JRAI Journal of the Royal Anthropological Institute

How persons become things: economic and epistemological changes among Nayaka hunter-gatherers

Danny Naveh *Bar-Ilan University and University of Haifa*

Nurit Bird-David *University of Haifa*

The ontologies and epistemologies of hunter-gatherers have attracted growing attention in recent years as these people are undergoing changes. We examine these changes, focusing on one particular case based on our studies of the South Indian Nayaka; they have recently added cultivation and animal husbandry to their partially ongoing hunting and gathering life-style. Resisting analysis based on an assumed forest/domesticated dichotomy, we show that forest and domesticated animals and plants are both regarded as sentient co-dwellers in some cases, and as objects in others, depending not on *what* they are in essence, or *where* they are, but on *when*, *by whom*, and for *what purpose* they are approached. We argue that pockets of utilitarian framing emerge within the continuing relational epistemology of the Nayaka along with a growing departure from immediacy in the production-consumption nexus. In these pockets, the vivid presence of animals and plants is concealed, and they no longer appear as persons but as things.

Hunter-gatherers' epistemologies and ontologies have received growing attention over the last decade (e.g., among others, Bird-David 1999; Ingold 2000; Willerslev 2004). At the same time, as most of them have been undergoing rapid changes since the late twentieth century, not a few of them are becoming increasingly engaged with agriculture and animal husbandry. An important question arises, then: whether and how do hunter-gatherers' epistemologies and ontologies *change* as they adopt agriculture and animal husbandry? Pursuing this question can contribute to anthropologists' growing concern with ontologies generally, in asking whether and how ontologies can change (see, e.g., Alberti, Fowles, Holbraad, Marshall & Witmore 2011; Carrithers, Candea, Sykes, Holbraad & Venkatesan 2010). In this article, we pursue this question in reference to one particular hunter-gatherer case, drawing on Bird-David's fieldwork in 1978-9 and Naveh's fieldwork in 2003-4 among two separate local groups of people known regionally as Nayaka (and, officially, as Kattu Nayaka; *kattu* means forest), who live in the Nilgiris of South India.[1] In the late 1970s, these people subsisted on gathering, collecting honey, and some hunting, with supplementary casual wage work in plantations (described as 'wage-gathering'; Bird 1983). Only a few unsuccessful attempts to plant coffee could then be observed among

them. By the mid-2000s, various forms of cultivation and animal husbandry had grown popular among some Nayaka, while they still continued gathering and hunting, fishing, and collecting honey in the forest. Based on Naveh's study of their knowing and relating to the environment in 2003-4, compared with Bird-David's study in 1978-9, we examine in this article how the adoption of agriculture and animal husbandry has affected Nayaka ways of perceiving and relating to their environment.

In this context, we focus on the following questions: how do Nayaka in the mid-2000s (those studied by Naveh, henceforth referred to as 'mid-2000s Nayaka' using the present tense) approach the forest animals and plants perceived as sentient beings by Nayaka in the late 1970s (those studied by Bird-David, henceforth, 'late 1970s Nayaka' using the past tense, see Bird-David 1999)? Furthermore, how do they now approach their newly domesticated animals and plants? These questions intersect with several general propositions on the issue. In his *The perception of the environment*, Tim Ingold proposed that interpersonal relations of domination emerged with the adoption of animal husbandry and cultivation (see esp. 2000: 75), whereas John Knight counter-argued that with domestication there began close interpersonal relations with animals (see esp. 2012: 343-4).[2] Philippe Descola hypothesized in conclusion to his ethnographic study of the Amazonian Achuar that the development of inter-human hierarchical social relations would lead to changes away from perceiving wild animals and plants as persons (see esp. 1994 [1986]: 323-31). Underscoring these positions are two intersecting debates about whether either evolving animal husbandry or hierarchical inter-human social relations co-occur with either ceasing or beginning to perceive animals as co-persons. We will argue through our case that adopting animal husbandry involves ceasing to see them as co-persons.

The article draws on previous work that investigated Nayaka animism, proposing that this is best understood as a relational epistemology (Bird-David 1999; see also Bird-David 2004*a*; 2004*b*; Bird-David & Naveh 2008). In Irving Hallowell's (2000 [1960]) memorable terms, the Nayaka environment is constitutive of 'who' not 'what'. These 'who' are perceived as 'persons' in the local own rather than, of course, the Cartesian sense of 'persons'. The local own sense of 'persons' is best summed up as those who live together and share experiences, resources, and, in a sense, their selves. In this sense, 'persons' is fairly close to the local sense of 'relatives'. Persons/relatives are known in this case inseparably from being with them, which can be best expressed by saying that one grows 'familiar' with them, including with their unique and vivid personalities. The modern distinction between epistemology (as ways of knowing) and ontology (as ways of being) is problematic here. We opt to use mainly 'epistemology', if only for the reason that it opens conceptual space for taking agency seriously and for studying changes. However, at times, we use 'epistemology' as an alternative to ontology as the two terms are not really separable here. Relational epistemology, as argued by Bird-David (1999), suggests, then, a framework of familiarity with the other, where the main cultural concern is to know the other not in and of itself but as someone one needs to know how to co-live with well, properly, and appropriately. Animism as an ontology of persons – as opposed to an ontology constitutive dually of persons and objects – involves such a relational epistemology. Beliefs and performances associated with animism, Bird-David argued, culturally cultivate and sensitize attention to how to live mutually, responsively, and responsibly with a whole range of others, including things, animals, and different natural forces which in other epistemological frameworks can be regarded as objects of study and control.[3]

Basically, in this article, we explore how domesticated animals, plants, and land begin to 'come into being' as objects amidst a Nayaka 'world of persons'. We show that, to date, their relational epistemology is continuing – with the exception of the realms of incipient animal husbandry and cultivation (first section). Unlike their forest counterparts, domesticated animals and plants are treated, sometimes quite aggressively, as objects, framed according to their use value and often according to their exchange value as well (second section). The change takes place through a process that involves departure from immediacy in the production-consumption nexus: that is, in when, by whom, to what degree, and in what form Nayaka consume what they produce. This process, we show, is taking place, though in a more moderate way, in the forest nexus as well (third section). In other comparative cases, such processes can be observed: we consider several comparative cases and situate the argument in a broader perspective (fourth section).

Relational epistemology in the forest (1978-2004)

Nayaka ways of engaging with forest animals and plants in the late 1970s have continued, by and large, to the present, resembling in various respects patterns observed cross-culturally among other hunter-gatherers.[4]

Nayaka now still approach certain forest animals which they encounter in the forest, or which stray into their hamlets, as sentient co-subjects who think, feel, make decisions, and, to an extent, understand what is said to them. On encountering them, they still often take into consideration the animal's perspective as well as their own. This occurs even when the animal has caused or was likely to cause them harm, in which case they reflect on what *has made* the animal behave the way it has. (We use 'it' for clarity though, properly speaking, 'he/she' conveys the Nayaka perspective better.) For example, are its feelings hurt or is it frightened? Has previous experience influenced it, or has the situation left it no other course of action? Nayaka attention, in all these cases, mostly dwells on the animal's idiosyncratic personality more than on the general characteristics of its class.

For example, an elephant had killed two Nayaka brothers in 2001 and 2003, respectively.[5] This elephant had been generally known among the relatives of the deceased as 'the elephant who walks alone'. They all knew that this elephant used to roam together with another elephant in the forest, until the latter was captured by the Forest Department, and the elephant concerned remained alone. Even after this elephant had killed two of their relatives, its deeds were associated by Nayaka with the loss of its companion and its loneliness. The elephant's aggression was constantly attributed to its anger and grief over its lost mate. Relating to Naveh how his (classificatory) young brother had been killed by this elephant, Mathen,[6] for example emotionally recounted:

> There were two elephants, they were a pair. The Forest Department called some of us to catch one of them. But no one went to help. How would you feel if your spouse were taken from you? Like this feeling only – this is the feeling of this elephant. These two elephants sometimes separated at night, going in different ways, one goes this way the other goes that way; but they would always come together again in the morning. That day, the other elephant saw the first elephant fall down. If two are always together and then one is shot down how would the other feel? ... This remaining elephant is the one that killed my young brother – this elephant is still with so much anger – wandering around this forest.

Asked directly about his own feelings after the fact, another Nayaka related: 'There is nothing to say about it. We are living in this forest and this elephant is also living in this forest'.

Nayaka continue to approach forest animals as persons, and as co-dwellers in the forest, with whom one should engage responsibly and responsively, as described by Bird-David (1999). It has continued despite Nayaka familiarity with their neighbours' approaches towards wild elephants, and the fact that some Nayaka had occasionally worked as mahouts, watchmen, and guides in hunting expeditions. In 2004, a group of nine elephants, for example, got trapped between four villages, a Nayaka village and three villages inhabited by Betta-Kurumba, Badaga, and Muslims. The other (i.e. non-Nayaka) villagers tried to chase the elephants away from their villages, seeing them only as dangerous wild beasts that should not be allowed near their homes. The Nayaka, by contrast, who knew that this group of elephants was relatively new in the area, carefully observed their minute body-language, monitoring their growing stress. Realizing that with the commotion from all sides, the elephants could not find their optimal escape route, these Nayaka tried suggesting to their neighbours how they might allow the animals to retreat in that direction. Not only were these Nayaka, in this case, more observant than their neighbours, but also their approach was different. Rather than being absorbed with the elephants as generically 'harmful beasts', they paid attention to the animals' predicaments, responses and interactions. For the Nayaka, the elephants were unique and vivid beings, fellow forest-dwellers, rather than a mere threat. They approached these elephants with empathy as well as concern.[7]

The same approach is demonstrated by the case of Maren (a man in his mid-twenties), who did not notice a snake's hole when he was working in his small tea-plot, and got bitten by it. (This was, fortunately, a non-poisonous snake.) He did not instinctively beat back the snake, nor did he try later to chase it away, even though the snake remained in that hole. Maren continued to observe the snake's behaviour, especially at dusk, when it was coming out of the hole. He explained that when the snake bit him, it had been 'afraid and had no other option'. 'Like us', Maren added, 'this snake also lives here'.

Nayaka continue to emphasize that they share living in the forest with its other dwellers, as they did in the late 1970s. They still speak directly with forest animals, as Chathen did, for example, when travelling with Naveh in the forest, and they approached an elephant that was coming towards the two of them. Chathen repeatedly said to the elephant: 'You are living in the forest, we are also living in the forest; you come to eat here, we are coming to take roots ... we are not coming to do you any harm'. In his words, Chathen emphasized co-dwelling in the forest and points of similarity in an attempt to pre-empt confrontation (see further examples in Bird-David & Naveh 2008).

Nayaka express similar sentiments in engaging with forest plants, though less strikingly. Cutting wood for their own use (e.g. firewood), they try to avoid chopping down branches that are still growing. To cut such 'green' branches is considered *tapu* (wrong conduct toward others; Bird-David 2004*b*: 332-4) because, they explained, this 'hurts' the tree, which 'like us has a soul'. One Nayaka further explained that 'every [forest] tree is a living being, a tree has a soul. Like people have blood, trees have water'. Notably, as Guenther (1988: 198-201) argued for Kalahari Bushmen, asserting such sameness works to militate against the exploitation of animals and plants.

Domesticated animals and plants as things (2003-4)

Cultivation and animal husbandry have come to constitute an important part of mid-2000s Nayaka economy. Domesticated animals and plants are now commonplace in their everyday life. It is important to stress that these Nayaka have not suddenly come into contact with agricultural people; they have not simply started to copy, emulate, or follow the practices of neighbouring agricultural peoples after coming into contact with them. The myth of 'pristine' and 'isolated' hunter-gatherers is nowhere more tenuous than in South Asia. There hunter-gatherers have been widely dispersed among agricultural peoples with whom for millennia they have had some contact, and traded minor forest produce (see Gardner 1985; 2013; Morris 1976; for a recent review of South Asian hunter-gatherers, see Fortier 2009). The Nilgiri-Wynaad, in which Nayaka live, had a particularly rich precolonial, colonial, and postcolonial history, bearing in various ways on Nayaka lives, and are discussed elsewhere (see, e.g., Bird-David 1987; 2004*a*).

Changes in the region since the 1980s both forced and encouraged Nayaka to take up animal husbandry and cultivation in various localities. On the one hand, Nayaka had to diversify their means of making a living following increasing deforestation and enforced legal restrictions on indigenous foraging in the forests. While previously they could work for wages in plantations, as well as hunt and gather, beginning in the late 1980s there was a massive immigration into the area especially but not only of Tamil repatriates from Sri Lanka who took their place. On the other hand, non-government and government development organizations, which began working in the Gudalur area in the late 1980s and early 1990s, encouraged Nayaka to take up animal husbandry and cultivation, sometimes providing them with land, seedlings, and domesticated animals. NGOs encouraged Nayaka to grow their own small coffee and tea plantations to establish land rights.

Nayaka now commonly cultivate tea, coffee, pepper, and rice, and occasionally, on a small scale, bananas, potatoes, cardamom, lemongrass, and jackfruits. Their major crops, except for rice, are cultivated for sale. Cows and chickens, which were generally rare in the late 1970s, became more commonplace in the mid-2000s. Naveh surveyed eighteen hamlets (including the two in which he did participant observation fieldwork). Chickens were kept in seventeen of the eighteen Nayaka hamlets, and cows were kept in half of them. Sporadic attempts to raise goats were unsuccessful; in 2004 there were no goats in any of the eighteen hamlets surveyed. Only some families kept domesticated animals in each hamlet: about one-third of them kept chickens (between two to four hens and one cockerel, per family, with the odd family keeping as many as eight hens). About one-tenth of the families had cows (each had between one and four cows, with one exceptional family who had a dozen, including newborns). About one-third of the families kept dogs.

The main usage of cows and chickens is for the production of secondary products. In the case of cows, it is for milk and manure, intended mostly for sale to non-Nayaka communities, and in the case of chickens, it is for eggs, intended mostly for self-consumption. Nayaka generally refrain from eating cows' meat. This avoidance is in line with accepted norms among all local Hindu or Hindu-influenced populations in the research area. Otherwise, there is no evidence suggesting that cows are regarded by Nayaka as sacred animals. Once in a while, Nayaka cow owners may sell a young ox to a Muslim, in the knowledge that it might be slaughtered and eaten. Nayaka also refrain from eating dogs' meat. In the late 1970s through to the late 1980s, Nayaka kept dogs as

companions, and they also played a vital role in hunting. In the early 2000s, among the groups studied by Naveh as in many other groups, dogs were used mainly to guard the Nayaka investment in domesticated animals and plants.

Given that these Nayaka now engage with domesticated animals and plants far more regularly and intimately than they do with forest animals and plants, one might expect that these domesticated plants and animals would enter into the Nayaka world as persons. One might further expect, with Ingold (2000: 75, see above; see also Ingold 1987) that they enter as dominated subjects or, with Knight (2012), as close associates. However, Naveh's findings suggest, conversely, a tendency to approach domesticated animals as 'things', which could be treated aggressively compared with forest animals: that is, in a way considered improper regarding forest beings – for instance, by insulting and hurting them.

When Nayaka now describe or refer to their domesticated animals, they typically observe and remark on their utility. Here are a few examples of what various individual Nayaka said about them:

> This chick is for selling. I can sell this one for 70 Rs.
>
> These chickens are for eggs.
>
> I keep these chickens here. If I don't have money to buy rice I will sell them to *kaka* [Muslim neighbours].
>
> This dog is good for nothing, no use ... The dogs I had a few years before, those that were taken by that panther, they were very good for hunting.
>
> Goats are like poison, they destroy everything around.
>
> Cows give us milk and if there is much milk we can sell it. They also give us dung – which we use in the fields and also sell. Cows also give us calves that we can sell.
>
> I don't need these male cows, they go too far into the forest, they give me problems to bring them back here. This is why I don't want to have these two [pointing to two young males], one is enough.

It is revealing that domesticated animals and plants were *not* described by Nayaka, in Naveh's study, as *mansan.* This concept is not one on which they verbally elaborated but it can be roughly translated as a living person. Whereas many of them were content to describe human beings and forest animals and plants as *mansan*, they stopped short of describing their domesticated animals and plants as such. This can be seen from an excerpt of a conversation that developed between the anthropologist (A), his research assistant Selvam (S, a Kotta, a Nilgiri people subsisting on agriculture), and a Nayaka man, named Veltham (V), after Veltham described himself as *mansan*:

> A: The elephant that came to Kapikadu, two nights ago, is he also *mansan*?
> V: Yes, that elephant is also *mansan.*
> S: What?All elephants are *mansan?*
> V: We are living in the forest; they are living in the forest – we are all *mansan.*
> S: And bears?
> V: Yes, bears, deer, leopards, all forest animals [using the term *kattu-mirugam*].
> A: And your cows?
> V: Cows are different; you have to walk with them everywhere.
> A: And your chickens?
> V: They nothing, they are not *mansan.*
> A: And these dogs that live with us?

V: [pause] It's not like chickens, it's not like cows, dog is dog, it's not *mansan*.
A: And, tell me, these forest trees?
V: Yes! They live for such a long time, they are also *mansan*.
A: ... and your tea plants [plants with which he was interacting on almost a daily basis for the last five years]?
V: These [long pause], these I grow so I can sell the tea leaves and buy what I need in the shop. They are not *mansan*.

Velthan in this conversation regards both himself and the mentioned forest animals and trees as *mansan* but excludes the domesticated animals and plants. He associates co-dwelling with personification but still excludes the domesticated animals which live with Nayaka in their hamlets as well as the surrounding domesticated plants.

The domesticated animals are regarded in terms of their class, and in terms of 'what they are for' (e.g. 'chickens for eggs'), paying scant attention, if any, to their respective individual idiosyncratic personalities. Furthermore, when engaging with them, no care is taken to avoid causing them unnecessary pain, or harm. Whereas hurting and even insulting forest animals and plants was and is considered *tapu* (see above), domesticated animals are frequently treated carelessly and, at times, even brutally. Nayaka had hunting dogs in the past, to which/whom they were attached, and which/whom they regarded as companions. They only lightly beat the dogs then as a means (one can say) of communicating with them: for example, to get them to move away from food. Now their behaviour towards dogs can be described as aggressive. Adults and children alike may beat dogs at the slightest provocation. Stones were thrown at dogs; the animals were kicked and beaten if they entered a house against their owners' will, or did not immediately obey on being hushed, or did not give way to people walking on their path, or just demanded too much attention. An incident was observed even of a man beating a dog lying on its back, on the ground, without the slightest provocation. Those used as watch dogs were usually tied up for many hours a day. Lacking collars, the dogs were tethered with rusty metal chains that became blazingly hot in the sun. The dogs sometimes got entangled in these rusty chains, and no one helped them. In one case, the twisted chain hampered the dog's breathing. This was noticed by several men and women sitting nearby but no one rose to loosen its chain. Instead, the dog's awkward situation became something to joke about. No empathy was shown to the dog, nor was there any attempt to gauge its situation and feelings, in contrast to the way in which *the same* Nayaka still approach forest animals.

Dogs, in this regard, are not treated differently from chickens. Chickens running freely around are smacked, kicked, and hit by stones when they enter a place where they are unwanted. They are sometimes picked up and held by one of their legs, causing them apparent discomfort. Moreover, chickens which, for example, pick up rice laid out for drying are caught and tightly imprisoned under small upturned straw baskets for hours.

Cows are also treated in similar ways to chicken and dogs. Some cow owners beat and thrash their cows on an almost daily basis. They also pull them by their heads, their tails, and their ears. After herding them back to the hamlet in the evening, they tie them to wooden poles, until sunrise, with short ropes (typically no longer than 1.2 metres). When cows are milked, a calf trying to reach the udder will be violently pushed back, usually by having its nose grabbed and its head twisting away by force. In contrast with forest animals, which, as we have mentioned, were and are talked to and reasoned with, mid-2000 Nayaka impatiently harass and scream at their domesticated cows, dogs, and chickens.

This uncaring and at times aggressive behaviour is apparent also with regard to domesticated plants. Throughout the Nilgiri-Wynnad region, silver oak trees are grown among the tea and pepper cultivations to provide shade, which is seasonally regulated by trimming their branches; they are also grown as poles to support pepper plants. Like all the other tea-planters, Nayaka who grow tea do not hesitate to cut off these trees' living branches when they over-shade the tea plants. In this case, unlike their aforementioned concern over cutting forest trees, they give no consideration to the pain or soul of these trees. Needless to say, their tea and coffee plants are also regularly trimmed without concern for their sensibility.

Summing up so far, it is clear that domesticated animals and plants have not entered the mid-2000s Nayaka world as 'persons'. Unlike forest animals and plants in the past and still today, very little attention is paid to their unique character and behaviour. In many ways, they have entered the Nayaka ontology as things appreciated for their material uses, whereas forest animals and plants were and still are considered within the framework of a relational epistemology as co-persons to 'live with', responsively and responsibly. In other words, utilitarian pockets, as it were, have emerged within the Nayaka relational epistemology/ontology. In these pockets, domesticated animals and plants are essentialized in terms of 'what they are for' (e.g. the chickens are there for eggs), and described in terms of their class (e.g. 'chickens', as opposed to, say, 'the elephant who walks alone'). Present-day Nayaka ways of knowing-and-being with these animals and plants differ from those regarding forest animals and plants, in that the focus is on their use and exchange potential.

The situational framing of personhood and thing-ness

In his *The perception of the environment*, Ingold contended that animal domestication should not be understood as a movement from engagement to disengagement, from a situation where humans and animals are co-participants in the same world to the one in which they 'hive off onto their own separate worlds of society and nature' (2000: 75). He suggested, instead, viewing this transition as one which involves 'a change in the terms of engagement', a 'transition from trust to domination', and he ascribes the objectification (with many other Western thinkers, e.g. Heidegger 1978 [1953]) to industrialization. Critiquing Ingold, Knight suggested that only within the daily continuous interaction between humans and their domesticated animals can there arise personal intimate human-animal relations (2012: 343-4). Contra both these suggestions, Nayaka incipient animal husbandry indicates a considerable degree of objectification, not just domination, of animals and plants, and, furthermore, a careless and even aggressive approach towards them. In this section, we begin to ask how and why this objectification takes place by dwelling, among other things, on nuances of changes that deviate from the clear-cut distinction that one might be tempted to draw between forest 'persons' and domesticated 'things'.

That a respectful or exploitative approach to animals and plants transcends a forest/domesticated dichotomy, and relates rather to other contextual framings, can be gauged, to start with, from cases of forest plants. In the late 1970s, Nayaka tried not to over-cut and hurt forest trees, bamboos, and grass, which they used in various ways for their own use (e.g. for constructing homes, storing water, making ropes). They tried to cut only what they needed, taking care to ensure new growth in the future. This approach continued well into the 2000s, despite increasing deforestation and legal restrictions on Nayaka foraging, accelerating in the 1990s. At the same time, a few

Nayaka collected firewood for sale already in the late 1970s. These were mostly old people who could no longer gather and hunt, or work for wages in the plantation. They supplied the firewood to close non-Nayaka neighbours, well known to them, in return for food and other provisions. They gathered more firewood than they themselves needed, but still took care not to harm the trees unduly. This attitude changed in the late 1980s when the same local group of Nayaka began to chop firewood for a privatized forest estate that transported and sold it throughout the whole region. Cutting wood for sale to anonymous users, far removed from their own world, these Nayaka showed no care for the trees. They indifferently cut branches that were not dried enough, and were subsequently left behind as waste; they cut whole trees, neglecting to leave sufficient basis for regrowth.

A similar dualistic respectful/exploitative pattern was observed in the mid-2000s. The same people who often took great care to avoid unnecessary harm to bamboo plants which they cut for their own use behaved quite differently when cutting bamboo poles for sale to remote end-users. In some cases they set fire to the foot of a cluster of bamboo poles, pulled out the few poles they needed, and left the rest hanging rootless in the air.

Further light on the contextual framings of animals and plants as subject-persons or as object-things can be gauged from these various observations on what equally could be classed together as 'domesticated animals' but between which Nayaka clearly distinguished, epistemologically and ontologically. Exceptionally, one single cow came to live for a few months in one of the Nayaka hamlets studied by Bird-David in the late 1970s; this had probably been the first cow owned among this particular group who, even today, do not have cows, only other domesticated animals, especially chickens. This cow had been bought with gratuity-money paid to Mathen, an only son whose late Nayaka mother had been a frequent worker in the plantation. Her fellow non-Nayaka workers advised and helped Mathen to buy the cow, rather than waste the lump sum. The cow roamed freely in the hamlet; it was not milked; everybody in the hamlet, including Mathen, his uncles and aunts, and other relatives, helped to feed it. A few months later, Mathen married and moved to his new wife's hamlet, where he found work. However, when he said that he wanted to take the cow along with him, his relatives objected that the cow belonged 'here with us'. Non-Nayaka traders from a nearby village-market offered to buy the cow so that Mathen could split the money with his relatives. But this was not acceptable, nor was it the issue. The cow was not considered saleable but, rather, a sort of relative, living 'with us'.

In the late 2000s in one of Naveh's study communities a similar sentiment was shown by Nayaka to two fat pigs which had been living in their hamlet since they had been brought there from the forest as young piglets. They were free to roam in and around the hamlet, unconstrained. They were respectfully engaged with, and the Nayaka often showed interest in their actions. Non-Nayaka neighbours wanted to buy the pigs, repeatedly offering money for them. Their offers were always turned down. 'How can we?' one Nayaka explained to the anthropologist, 'They have been living with us all their lives' (see Seitz 2007: 179 for a similar case).

These cases urge us to go beyond a simple forest/domesticated dichotomy, which focuses on animals' origin, location, or essence, and, instead, turn with Ingold to 'terms of engagement', but develop this by introducing into the discussion the analytic concept of immediacy, and its counterpart, departure from immediacy. 'Immediacy' is not a new concept in hunter-gatherer studies. It has been used by James Woodburn, who

focused attention on the time-lag between production and consumption as the basis for distinguishing between immediate-return and delayed-return systems (Woodburn 1982; 2005; critiqued in Ingold 1983; Naveh 2003; and Testart 1982). Its use was expanded by Bird-David (1994) to include a form of sociality at the opposite pole to anonymity, which involved vivid we-experiences with coevals (in Schutz and Luckmann's socio-phenomenological sense, 1973). 'Immediacy', Bird-David argued, underscores Nayaka personification: Nayaka personhood is event-derived, and inseparable from immediate engagement. Nayaka 'do not first personify other entities and then socialize with them but personify them *as*, *when*, and *because* [they] socialize with them' (Bird-David 1999: s78, original emphasis).[8]

We propose that the incipient emergence of animals and plants as things among Nayaka occurs in contexts where there is a departure from immediacy in an expanded socio-economic sense of the term. In other words, not only in Woodburn's emphasis on the temporal sense – that is, *when* the return is consumed – but also in the social-relational terms of *who* consumes it and, furthermore, in the *purpose* of the production. Departure from immediacy, thus, can take place incrementally along each or a combination of these routes. Put in simple terms, we propose that this occurs if a yield is not consumed shortly after its production, and/or by those with whom the producer has immediate relations, and/or in its original form, and/or by being procured as a means to obtain something else through barter or sale (with selling being an additional stage of departure from immediacy than bartering) – all these, we argue, each alone and in different combinations, act as routes of departure from immediacy that involve the 'coming into being' of animals and plants as things, not persons. Thus, for example, an extensive collection of honey for sale on the same day involves a departure from immediacy in terms of who consumes it and in the purpose of the act, which is to obtain something else: for example, money for buying rice. It is not, however, a departure from immediacy in terms of time, which Woodburn (1982) named 'delayed return'. Or, to give another example, when a cow begins to be kept for its secondary produce (e.g. milk, dung, see Sherratt 1981), or for sale, or, furthermore, for sale of its secondary produce, or even for the sale of its offspring, it is on its way to incrementally 'coming into being' as a thing within a utilitarian framing. Whether the cow's milk is consumed by the owner's relatives or is sold to unknown others would influence the degree to which its unique vivid behaviour and personality would be paid attention to, or concealed. It would bear consequently on the extent to which that cow still figures, or not, as closer to being a 'person' than a 'thing' and, correspondingly, the extent to which the animal itself would be treated, or not, with care and respect. (Importantly, as Hornborg pointed out, modernist detachment and objectification are also contextual; he used as an example 'the professional logger who privately cares for his garden, or the industrial butcher who privately cares for his dog' [2006: 24].)

Dogs constitute a more complex and thus particularly interesting case. Traditionally, dogs played an important role in hunting. With the growing restrictions placed by the government on hunting, Nayaka have considerably reduced their use of dogs since their barking makes this pursuit more noticeable to Forest Department inspectors. Nayaka refrain from eating the flesh of the dogs and, unlike chickens and cows, they are not kept for the extraction of secondary products. The major current function of dogs has become to watch over Nayaka crops, cows, and chickens by warning of and deterring unwanted callers (whether forest animals or humans). In other words, dogs now guard

Nayaka investment in domesticated animals and plants, with all the extensive departure from immediate economic engagement involved in these economic pursuits. For example, dogs play a vital role in protecting cows, which give milk, which is sold for money, which is used for purchasing rice and other items. This shift elucidates why, from the late 1970s until the late 1980s, Nayaka regarded their dogs as companions (closer in a sense to pets) and were also conscious of their idiosyncratic personalities and why an opposite pattern was typical with regard to the more agricultural Nayaka in the early 2000s. This may lead us to briefly address the aspect of pet-keeping from a broader perspective. When we engage with our pets, and after James Serpell (1989: 10) we regard pets as 'animals that are kept for no obvious practical or economic purpose' (or in our terms: for no non-immediate considerations), we are left available to be attentive to their unique and vivid presence. It is no surprise, then, that more often than not they appear to us as creatures with unique personalities. Moreover, it may also elucidate why pet-owners often spontaneously speak to their animals, in a way which is not so different from how Nayaka may speak to game animals in the forest, transcending the fact that pet-owners control and take care of their pets in a manner which Nayaka do not with regard to forest animals (see more below).

Let us now turn to re-examine Nayaka utilization of forest animals and plants from the prism of immediacy and departure from immediacy. Nayaka hunting practices do not seem to have ideological or mythical dimensions, over and above the simple predicate that one would be wise to avoid unnecessary harm (see Bird-David 2004*b*: 332). For example, they have no concepts resembling circumpolar North hunters' concepts about the role of hunting in the regeneration of life (e.g. Nelson 1982: 219; Paulson 1968: 451-5; Tanner 1979: 136-8; Willerslev 2004: 633-6; see also Ingold 1987: 243-76). Nor do they have any ideas of forest spirits who may appear or show themselves in the form of forest animals, and should be given respect (see Crocker 1985: 20 with regard to the Bororo). When they hunt an animal for sale – that is, for the animal to serve as a means for getting something else, and maybe to be consumed by remote unknown people – the animal begins its way to incrementally 'come into being' as a thing, within a utilitarian framing. When, however, they hunt animals for their own immediate consumption, by their own immediate relatives, it still figures predominantly as a subject-person before, while, and in some cases after the hunt takes place (but see Willerslev 2004 for a different case of Siberian Yukaghir's multiple and contradictory ways of perceiving game-animals).[9] Similarly, forest trees which are cut for Nayaka own immediate use are still frequently personified and carefully treated; they are still as often as not personified even when the cut branches are sold to immediate neighbours for their own use in exchange for food which is then immediately consumed; but they are well into 'coming into being' as things that can be callously treated when they are cut for large-scale sale to anonymous users. Our argument is that it is not the mere use of animals and plants that makes them appear to the Nayaka as things. Animals and plants appear as such only when, and as much as, they serve as objects of *non-immediate use-forms*.

The same nuances are expressed clearly in changing attitudes to cultivated land. Local forested hills were and still are evoked as subject-persons in Nayaka trance-gatherings. Rocks and stones were and sometimes still are personified as and when engaging with them (Bird-David 1996). But lands are now being epistemologically delivered into the Nayaka world, within a utilitarian context, as cultivation becomes common. It is the utilitarian transformative acts (such as clearing and planting) that

extract the land (*tala*) from the forest. If previously what was to become land was inseparable from trees, animals, and human persons, it now becomes a distinct space defined by the two-dimensional boundaries of the transformative acts (cf. Ingold 1987). These acts bring into being a new epistemic entity 'land' or, more precisely, 'someone's land'. Although lands are now becoming increasingly important, they are never invoked in trance sessions, as were and are the surrounding hills. Lands are approached and appreciated in a somewhat monolithic way revolving around their present and future 'potential for growth' (see Ingold 1987: 154; for fuller discussion of Nayaka attitude to land, see Naveh 2007: 146-57).

The argument in broad perspective

We have suggested, in a nutshell, that deviation from immediate economic engagement is the main (but not the sole) factor in changing Nayaka ways of perceiving and engaging with animals, plants, and even land. It could be counter-proposed that this change in attitude and in epistemological focus reflects an outside influence (such as neighbours or NGOs), especially in the case of domesticated animals and plants. This, however, cannot sufficiently explain the nuances described in attitude to forest animals and plants, particularly towards those hunted and gathered for sale. Furthermore, Nayaka had been in contact with others for decades. They witnessed how their neighbours regard forest animals and how they regard domesticated ones but still engage with animals as co-persons (see the case above of the trapped herd of elephants and the case of the 'first cow'). Nayaka have also engaged in wage-work, and still managed to reproduce through this work their own immediate perspectives and concerns (see Bird 1983). It could also be counter-proposed that the crucial factor explaining the divergent attitudes towards forest and domesticated animals is the latter's dependence on the Nayaka, and hence inability to express agency. One should remember, though, that in many cases Nayaka regard and approach forest trees, hills, and sometimes even stones as persons, and these have far fewer opportunities to demonstrate their agency or unique personalities than do domesticated animals.

That domestic animals and plants become 'things' in the Nayaka ontology raises the question whether and how the process differs from what is widely known as commoditization. Insofar as commoditization involves a process within which more and more things/persons become available for exchange in transactions and are increasingly regarded and/or treated according to their exchange value, it is, in this sense, included within that which we refer to as 'deviation from immediacy in economic engagement'. There are, however, forms of deviation from immediacy which have nothing to do with exchange value, such as long-term storage, or raising animals as a source for secondary products for self-consumption. In a sense, commoditization is one avenue of departure from immediate economic engagement that, in the context of our present discussion, involves a growing degree of concealing the unique vivid presence of the concerned animals and plants. For example, a cow kept as a resource for milk intended for sale to distant strangers is more likely to be regarded as a thing than is a cow kept for milk for self-consumption, say, for one's children (and the same can be argued about its milk). Similarly, people's perception of a cow which is not kept for secondary resources at all, as seen in the case of the 'first' cow in the late 1970s, is more likely to remain in tune with its unique vivid presence.

Let us now turn to address, in brief, a few other ethnographic cases specially taken from other parts of the globe, all of which are taken from societies where hunting and

gathering played or are still playing important roles in the local subsistence economy. Strong links between a departure from immediacy and the concealment of personhood can be discerned in all these cases. These examples support our argument that a utilitarian framing associated with departure from immediacy cuts across a Western nature/culture divide. Take, for example, Axel Köhler's study of the African Baka (2005), from which we can gauge the divergent Baka approach to gorillas, chimpanzees, and elephants, depending on whether they hunt them for their own consumption or for sale (or, in our terms, in immediate or less immediate engagement). Like the Nayaka, the Baka see themselves as 'children of the forest', who share the forest 'with other agents, fellow humans, animals, plants, and spirits' (Köhler 2005: 424). They generally refrain from hunting gorillas and chimpanzees, whom they perceived as persons, too close to human beings both in shape and in behaviour, and occasionally hunt elephants for their own uses. At the same time, Baka do hunt gorillas and chimpanzees in the service of Bantu patrons, who pay them with imported goods and cash. In the past, they also engaged in the ivory trade, which, in some parts of the forest, almost brought elephants to the brink of extinction during the early years of the twentieth century (Köhler 2005: 424; see Bahuchet & Guillaume 1982: 200-1 similarly for the Aka). 'Elephants', Köhler wrote:

> represent ancestral figures of the forest and are salient in Baka ritual and eco-cosmology. However, in spite of the elephants' ancestral status, the positive effects of their ecological agency, and the perceived links between humans and elephants in mythical, spiritual, and cosmological relations, Baka got involved in a murderous trade of elephant products (2005: 423).

Once these animals were hunted by Baka for money, rather than for their own immediate consumption, their perception as persons, with whom it is necessary to engage properly, was concealed by a utilitarian perspective. (See Endicott 2005: 81 for a case of intensified harvesting among the Batek of Malaysia in response to outside market demands, and Hart 1978: 327, 343 for the over-hunting of antelopes as a result of the intensification of hunting for the purpose of selling. See also Seitz 2007: 181-2 for similar dynamic among the Punan of Borneo.)

Another noteworthy comparative example comes from Robert F. Spencer's study of early 1950s North Alaskan Eskimo communities. Spencer notes that, in the local perception, all animals except for dogs have souls (1959: 289, 301, 465-7). He also notes the careless treatment of dogs, especially during the summer, when dogs are regarded as 'useless'.[10] The dogs, then, as Spencer describes it, are 'staked down'; they are 'underfed and watered infrequently' (1959: 467). These dogs were used for transport, and some groups raised puppies for food and clothing. In our terms, therefore, these dogs were organized to be an available means for transport, and were fed and watered according to utilitarian considerations. The dogs were not thought of as possessing souls, nor were they looked after as 'persons' would be. Had the dogs been considered 'persons' with souls, it would have been indeed far more difficult to use them in ways that sometimes involve mistreating and abusing them. It is easier and more morally consistent to sustain such long-term use of animals provided that they are not approached as persons (cf. Ingold 1987: 255-60). Interestingly, there are some documented cases of Inuit, especially childless couples, who lavished unusual affection on a puppy they had adopted (see references in Serpell 1996: 194). It is telling, as Serpell notes, that 'these pets are not expected to engage in any kind of useful work' (1996:

194; see also Singer 1968 for brutal treatment of hunting dogs among the Mbuti of Zaïre).

The Comanche serve as another revealing example in this regard. The Comanche expressed detached attitudes towards their horses, on which they relied heavily for buffalo hunting as well as for raids. Ralph Linton noted that horses were one of the very few animals to which the Comanche never assigned supernatural powers. He also notes that individual horses were valued and judged on a strictly utilitarian basis and that 'horses seem to have been regarded somewhat as we regard machines' (Linton 1936: 428-9). By contrast, the Comanche were very sensitive and attentive to the idiosyncratic personalities of their dogs, which had almost no practical or useful role and yet were treated with the utmost respect (Linton 1936: 428; see also Serpell 1996: 70-1, but see also Seitz 2007: 184 concerning Penan and Punan treatment of dogs).

In sum, our proposition is that with each cumulative dimension of non-immediacy, structured within a given economic engagement, the perception of the interlocutor is increasingly *caught* in a utilitarian understanding, concealing its vivid presence. The availability to perceive the interlocutor (e.g. a domesticated animal or even a forest plant harvested for selling) within the framework of relational epistemology is increasingly diminished as a result of 'thicker' concealment. With each additional dimension, the animal or the plant (or land) is more likely to fall further and further from its potential to be perceived as a co-being. Instead, it is more likely to be objectified according to its perceived utility. This dynamic, we argue, is most manifest in the raising of domesticated animals and plants, especially when this is for the sale of secondary produce beyond the circle of immediate acquaintances. But it has already begun in the forest, when forest produce is gathered for sale. In the traditional hunter-gatherer's 'world of persons', then, there start to appear discrete epistemological pockets of 'things' which are no longer known within the framework of a relational epistemology as idiosyncratic persons known in terms of how best to intersubjectively engage with them, and how to keep the relations going. Instead, these are now known primarily in terms of how they can be utilized for human benefit.

Conclusions

How does ontology change? Specifically, in our study, we asked how do other-than-human persons become things?

Within what had characteristically been traditionally a hunter-gatherers' world of persons, the 'coming into being' of objects is no simple matter. This, we must assume, involves a complex process – especially given that ontology is nothing less than 'what there is' – or, traditionally for hunter-gatherers, rather, '*who* there is'. In this article, we have used observations drawn from our respective studies of Nayaka as a way to begin thinking about ontological changes.

We have shown in this article that Nayaka in the mid-2000s present a case wherein perception of the environment in terms of 'who' (i.e. co-persons) is incrementally replaced by its perception in terms of 'what' (i.e. things). This happens most conspicuously in the adoption of cultivation and animal husbandry, which, departing from Ingold's thesis (2000: 75) and from Knight's contrary one (2012: 343-4), we have shown involves neither merely the domination of domesticated animals and plants nor personal relations with them, but their objectification as things, instead of persons. In departure from Descola's thesis (1994 [1986]: 323-31), these changes in

human-animal and human-plant relations, we have shown, rather than following changes in inter-human social relations, can take place within socio-economic contexts where there is a departure from immediacy on one or an incremental combination of dimensions.

From our analysis emerges the hypothesis that animals and plants – and land – can be variably treated, depending on context, in some cases with care and in others carelessly; in some cases as sentient co-dwellers and in others as objects, not depending on *what* they are in essence, or *where* they are, but corresponding with *when*, *by whom*, and for *what purpose* they are used. The more the consumption is delayed and at a distance, the more remote and anonymous the consumers, and the more animals and plants are treated and conceptualized as a means to get something else, the less caring and empathetic are the ways of knowing-and-being with these animals and plants.

We cannot stress enough that our proposition neither presumes nor concludes a clear-cut contrast between forest-animals as subject-persons and domesticated animals as object-things. Nor do we reserve this proposition exclusively to Nayaka, or even to hunter-gatherers generally; the Nayaka case, we contend, brings to light patterns that with due variations can be found elsewhere, including in some circumscribed modern Western contexts. We do suggest, however, that the theoretical position we present in this article can help understand why relational epistemology appears to be more central and more common among hunter-gatherers than among other people. We suggest that this is so since non-immediate economic activities are *relatively* uncommon in their way of being-in-the-world.

With due caution, and notwithstanding the care required in using ethnographic insights in prehistoric studies, we further suggest that the theoretical framework advanced here, linking analysis of the degree of immediacy characterizing key subsistence activities with manners of perceiving the environment, may prove useful in research aiming to reconstruct prehistoric environmental perceptions. The aspects defined above for analysing the degree of immediacy or departure from it in given subsistence activities (in time, in producer-consumer relations, and in purpose of production) may at one level or another all be discernible in the archeological record.[11]

For contemporary hunter-gatherers, as they are changing, it seems, at any rate, that shifting away from immediate engagement with things/persons gradually dismantles the traditional world of related subjects. As the totality of Nayaka life is less and less characterized by immediacy, their world increasingly comprises discrete types each with its own essentialistic meaning. This leads us to ask, in a broader sense, why, in the first place, personification and its effect – that is, sensitive conduct with others – co-occurs with socio-economic immediacy. Inspired by Heidegger's analysis of the dynamic of concealment, we finally raise the possibility that when one's mind is available for direct perception, without being intensely immersed in non-immediate considerations, things/persons can *expose* themselves in their outmost idiosyncratic uniqueness. Put in Alfred Schutz's terms (1970: 322-3) and adjusted to this context, when things/persons get to be known in immediate ways, they can reveal themselves in their outmost vivid presence. It is no surprise, therefore, that the same forest tree may appear to the Nayaka in one framework once as a sentient co-dweller who/which has to be responsively engaged with and in another as a mere object, perceived according to its market value. What may *appear* in a mind infused with non-immediate considerations

as a thing more than a person may *appear* as a person more than a thing in a mind available to perceive it in its outmost vividness.

NOTES

We thank the Nayaka, who accepted us into their lives, enabling us to learn through shared experiences about their relational approach.We thank our associates in the Nilgiris, who over the years helped us in diverse ways: Anita Vergese, Rev. Mulley, and Rev. Devaraj.

[1] Bird-David focused on a cluster of five small encampments (Gir Valley), and Naveh on two communities, who all live within less than half a day's walk from one another. These people were revisited between these fieldworks, in 1989, 2001, and 2012. For further background, see Bird-David (1990; 1992; 2008) in addition to articles referred to in the present analysis.

[2] See also Cassidy & Mullin (2007) and Knight (2005).

[3] This article was written before the publication of Descola's work in English. Regarding his fourfold typology (Descola 2013 [2005]), in broad terms the Nayaka fits into his 'Animism' square, while we examine it in other terms.

[4] For Nayaka, see Bird-David (1999; 2006); Bird-David & Naveh (2008). For other regional cases, see Gardner (2000: 39, 45, 189-91 for South Indian Paliyan). (For other regional cases involving some personification, see also Demmer 1997; 2001; Fortier 2000; and Pandya 1991.) For other cases see, *inter alia*: Hallowell (2000 [1960]); Scott (1989); and Tanner (1979: 136) for circumpolar groups; Guenther (1988: 197-201) for Kalahari Bushmen; Köhler (2005: 412-17) for Central African Baka; Endicott (1988: 124) for Malaysian Batek; Povinelli (1993: 507-13) for Australian Belyuen Aborigines; and Viveiros de Castro (2004) on Amerindian perspectivism. See Ingold (1996) and Kent (1989), generally. See Knight (2012) and Naveh (2007: 41-2) for further references.

[5] This example is also discussed in Bird-David & Naveh (2008), where more details can be found.

[6] Fictive names are used for ethical reasons.

[7] On the role of empathy in Siberian Yukaghirs's perception of their environment, see Willerslev (2004: 646-9).

[8] See more in Bird-David (2004*a*; 2004*b*; 2006) and Bird-David & Naveh (2008).

[9] See Demmer (1997) for Jenu Kurumba depiction of honey gathering as involving affinal relation between the gatherers and the queen bee.

[10] See also Papashvily & Papashvily (1954: 126) and Serpell (1996: 193-4) for additional relevant cases with regard to rough treatment of dogs among other sub-arctic communities.

[11] For example: whether there are storage facilities; if so, what is their volume (especially in relation to estimated population size), and are these facilities intended for seasonal storage or for year-round usage (see Naveh 2003)? Whether local products were exported to other places; if so, at what distance? Whether there are secondary products industries; if so, on what scale, and were they intended for self-consumption or for other uses?

REFERENCES

Alberti, B., S. Fowles, M. Holbraad, Y. Marshall & C. Witmore 2011. 'Worlds otherwise': archaeology, anthropology, and ontological differences. *Current Anthropology* **52**, 896-912.

Bahuchet, S. & H. Guillaume 1982. Aka-farmer relations in the Northwest Congo Basin. In *Politics and history in band societies* (eds) E.P. Leacock & R.B. Lee, 189-211. Cambridge: University Press.

Bird, N. 1983. Wage-gathering: socio-economic change and the case of the Naiken of South India. In *Rural South Asia: linkages, changes and development* (ed.) P. Robb, 57-86. London: Curzon.

Bird-David, N. 1987. The Kurumbas of the Nilgiris: an ethnographic myth? *Modern Asian Studies* **21**, 173-89.

——— 1990. The giving environment: another perspective on the economic system of gatherer-hunters. *Current Anthropology* **31**, 183-96.

——— 1992. Beyond the original affluent society: a culturalist reformulation. *Current Anthropology* **33**, 25-47.

——— 1994. Sociality and immediacy: Or, past and present conversations on bands. *Man* (N.S.) **29**, 583-603.

——— 1996. Puja or sharing with the gods? On ritualized possession among Nayaka of South India. *Eastern Anthropologist* **49**, 259-75.

——— 1999. 'Animism' revisited: personhood, environment, and relational epistemology. *Current Anthropology* **40**(Supplement), s67-91.

——— 2004*a*. No past, no present: a critical-Nayaka perspective on cultural remembering. *American Ethnologist* **31**, 406-21.
——— 2004*b*. Illness-images and joined beings: a critical-Nayaka perspective on intercorporeality. *Social Anthropology* **12**, 325-39.
——— 2006. Animistic epistemology: why some hunter-gatherers do not depict animals. *Ethnos* **71**, 33-50.
——— 2008. Feeding Nayaka children and English readers: a bifocal ethnography of parental feeding in 'the giving environment'. *Anthropological Quarterly* **81**, 523-50.
——— & D. Naveh 2008. Relational epistemology, immediacy, and conservation: or, what do the Nayaka try to conserve? *Journal for the Study of Religion, Nature and Culture* **2**, 55-73.
Carrithers, M., Candea, M., Sykes, K., Holbraad M. & S. Venkatesan 2010. Ontology is just another word for culture: motion tabled at the 2008 Meeting of the Group of Debates at the University of Manchester. *Critique of Anthropology* **30**, 152-200.
Cassidy, R. & M. Mullin (eds) 2007. *Where the wild things are now: domestication reconsidered*. Oxford: Berg.
Crocker, J.C. 1985. My brother the parrot. In *Animals, myth and metaphors in South America* (ed.) G. Urton, 14-45. Salt Lake City: University of Utah Press.
Demmer, U. 1997. Voices in the forest: the field of gathering among the Jenu Kurumba. In *Blue mountains revisited: cultural studies on the Nilgiri Hills* (ed.) P. Hockings, 156-79. Delhi: Oxford University Press.
——— 2001. The social structure of the Jenu Kurumba. In *Contemporary society, tribal studies*, vol. 4 (eds) G. Pfeffer & D.K. Behera, 230-65. New Delhi: Concept.
Descola, P. 1994 [1986]. *In the society of nature: a native ecology in Amazonia* (trans. N. Scott). Cambridge: University Press.
——— 2013 [2005]. *Beyond nature and culture* (trans. J. Lloyd). Chicago: University Press.
Endicott, K.M. 1988. Property, power and conflict among the Batek of Malaysia. In *Hunters and gatherers 2: property, power and ideology* (eds) T. Ingold, D. Riches & J. Woodburn, 110-27. Oxford: Berg.
——— 2005. The significance of trade in an immediate-return society: the Batek case. In *Property and equality: encapsulation, commercialisation, discrimination* (eds) T. Widlok & W.G. Tadesse, 79-89. New York: Berghahn Books.
Fortier, J. 2000. Monkey's thigh is the shaman's meat: ideologies of sharing among the Raute of Western Nepal. *Senri Ethnological Series* **53**, 113-47.
——— 2009. The ethnography of South Asian foragers. *Annual Review of Anthropology* **38**, 99-114.
Gardner, P.M. 1985. Bicultural oscillation as a long-term adaptation to cultural frontiers: cases and questions. *Human Ecology* **13**, 411-32.
——— 2000. *Bicultural versatility as a frontier adaptation among Paliyan foragers of South India*. Lewiston, N.Y.: The Edwin Mellen Press.
——— 2013. Understanding anomalous distribution of hunter-gatherers: the Indian case. *Current Anthropology* **54**, 510-13.
Guenther, M. 1988. Animals in Bushman thought, myth, and art. In *Hunters and gatherers 2: property, power and ideology* (eds) T. Ingold, D. Riches & J. Woodburn, 192-202. Oxford: Berg.
Hallowell, A.I. 2000 [1960]. Ojibwa ontology, behavior, and world view. In *Readings in indigenous religions* (ed.) H. Graham, 17-49. London: Continuum.
Hart, J.A. 1978. From subsistence to market: a case study of the Mbuti net hunters. *Human Ecology* **6**, 325-53.
Heidegger, M. 1978 [1953]. The question concerning technology. In *Martin Heidegger: Basic Writings* (ed. D.F. Krell), 307-42. London: Routledge.
Hornborg, A. 2006. Animism, fetishism, and objectivism as strategies for knowing (or not knowing) the world. *Ethnos* **71**, 21-32.
Ingold, T. 1983. The significance of storage in hunting societies. *Man* (N.S.) **18**, 553-71.
——— 1987. *The appropriation of nature: essays on human ecology and social relations.* Iowa City: University of Iowa Press.
——— 1996. Hunting and gathering as ways of perceiving the environment. In *Redefining nature: ecology, culture and domestication* (eds) R. Ellen & K. Fukui, 117-55. Oxford: Berg.
——— 2000. *The perception of the environment: essays in livelihood, dwelling and skill.* London: Routledge.
Kent, S. 1989. Cross-cultural perceptions of farmers and hunters and the value of meat. In *Farmers as hunters: the implications of sedentism* (ed.) S. Kent, 1-17. Cambridge: University Press.
Knight, J. (ed.) 2005. *Animals in person: cultural perspectives on human-animal intimacies*. Oxford: Berg.

——— 2012. The anonymity of the hunt: a critique of hunting as sharing. *Current Anthropology* **53**, 334-55.
Köhler, A. 2005. Of apes and men: Baka and Bantu attitudes to wildlife and the making of eco-goodies and baddies. *Conservation and Society* **3**, 407-35.
Linton, R. 1936. *The study of man*. New York: Appleton Century Crofts.
Morris, B. 1976. Whither the savage mind: notes on the natural taxonomies of a hunting and gathering people. *Man* (N.S.) **11**, 542-57.
Naveh, D. 2003. PPNA Jericho: a socio-political perspective. *Cambridge Archaeological Journal* **3**, 83-96.
——— 2007. Continuity and change in Nayaka epistemology and subsistence economy: a hunter-gatherer case from South India. Ph.D. dissertation. University of Haifa.
Nelson, R.K. 1982. A conservation ethic and the environment: the Koyukon of Alaska. In *Resource managers: North American and Australian hunter-gatherers* (eds) N.M. Williams & E.S. Hunn, 211-28. Boulder, Colo.: Westview Press for the American Association for the Advancement of Science.
Pandya, V. 1991. Tribal cosmology: displacing and replacing processes in Andamanese places. In *Tribal thought and culture: essays in honour of Surajit Chandra Sinhaed* (ed.) B. Saraswati, 81-103. New Delhi: Concept.
Papashvily, G. & H. Papashvily 1954. *Dogs and people*. Philadelphia: Lippincott.
Paulson, I. 1968. The preservation of animal bones in the hunting rites of some North-Eurasian peoples. In *Popular beliefs and folklore tradition in Siberia* (ed.) V. Diózsegi, 451-7. Budapest: Akadémiai Kiadó.
Povinelli, E. 1993. *Labor's lot: the power, history, and culture of Aboriginal action.* Chicago: University Press.
Schutz, A. 1970. *On phenomenology and social relations.* Chicago: University Press.
——— & T. Luckmann 1973. *The structure of the life world.* Evanston, Ill.: Northwestern University Press.
Scott, C. 1989. Knowledge construction among Cree hunters: metaphors and literal understanding. *Journal de la Société des Americanistes* **75**, 193-208.
Seitz, S. 2007. Game, pets and animal husbandry among Penan and Penan groups. In *Beyond the green myth: hunter-gatherers of Borneo in the twenty-first century* (eds) P.G. Sercombe & B. Sellato, 177-91. Copenhagen: NIAS Press.
Serpell, J. 1989. Pet-keeping and animal domestication: a reappraisal. In *The walking larder: patterns of domestication, pastoralism, and predation* (ed.) J. Clutton-Brock, 10-19. London: Unwin Hyman.
——— 1996. *In the company of animals: a study of human-animal relationships*. Cambridge: University Press.
Sherratt, A. 1981. Plough and pastoralism: aspects of the secondary products revolution. In *Patterns of the past: studies in honour of David Clarke* (eds) I. Hodder, G. Isaac & N. Hammond, 261-305. Cambridge: University Press.
Singer, M. 1968. Pygmies and their dogs: a note on culturally constituted defense mechanisms. *Ethos* **6**, 270-9.
Spencer, R.F. 1959. *The North Alaskan Eskimo: a study in ecology and society* (Bureau of American Ethnology Bulletin **171**). Washington, D.C.: United States Government Printing Office.
Tanner, A. 1979. *Bringing home animals: religious ideology and mode of production of the Mistassini Cree hunters.* London: Hurst & Co.
Testart, A. 1982. The significance of food storage among hunter-gatherers: residence patterns, population densities, and social inequalities. *Current Anthropology* **23**, 523-37.
Viveiros de Castro, E. 2004. Exchanging perspectives: the transformation of objects into subjects in Amerindian ontologies. *Common Knowledge* **10**, 463-84.
Willerslev, R. 2004. Not animal, not *not*-animal: hunting, imitation and empathetic knowledge among the Siberian Yukaghirs. *Journal of the Royal Anthropological Institute* (N.S.) **10**, 629-52.
Woodburn, J. 1982. Egalitarian societies. *Man* (N.S.) **17**, 431-51.
——— 2005. Egalitarian societies revisited. In *Property and equality: ritualization, sharing, egalitarianism* (eds) T. Widlok & W.G. Tadesse, 18-31. New York: Berghahn.

De la personne à la chose : évolutions économiques et épistémologiques chez les chasseurs-cueilleurs nayaka

Résumé

Alors que les peuples de chasseurs-cueilleurs subissent des mutations de grande ampleur, leurs ontologies et épistémologies font l'objet d'une attention de plus en plus soutenue depuis quelques années. Les auteurs examinent ces changements à partir d'un cas particulier, basé sur leurs recherches parmi les Nayaka du sud

de l'Inde qui ont récemment adjoint l'agriculture et l'élevage au mode de vie basé sur la chasse et la cueillette qu'ils pratiquent encore partiellement. Sans céder à une supposée dichotomie entre forêt et domestication, ils montrent que les animaux et plantes de la forêt, d'une part, et domestiques d'autre part sont tous considérés comme des commensaux dotés d'un esprit dans certains cas ou comme des objets dans d'autres cas, et ce non pas en fonction de *ce* qu'ils sont par essence ni d'*où* ils sont, mais de *quand*, *par qui* et *dans quel but* ils sont approchés. Ils avancent que des poches de cadrage utilitaire se font jour dans l'épistémologie relationnelle traditionnelle des Nayaka, en même temps que ceux-ci s'écartent de l'immédiateté dans le complexe production-consommation. Dans ces poches, la présence vive des animaux et des plantes est dissimulée et ils n'apparaissent plus comme des personnes mais comme des choses.

Danny Naveh teaches anthropology and environmental studies at Haifa, Bar-Ilan, and Tel-Aviv universities, Israel. His research work focuses on the perception of the environment among hunter-gatherer societies and changes in ways of perceiving the environment with the shift to an agricultural life.

Department of Sociology and Anthropology, Bar-Ilan University, Ramat-Gan, 5290002 Israel. naveh.d@gmail.com

Nurit Bird-David is Professor in Cultural Anthropology at the University of Haifa, Israel (Ph.D. Social Anthropology, Cambridge). She is an ethnographer of a foraging forest community living in the Nilgiris, South India, with many published articles on hunter-gatherers, the Nilgiris, cultural economics, perceptions of the environment, animism, children, and so on. A book on the hunter-gatherer community she studied is in process.

Department of Sociology and Anthropology, University of Haifa, Haifa, Israel, 31905. nbird@soc.haifa.ac.il