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KNOWING AND LEARNING AMONG NAYAKA HUNTER-GATHERERS

In this paper I explore patterns of knowing and learning among present day Nayaka – hunter-gatherer groups from the forests of South India¹. I will argue that knowing and learning is embedded within two main contexts. One is personal experimentation, which often entails processes of trial and error. The second context is engagement with others, locally constructed as ‘relatives’ (see Bird-David 1999: 72–7, 2005a: 211), in which learning takes place not as a singularized and isolated event but as an integral element of ‘being together’. These two contexts are not necessarily detached from one another and learning may flow from one context to the other, being enriched and stimulated by both. In both contexts, learning is characterized by first-hand experience, which includes adults’ appreciation of the need children have to learn for themselves through direct experience.

Both these contexts of knowing and learning have gained attention in the literature about hunters and gatherers. There is, however, still a significant need to expand the ethnographic material on these aspects. Peter Gardner (1966) referred to knowledge based on personal and concrete experience, as ‘memorate knowledge’ (c.f. Honko 1965). Gardner argued that this way of knowing is characteristic not only of the Paliyar of south India, with whom he worked, but also of a wide range of other hunter-gatherer societies (Gardner 1966: 399–409, see also Morris 1976, Gardner 2000: 217). Nurit Bird-David (1999, 2006) has argued that ‘relational epistemology’ is the authoritative way of knowing among the Nayaka. Relational epistemology, she claimed, involves a form of knowing that is *inseparable from* being-with things/persons. In this way of knowing which applies to both humans and other-than-humans, even elements of the environment that in other epistemological frameworks are usually considered as objects, are regarded as persons with unique personalities while they are engaged with. To know them in this epistemological frame is to know how to relate to them, and how to maintain the relationship with them, rather than to find out their essential characteristics in and of themselves.

In this paper, my first objective is to show that the two main ways of knowing and learning among contemporary Nayaka are reliance on personal experience and consideration of knowledge constructed within the framework of relational epistemology as authoritative. Such consistency is not self-evident when one takes into account that, since the mid 1970s, Nayaka children were sporadically and yet increasingly exposed to conventional methods of modern education in rural governmental day schools for 'tribal children' or in governmental boarding schools³. In addition, in the last two decades, adult Nayaka were increasingly sent to NGO workshops and training programs. The structure of both educational and training programs (in which Tamil or Malayalam language is used), is very different from traditional knowledge-acquisition among the Nayaka. In these programs, 'knowledge' (as something in and of itself) is submitted by the teacher or instructor who is the 'one who knows' to those who 'do not yet know'. Nevertheless, I will argue, this exposure had little effect, if any, on ways of knowing, learning practices, and knowledge sharing processes, within the studied communities (but see Naveh and Bird-David 2014, with regard to epistemological change taking place with the adoption of agriculture as well as other non-immediate subsistence activities).

The second objective is to highlight the importance of the *epistemological* aspect in hunter-gatherers' social learning (see Hewlett *et al* 2011, for summary and references with regard to the current discussion concerning hunter-gatherers' social learning). At present, the discussion concerning this aspect of social learning is still in its preliminary stages. Tim Ingold (1996, 2000) and Bird-David (1999, 2005b, 2006, see also Naveh and Bird-David 2013) have incorporated this theme in their research into hunter-gatherers' ways of knowing. However, the discussion of this matter may still benefit from new data as well as from new interpretive perspectives. Here, I will focus on the epistemological aspects of question-asking and attitudes with regard to classification. In addition, I also intend to show that Nayaka's own notions concerning social learning are not limited to humans alone but understood to be applicable to other residents of the forest.

In what follows, I choose to start with a description of a fairly typical learning process of one Nayaka boy named Rajan⁴, with whom I shared particular closeness. For lack of space, I focus here on his attempts to learn (sometimes together with other children) how to lay down different types of traps. Next, I shall turn from the realm of acquiring skill, to the realm of attaining *budi* (roughly translated as wisdom), exploring Nayaka understanding concerning the ways to attain *budi*, as well as the purpose of attaining *budi*. I shall then show that, for the Nayaka, similar guidelines underline the acquisition of *budi* among human as well as non-human persons. In the following section I shall discuss the status of knowledge within the framework of relational epistemology, arguing that knowledge is not objectified

out of relations. The place of question-asking in such an epistemological framework will also be addressed in this section. In the final part of the article, I shall turn to examine several themes in Nayaka taxonomy and classification systems in light of the material presented in earlier sections.

Rajan Experimenting in Trapping

During the first 10 months of my fieldwork, 10-year-old Rajan lived with his parents Sundaren and Amani in KK⁵. He was their only child. I learned that he was born after Amani had had five failed pregnancies. Two more failed deliveries followed his birth. Rajan received much love and affection from both his parents who, in turn, according to my own subjective feelings, derived a particular sense of joy from his mere presence. His father, Sundaren, was by far the most successful and skillful hunter in KK – a fact recognized and accepted by all. Sundaren spent more time and energy hunting than any other man in KK. Rajan's family lived in the same hut in which I lived, together with two other families. With time a special bond had gradually developed between us. Thus, every now and then he joined or followed me when I was walking to various places outside KK (sometimes on his own, sometimes accompanied by a friend, sometimes with my consent, and sometimes against my wish). Rajan particularly liked to follow me when he noticed I was heading to my favorite secluded place, located on a small forest hill (about 15 minutes walk from KK), where I meditated from time to time. Even if my meditations lasted longer than usual he waited silently, not too far from where I sat, and then we would walk together to the village in silence.

March 12th 2004, 08:45 AM. It is now the third day that Rajan and his friend Balan [about 11 years old] are experimenting intensively with setting up traps along the narrow brook that separates the wetlands cultivated by Mathen and Velthan. The brook and these wetlands are situated down the hill below our hut. Rajan and his friend hide their traps in the tall grassy plants that grow along this brook. Over the last few days unwatched *kaka*⁶ goats regularly raided the freshly sprouting rice in Velthan's wetlands. Noticing this, the boys decide to try and catch one of these goats by laying traps. Yesterday, they had noticed that forest-fowls had also started to raid these wetlands. Since this morning they have been trying to assemble two types of traps aimed at catching all of these animals. Till now they had caught nothing. It seems that the reason is to be found in technical deficiencies in their traps. Rajan has now returned to our veranda after reassembling a broken trap. Again they sit here together, with hands on each other's shoulders, and excitedly watch the animals below get closer to their traps.

09:30 AM. The boys returned to the veranda after a goat had stepped onto one of their traps but was not caught by it. They told me that they had reset the trap and had also made some changes in the way they tied the rope to the bended twig. In addition they had decided to put bait in the forest-fowl's trap. With great excitement they found some leftovers from yesterday's evening meal; "now it is definitely going to work", said Rajan, while running down to place the bait.

09:45 AM. The boys sit closely, hugging each other, watching a group of forest-fowls that had assembled not too far away from their trap. Whenever a forest-fowl got close to their trap they both became especially excited and alert; if it turned round and went away from the trap they would both cry out in disappointment. I cannot escape the comparison with me and my friends while we watch our favorite football players in forward positions swiftly advancing through the penalty area; and our disappointment when once again they lose the ball to the other team's defense.

Throughout three successive days, the boys did practically nothing other than intensive experimentation with trapping, during which they tackled various kinds of technical shortcomings in their traps. The boys dealt with these technical problems by performing successive acts of trial and error. It is important to note that throughout that time many adults, fully knowledgeable and experienced in trapping, came and went along a path that stretches along this brook. Occasionally, one adult or another (including Rajan's father) stopped for a brief moment and, from some distance, silently observed the boys, while they set their traps or tried to fix them. None of the passersby approached the boys, not even once, nor did the boys come to ask for any advice or help from these adults. Throughout this time the boys did not ask for any guidance (Naveh 2007: 87-97). The whole matter, which consumed their attention so fully, was never brought up in conversation (see Gardner 1966: 398 and Hewlett *et al.* 2011 for a similar dynamic among the Paliyar and the Aka of the Congo basin; but see also Draper 1976, Konner 1976, Hewlett and Cavalli-Sforza 1986, Guemple 1988 and Hewlett *et al.* 2011 about intentional teaching of children among Kalahari! Kung, Inuit and Aka hunter-gatherers).

The fact that adults refrain from actively instructing children and adolescents about how to setup traps does not mean, in any way, that non-adults are excluded from knowledge about hunting (or any other type of knowledge). Rajan had often joined his father while he was placing his own traps. Through the following example I aim to highlight the dynamic that prevailed between the father and his son while they were placing these traps.

February 4th 2004. Today at dusk, I have joined Sundaren and his son Rajan while they were placing four traps in the tall grassy plants that surround the *Deva-mara* [tree of the gods]. Sundaren often places traps in this location at dusk and then dismantles them at dawn so that forest department officers will not spot the traps and start to enquire who placed them. Neither of them exchanged a single word throughout the time they were placing the traps. Rajan was highly alert while observing his father placing the first two traps. When they placed the third trap Rajan took the initiative and started to assemble the trap, tying the looped string to the [bent] twig by himself. Sundaren observed his son patiently and allowed him to finish what he had started. Then with a soft smile and without a word, he dismantled what had to be re-done and reassembled it so that the trap would work properly. There was no sign of any negative psychological reaction by Rajan when his father dismantled most of what he had done. On the contrary, throughout the whole process he was looking at his father with much love and admiration, a feeling

clearly reflected by the look in his eyes. His father responded with a soft, gentle, smile and with apparent joy clearly shown on his face⁷. Rajan carefully continued to watch his father's actions. With this kind of wordless dialogue they moved on to set up the last trap and managed to finish setting it up before darkness fell.

Throughout the whole scene, Rajan never asked his father any questions, even though it was clear that he could not set up this type of trap by himself. The silence that they kept did not originate from an attempt to hide their presence. They both knew that those forest animals they wished to catch did not tend to arrive at this specific location before it became completely dark (usually no sooner than two hours into darkness). This pattern of 'not asking' is definitely not unique to Rajan's idiosyncratic personality or to the specific context described in the above excerpt. To give another example, none of KK's children had ever asked me a question or expressed his or her lack of understanding while I was teaching them simple arithmetic and the English *ABC* (a short episode that was initiated by KK people, adults and children alike and lasted sporadically over two to three weeks). At first, I understood this is as an expression of shyness. However, as time passed I noticed that this pattern of 'not asking' was not restricted to times when they were with me. As a matter of fact, throughout the whole period I spent with Nayaka communities I never witnessed, or at least was not aware of, even a single occurrence in which a child asked either of his parents or another adult a general 'how' or 'why' question about something this child 'had no knowledge about'. Instead, they simply kept on *being together* with that person until some kind of understanding emerged within them. Thus, for example, what may possibly be learned from answers to a 'how' type of question is directly acquired mainly in two ways (usually a combination of the two): *being with* someone who is performing what one wishes to know *while* that someone is doing it; and trying to do what one wishes to know by oneself – which usually involves a process of trial and error.

Now, it should be noted that it was not just children and adolescents who did not tend to ask 'how' and 'why' kinds of questions. The use of such questions was fairly rare among adults as well. However, they all did often ask other kinds of questions. These were mainly the *where* or (less frequently) *when* type of question such as: 'where is someone?' or 'when is he or she coming back?' In both these cases the question was directed towards someone in the framework of relations, or more specifically, in the context of keeping a relationship going (see Bird-David 1999).

Let us now turn to examining how Rajan and another boy Soman (about 12 years old) experimented with trap laying within another field of experience: game playing. On the afternoon of January 29th 2004, I felt the urge to be alone for a little while. I decided to leave the village for some time and go to meditate in the forest. About 200 meters from KK I came across two gray

snakes wrapped around a dry bush. Soman and Rajan were at that time hanging around not too far from the snakes without being aware of them. Although I was not particularly worried about the boys I decided to warn them. I was aware that by starting a conversation I was risking the possibility that the boys would follow me afterwards, which indeed happened. Later on, about 15 minutes into the meditation, I was increasingly disturbed by their loud calls from where they were playing enthusiastically about five to ten meters away from where I was sitting. Eventually, I opened my eyes and while still sitting as before, observed their earnest play.

The game they played, for an hour or so, consisted of several rounds. In each round Soman, who brought with him his father's *kati* (a machete knife), prepared different kinds of traps while Rajan played an assortment of forest animals. Throughout the game, Soman was preparing at least three different kinds of traps.

Except for the knife, the boys did not bring, nor did they need, anything from their houses. The knife was used both as a cutting and a peeling device, as well as a hammer to nail down improvised pegs into the ground. Like adult hunters, Soman managed to find everything he needed to fix his traps from plants spread around the immediate vicinity of where they were playing. Thus, for example, he made different types of ropes by peeling down the skin of various kinds of plants. He also had to choose from an assortment of twigs in order to prepare different kinds of trigger mechanisms, each according to the kind of animal Rajan was currently depicting. Finding appropriate materials as well as finding the proper technique to assemble a functioning trap was a constantly thrilling trial for Soman. The different kinds of animals preformed by Rajan continually challenged his abilities.

In some instances, for example as Rajan played a forest goat he had managed to set loose from a trap that, within their world of play, was not strong enough. In other instances, when the trap was not properly camouflaged, he did not get caught at all. During their game Rajan was walking on all fours, trying to act the way the animals he was playing generally act. Most of the time he could be heard talking to himself saying out loud what he believed the animal would think in the specific setting being enacted. When he was caught, it was always by the relevant body part, be it a limb or the neck, depending on the kind of animal that was being played and the type of trap that had been prepared by his friend. Similarly, in each round Soma slaughtered the trapped animal by a different method (hitting its neck with an improvised club, strangling the animal or by using a knife) according to the kind of animal involved at that point in the game.

In each round of the game, while they played, the boys experienced the trapping from both the position of the hunter and the hunted. Soman was practicing various technical operations such as the preparation of different types of ropes stripped from different kinds of plant-skins as well as tying a variety of knots. He also arranged various types of pegs (in differing sizes and profiles) and various sorts of trigger mechanisms. In addition to that, he practiced the assembling of all these elements together⁸. While assembling the traps it was clear that he was not just re-creating previously observed trap templates.

Instead, he took various things into account such as what kind of trap he should lay and how it should be constructed within the specific location in which their game was being played. Again and again, he had to re-assess the various features of that location in the context of trap setting (e.g., local plants suitable for trap preparation, opportunities to camouflage the trap, etc.). Finally, he also had to apply different kinds of slaughtering methods in each successive round. Rajan was experiencing the situation from the animal's perspective: the alertness to danger, the feeling of being caught (for example, limitation of movement: 'my leg, my leg, I cannot get it out'), possible ways of freeing oneself when being caught in different types of traps, and the experience of being slaughtered. Playing the part of the animal, Rajan often acted as a cunning and inventive subject. This was clearly shown not just by the acts he performed but also from the 'animal's thoughts' that he verbalized like 'ohhh! I smell a man. I shouldn't go this way'.

"He Needs to Learn By Himself"

As shown above, adult men refrained from actively instructing Rajan and his friend Balan in their attempts to attain hunting skills. It should be mentioned that, by the time I left KK, Raja had already gained fantastic hunting skills as far as catching birds and rodents was concerned. In the last weeks of my stay in KK he managed to share small quantities of meat with KK children almost on a daily basis. Adults also refrain from formally instructing children— or other adults – in other fields of experience as well, such as in the case of attaining social skills and *budi* (wisdom). As will be shown below, the line between learning social skills and acquiring *budi* is not that clearly drawn.

Friday, February 20th 2004. Today, while walking with Velthan towards KK he stopped for a moment and pointed out an area about 300-400 meters away from where we were standing, and said:

Velthan: you see, over there, this is where we used to live before they drove us away Plantation people drove us away from this place because they wanted to plant Eucalyptus trees [intended for Eucalyptus oil production]. I was about my son's age [the aforementioned Soman who was about 12 years old]. At that age I already had *budi*.

His last statement aroused my curiosity and later on I asked Velthan what he meant by saying that by the time he was his son's age he already had *budi*. He answered by giving several examples that, according to his understanding, showed that when he was his son's age he already had *budi*.

When I was at my son's age I did not get *budi* from my father and mother, by myself I had *budi*. No one taught me. When I was at his age I already had *budi*. I knew the coins, I knew that two *pady* [a local measuring unit] is 50p. I went to buy rice alone.

What is emphasized here is that, as a child, he had the *budi* that enabled him to cope without being dependent on anyone else. By "two *pady* is 50p." Velthan

was not just referring to a singled out piece of information that he had knowledge of, he used it to demonstrate his general skill of coping with others. Then Velthan referred to his son and said:

My son cannot get *budi* from me and from my wife. He needs to learn by himself. Now he has only some *budi*; still, if you come here in ten years he will remember you; that you came here and lived with us. When children at his age go to the forest they can get *budi* very fast, but *budi* is not only of the forest.

Note that for Velthan, *budi* should not be taught and yet he understands *budi*, first and foremost within the framework of relations. For him, like other Nayaka, *budi* was first and foremost the ability to be harmoniously together with someone not just at present but also in the context of one's ability to maintain togetherness and one's skill to translate present engagement into future being-together (Bird-David 2004b: 334–7).

I was quite surprised by the way Velthan had articulated his understanding of how his son *had to* acquire *budi* ('... he needs to learn by himself'). By that time I had already observed various occurrences in which parents were acting according to this convention. However, this kind of ideological phrasing is uncommon among the Nayaka. As our conversation continued I asked him directly whether it is only children who need to get the *budi* by themselves or is it so for all people:

Velthan: If a man is taking liquor or having other bad habits [it was clear that he was referring here to his neighbor's drinking habits but wished to avoid addressing him directly]... he will not change that habit, even if other people are telling him, he will not change. He must himself think to change his habit – then only he can change.

Again, Velthan's claims were consistent with previous observations. To take his own example, whenever a Nayaka man got drunk, no one around would think it proper to sermonize him about his conduct, even when his actions were clearly a deviation from general social conventions. In such occurrences those present usually became silent and, without leaving the place, they would divert their gaze away from the drunken man. They also refrained from voicing any direct accusations later on, when the drunken man had sobered up. Likewise, adults would usually stay put but become silent while directing their gaze away when a child, for one reason or another, had a crying tantrum – especially when his or her demands were seen as unreasonable.

Notions Concerning *Budi* Acquisition among Non-human Persons

Nayaka's notions concerning social learning are not limited to humans alone but can be understood to be applicable to other residents of the forest. This can be demonstrated as we continue to explore the aspect of *budi* acquiring acquisition. In recent publications (Naveh and Bird-David 2013, Naveh and

Bird-David 2014) Bird-David and I argue that, for the Nayaka, the capability of acquiring *budi*, like personhood, is not restricted to human persons alone. We show, for example, that like people, some elephants can have *budi* while other elephants may still be in the process of acquiring *budi* (c.f. Misra 1977: 121 for a different notion among the neighboring Jenu Kuruba concerning whether elephants have or can have *budi*).

Generally, while discussing this matter, my friends stressed differences in degrees of *budi* among specific persons (be it human or non-human persons). On more rare occasions, some of them also expressed their view with regard to differences in degrees of *budi* among different *kinds* of animals.

DN (anthropologist): So, who has more *budi*, *kaadu-kuli* (fowls or ‘forest chickens’) or *kuli* (domesticated chickens)?

Mathen: The forest chickens have less *budi* (than the domesticated ones) because they are not together with each other. After coming out from the eggs, very soon, the chicks are left alone. The mother and father, they run away after some days. That is why they don’t know how to keep safe from the dangerous animals in the forest. It is very easy to catch them. The *kuli* have greater *budi* since they are living together all their lives. That is why they have more *budi*. The small chicks can learn from their mother and father, just like our children do.

DN (while pointing to two photographs taken locally of cows and forest buffalos): In these two, who has more *budi*?

Mathen: The buffalo (*katti*) have more *budi*. You can see them being together very often. They have more *budi* than the cows. They know everything. They know how to live near elephants and tigers and much more. The cows, if you leave them in the forest, they will be caught and eaten.

DN: And among domesticated and wild dogs, who has more *budi*?

Mathen: The forest dogs have more *budi* than our dogs. They live in big groups. They can hunt big animals alone. They don’t need anyone.

Two main insights arose from dialogues like the one above. First, my conversation partners regarded the ability to live one’s life without being dependent on others as an important indication of having *budi* and as one of the *raisons d’être* for the importance of having *budi*. Second, they repeatedly stressed that *budi* is acquired while being together with others. We see that Mathen considered being together as one of the basic and enabling conditions for acquiring *budi*. At the same time he saw the ability of forest buffalos and wild dogs to cope in the forest by themselves as an indication that they have *budi*.

Now, it should be clear that the ability to live one’s life without being dependent on others does not mean living one’s life autonomously or apart from others (see Myers 1988: 55; Ingold 1999: 406–9). As was shown above, having *budi* means, among other things, knowing how to be with others and how to maintain togetherness with others. There is no contradiction here. For

the people I lived with, the healthy ability to be with others is intimately related to one's ability to live his or her life without being dependent on anyone.

Knowledge and Relational Learning

The cases presented above demonstrate that in spite of growing exposure to other ways of knowing and learning, the people in the studied Nayaka communities, still privilege direct and first-hand learning that emanates from actual engagement with those one learns from as well as reliance on personal experience which often entails a process of trial and error.

This kind of way of knowing is in sharp contrast to various dominant methods of learning that prevail in 'modern education systems' (see Ingold 1996: 128). Thus, for example, knowledge-acquiring processes in Israeli schools, where I teach from time to time and give workshops for teachers, is almost entirely articulated out of non-situated learning and the transfer of secondhand information *about* things that the children have little or no direct engagement with. Disengaged 'knowledge' is submitted from teachers to students who are situated at both ends of a hierarchal spectrum, thus justifying and recreating this set of power-relations. Even when the children do engage, to some degree, with their learning objects, their engagement is highly buffered and mediated by other people's ideas. This type of knowledge-acquisition is practically non-existent within the studied Nayaka communities. It is also rare among other hunting-gathering communities (MacDonald 2007), probably to a large extent as a result of their egalitarian ethos (Lewis 2007, Hewlett *et al.* 2011).

The tendency described above, with regard to asking questions, may be seen to be sufficiently explained by the disposition to learn by a process of trial and error. However, there is more to it than that. A deeper understanding can be achieved when the wider epistemological context is also taken into account. As we saw, knowing, for the Nayaka, is *inseparable from* being-with things/persons. Thus, there is no essentialistic knowledge concerning the way to set up, say, a pig trap; however, Sundaren's way to set up a pig trap can be observed and known *while* being with him when he is setting up such a trap. Karian's way of setting up a pig trap may be quite different from Sundaren's and it is only through being with Karian that one can get to know *his way* of doing it. As a matter of fact, there is no 'Sundaren's' or 'Karian's' way of setting up a pig trap; what there is to see is one particular person's way of setting up a pig trap in a specific location or set of circumstances (e.g. the way he uses the various advantages and overcomes the various obstacles in accordance with how a specific location presents itself in the context of pig trapping). While a trap is actually being set up there is indeed little point in asking a 'how' type of question (see Hewlett *et al.* 2011 for a similar dynamic among the Aka).

The important point is that knowledge is not objectified out of actual experience and actual relations. Similarly, learning from someone is to a large extent tantamount to engaging with that person. Sundaren's hunting knowledge is not distinct from Sundaren and from knowing Sundaren. In this regard, it is worth mentioning Mathen's remark to me when I asked him and his close friend Boman (whom he referred to as young brother) some questions concerning an annual *puja* they were about to perform within a few months. His reply was: 'what is the point of asking us about this, you stay here *with us* and *make the puja with us*. This way only you will know by yourself'. It does not mean that there is no general or common way to set up a pig trap or to perform a *puja*; however, these kinds of disengaged generalizations (or questions) are perceived as quite pointless, or at most secondary, to actual firsthand experience.

Relational Epistemology and Learning

Referring to the Hill Pandaram's taxonomy, Brian Morris (1976) stated that:

Certainly in all societies 'memorate knowledge' – knowledge based on personal experience – plays an important part in daily life but in Hill Pandaram society it seems to predominate. This is especially so with regard to taxonomic concerns, for these people seem to have unsystematic and incomplete knowledge of their natural environment in which they live . . . But though this knowledge is detailed it is gained mainly by personal experience and this means that not only are their taxonomic systems limited in scope, but they have a relative unconcern with systematisation (ibid: 544).

These characteristics, Morris argues, are not unique to the Hill Pandaram but characterize, in one way or another, many other hunting and gathering people (ibid; see also Gardner 1966: 398; Lévi-Strauss 1966: 138–9; Endicott 1979; Silberauer 1981: 51–123; Brightman 1993: 37–75; Arhem 1996: 188–200; Howell 1996: 136–9; Hviding 1996: 170). Morris (1976: 546) links the Hill Pandaram's 'unsystematic' and 'incomplete' taxonomy with their tendency to privilege knowledge based on personal experience (see also Gardner 1966). My own observations show that Nayaka taxonomy and classification systems are remarkably similar to the Hill Pandaram and Paliyar systems (Naveh 2007: 107–17). However, my suggestion is that what may indeed be seen as 'unsystematic' and 'incomplete' taxonomy as well as the 'unconcern with systematisation' is, to a large extent, a product of forming their understandings within the framework of relational epistemology, rather than just privileging knowledge based on personal experience.

Thus, a given tree may be seen by some Nayaka, who know and engage with it/him for long time as a *mansan* (person) while others may see 'it' in a much more restricted way. Similarly, some Nayaka regard and engage with a particular forest hill as a god-like person with whom each has unique relationship over many years, while others may tend to relate with 'it' as a

mere hill. Among those who regard it as a god, some would consider ‘him’ as the one who brought their forefathers to this region of the forest; while others will decisively argue – based on their direct engagement with this being in a succession of trance gatherings – that this god was ‘brought by their forefathers’ and that their forefathers are the ‘those who named the gods’. Many believe that all the gods are tied around *hatchi’s* (foremother) belly and that only with the approval of *heatan-hatchi* (forefather and foremother) can the gods come and talk to them. Others will firmly state that it is the other way around. Likewise, a given elephant may be regarded by some Nayaka as a *devaru* (a kind of ‘supernatural being’ or ‘super-person’, see Bird-David 1999) while others, sometimes in the same group, would not think so. Once, when I confronted some of my Nayaka friends in KK about the extensive gaps in their respective understandings with regard to a particular event, they turned to me and said:

How can you expect to get one tale of what happened when you speak to each one of us separately? Like in playing [music], you want to dance only when the *kolal* [a wind playing instrument] and the drums are playing together; not when one of these is playing alone . . . like this you need to listen to all of us together, not separately, this way only you can know what happened.

Now, this musical metaphor about ‘listening to all the instruments together’ does accurately reflect the Nayaka approach and conduct when the need for a common interpretation or understanding arises. For example, my own presence among them with my strange, often disengaged questions, (such as ‘how do you perform this or that ritual’ or ‘do you regard this butterfly as a kind of a bird⁹⁾’ often posed an unfamiliar challenge for the people with whom I was conversing. Usually such a question would produce a short discussion among those present, a discussion in which each of them would share his or her own understanding regarding the theme being talked about. Sharing one’s understandings was always done in a sensitive and careful manner (see Gardner 1966: 397). They were always careful not to convey their own understanding as the ‘right one’ in the sense of ‘this is how it is’. The tone of speech in this context always played a vital role. There was no need for a preamble such as ‘according to my understanding . . .’ or ‘I think that . . .’ although from time to time such introductory clauses were used. Whatever was said was said softly, often with a vocal tone that conveyed doubt (such as accompanying a statement with a soft question mark). When a person had finished conveying his understanding, his eyes would fix upon other people’s faces with a look that said something like ‘don’t you think so?’

When the various insights were being shared, the people present had usually moved to some kind of dialogue in which shared meaning or shared *ad hoc* interpretation was invoked (see Silberbauer 1982 for similar tendency among G/wi bands; Liberman 1985: 15–32 about Australian aborigine groups; Norström 2003: 226–7 about the Paliyar. See also Ellen 1993: 66; Barnard 2000: 13). Again, this dialogue was usually preformed in a low key. Higher

tones were used only when the discussion moved to joking and self-deprecation. Indeed, these kinds of conversations included funny and amusing aspects. Often, when people shared their understandings in regard to something I had asked about, they came to realize how extensive the difference was between their respective (idiosyncratic) understandings. In several cases it led my Nayaka friends into long bursts of laughter. Whether it was the personal characteristics of a goddess or that of an elephant who had paid a visit on the previous night, whether it was the realizations that some of them regard butterflies as birds, or whether it was just trying to work out together the name of Karian's daughter who they all approached in relational terms – the variation between the various understandings was often seen as funny and as a good and fitting subject to joke about (see Hattori in Hewlett *et al.* 2011 for similar pattern among the Baka of Southeast Cameroon).

This dynamic illustrates why and how relational ways of knowing leave little room for stable, common and *transferable* essentialistic knowledge to develop. Understandings formed within concrete relations simply do not tend to *freeze to an essential knowledge* but stay fluid, as do relations and experiences. Relational epistemology has much to do with privileging knowledge based on personal experience. However, the focus is on 'knowing someone' rather than 'knowing about someone'; or 'knowing how a person/thing is with me/us' rather than 'what something is' or 'how this or that person is' (see Bird-David 1999: s77-9, 2004a: 414-8). It is not just that different individuals form diverse idiosyncratic understandings about what a given thing *is*. The epistemic focus is on how this thing/person is *with* the perceiver; or how this thing/person acts and reacts in different situations with others. My argument here is that systematic and complete taxonomy should be of little importance to people for whom relations are the main epistemic focus. People can have concerns over systematizing their taxonomy only if they first have an interest in what this or that thing *is*. They can then reach some kind of common understanding about it and its place in the wider taxonomic or classificatory systems. However, as long as the main concern lies in the relational sphere, there will be a shortage, firstly of interest and, secondly, of common ground (in so far as their respective understandings are concerned), for such a systematization.

Conclusions

By discussing various aspects of the process of knowing I aimed to show that contemporary Nayaka still get to learn and know various subjects (be they, as seen from a western perspective, 'things', 'persons', 'skills', or 'wisdom') through personal experimentation and within the framework of relational epistemology. We saw that while learning from others (locally constructed as relatives), knowledge is never completely objectified out of actual relations, and learning from someone is to large extent equivalent to engaging

with that person. We also saw that Nayaka preoccupation with personal experience and relations still has a significant influence not only on the way they get to know the world, but also on what they consider as worth knowing. It was also shown that the relational approach also shapes Nayaka usage of categories. The presented ethnographic data adds up to a demonstration of the manifold importance of concrete experience for Nayaka's ways of knowing and learning. It also demonstrates the importance of incorporating the epistemological context into our understanding of hunter-gatherers' social learning.

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NOTES

1. The Nayaka live on the lower northwestern slopes of the Nilgiri-Hills (the Nilgiri-Wynaad). The communities with whom I lived in 2001 and mainly in 2003-4 are settled along the Tamil Nadu-Kerala border. Up until the late 1980s they conformed to most of Woodburn's (1982) criteria for immediate-return hunter-gatherers (Bird-David 1990: 190). Since the mid 1990s they have increasingly engaged with small-scale agriculture and animal husbandry as well as with continuing gathering and hunting practices.
2. See Naveh and Bird-David for references concerning similar patterns of knowing among other hunter-gatherer communities. See also Ingold 1996 for similar analytical argument concerning hunter-gatherers' way of knowing.
3. It should be noted that apart for one girl, none of the people with whom I lived remained in any of these programs for a period longer than a few weeks running. It should also be mentioned, however, that among other communities, especially in Kerala, some Nayaka children participate in such programs for much longer periods that can last up to twelve years.
4. Fictive names are used for ethical reasons. Names like 'Rajan', 'Suresh' or 'Sangitha' are not traditional Nayaka names, though nowadays such designations are probably among the most common given to Nayaka children. The tendency amongst Nayaka, as well as other local groups in the research area, to give children common Tamil and Malayalam names has been gaining increasing momentum over the last 30 years. While using fictive names in the text, those that were traditional were replaced by me with traditional names and the non-traditional were replaced by non-traditional designations.
5. KK is one of the two main Nayaka communities studied by me. I lived there for a period of eight months.
6. *Kaka* is a local term for Muslim people. Some of them now live on deforested lands.
7. I am aware that the reader might feel that I am, somehow, being carried away by subjective interpretations regarding the emotional states of these two people. However,

stripping the description of this scene from its empathetic characteristics – empathy that was so prominent while this episode was observed – would be simply misleading and only a partial description of what was going on.

8. Excluding one case, I never witnessed Nayaka children play with toys that they had not made themselves.
9. Indeed it took a while before I had fully understood that the structure of my questions was quite bizarre from their point of view. However, even later on I occasionally continued to use these kinds of questions as a means of provoking multi-perspective conversations.

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