
The Lion/Bushman Relationship in Nyae Nyae in the 1950s: A Relationship Crafted in the Old Way

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Abstract: This paper concerns the relationship of the hunter-gatherer people of the Kalahari Desert, the Ju/wa Bushmen or Ju/wasi, to some of the predators who also lived there, the lions. The observations derive from work done in the Nyae Nyae area of the Kalahari between 1951 and 1990, but mostly between 1951 and 1956, during which time I personally was in Nyae Nyae for about 26 months. Other members of our group were there much longer. No seasonal variation in the human-predator relationship was observed.

Keywords: hunter-gatherer, Bushmen, lion, predator, ecology, hunting

Résumé : Cet article traite des relations que les chasseurs-cueilleurs du désert Kalahari, les Bochimans Ju/wa ou Ju/wasi, entretiennent avec les prédateurs qui vivent là, les lions. Les données proviennent d'observations faites dans la région de Nyae Nyae du Kalahari entre 1951 et 1990, mais surtout entre 1951 et 1956, période où je suis restée au Nyae Nyae durant 26 mois. D'autres membres de notre groupe y sont demeurés beaucoup plus longtemps. Nous n'avons observé aucune variation saisonnière dans les relations humain-prédateur.

Mots-clés : Chasseurs-cueilleurs, Bushmen, lion, prédateur, écologie, chasse

This paper concerns the relationship of the hunter-gatherer people of the Kalahari Desert, the Ju/wa¹ Bushmen or Ju/wasi, to some of the predators who also lived there, the lions. The observations derive from work done in the Nyae Nyae area of the Kalahari between 1951 and 1990, but mostly between 1951 and 1956, during which time I personally was in Nyae Nyae for about 26 months. Other members of our group were there much longer. No seasonal variation in the human-predator relationship was observed. The observations herein are mine unless otherwise noted.²

In the 1950s, as a member of the Peabody Harvard Southwest Africa Expeditions, I was privileged to observe certain groups of Bushmen including the Ju/wasi of Nyae Nyae as these people interfaced with the local population of lions. I had never before lived among either Bushmen or wild lions, and, taking the behaviour of both for granted, I assumed that it typified such behaviour everywhere.

Because the people had no protection against lions, I assumed that none was needed. The people slept on the ground, without fences or walls or large, intimidating fires, surely as our ancestors had slept ever since they moved from the forests to the savannah. If lions came to the Bushman camps at night, the people would stand up and would sometimes shake burning branches at the lions. Also they would speak to them loudly in steady, commanding tones, telling them to leave.³ On most occasions that we observed nocturnal visits by lions, the lions stayed around for a short time, but soon enough they faded into the darkness beyond the firelight and then left, as requested.⁴

Nor did people take special precautions against lions when walking in the bush, other than to pay attention to their surroundings, as the Bushmen do anyway. If the people came upon a lion while travelling, they would move slowly away at an oblique angle, and continue unmolested, on their way. The technique of moving slowly away at an oblique angle was not confined to peo-

ple. On one occasion, a lion whom we encountered moved away from us in that manner—slowly, at an oblique angle.

In contrast to lions, leopards posed a real danger to people. Although during the 1950s none of the people among whom we worked was killed by an animal (although someone was seriously bitten by a poisonous snake) later on in the 1980s I learned of several people killed by leopards, and was present when a leopard attempted a nocturnal raid on a Bushman encampment, presumably with a dog or a person in mind as a victim. Even so, the people seemed to have no special feelings for leopards, treating them as a dangerous nuisance, but meanwhile respected lions more than any other animal, even according to lions some of the same attributes that were accorded to the //gauasi, the spirits of the dead. As during trance-dances, trancing people would confront the //gauasi, so too would they confront lions, running out into the darkness while in trance for the purpose of encountering lions whom they would then vilify verbally. It was my very strong impression that on these occasions lions were not actually present, or not very often, but were believed to be aware of the trancers, just the same.

However, although the Bushmen treated lions as they treated no other animal, they also manifested so little actual, visible fear of them that they would sometimes take their kills. I witnessed one such occasion; when attracted by vultures sitting in a tree, a group of four Bushman hunters went to investigate, and found the red bones of a lions' kill (a hartebeest) lying near some bushes. They looked around for a minute or two. The lions were resting in the bushes, and didn't seem to notice the hunters, so after brief consideration, despite the fact that the vultures were still in the tree, presumably in fear of the lions, the hunters simply walked up to the carcass and took it in an unhurried, deliberate manner.

In another instance, Bushman hunters had shot a wildebeest with a poisoned arrow and were tracking him, but when they finally caught up to him, he was so consumed by the poison that he was lying down. However, a large pride of about 30 lionesses and a black-maned lion had found him first. Although the wildebeest could still toss his horns, some of the lionesses were starting to close in on him, watched by the others, including the lion, who stayed in the background. Seeing all this, the Bushmen approached the nearest two lionesses cautiously, and very gently eased them away by speaking respectfully, saying "Old Ones, this meat is ours," and tossing lumps of dirt so that the lumps landed in front of the lionesses without hitting them. The two

lionesses didn't seem happy about this, and one of them growled, but amazingly, both of them averted their eyes, and turning their faces sideways, they soon moved back into the bushes. Eventually they turned tail and bounded off. Soon, the other lions followed them, and the Bushmen killed and butchered the wildebeest. (When 20 years later I naively tried the dirt-throwing technique to try to move an Etosha Park lioness, she stared at me with real hostility, and then, far from turning her face appeasingly, she charged me.)

In later years, John Marshall and Claire Ritchie (1984) made a survey of causes of death among the Bushmen—a survey that covered about 100 years and took in about 1500 deaths. Of those, only two could definitely be attributed to lions, and one was a paraplegic girl who, because she moved by dragging herself in a seated position, was probably in extra danger.⁵

All lion populations are not the same in their treatment of our species. On the contrary, in many areas near Nyae Nyae, including Etosha National Park, the lions indulge in occasional, opportunistic man-eating (several years ago, a German tourist became the victim of two lions who found him asleep on the ground near the tourist centre). According to the Etosha Park authorities, the man-eating habits of the Etosha lions discouraged SWAPO guerrillas from entering Namibia through the park. In contrast, the lions of northern Uganda, terrorized by the Ugandan army, took pains to avoid people at all costs, to the point that they were seldom seen and were virtually never heard roaring. What then was the secret of the Bushmen and the Bushmanland lions, in their relatively pleasant relationship which might best be characterized as a truce?

Perhaps the single most important factor in this relationship was that like all the other animals present, the Bushmen lived entirely from the savannah, without fabric or manufactured items except that they were slowly replacing their bone arrowheads with arrowheads made of wire, which while being a change of material, was not a change in technology, as the form of the arrows and the ways of using them remained the same. The people had no domestic plants or animals, including cattle and dogs. The importance of this cannot be overstated, as it kept the people on a more equal footing with other species. When in later years these very people acquired cattle and dogs, the relationship with lions changed markedly, as might be expected. The lions were seen, often rightly, as threats to the cattle, and the dogs did their best to keep predators of all species far away from the villages. The people were no longer what they had once been—one of many species of mammal of the

African plain—but were an entity apart, complete with animal slaves and agricultural interests, all of which put them in direct conflict with many kinds of wild animals, but especially with the large predators.

But in the 1950s (perhaps not surprisingly, since both the people and the lions were mid-to-large-sized social animals and also hunters) the people and the lions had certain similarities, beginning with land use and group size. Bushmen grouped themselves into bands that numbered about 15 to 25 people above the age of infancy (averaging maybe 22 or 23 people) These would be the people who lived together in one place at any given time, although they would have considered themselves as members of a much larger unit (in one part of Nyae Nyae, the larger unit consisted of approximately 150 people) spread over a large area. The concepts of territorial rights as visualized by the Bushmen have been dealt with comprehensively elsewhere—suffice it to say at this juncture that these people believed themselves to control the area in human terms, so that residence rights were enjoyed by some, the “owners,” but not by just anybody. On rare occasions—during droughts, for instance, when a few deep, permanent waterholes were the only source of water—large groups of people would assemble, yet all these people would have the right to be there, the right having been acquired through kinship or marriage.⁶

In Nyae Nyae, many of the people we knew were living in places to which women had the primary birthrights, or *n!ore*. For example, the *n!ore* for a certain permanent waterhole and the surrounding land with its hunting and gathering potentials pertained to an elderly widow, her two married daughters and their children, her married granddaughter, her two adult nieces (the daughters of her husband’s deceased sister) and the children of these women, including the elderly widow’s unmarried adolescent son. The women’s husbands also had every right to live at this waterhole and were of course among the most important members of the group, but their *n!ore* was not for the same area. Their *n!ores* (pardon the anglicized plural) were for other places, which they had left to join their wives. Similarly, the elderly widow’s older son did not live at this particular site, nor did her nephew—the brother of her two nieces—although these men would, like their mothers and sisters, have held the *n!ore*. These men, both adults, lived elsewhere with their wives.⁷

The lions would have had a somewhat similar arrangement. Certain aspects of lion society, not understood in the 1950s, are widely known today, such as the fact that a lion territory is held by a pride of lionesses, a

pride which might be composed of related females—mothers and daughters, sisters, aunts and nieces. This seemed not unlike the human arrangement. The males of the pride also bore a certain similarity to the human hunter/gatherer males—the young males, the sons and brothers of the pride members, stay with the pride until they reach maturity, at which time they disperse to find females of their own, while any adult males who may be present are not related to any of the pride members (except to any cubs they may have fathered), but have come from elsewhere to live among the females and to help defend the territory from rivals. (Here the similarity with people ends, as the male lions of a pride can expect eventually to be ousted by other males, who battle with them for the company of the lionesses. The winning males take over the females and their territory, sometimes killing the infants of the defeated rivals. The people of course do nothing of the kind.)

In Nyae Nyae during the 1950s, lions were normally seen in groups of five or six, but in the place we knew best, the area around Gautscha Pan, approximately 30 lions evidently owned the area with respect to other lions, and on what seemed to us like rare occasions (such as the time, mentioned earlier, that the lions tried to take the hunters’ wildebeest) this group of 30 would assemble in one place. No human being knew why this group of lions assembled when it did—but even when the group seemed to be scattered, the individuals appeared to keep in touch by calling and answering as they moved about at night. If strange lions had tried to occupy the territory, the resident lions almost certainly would have tried to drive them off.

Water was probably the single most important of the territorial requirements for both the people and the lions, and probably it was the water that held the people and the lions to their places. Unlike many other animals (most savannah antelopes, for instance, are water-independent) both people and lions need water to cool themselves so a water source is especially important in a hot, dry climate. However, both species can and do live without actually drinking water, as each can get liquid from other sources—a certain wild melon, the rumen of antelopes, watery roots, and the like. But if people or lions are to get their liquid from such other sources, their groups must be significantly smaller. Lions living without water per se usually live singly or at most as a pair. The only group of people we encountered who were living without water numbered only 11, about half the size of an optimal group. However, both lions and people, being social, vastly prefer the so-called optimal group-size. They have several likely reasons for this—both

species practice a certain of division of labour, including team hunting, co-operative foraging and co-operative child care. Territorial defense is also undertaken as a group activity, whereby conspecifics are repelled, probably more frequently in the case of lions, but there are historical instances where Bushmen drove off or tried to drive off strangers whom they perceived as intruders.

Lions and people preferred group life to solitary life, so in the Nyae Nyae area both species formed groups roughly similar in size. But not in number. A residential group of Bushmen would be larger in number than a residential group of lions, but more or less the same in mass. Counting everyone except nursing babies, I estimate the average weight of an individual in a group of Bushmen to be about 80 lbs., and the average weight of a lion at about 300 lbs., or in other words, taken together, each group might weigh about 2 000 lbs. And this probably pertains to the meat requirement (if not, in the case of the Bushmen, to the total food requirement) in that a meat meal big enough to satisfy a group of Bushmen would equally well satisfy a group of lions.

Probably for that reason, the hunting preferences of both species appeared to be closely related to group size. Both species hunted the same prey, with strong preference for the larger antelopes. Both species hunted in a very similar manner, the primary method being to stalk the prey, then strike. A few Bushman hunters were also able to course game—one man in particular could and often would run down an antelope, travelling very long distances just as African hunting dogs would do—yet as far as the Bushmen were concerned, stalking an animal cat-style, getting as close as possible, then shooting it with a poisoned arrow, was by far the most common method of hunting. And just as the bow hunters needed to be fairly close to the victim, so did the lions, who struck by making a short dash of lightning speed, then leaping on the victim. Not having to course the victim, gaining no special benefit from poor physical condition on the part of the victim, neither the lions nor the human hunters made a point of selecting sick, old, or weak animals as prey. For a bow-hunter, the closer the target, the better, and for a cat, (because cats get out of breath very quickly) the shorter the rush the better. Therefore, all else being equal, when stalking herd animals as potential prey, both kinds of hunters tended to select the nearest animal as victim. And the distance that a lion can effectively rush is about the same as a bow-shot.

How can two species who are so very similar, and with such similar needs, habits and methods, drink from the same waterhole and lay claim to the same territory without coming into conflict? The answer is that they

lived in a manner that could sustain a truce, keeping to certain lifestyle patterns, probably quite consciously. Most notably, they used the same area at different times of day, spreading out all over the area to forage for roughly 12 hours, and then retreating to a very small, restricted area to rest for 12 hours. Because Nyae Nyae was at about 20 degrees south latitude, days and nights were about the same length, without pronounced seasonal variation. Thus, throughout the year, both species had equal time to forage. The people used the hours of daylight, and the lions used the night.

I think it safe to assume that the arrangement was intentional by both parties. It's true that people tend to be diurnal, and the Bushmen of course were no exception—they needed daylight to forage, but they virtually never went about at night for any reason, by which they were different from people in many other African communities who go about at night regularly despite lions and snakes.

As for the lions, we erroneously think of them as nocturnal. If they are, it is usually because their hunting lands have poor cover. Then, lions must hunt at night, and if the grass is very short they must hunt when the moon is down. But in the Gautscha area, the cover was such that the lions could have been active by day if they chose, just as some lions are elsewhere—in the nearby Etosha Park, for example—and also in other game parks, where lions often hunt by day. We never saw daylight hunting by lions in Nyae Nyae. In fact, although we ranged almost continuously on foot and in vehicles throughout most of Nyae Nyae where we frequently saw all the other fauna of that vast and pristine wilderness, we hardly ever saw lions in the daytime.

In any situation where animals avoid people, or where dangerous animals decline to attack or eat people, we assume that human technology is responsible. Fire and weapons, we think, will keep wild animals at bay. Not so. The Kalahari animals evolved in the presence of fires and are no more afraid of them than we are, and for an excellent reason—in the low-density growth that covers a savannah, wildfires don't get very hot and are not very dangerous. Midsized to large mammals pay little attention to them, and step casually over the flames if the fire comes near.

Even so, it is often said that campfires discourage lions and other predators. And indeed, the Bushmen attributed much importance to nighttime fires, and tried every day to gather enough fuel to last the night—something that the people did very purposefully and specifically. One of the stars was known as the Firewood Star, which, when it rose, would indicate whether or not a fuel

supply was adequate. But the role of campfires in discouraging predators was mainly to cast light. If predators came, their firelit eyeshine would betray them, and the people could immediately take precautionary steps, one of which was to build up the campfires to cast even more light so that the people could spot all the predators, not just the nearest, but any that might be lurking in the background too, and hopefully could see what all of them were up to. Sometimes, as has been said earlier, the people shook burning branches at visiting lions, but this was not so much a threat, not so much to say, "See this? I'll hit you with it," than it was a device to make the bearer seem more formidable. Virtually all other mammals, also many birds and reptiles, do something similar, such as raising the hair or otherwise puffing up to appear larger.

I believe there to be yet another reason why nighttime fires might have helped the people to avoid conflicts with predators. If the fires revealed the animals to the people, they also revealed the people to the animals. This could be very helpful to animals passing through the wide area near a camp that would be impregnated with human odour which the wind would be carrying in all directions. Odour, while giving much information in great detail, would not usually be as specific as a sharp visual impression. Hence a campfire, visible from a distance, would be more reliable than odours. Any animal who wished to mind its own business and not get mixed up with our dangerous species needed only to keep away from the firelight.

As for the weapons, the Bushmen essentially didn't have any. In places such as East Africa, pastoralists used to carry 10 foot spears and body-length shields to use against lions, but the Bushmen carried spears that were less than four feet long, perfectly adequate for their intended use—dispatching a wounded antelope who would not fight back—but very risky to use against a lion, because a Bushman's spear was about the same length as a lion's reach. A hunter could throw his spear from a distance but then what? Unless he dropped the lion instantly—not an easy thing to do—his spear would be gone, and right in front of him would be an angry, wounded lion.

Then there were the Bushman arrows, poisoned with one of the deadliest poisons ever known to humankind. A lion or anyone else shot with a poison arrow would most certainly die. Not from the arrow itself, which is basically a little dart, and is too small and lightweight to cause serious injury.⁸ The poison is the lethal factor, but the process is slow—one to four days, more or less, largely depending on the size of the vic-

tim—during which time the injured party could inflict a tremendous amount of damage on its tormentors. It is hard to imagine a worse scenario than a group of relatively defenseless people, without tall trees to climb, without protective clothing, without strong shelters to get into, without shields, without guns, without long spears, trying to cope with a wounded lion for, say, 12 to 48 hours.

Bushman spears and poison arrows were surely not designed as weapons. Yes, they have been used as weapons, but so have pitchforks in the hands of embattled farmers. The Bushmen spears and poisoned arrows are essentially hunting tools, for which they are as elegant as they are perfect. As weapons, they are second rate at best, no good for launching an attack or dispatching any enemy quickly.

They are a deterrent, however, and a powerful one. One drop of poison in the blood is certain death—there is no antidote. A poison arrow says, as clearly as a hydrogen bomb, don't mess with me or you'll regret it. Perhaps this explains why, unlike so very many peoples, African and otherwise, the Bushmen had no shields, or any other item that could serve as a shield. In contrast to some of the East African pastoralists, for instance, who kept different kinds of spears and shields for different kinds of agonistic encounters (human or animal, alienated kinsmen or enemy tribesmen) the Bushmen preferred to conduct themselves in such a way that they didn't need combat weapons. Their even-tempered manner and their phenomenal deterrent were enough. Many other animals behave similarly. Most animals, particularly the carnivores, practice all sorts of maneuvers to divert and allay aggression from conspecifics, and even from other species. And in fact, the Bushmen spent much of their time and energy in peace-keeping, with an emphasis on sharing—all to keep a lid on things.

In the 1950s, the Bushman/lion truce existed only in the interior of Nyae Nyae. It exists no longer, and even in those days it did not exist at the surrounding cattle posts such as Cho//ana and /Kai /Kai, where lions hunted the cattle and where people hunted the lions, or on the South African farmlands, or in most game parks. The truce existed only under certain conditions, and these were: a hunter/gatherer people with a technology so stable that the hunter/gatherers were integrated with the other resident populations (the Kalahari animals seemed to know the charge distance of a lion or the flight distance of an arrow, for instance, but they did not know the range of a bullet, hence they fell easy prey to anybody with a rifle) and also that the people were without domestic animals. Cattle seriously interfere with

indigenous populations of water-independent antelope, thus decreasing the lions' food supply, so that sooner or later, resident lions are almost forced to prey on cattle, which invariably puts an end to any human/animal truce. The truce also requires a lion population of high stability, where the behavioural response to human beings—a response that is handed down from generation to generation in lions and is not innate or genetically programmed—can be maintained. Many animals, lions among them, learn certain responses by watching their elders, but for this to happen the teaching tool—in this case, the hunter/gatherers—must of course be physically present. In nearby Etosha Park, the human hunter/gatherers had been assiduously removed, so that a generation of lions grew up without ever experiencing human beings except for the park rangers and the tourists in their cars. The Etosha lions were incredibly dangerous. Not knowing just what you were, they would go to great pains to find out, so that in certain areas of the park they seemed to be always sneaking around behind you, trying to catch you. Mainly because of the lions, all persons not associated with the park management were absolutely prohibited from leaving their cars, in contrast to the people of Nyae Nyae who, for as long as anyone could remember, perhaps for as long as human beings had lived on the savannah, lived in continuous association with lions but walked everywhere freely, and at night slept on the ground.

In Nyae Nyae in the 1950s, the lions knew about people. The people knew about lions. Their relationship was stable, as are those of many other species, and seemed to have endured indefinitely, perhaps for many thousands of years.

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Notes

- 1 A word with many spellings—also Zhu/hwa, Ju/hoan, Zhu/hoan, and many more. Ju/wa is singular, Ju/wasi is plural. Some but not all of the people discussed here were Ju/wasi, so I include the terms Bushman and Bushmen, especially when implications go beyond any specific group.
- 2 The observations are drawn from my field notes and supported by photographs and films taken by other members of our group. This paper is more or less a condensed ver-

sion of Thomas (1990, 1994). I hope eventually to present the material in still greater detail in a book now in preparation, to be called *The Old Way*.

- 3 This, incidentally, is the recommended method for dealing with mountain lions in places such as the state parks and national forests in Colorado, where hikers may encounter mountain lions on the trails. One is advised to stand up (but never to squat or sit down) to make oneself look bigger by raising one's arms and if possible by holding aloft one's coat or camera, and to speak in a deep, commanding tone. The technique differs from the Bushmen's only in that the Colorado hikers are advised to say, "Bad cat! Bad cat!" whereas the Bushmen would address the lions respectfully, saying, "Old Lions, we respect you, but now you must go."
- 4 One night, however, a single lioness positioned herself between our camp and the Bushmen's camp (the two camps were about 50 feet apart) and stayed for about half an hour, roaring loudly and continuously at us all. No one knew what she wanted, so everyone kept still, awaiting developments. Eventually this lioness also left.
- 5 Additional lion-related incidents were mentioned in Marshall and Ritchie (1984). For example, they note that a man was killed by lions in 1980 (long after the Bushman/lion truce had come to an end). They also note a man who was mauled by a lion, supposedly in 1929, and two people who disappeared in the bush and were assumed, whether rightly or wrongly, to have been eaten by lions.
- 6 A detailed account of these people's territorial rights is offered in L. Marshall (1976: 71-79, 184-187).
- 7 N!ore is explained extensively in L. Marshall (1976: 184-187).
- 8 A Bushman arrow weighs about 1/4 oz and is shot from a bow with about a 25 lb. pull. To kill a deer-sized animal with an unpoisoned arrow requires a much heavier, longer arrow and a much more potent bow—one with a 50 or 60 lb. pull, minimally.

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