Culture, Protoculture and the Biosocial Divide: Japanese Perspectives on the Study of Animal Society

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Preliminary remarks

I thank Jim Rosenheim and Fellows of the Center for Humanities Research for this privilege of joining you in this fascinating exploration of manifestations of culture. What is particularly exciting, besides the pleasure of meeting colleagues in Texas, is the refreshingly broad approach the Fellows have taken to this question. Too often, within the discipline of anthropology at least, the biological and social anthropologists have little to share in the discussion of culture, though the discipline is nearly synonymous with it This symposium not only breaks through those barriers, but invites several disciplines to engage in the dialogue. It is, I am sure, the best way forward.

Introduction

It is my pleasure to speak to the idea of animal society and culture from the perspective of Japanese scientists. But first a word about vocabulary. Japanese ethologists were reporting on the complexity, intra-specific diversity and malleability of animal society and culture decades before their Western counterparts, with the exception of those Western observers who were ostracized from mainstream science for attempting to gain

acceptance for similar observations as Japanese pursued (such as Jane Goodall, Adrian Kortlandt, Eugene Marais).

Many have rightly stated that the starting point and greatest challenge for discussions of animal culture is the definition of 'culture'. In social anthropology of the British school the distinction is made that 'society' refers to the social structures of a particular group, such as governance, marriage patterns, educational systems, and so forth, whereas culture refers to the beliefs, rituals and customs that attend the maintenance of those structures. While all human societies have these recognizable structures or means of dealing with our life course, the form of the structures and attendant rituals, beliefs or culture differ among them

Translated to animal society, the social structures would be the hierarchies, mating patterns, mother-or parent-offspring relations, territory (or defended foraging space), and so on. Culture in animal society is precisely what we are exploring here, and it seems to be something rather different from the human case as defined. However, there is ample evidence of individuality, effects of personal histories on adult behavior, intra-specific variation in various habits, and the 'invention' and propagation of new habits or traditions in animals that does not fit under the rubric of social structure. Often these things were considered 'noise' in the system for Western ethologists; something to be ignored in devising neat and tidy descriptions of an entire species' species specific behavior. If you had seen one group of lions or hyenas you had seen them all. This viewpoint was followed closely by explanations for the observed patterns in evolutionary terms, and only later with regard to proximate causes for some difficult-to-explain behavior. Then came sociobiology with a brilliant remove back to evolutionary

explanations for altruistic behavior by taking the individual animal out of the picture altogether and making us 'gene machines'. And now we are moving back again to trying to deal with individual and group variation in behavior. I think that much discussion about culture in animals begins here - with individual and group variation in behavior

I will discuss a Japanese view of behavioral variation in animals with regard to why they had different results from their Western counterparts. Although much of my own observations have been made on practising primatologists in Japan, we do not need to be primatocentric about the study of animal culture, as Colin Allen and Marc Bekoff (1997) have pointed out. Indeed, the ideas behind social studies of primates were derived initially from entomology (on non-social insects) followed by studies of rabbits, horses and deer in Japan.

There are various aspects to this discussion of what lies behind Japanese attitudes toward the natural world that can be contrasted with ours. I hope to avoid the accusation of essentialism in speaking of 'the' Japanese, or 'Westerners' generally by saying that in the latter case, if we can recognize ourselves in what I say, it is fair to say it is generally applicable; and in the former case, by saying that the founder of animal sociology in Japan, Imanishi Kinji (Imanishi is the surname), taught a cohort of students who became influential heads of the major institutions of primatological, ecological and anthropological research in Japan, as well as influential philosophers, such as Ueyama Syunpei. We can reasonably say, therefore, that his ideas have been applied pretty generally, though of course not exclusively

The contrasts

To set the explanations of Japanese views in a more familiar context, I will demonstrate some contrasts to Western views regarding animals' capacities for complex and perhaps cultural behavior. For Western researchers working under or against the heritages of Judaeo-Christianity, Cartesianism, and Baconian views of 'nature-as-something-to-be-conquered or tamed' the idea of culture in animals is one part of a general concern with mentation, phenomenal consciousness, or just plain mind. A second concern, that arose in the French literature regarding animals and the social order, is the uniqueness of the human soul – l'âme in French, that was often discussed along with mental abilities, or lack thereof, in animals. Eighteenth century social philosophers warned against the disintegration of society that would surely follow if animals were thought to have souls that could be saved despite their licentious, bestial behavior.

While this my seem a long way from how we think today, we may recall philosopher Mary Midgley's caution in her 1983 book *Animals and Why They Matter*, subtitled *A Journey Around the Species Barrier*, that, contra Occam's Razor, it is a false conceptual economy to avoid any talk of animal mind. She noted that the topic of animals and how we think about them has a bearing on many central themes of political and general philosophy. Among those, are questions about the importance of reason in human life and its relation to feeling; the importance of language, and the human race's view of itself in relation to the physical universe. Another current view that is reminiscent of early 19th century outlooks is seen in modern writers about animal culture, such as well known primatologist Frans de Waal. His books written for the general public are, he

says, intended to get people to think of animals as enough like ourselves to be worth protecting.

As for the Japanese intellectual heritage, not one of these aspects - of nature-to-be-conquered, of restriction of mind or soul to humans alone, or of the exalted human place in nature – applies. I will turn now to cultural and theoretical attributes that influence their approach to animal culture. I will discuss the role of Shintō and Buddhism; of the metonymic use of nature (where the part stands for the whole), and ideas of what makes humans unique (which is not possession of a soul or rationality)

Japanese cultural influences

There has been, until recently, a commonplace that Japanese have a 'love of nature' or are close to nature. This has been repeated for literally centuries by both Japanese and observers of Japan. Related to this is the notion is that the Japanese live in harmony with nature, which is frequently contrasted with the quest to "conquer nature" allegedly found among Westerners. This preoccupation with nature is said to be a mixture of aesthetic and religious appreciation of the countryside

The close relation among these observations is observed in Shintō, where the *kami* (divinity or spirit) is believed to have taken abode in natural features, such as the sun and moon, rocks, streams, old trees, caves, flowers, animals and deceased people of special character or standing, which give people a feeling of awe or spirituality. In a sense, nature is divine and represents *kami*. Thus the *shimenawa*, or left-twisted rope often with white paper hanging from it, represents a place where a *kami* resides and hence should be approached with some reverence. Certainly one should get rid of pollution

before entering such an area, by rinsing hands and mouth, avoiding attending during menses, and in some places women were forbidden from entering the sacred precincts altogether. Indeed, the prototype for the Japanese garden was a sacred space cleared for a *kami* [slide].

This intimate relationship between man, *kami* and nature, which was the core of the ancient religious ethos in Japan, also had a profound influence on Japanese Buddhism. William LaFleur (1980) argues that it was necessary for Buddhism to come to terms with prevailing Japanese perceptions of nature in order to be accepted. The lengthy and heated debate in medieval Japan whether plants have Buddha-nature can be seen in this light. Not only was the distinction between the animate and inanimate, or between sentient and insentient beings, gradually erased to the extent that mountains, stones, mist and the sound of blowing winds became sentient beings, and thus in possession of Buddha-nature, but natural phenomena became viewed as being themselves Buddhahood already possessed intact. There is thus not a sharp line, as in much Judaeo-Christian thinking, between people and the rest. Nature, it was said, became the Absolute through which people could seek salvation. Human emotions find expression in terms of natural objects and phenomena, be it dew, rain, a mountain or a frog. Further, the transcience of human life is associated with the transcience of nature which stems from a conviction that nature and man are essentially the same, rooted in the same principle of existence

Yet, despite the alleged love and harmony, the Japanese have for millennia tried to control and even dominate nature in various ways, not least through technology, with the building of rice fields and irrigation systems, breakwaters, draining of bays, and clearing of mixed forests and so forth. Modern environmental problems had become so

severe by the 1970s that several government studies found alarming rates of pollution by PCBs in all mothers' milk tested, cadmium in rice, and of course the well known Minamata, or mercury poisoning cases, names after Minamata City where it was first apparent. Sacred Mount Fuji is covered with litter left by hikers seeking the ultimate 'nature fix' at its summit at dawn. Several species of animals are considered pests by farmers and have been nearly eradicated in Japan

What view of nature can we draw from this tangle, from the apparent paradox of a culture with an aesthetic imbued with nature references in its language, art, house design, and literature, yet with one of the worst records of environmental destruction?

A short answer would be the perhaps apocryphal story set around a meeting of the most powerful general of the late 16th and early 17 century, Toyotomi Hideyoshi, with the most famous tea master, Sen no Rikyū, and his morning glories. Toyotomi Hideyoshi had, unusually, climbed well beyond the social rank of his birth, and he took an interest in some of the more esoteric arts enjoyed by the upper classes. He became quite a connoisseur of the then relatively new tea ceremony. Having heard that the tea house of Sen no Rikyū was surrounded by a particularly spectacular display of morning glory flowers one summer, he asked that a tea ceremony be prepared so he could admire them Sen no Rikyū asked for 3 days to prepare. The traditional entrance to a tea house would be through an outer garden [slide] where any weaponry would be removed. In the inner garden, the entrance to the teahouse [slide x 2] was such that you would have to crawl inside – thus leaving yourself very vulnerable to attack. Tea was intended as a neutral place where one's station did not matter, where guests could admire the art or view, have

a bowl of tea prepared for each in turn, and not speak until after a state of quietude and reverence had been established.

When he arrived, Hideyoshi walked through a garden that was just turned earth, with not a flower in sight. Still, etiquette required that he maintain an equilibrium and he crawled into the tea house. Sen no Rikyū greeted him and directed him to sit – opposite a single, perfect bloom set in a vase. He had sacrificed his entire garden to highlight the moment of appreciation and contemplation of the 'essence of the morning glory'

Indeed, it can be seen in many aspects of Japanese representations of nature, that a part represents the whole in metonymous fashion. Further, the representation is often perfected, according to a Japanese aesthetic, so that bonsai, ikebana, *bijinga* (portraits of beautiful women) are unlike anything one would find in nature, but beautifully represent what is inherent in nature.

I will expand on attitudes to the beauty of nature, to add an illustration of the use of nature to share and render human emotion. The *bijinga* that span many decades of the 19th and 20th centuries, represent not just women's beauty, but women standing for nature, and nature standing for women. Here we can see that the representation of female beauty is quite different from, for instance, Venus in the West. In Japanese art, the naked body usually has been avoided, even in *shunga* (erotic paintings) where the couple is frequently dressed. In contrast to Venus, stripped of all that is superfluous or inauthentic, there is an elaborately dressed *bijin* (beauty), with nature woven into her kimono – irises, cherry petals, chrysanthememes, flowing water, and so on. [slide]

But there is also a 'dialogue' between nature and humans represented in the art. In the painting 'Listening to the Lotus Flowers Popping" by Hashimoto Meiji in 1936,

[slide] the main characters seem to be the two women sitting in the centre of the painting, while in the left there are just two halves of lotus leaves and two lotus flowers that have lost their petals. The women wear summer clothing, representing the season as do the lotus flowers without their petals. The title suggests that the lotus from the left corner are talking to the women. Nature talks to our spirit. Nature captured in *bijinga* is not merely background or ornamental; it is an interlocutor for a poetic dialogue. It is also a vehicle for certain sentiments and remembrances that it evokes. For this reason, it is not necessary to paint nature as if it were a photograph. A single presence, such as the firefly in the painting of that name by Uemura Shoen in 1913, [slide] conjures up the heat of the coming summer as much as does the mosquito net and light *nemaki* or sleeping kimono of the woman. Everyone relates to the firefly as the harbinger of summer, and still, where the fireflies remain, go on walkabouts to enjoy their darting light. It is quite ritualistic

What does this tell us about modern Japanese and their approach to nature? In more modern terms, the 'subjugation of nature', and 'domination and manipulation of living creatures' that characterizes Western relations with nature, has been described in terms of domestication. This is more than the cultivation of crops or the raising of animals; it represents a wider transformation of human society's perception of nature in what amounts to a 'whole system of domestication'. In some ways, the metaphorical and metonymical approach to nature by Japanese in artistic tradition could be thought of as a system of domestication in this sense.

However, in a recently published study of human-wildlife relations in Japan, anthropologist John Knight in *Waiting for Wolves in Japan*, [slide] finds that even today mountain villagers who rely on natural resources for their livelihoods reveal subtle

differences from a Western view of strict domestication of nature. He notes that although the relations between Japanese mountain villagers and forest wildlife are marked by anthropocentric orientations, utilitarian assumptions and considerable antagonism, wild mammals can also attract human concern, affection, and even identification. The species he includes are wolves, boars, bears, deer, serow and monkeys. The wildlife 'pests' and 'resources' are not therefore reducible to a simple 'object' status and human behavior towards these animals is not insulated from the considerations of morality that apply to human society itself. People-wildlife relations in Japan are marked by perceptions of commonality.

For example, village hunters will perform an annual memorial, known as a *kuyō*, for the spirits of dead game animals. At a special memorial stone, offerings of food and *sake* are made and hunters console and express gratitude to the spirits of the animals killed over the past hunting season. The ceremony is a way of expressing regret to their prey. The rite also expedites the posthumous wellbeing of the animal spirits and their attainment of Buddha status. It is also a pacification measure that transforms the animal's spirit from a state of restless suffering, dangerous to those responsible for causing it, to a state of repose.

Kuyō are, in fact, very common throughout Japan. Farmers perform memorial services for the insects that they have killed through crop spraying; pet owners attend services for dead pets, even bringing offspring of the pets to pay their respects; scientific laboratories that use animals perform annual services for the same reasons, in which case not only the experimenters, but the administrative staff, secretaries, cleaning staff and so forth, also attend. All gain their living through the sacrifices of the animals. There are

kuyō for many inanimate objects as well, from dancers' fans and broken tea bowls, to bicycles and brassieres. In the case of inanimate objects, the soul or spirit contained therein is part of the owner's, imparted through long use of the object

Lastly, we should consider the endemic Japanese monkey and the definition of humanness that provides another insight. As with our culture, other primates hold a special position among animals as resembling humans. In Japanese folklore, metamorphoses between other animals and humans, or possession of humans by other animals are quite common. However, there are very few examples of either metamorphoses or possession of humans by monkeys. Japanese are less comfortable with playing with their similarities. Yet, as shown by the studies of modern, popular dancing monkey entertainers in urban centres, the monkey was portrayed as a scapegoat for human foibles. This does not relegate the monkey to demon or evil status. In fact, the monkey cleanses the human by shouldering our bad attributes.

Anthropologist Emiko Ohnuki-Tierney (1987) pointed out in her book *Monkey as Mirror* that when a distinction between human and monkey was important, emotionality rather than rationality was called upon. (Only humans can cry - and this marks their humanity). Emotionality is the Japanese hallmark of humanity. This is very interesting in view of the Western hallmark of humanity as the soul or as rationality. It stands in sharp contrast to Japanese acknowledgement of soul (*rei* or *tamashii*) in animals and other organisms, as well as the greater importance of emotionality over rationality in defining humanness.

We can say, then that study of animal culture in Japan has been unencumbered by the restriction of mind or soul to humans and that Japanese so-called love of nature is a

taming and culturalizing of chosen parts of nature. Yet at the same time, Japanese can see themselves as profoundly part of a larger nature.

Theoretical influences

I turn now to the theoretical influences on study of animal culture. I'll first set out some of aforementioned Imanishi Kinji's ideas about animal sociality, then relate a bit about primate behaviour studies before concluding.

Imanishi (1902-1992) began as an entomologist and ecologist. His doctoral research was on mayfly larvae living in the fast flowing Kamo River in Kyoto. Toward the end of 1940, he completed a book called 'The World of Living Things' (*Seibutsu no Sekai*) in which he set out a philosophy of biology, published in 1941. It was completed several years before any thought of doing mammalian ethology, yet the concepts did, and still, inform the work of Japanese primatology. The book has appeared in both English and German translation in 2002

The book has just five chapters, On Similarity and Difference, On Structure, On Environment, On Society and On History His first three chapters are intended as an introduction to the last two This, in a book about organisms in nature. The themes in his first chapter presage the development of Imanishi's interests in anthropology and primatology. Of particular relevance is his statement about the "objective of biology" Biology is not related to the resources for human life, he says, but provides the path by which we can understand our biological affinity with the living world, and that the roots of our behavior are in the world of living things.

The second chapter is "On Structure". Our world is not a random chaos but is an ordered one with a certain structure. The integrating nature of a living being, which

consists in controlling and governing itself and its surrounding world, seems to be interpretable as their autonomous subjective character (*shutaisei)*. Any living being must be an autonomous subjective being in this world, as it makes a living in it. The subjectivity is a character endowed on living things from their very beginning on this earth; in it lay the root of what eventually developed into human mind. The life of a living thing consists in assimilating the environment and controlling the world, and that is after all the development of *shutaisei* endowed on it.

These initial discussions set the stage for chapter four, "On Society", which Imanishi considered to be the core of the book. Right off, Imanishi tackled a question of interest in science then and now: why do organisms live in proximity other than for reproductive purposes?

He asks, 'What is a species?' He notes that an individual sees a conspecific as an extension of its own body. This is a basis for his thinking that nature abhors conflict. Imanishi does recognize competition for the same resources, especially food, and says that various life forms emerged due to this. But this was a division of resource-use and the forms that could utilize them, rather than war over resources. Even interspecifically, competition is futile, as may be seen in the mutualism between parasite and host.

Members of a species gather, not for reproductive purposes, but because they have the same needs. In their common habits they find the most stable, and thus the most secure life. That world is the world of the species, and the life there is the life of the species. This shared life does not imply a conscious and active cooperation; rather, as the result of the interactive influences among individuals of the same species, a kind of continuous

equilibrium results. The species society is a real entity in this world, or in other words, the world of species is a social phenomenon

Imanishi later gave the name "specia" to the species society. As the basis of the formation of species societies, every organism is postulated to have an intrinsic faculty of perceiving the identity of fellow members of the same species. *Shutaisei* is the vital attribute of every living individual and species society. Every living thing is considered to be a subjective autonomous entity that acts on and interacts with other living things and its environment. These living things form a species society, which in turn, in a similar manner, acts on and interacts with other species societies to form the whole living world

These observations were written many years before Imanishi turned to study of mammals. By the end of WWII Japan was very impoverished and Imanishi decided to study something that would not cost a lot of money – that would just require paper, pencil and strong legs. (Even the pencil lead of the 1948 field notebooks is very, very soft-smudging just from the book being closed. Within two years, a higher grade of lead was used). Imanishi had made studies of both people and wild horses in Mongolia, and turned to study of semi-wild horses in southern Kyushu, soon followed by deer and rabbits [slides]. The use of sociograms and careful plotting of spatial relationships is evident, and the field notes (over 2200 pages) from the Kyushu period 1948-1952 are astoundingly detailed renderings of animal movements and interactions of individually identified animals. Imanishi and his students were already doing focal animal sampling, ad libitum sampling and habituation of animals long before they began to study primates.

The beginnings of Japanese primatology can be dated to 1952, when, after four years of abortive attempts to observe the wild monkeys native to the Japanese archipelago

researchers successfully lured monkeys with food into the open at a few sites. This enabled them to see the membership of the group. Originally, three features were said to characterize Japanese primate research: provisioning, long-term studies and individual identification of the animals. Provisioning, or feeding, not only drew the group into the open, but marked the Japanese willingness to eschew a more objective and removed relationship from the animals by entering into a special kind of relationship with them. The problem with potential interference with natural behavior resulting from artificial feeding was thought to be offset by the opportunity to observe the lives of these animals in greater detail, and by the plan to reduce or cease feeding after individuals had been identified. Provisioning in this sense was quite natural, they said – they were not controlling, but following the animals in nature.

The idea of long-term observation also involved "following nature" - in particular by looking closely and quietly and not interfering - just waiting. Although this was understood by many in the West to produce simply an accumulation of atheoretical descriptive data, there was, in fact, an underlying conceptual framework: Japanese researchers were seeking to understand the so-called species society which included the behavior and interrelationships of no less than all members of all groups of any one species. According to this framework, one began with observation of particular groups, and the study was possible only through individual identification of all the animals. One aim was to grasp what position and what relationship with others each individual had in the animal society. They sought parallel phenomena to what occurs in Japanese human society. Since within Japanese society, one's identity is to a great extent one's group identity, and since status and social relationships are given much attention, it was natural to look for similar phenomena in the monkey groups. And that was one of the first questions to be asked of monkey society - is there anything like rank order?

The Japanese recognized early on variability or what they called "sub-cultural" or proto-cultural behavior among different groups of the same species. Likewise, the history of both the individual and the group was considered equally important, while this dual history was almost wholly neglected by Western primatologists in their shorter-term studies. To the Japanese, current variability among groups and change in individuals and groups over time must be included for a complete picture to emerge of the dynamics of a society. The Japanese, then, approached primate studies from a cultural rather than a biological point of view.

Japanese macaques were the first nonhumanprimates proposed to exhibit culture, due largely to research conducted on provisioned troops living on Koshima Island [slide] In 1953, soon after provisioning with sweet potatoes began, a young female named Imo began to wash the dirt off potatoes in a stream. In time, her peers and relatives began to exhibit similar behavior. Later on, when provisioning occurred on the beach, Imo began to wash potatoes in the sea instead of in freshwater, and again the behavior was soon observed among peers and relatives. This 'seasoning' was observed even when the potatoes were not dirty. In 1956, the primary provisioning staple was switched from potatoes to wheat grains, which were scattered across the sandy beach. Soon after, Imo invented 'wheat-sluicing'. When handfuls of sand and wheat were tossed into the ocean, the sand would sink and the grains would float, allowing them to be skimmed off easily Though both behavior patterns took some years to spread (and was never observed in some older adult males), by 1983, both 'traditions' were habitually observed in most troop members, despite the declining opportunity to practise them. These traditions were

not static – dominant individuals would steal the grains of subordinates, and subordinates developed counterstrategies, such as trailing handfuls of sand and grain in the water without letting go, or digging small pools on the shore that could be guarded more effectively.

Among chimpanzees, the distribution of novel tool-using and grooming behaviors have been cited as examples of cultural behavior. Language studies of chimpanzees (as well the other great apes), in which one chimpanzee teaches signing to a naive chimpanzee is also seen as a form of culture [slide].

Summary

A quotation from a leading Japanese primatologist's book, Kogoroshi no kōdogaku (Infant Killing Behavior), sums the Japanese position quite well. He is referring to langurs, a monkey species common in India, in which a new male joining a group of females may kill existing infants. He wrote:

"On the one hand ethology has so far been working on the mechanism of the behavior patterns inherent in man and animals. To the question, 'Why do they do this?', ethology would answer that they are genetically programmed to do it, and have survived in evolutionary history. Ecologists further explain the behaviour in terms of a strategy. In this instance (infant killing) may be a means by which an overtaking male can maximize his reproductive potential, since non-lactating females will come into estrus. The Japanese primatologist goes on to say that he thinks both are partially correct, but "in these explanations there is no room for living things. At least in mammals, including primates, each has its own motivation, thought and feelings and soul in its own behavior."

Thus, for the Japanese there is not a firm 'biosocial divide'. Animals can be motivated by things beyond maximizing reproductive fitness. They did distinguish between fully blown human culture and the incipient nature of 'protoculture' in animals and they are seeking an evolutionary continuum between animal and human behavior

Conclusion

In conclusion, it is perhaps unnecessary to attempt to stretch the concept of human culture to encompass what animals are doing in their own different, but valuable and complex lives. Perhaps the most important message from this is the manifestation of culture in the study of animal culture. We can recognize that our questions and findings are produced within a scientific culture that is itself enlivened by the greater culture of which it is a part. The challenge is to give voice to the different traditions within the international science community.

References

Allen, Colin and Marc Bekoff, 1997. *Species of Mind. The Philosophy and Biology of Cognitive Ethology.* MIT.
Knight, John, 2003. *Waiting for Wolves in Japan. An Anthropological Study of People-Wildlife Relations.* OUP.
La Fleur, William R, 1989. Saigyō and the Buddhist View of Nature. In JB Callicott and RT Ames (eds) *Nature in Asian Traditions of Thought.* SUNY: 183-209
Midgley, Mary, 1983. *Animals and Why they Matter. A Journey around the Species Barrier.* Pelican.
Ohnuki-Tierney, Emiko, 1987. Monkey as Mirror. Symbolic Transformations in Japanese History and Ritual. CUP.