that the establishment of such a mutuality of interest between people and wildlife populations is a key strategy in promoting local-level conservationism in the coming decades. However, the reduction of the local dimension of wildlife management to a simple concern with "benefits" and "incentives" carries certain dangers. To recognize that wildlife is important to local livelihoods should not mean that the rural dweller involved comes to be seen as a sort of forest-edge *homo economicus* whose behavior towards the natural environment is governed solely by narrow calculations of self-interest.

Yet cultural analyses, as we have seen, tend either to romanticize people-primate ties or to polarize them. Villager-monkey conflict in Japan is either culturally precluded or culturally predetermined. Culture appears an either/or discourse, unable to reconcile the existence of varied dispositions. This does not necessarily render culturally based conservationism redundant and condemn advocates of local participatory conservationism to rely on utilitarianism as an intellectual last resort. But the rehabilitation of cultural analysis in this area depends on a more dynamic approach to culture in which natural symbols are understood not as culturally fixed relative to immutable boundaries, but as historically emergent at new levels of scale.

List of References

ASQUITH, P. J. 1986. "Anthropomorphism and the Japanese and Western Traditions in Primatology." In *Primate Ontogeny, Cognition and Social Behaviour*, edited by J. G. Else and P. C. Else. Cambridge: Cambridge University Press.

AZUMANE, CHIMAO. 1997. SOS tsukinowaguma (Bear SOS). Morioka: Iwate Nippōsha.

- BABA, EIKO. 1991. "Sarujizō" (Monkey Buddha). In *Gaidobukku nihon no minwa (A Guidebook to Japanese Folktales*), edited by Nihon Minwa no Kai. Tokyo: Kōdansha.
- BEKKI, SHIGEYUKI. 1979. "Nigeru inoshishi—sono tonsōjutsu" (The Escaping Boar—Its Powers of Flight). *Shuryōkai* 23(2):106–8.
- BERKSON, G., B. A. ROSS, and S. JATINANDA. 1971. "The Social Behaviour of Gibbons in relation to a Conservation Program." In *Primate Behaviour: Developments in Field and Laboratory Research*, edited by L. A. Rosenblum. New York: Academic Press.
- BIQUAND, S., A. BOUG, V. BIQUAND-GUYOT, and J.-P. GAUTIER. 1994. "Management of Commensal Baboons in Saudi Arabia." *Revue d'Ecologie* 49: 213–22.
- BIRD-DAVID, NURIT. 1993. "Tribal Metaphorization of Human-Nature Relatedness: A Comparative Analysis." In *Environmentalism: The View from Anthropology*, edited by Kay Milton. London: Routledge.
- BODMER, R. E., J. F. EISENBERG, and K. H. REDFORD. 1997. "Hunting and the Likelihood of Extinction of Amazonian Mammals." *Conservation Biology* 11(2): 460–66.
- BOON, JAMES A. 1982. Other Tribes, Other Scribes: Symbolic Anthropology in the Comparative Study of Cultures, Histories, Religions, and Texts. Cambridge: Cambridge University Press.
- BRAZIL, MARK. 1992. "The Wildlife of Japan: A 20th Century Naturalist's view." *Japan Quarterly* 39(3): 328–38.
- CARTMILL, MATT. 1993. A View to a Death in the Morning: Hunting and Nature through History. Cambridge: Harvard University Press.
- СНІВА, ТОКUJI. 1975. Shuryō denchō (Hunting Legends). Tokyo: Hōsei Daigaku Shuppankyoku.
- ——. 1995a. "Sanchūikairon josetsu" (Introductory Remarks on the Mountain-as-Other World Theory). In *Dōbutsu to bunmei* (Animals and Civilization), edited by Kawai Masao and Hanihara Kazurō. Tokyo: Asakura Shoten, 26–51.
- ——. 1995b. *Ōkami wa naze kieta ka* (Why Did the Wolf Disappear?). Tokyo: Shinjinbutsu Ōraisha.
- CLARK, STEPHEN R. L. 1993. "Apes and the Idea of Kindred." In *The Great Ape Project: Equality beyond Humanity*, edited by Paola Cavalieri and Peter Singer. London: Fourth Estate.
- CONDOMINAS, GEORGE. 1994. We Have Eaten the Forest. New York: Kodansha.
- CORBEY, R YMOND. 1993. "Ambiguous Apes." In *The Great Ape Project: Equality beyond Humanity*, edited by Paola Cavalieri and Peter Singer. London: Fourth Estate
- DALE, PETER N. 1986. The Myth of Japanese Uniqueness. London: Routledge.
- DANJŌ, KANJI. 1992. "Hachijūsai o mukaeta Korakkan no onnaaruji" (The eighty year old woman head of the Korakkan inn). *Ryokō sakka* (Travel Writer) 53: 18–24.
- DE CERTEAU, MICHEL. 1984. The Practice of Everyday Life. Berkeley: University of California Press.
- DONIGER, WENDY. 1995. "Bestial Myths: Religious Constructions of Relationships Between Humans and Animals." *Social Research* 62(3): 751–72.
- DOUGLAS, MARY. 1975. Implicit Meanings: Essays in Anthropology. London: Routledge.
- ——. 1990. "The Pangolin Revisited: A New Approach to Animal Symbolism." In *Signifying Animals: Human Meaning in the Natural World*, edited by Roy Willis. London: Routledge.

- DURHAM, DEBORAH, and JAMES W. FERNANDEZ. 1991. "Tropical Dominions: The Figurative Struggle over Domains of Belonging and Apartness in Africa." In *Beyond Metaphor: The Theory of Tropes in Anthropology*, edited by James W. Fernandez. Stanford: Stanford University Press.
- EGUCHI, S. 1991. "Between Folk Concepts of Illness and Psychiatric Diagnosis: kitsune-tsuki (Fox Possession) in a Mountain Village of Western Japan." Culture, Medicine and Psychiatry 15(4): 421–51.
- EINARSSON, NIELS. 1993. "All Animals are Equal but Some are Cetaceans: Conservation and Culture Conflict." In *Environmentalism: The View from Anthropology*, edited by Kay Milton. London: Routledge.
- EUDEY, A. A. 1986. "Hill Tribe Peoples and Primate Conservation in Thailand: A Preliminary Assessment of the Problem of Reconciling Shifting Cultivation with Conservation Objectives." In *Primate Ecology and Conservation*, edited by J. G. Else and P. C. Lee. Cambridge: Cambridge University Press.
- ——. 1994. "Temple and Pet Primates in Thailand." Revue d'Ecologie 49: 273–80.
- FOX, J., P. YONZON, and N. PODGER. 1996. "Mapping Conflicts between Biodiversity and Human Needs in Langtang National Park, Katmandu Nepal." *Conservation Biology* 10(2): 562–69.
- GRODZINS-GOLD, ANN. (with Bhoju Ram Gujar). 1997. "Wild Pigs and Kings: Remembered Landscapes in Rajasthan." *American Anthropologist* 99(1): 70–84.
- GUHA, RAMACHANDRA. 1997. "The Authoritarian Biologist and the Arrogance of Anti-humanism: Wildlife Conservation in the Third World." *The Ecologist* 27(1): 14–20.
- HANAI, TADAMITSU. 1995. "Kinsei shiryō ni miru gaijū to sono taisaku" (Pestilence and its Countermeasures as Viewed through Written Materials of the Early Modern Period). In *Dōbutsu to bunmei (Animals and Civilization)*, edited by Kawai Masao and Hanihara Kazurō. Tokyo: Asakura Shoten.
- Heinen, J. T. 1996. "Human Behaviour, Incentives, and Protected Area Management." Conservation Biology 10(2): 681–84.
- HIDA, INOSUKE. 1967. Yamagatari nazo no dōbutsutachi (Animals in Mountain Tales). Tokyo: Bungei Shunjū.
- HIGUCHI, ATSUSHI. 1991. "Saru chōja" (Monkey Rich Man). In Gaidobukku nihon no minwa (A Guidebook to Japanese Folktales), edited by Nihon Minwa no Kai. Tokyo: Kōdansha.
- HILL, C. M. 1997. "Crop-raiding by Wild Vertebrates: The Farmer's Perspective in an Agricultural Community in Western Uganda." *International Journal of Pest Management* 43(1): 77–84.
- HIRASAWA, MASAO. 1985. Kieyuku yasei to shizen (Disappearing Wild Nature). Tokyo: San'ichi Shobō.
- HIROSE, SHIZUMU. 1993. Saru (Monkeys). Tokyo: Hōsei Daigaku Shuppankyoku.
- HITCHCOCK, R. K. 1995. "Centralization, Resource Depletion, and Coercive Conservation among the Tyua of the Northeastern Kalahari." *Human Ecology* 23: 169–98.
- HORROCKS, JULIA, and JEAN BAULU. 1994. "Food Competition between Vervets (cercopithecus aethiops sabaeus) and Farmers in Barbados: Implications for Management." Revue d'Ecologie 49: 281–94.
- HSU, M. J., and G. AGORAMOORTHY. 1997. "Wildlife Conservation in Taiwan." *Conservation Biology* 11(4): 834–36.
- IDANI, G., H. IHOBE and K. KAWAI. 1995. "Kinki chihō ni okeru engai no jittai" (The State of Monkey Crop Damage in the Kinki Region). *Reichōrui Kenkyū* (Primate Research) 11: 113–22.

- IGUCHI, MATOI. 1991. Tōkyō no saru (The Monkeys of Tokyo). Tokyo: Dōbutsusha. IHSHS (Ishikawa-ken Hakuzan Shizen Hogo Sentā). 1995. Yasei chōjū ni yoru nōrinsanbutsu higai bōshito o mokuteki to shita kotaigun kanri shuhō oyobi bōshi gijutsu ni kansuru kenkyū (Research on Management Methods and Technology aimed at Preventing Wildlife Damage to Farm and Forestry Products). Yoshinotani Mura, Ishikawa: IHSHS.
- INGOLD, TIM. 1994. "From Trust to Domination: An Alternative History of Human-Animal Relations." In *Animals and Human Society: Changing Perspectives*, edited by Aubrey Manning and James Serpell. London: Routledge.
- ISHIKAWA, TAKESHI. 1995. "Yūgai chōjū kujo no genjō to mondaiten—Mie-ken" (The State of Wildlife Pest Culling and its Problems—Mie Prefecture). *Shuryōkai* 39(5): 56–60.
- ISHIZAKI, HIROSHI. 1991. "Saru" (Monkey). In *Gaidobukku nihon no minwa* (A Guidebook to Japanese Folktales), edited by Nihon Minwa no Kai. Tokyo: Kōdansha.
- ITANI, JUNICHIRO. 1975. "Twenty Years with Mount Takasaki Monkeys." In *Primate Utilization and Conservation*, edited by G. Bermant and D. G. Lindburg. New York: Wiley.
- James, Wendy. 1990. "Antelope as Self-image among the Uduk." In Signifying Animals: Human Meaning in the Natural World, edited by Roy Willis. London: Routledge.
- JUSOFF, K., and N. M. MAJID. 1995. "Integrating the Needs of the Local Community to Conserve Forest Biodiversity in the State of Kelantan." *Biodiversity and Conservation* 4(1): 108–14.
- KOGANEZAWA, MASAAKI. 1991. "Nihonzaru no bunpu to hogo no genjō oyobi sono mondaiten—Nikkō o chūshin ni" (The Present State of Distribution and Protection of the Japanese Monkey and Related Problems: Focussing on Nikkō). In Yasei dōbutsu hogo: 21 seiki e no teigen (Wild Animal Protection: A Proposal for the 21st Century). Tokyo: Nihon Shizen Hogo Kyōkai.
- LEACH, EDMUND. 1976. Culture and Communication. Cambridge: Cambridge University Press.
- MAITA, AKIO. 1989. "Sengo sanson shakai no 'mura kuzushi' to shinrin kanri." In "Shinrin shakaigaku" sengen (Declaration on "Forest Sociology"), edited by Uchiyama Setsu. Tokyo: Yuikaku Sensho.
- MAITA, KAZUHIKO. 1996. Yama de kuma ni au hōhō (Ways to Encounter Bears in the Mountains). Tokyo: Yamatokeikokusha.
- MALIK, I. and R. L. JOHNSON. 1994. "Commensal Rhesus in India: The Need and Cost of Translocation." *Revue d'Ecologie* 49: 233–43.
- MASUI, KENICHI. 1988. Nihonzaru no fūdo (The World of the Japanese Monkey). Tokyo: Yūzankaku.
- MATSUYAMA, YOSHIO. 1977. Kari no kataribe—Ina no yamagai yori II (Hunting Storytellers: From the Ina Gorge. Volume II). Tokyo: Hōsei Daigaku Shuppankyoku.
- ———. 1994. *Inadani no dōbutsutachi* (The Animals of Inadani). Tokyo: Dōjidaisha.
- MCNEELY, J. A., and P. S. SOCHACZEWSKI. 1988. Soul of the Tiger: Searching for Nature's Answers in Exotic Southeast Asia. New York: Doubleday.
- MIZOGUCHI, MASAHITO. 1992. Mori no dōbutsu to ikiru gojū no hōhō (Fifty Ways of Co-existing with Forest Animals). Tokyo: Buronzu Shinsha.
- MKNCR (Minami Kantō Nihonzaru Chōsa Renrakkai). 1995. "Yasei nihonzaru chiiki kotaigun sutetasurupoto Minami Kantō Sanchihen (1994 nenpan)" (Status Report

- on Wild Monkey Troops: The Southern Kantō Mountain Region [1994]). *Reichōrui Kenkyū* (Primate Research) 11: 147–58.
- MOORE, ROLAND S. 1994. "Metaphors of Encroachment: Hunting for Wolves on a Central Greek Mountain." *Anthropological Quarterly* 67(2): 81–88.
- MORI, OSAMU. 1993. "Shimokitahantō no nihonzaru kotaigun" (Monkey Troops of Shimokitahantō). In *Horobiyuku nihon dōbutsu 50 shu* (50 Species of Japanese Animals in Danger of Extinction), edited by Katō Mitsuo, Numata Makoto and Ueno Shunichi. Tokyo: Tsukiji Shokan.
- MŌRI, SŌSHICHIRŌ, and TADANO ATSUSHI. 1997. Sendai Matagi shikagari no hanashi (Sendai Matagi Tales of Deerhunting). Tokyo: Keiyūsha.
- MORRIS, BRIAN. 1995. "Wildlife Depredation in Malawi: The Historical Dimension." *Nyala* 18: 19–31.
- NAGAMATSU, ATSUSHI. 1993. Shuryō minzoku to shugendō (Hunting Folklore and Shugendō). Tokyo: Hakusuisha.
- NAKAMURA, TEIRI. 1987. Nihon dōbutsu minzokushi (Japanese Animal Folklore). Tokyo: Kaimeisha.
- ——. 1989. *Dōbutsutachi no reiryoku* (The Spiritual Powers of Animals). Tokyo: Chikuma Shobō.
- NAKASHIMA, NARIHISA. 1998. Yakushima no kankyō minzokugaku—mori no kaihatsu to kamigami no tōsō (The Environmental Folklore of Yakushima: Development of the Forest and the Struggle with the Spirits). Tokyo: Meiseki Shoten.
- NAUGHTON-TREVES, LISA. 1997. "Farming the Forest Edge: Vulnerable Places and People around Kibale National Park, Uganda." *The Geographical Review* 87(1): 27–46.
- NAUGHTON-TREVES, LISA, ADRIAN TREVES, COLIN CHAPMAN, and RICHARD WRANGHAM. 1998. "Temporal Patterns of Crop-raiding by Primates: Linking Availability in Croplands and Adjacent Forest." *Journal of Applied Ecology* 35: 596–606.
- NEPAL, S. K., and K. E. WEBER. 1995. "Managing Resources and Resolving Conflicts: National Parks and Local People." *International Journal of Sustainable Development and World Ecology* 2: 11–25.
- NOMOTO, KANICHI. 1994. Kyōsei no fōkuroa: minzoku no kankyō shisō (The Folklore of Co-existence: The Environmental Thought of Folklore). Tokyo: Seidōsha.
- . 1996. "Shin'i no naka no dōbutsu" (Animals in Folk Consciousness). In Kankyō no minzoku (Folklore of the Environment), edited by Akada Mitsuo, Katsuki Yōichirō, Komatsu Kazuhiko, Nomoto Kanichi, and Fukuda Ajio. Tokyo: Yūzankaku.
- OCHIAI, KEIJI. 1991. "Nihon kamoshika—Aomori-ken Wakinosawa-mura ni okeru jirei" (The Japanese Serow: A Case Study from Wakinosawa Village in Aomori Prefecture). In *Yasei dōbutsu hogo: 21 seiki e no teigen* (Wild Animal Protection: A Proposal for the 21st Century), edited by NACS-J. Tokyo: Nihon Shizen Hogo Kyōkai.
- OGINO, KŌICHI. 1977. Kaso chitai no bunka to kyōki—Okunoto no shakai seishin byōri (Culture and Insanity in Depopulated Regions: The Social Psychopathology of Okunoto). Tokyo: Shinsensha.
- OHNUKI-TIERNEY, EMIKO. 1987. The Monkey as Mirror: Symbolic Transformations in Japanese History and Ritual. Princeton: Princeton University Press.
- ——. 1990a. "Monkey as Metaphor? Transformations of a Polytropic Symbol in Japanese Culture." *Man* 25(1): 89–107.

- ———. 1990b. "The Monkey as Self in Japanese Culture." In *Culture through Time:* Anthropological Approaches, edited by Emiko Ohnuki-Tierney. Stanford University Press.
- Japanese Culture." In *Beyond Metaphor: The Theory of Tropes in Anthropology*, edited by James W. Fernandez. Stanford: Stanford University Press.
- ——. 1995. "Representations of the monkey (saru) in Japanese culture." In *Ape, Man, Apeman: Changing Views since 1600*, edited by Raymond Corbey and Bert Theunissen. Leiden: Department of Prehistory, Leiden University.
- ŌтA, YJ. 1997. *Matagi—kieyuku yamabito no kiroku* (Matagi: A Record of a Disappearing Mountain People). Tokyo: Keiyūsha.
- PIRTA, R. S., M. GADGIL, and A. V. KHARSHIKAR. 1997. "Management of the Rhesus Monkey *Macaca mulatta* and Hanuman Langur *Presbytis entellus* in Himachal Pradesh, India." *Biological Conservation* 79: 97–106.
- PRIMM, STEVEN A., and TIM W. CLARK. 1996. "Making Sense of the Policy Process for Carnivore Conservation." *Conservation Biology* 10(4): 1036–45.
- PUTMAN, R. J. 1989. "Introduction: Mammals as Pests." In Mammals as Pests, edited by R. J. Putman. London: Chapman and Hall.
- RICHARD, A. F., S. J. GOLDSTEIN, and R. E. DEWAR. 1989. "Weed Macaques: The Evolutionary Implications of Macaques Feeding Ecology." *International Journal of Primatology* 10(6): 569–94.
- RICHARDS, PAUL. 1993. "Natural Symbols and Natural History: Chimpanzees, Elephants and Experiments in Mende Thought." In *Environmentalism: The View from Anthropology*, edited by Kay Milton. London: Routledge.
- ———. 1995. "Local Understandings of Primates and Evolution: Some Mende Beliefs concerning Chimpanzees." In *Ape, Man, Apeman: Changing Views since 1600*, edited by Raymond Corbey and Bert Theunissen. Leiden: Dept. of Prehistory, University of Leiden.
- RIJKSEN, HERMAN D. 1995. "Forest Men and Man." In Ape, Man, Apeman: Changing Views since 1600, edited by Raymond Corbey and Bert Theunissen. Leiden: Department of Prehistory, Leiden University.
- RITVO, HARRIET. 1995. "Border Trouble: Shifting Lines of Demarcation Between Animals and Humans." *Social Research* 62(3): 481–500.
- ROEBROEKS, WIL. 1995. "Policing the Boundary? Continuity of Discussions in 19th and 20th Century Paleoanthropology." In *Ape, Man, Apeman: Changing Views since 1600*, edited by Raymond Corbey and Bert Theunissen. Leiden: Deptartment of Prehistory, Leiden University.
- ROWLAND, BERYL. 1973. Animals with Human Faces: A Guide to Animal Symbolism. Knoxville: The University of Tennessee Press.
- RYE, SIMON. 1995. "Of Pigs and People in the Rainforest of Sumatra." Oslo: SOM Working Paper.
- SAKUSA, KAZUMASA. 1995. *Dōbutsu kotowaza jiten* (Dictionary of Animal Proverbs). Tokyo: Bijinesusha.
- SATŌ, YASUO. 1995. "Ezoshikaryō no mondaiten" (Issues in Hokkaido Deerhunting). *Shuryōkai* 39(10): 52–55.
- SHEPARD, PAUL. 1996. The Others: How Animals Made Us Human. Washington, D.C.: Island Press.
- SOUTHWICK, C. H., and M. FAROOQ SIDDIQI. 1994. "Primate Commensalism: The Rhesus Monkey in India." *Revue d'Ecologie* 49(3): 223–31.

- SPRAGUE, D. S. 1992. "Life History Male Intertroop Mobility among Japanese Macaques (Macaca fuscata)." International Journal of Primatology 13(4): 437–54.
- ——. 1993. "Applying GIS and Remote Sensing to Wildlife Management in Japan: Assessing Habitat Quality for the Japanese Monkey (*Macaca fuscata*)." *NIAES Chikyū Chimu Kenkyū Shūroku* 3: 89–100.
- STRUM, S. C. 1986. "A Role for Long-term Primate Field Research in Source Countries." In *Primate Ecology and Conservation*, edited by J. G. Else and P. C. Lee. Cambridge: Cambridge University Press.
- ——. 1994. "Prospects for Management of Primate Pests." *Revue d'Ecologie* 49(3): 295–306.
- SUZUKI, AKIRA. 1972. "On the Problems of the Conservation of the Japanese Monkey on the Boso Peninsula, Japan." *Primates* 13(3): 333–36.
- SUZUKI, BOKUSHI. 1986. Snow Country Tales: Life in the Other Japan. (Translated by Jeffrey Hunter with Rose Lester.) New York and Tokyo: Weatherhill.
- SUZUKI, TŌZŌ. 1982. Nihon zokushin jiten (Dictionary of Popular Beliefs). Tokyo: Kadokawa Shoten.
- TABUCHI, JITSUO. 1992. "Chichishiro mizu." In *Dōshokubutsu no fōkuroa 1* (Animal and Plant Folklore Vol.1), edited by Tanigawa Kenichi. Tokyo: Sanjū'ichi Shobō.
- TACCONI, L. 1997. "Property Rights and Participatory Biodiversity Conservation: Lessons from Malekula Island, Vanuatu." *Land Use Policy* 14(2): 151–61.
- TAMBIAH, STANLEY J. 1969. "Animals are Good to Think and Good to Prohibit." *Ethnology* 8(4): 423–59.
- TAPPER, RICHARD L.: 1994 [1988]. "Animality, Humanity, Morality, Society." In What is an Animal?, edited by Tim Ingold. London: Routledge.
- TINKER, P. B. 1997. "The Environmental Implications of Intensified Land Use in Developing Countries." *Philosophical Transactions of the Royal Society of London* 29 (352): 1023–32.
- TISDELL, CLEM, and XIANG, ZHU. 1998. "Protected Areas, Agricultural Pests and Economic Damage: Conflicts with Elephants and Pests in Yunnan, China." *The Environmentalist* 18: 109–18.
- TOGAWA, YUKIO. 1956. Nihondōbutsushi (Record of Japanese Animals). Tokyo: Bungei Shunjū.
- TURNER, TERENCE. 1991. "We are Parrots', 'Twins are Birds': Play of Tropes as Operational Structure." In *Beyond Metaphor: The Theory of Tropes in Anthropology*, edited by James W. Fernandez. Stanford: Stanford University Press.
- UE, TOSHIKATSU. 1980. Yamabito no ki: ki no kuni, hatenashi sanmyaku (Diary of a Mountain Dweller: The Hatenashi Mountain Range, Tree Country). Tokyo: Chūkō Shinsho.
- ——. 1983. Yamabito no dōbutsushi (A Mountain Dweller's Record of Animals). Tokyo: Fukuinkan Shoten.
- . 1987. Seishun o kawa ni ukabete: ki to ningen no uchū II (Youth Afloat in the River. The Universe of Trees and Men, Volume Two). Tokyo: Fukuinkan Shoten. . 1990. Kumano sōshi (Kumano Storybook). Tokyo: Sōshisha.
- VANDERGEEST, PETER. 1996. "Property Rights in Protected Areas: Obstacles to Community Involvement as a Solution in Thailand." *Environmental Conservation* 23(3): 259–68.
- WADA, KAZUO. 1994. Saru wa dono yō ni fuyu o kosu ka (How Do Monkeys Get through the Winter?). Tokyo: Nōbunkyō.
- ——. 1998. Saru to tsukiau—ezuke to engai (Interacting with Monkeys: Provisioning and Damage). Nagano: Shinano Mainichi Shinbunsha.

- WADLEY, R. L., C. J. PIERCE COLFER, and I. G. HOOD. 1997. "Hunting Primates and Managing Forests: The Case of the Iban Forest Farmers in Indonesian Borneo." *Human Ecology* 25(2): 243–71.
- Wakida, Masahiko. 1989. "Minōtokuyama-mura no kumagari" (Bear-hunting in Minōtokuyama Village). In *Shuryō* (Hunting), edited by Sanson Minzoku no Kai. Tokyo: Enterprise.
- WATANABE, KUNIO. 1995. "Chiiki ni okeru yasei nihonzaru hogo kanri no mondaiten to kongo no kadai" (The Problems of Protecting and Managing Wild Japanese Monkeys in the Regions and Tasks for the Future). *Reichōrui Kenkyū* (Primate Research) 11: 47–58.
- ——. 1996. "'Genkyōken' kara no nihonzaru hogo no tame no seimei" (Declaration in the Name of the Conservation of the Japanese Macaque from the "Research Group on Present-day Conditions"). *Reichōrui Kenkyū* (Primate Research) 12: 55–56
- WATANABE, OSAMU, and SATOKO OGURA. 1996. "Nōson chiiki ni okeru yasei dōbutsu no kachi ninshiki to hogo-kanri seisaku e no ikō" (Relationship between Perceptions of Wildlife and Opinions about Wildlife Management Policy in Rural Areas of Central Japan)." Wildlife Conservation Japan 2(1): 1–15.

 WHEATLEY, B. P., and D. K. HARYA PUTRA. 1994. "The Effects of Tourism on
- WHEATLEY, B. P., and D. K. HARYA PUTRA. 1994. "The Effects of Tourism on Conservation at the Monkey Forest in Ubud, Bali." *Revue d'Ecologie* 49: 245–57.
- WHITE MILES, LYN. 1993. "Language and the Orang-utan: The Old 'Person' of the Forest." In *The Great Ape Project: Equality beyond Humanity*, edited by Paola Cavalieri and Peter Singer. London: Fourth Estate.
- WILLIS, ROY. 1990. "Introduction." In Signifying Animals: Human Meaning in the Natural World, edited by Roy Willis. London: Routledge.
- WOLCH, JENNIFER R., ANDREA GULLO, and UNNA LASSITER. 1997. "Changing Attitudes Towards California's Cougars." *Society and Animals* 5(2): 95–116.
- WOLFHEIM, J. H. 1983. Primates of the World: Distribution, Abundance and Conservation. Seattle: University of Washington Press.
- YAGI, YASUYUKI. 1988. "Mura-Zakai: The Japanese Village Boundary and Its Symbolic Interpretation." *Asian Folklore Studies* 47(2): 137–51.
- YANAGITA, KUNIO. 1961. "Yama no jinsei" (Mountain Lives). In Sekai kyōyō zenshū 21 (Collected Works of World Learning Volume 21). Tokyo: Heibonsha.
- -----. 1992 [1910]. Tono monogatari (Tales of Tono). Tokyo: Shincho Bunko.
- YUKAWA, YŌJI. 1991. Hen'yō suru sanson: minzoku saikō (Changing Mountain Villages: Reconsidering Folklore). Tokyo: Nihon Editāsukuru Shuppanbu.
- ZHAO, Q. 1994. "A Study on Semi-commensalism of Tibetan Macaques at Mt. Emei, China." Revue d'Ecologie 49: 259–71.

Newspapers and Newsletters

- Asahi Shinbun. 15/2/1989. "Dōbutsu no sakumotsu arashi 'yowatta'" (Animal Farm Product Damage). Kanagawa.
- Asahi Shinbun. 3/3/1990. "Saru gundan shiitake arashi" (Mushroom Damage by Monkey Army). Gunma.
- Asahi Shinbun. 6/3/1991. "Yasei dōbutsu ni furusato" (Furusato for Wild Animals). Kanagawa.
- Asahi Shinbun. 25/2/1992. "Sagasenuka, shika to kyōzon no michi" (Won't You Search For It? A Path Towards Co-existence with the Deer). Hyōgo.

- Asahi Shinbun. 21/5/1992. "Kankōkyaku ga saru ni osoware kega" (A Tourist Attacked and Injured by a Monkey).
- Asahi Shinbun. 25/3/1993. "Saru no mure shizen ni kaesō" (Let's Return the Monkeys to Nature). Ōsaka.
- Asahi Shinbun. 7/10/1993. "Yasei no saru, junan tsuzuku" (Wild Monkeys: The Suffering Continues). Gunma.
- Asahi Shinbun. 13/4/1994. "Nozaru no shin'nyū kuitome e shinheiki do'nyū" (Introducing New Weapons for Stopping the Invasions of Monkeys). Kanagawa.
- Asahi Shinbun. 5/6/1994. "Engai taisaku shidōin Takagi Naoki" (Takagi Naoki: An Advisor on Countermeasures for Monkey Damage).
- Asahi Shinbun. 22/12/1994. "Yasei ni manabu" (Learning from Nature).
- Asahi Shinbun. 23/7/1995. "Ōdaigahara, Hakkotsu jurin, Naraken Kamikitayama mura, midori o taberu shika" (Odaigahara, Hakkotsu Forest, Kamikitayama Village, NaraPrefecture—Deer Eating Greenery).
- Asahi Shinbun. 29/11/1995. "Onsensaru ni hinin shochi" (Sterilizing Treatment for Spa Monkeys).
- Asahi Shinbun. 1/12/1995. "Saru, shika nado kara nōsakumotsu mamorō" (Let's Protect Farm Products from Monkeys, Deer and the Rest). Chiba.
- Asahi Shinbun. 12/6/1996. "Atama itai engai taisaku" (Headaches over Countermeasures for Monkey Damage). Tokyo.
- Asahi Shinbun. 29/8/1996. "Yaseisaru no shasatsu chūshi o" (Towards a Cessation of Monkey-shooting).
- Asahi Shinbun. 19/9/1996. "Saru wa naze sato made oriruka" (Why Do the Monkeys Come Down to the Village?).
- Asahi Shinbun. 13/11/1996. "Saruhōrōtabi" (Monkey Wandering).
- Asian Primates. 1992. "What Future for Japanese Monkeys?" T. Maruhashi, D. S. Sprague, and K. Matsubayashi. Primate Society of Japan. Vol. 2, No. 1.
- JPN (Japan Primate Newsletter). July 1993. "Monkeys Attack People." Primate Society of Japan.
- JPN (*Japan Primate Newsletter*). April 1994. "Protected Monkeys May Be Captured Again." Primate Society of Japan.
- JPN (Japan Primate Newsletter). November 1995. "Mass Culling of Hot Spring Monkeys in Shiga Heights." Primate Society of Japan.