

Walking in your grandfather's footsteps": kinship and knowledge transmission among the Jul'hoansi (Namibia)

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Résumé :

« *Marcher sur les pas de son grand-père* »: parenté et transmission du savoir chez les Jul'hoansi (Namibie). Les récentes approches sur l'apprentissage chez les peuples chasseurs-cueilleurs actuels ou chez les post-chasseurs-cueilleurs examinent les rôles respectifs de la transmission verticale et horizontale du savoir. L'organisation de la parenté et l'organisation sociale chez les Jul'hoansi de Namibie nous encouragent à privilégier une approche alternative pour comprendre les modalités de transmission du savoir. Dans cet article, nous pointons deux variables essentielles : le lien de parenté (relation d'homonymie) et le type de savoir (compétences pratiques *versus* normes sociales). Nous démontrons que les liens de parenté font l'objet d'un apprentissage actif et que les homonymies sont motrices en tant que modèles dans l'acquisition des normes sociales de la société Jul'hoan. En revanche, les compétences pratiques sont acquises sur des périodes plus longues dans une ambiance détendue auprès d'adultes accompagnants, le plus souvent les parents. Par le biais de ces processus, les enfants jouent un rôle actif dans ce processus d'apprentissage et deviennent des partenaires importants dans les relations réciproques basées sur la parenté.

Mots-clés : apprentissage, enfants, parenté, San, Transmission du savoir

Abstract :

Recent approaches to learning and teaching among foragers and post-foragers examine the role of vertical versus horizontal modes of knowledge transmission. Kin and social organization among the Namibian Jul'hoansi invite an alternative approach to understanding knowledge transmission patterns. In this paper, we show that two main variables are involved in the process – kin association (namesake relationship), and type of knowledge (practical skills versus social norms). We argue that kin relations are actively taught, and namesakes play an important role as models for the acquisition of the social norms of Jul'hoan society. Practical skills, on the other hand, are acquired over prolonged periods of time in the relaxed presence of accompanying adults, most commonly the parents. Through these processes children become active agents in the learning process, and important partners in kin-based reciprocal relationships.

Keywords : children, kinship, Knowledge transmission, learning, San

Abstracto :

"Caminando tras los pasos de su abuelo": el parentesco y la transmisión del conocimiento Jul'hoansi (Namibia). Las teorías recientes acerca del aprendizaje y la enseñanza en sociedades de cazadores-recolectores contemporáneas y las sociedades post-cazadores-recolectores examinan el papel que tiene la transmisión de conocimiento vertical, frente a la horizontal del saber. La organización social y de parentesco de los Jul'hoansi de Namibia sugieren una forma alternativa de entender los patrones de transmisión del conocimiento. En este artículo, mostramos que hay dos variables principales involucradas en este proceso: asociación de parentesco (homonimia), y el tipo de conocimiento (habilidades prácticas frente a normas sociales). Proponemos que las relaciones de parentesco se enseñan de forma activa, y el hecho de compartir un nombre desempeña un papel importante como modelo para la adquisición de las normas sociales de los Jul'hoansi. Las habilidades prácticas, por su parte, son adquiridas en el curso de periodos de tiempo prolongados, ante la presencia más informal de adultos supervisores, normalmente los padres. A través de estos procesos, los niños se convierten en agentes activos del proceso de aprendizaje, así como en socios importantes dentro de relaciones recíprocas basadas en el parentesco.

Palabras clave : aprendizaje, niños, parentesco, San, Transmisión del conocimiento

Introduction

CHILDREN HAVE RECEIVED an increased anthropological interest in the past several decades (Lancy 2008; Montgomery 2009), however, they have largely remained of marginal interest for anthropologists working with forager and post-forager groups (Hewlett & Lamb 2005). Early accounts of hunting-gathering children have mostly focused on childrearing and socialization practices (Draper 1976; Guemple 1979; Konner 1976). More recent comparative studies have explored knowledge transmission and teaching among hunter-gatherers, and the role of adults and other children in these. Among the main questions concerning acquisition and transmission of knowledge is “who do children learn primarily from” – parents (vertical transmission) or peers and other adults (horizontal and oblique transmission), and “whether hunter-gatherers actively teach children or not” (Boyette & Hewlett 2017; Hewlett *et al.* 2011; Hewlett 2016; Lew-Levy *et al.* 2017a; Lew-Levy *et al.* 2017b). While these approaches are useful for cross-cultural comparative studies, and capture different aspects of the knowledge transmission patterns of many groups, they do not fully capture and explain the social learning processes of the Jul’hoansi of Namibia.

Our main objective in this paper is to suggest a more nuanced version of these approaches as they apply to Jul’hoan knowledge transmission practices, based on two main principles. First, we will argue that there are different types of knowledge that evoke different teaching and learning patterns. Second, knowledge transmission happens in the context of the Jul’hoan social world, in which kinship relations play a major role. Different kin members thus assume different teaching roles, regardless of vertical or horizontal association with the child.

Increased sedentarization and encapsulation of hunter-gatherers has pushed anthropologists to rethink what the category of hunter-gatherers and foragers connotes. Recent work among these groups – often referred to as “post-foragers” – acknowledges both the nature of their subsistence strategy and the fact that today this strategy has been largely replaced or supplemented by other means. This research has identified social structures, value systems and ideologies as central to contemporary foragers’ identity (Barnard 2002; Guenther 1999; Lee 2005). With few exceptions, contemporary hunter-gathers in all parts of the world navigate their existence among other dominant groups, and are under growing pressure from state institutions, land loss, and rapid environmental changes. Despite these changes, scholars working with post foragers have argued that, as Barnard puts it, “mode of thought is more resilient than mode of production” (2002: 6). We have observed and argued that the Jul’hoansi continue to conform to strong principles of egalitarianism, and maintain extensive kinship and exchange networks (Hays 2016; Hays & Ninkova 2018; Ninkova 2017).

In this paper we describe social learning among contemporary Jul’hoansi, and argue that cultural resilience in post-forager conditions can also be understood through their ongoing knowledge transmission practices.

The Namibian Jul’hoansi

The Jul’hoansi are one of several groups of indigenous (former) hunter-gatherers living in Northeastern and Central Eastern Namibia and Northwestern and Central Western Botswana. In academic literature they are usually referred to collectively as the “San”. This paper concerns the Jul’hoan population on the Namibian side of the border, with whom the authors have worked.

The two main groups of Jul'hoansi in Namibia reside in two administrative regions - Otjozondjupa region (predominantly in the Nyae Nyae Conservancy), and the Omaheke region (primarily north of the administrative town of Gobabis). The two populations share a common past, similar dialects and social organization, but different historical trajectories. The Omaheke Jul'hoansi have lost access to traditional territories over the past century, and predominantly reside on white-owned or Bantu-owned farms, where they perform manual farm labor in return for scarce remuneration. In the Nyae Nyae, the Jul'hoansi remained relatively isolated well into the middle of 20th century. After Namibian Independence in 1990, they were able to maintain their limited access to land and natural resources. In 1998 Nyae Nyae was given the status of a Nature Conservancy, with resource rights to wildlife based on ethnicity-linked membership. In 2013 the Nyae Nyae Conservancy was gazetted as a Community Forest, providing them with rights over plant resources as well. Today the Jul'hoansi of Nyae Nyae have the right to hunt and gather on their own territory, and to benefit from their resources through tourism, professional hunting, and sale of products they gather or produce.

Contemporary Jul'hoansi do not - cannot - survive purely from hunting and gathering. They practice a mixed economy that manifests itself in different forms in different contexts, depending on a number of factors including legal restrictions on hunting, availability of animal and plant species, access to land, environmental conditions, and local employment options. Typically, most families rely upon a combination of government support and other donations, store-bought products purchased from limited income, and farmed and foraged food. In Nyae Nyae, where they do have hunting rights and the plants are protected from overgrazing, "bush foods" provide an important portion of their nutritional intake. Nonetheless, the territory is not large enough to fulfill either the subsistence requirements or the social needs of the people residing there, and food donated by the government or purchased with sporadic income is crucial to their survival. In the Omaheke, hunting is illegal; it is considered "poaching" and constitutes a serious crime, and bush plants are severely depleted due to sedentarization and overgrazing. Nonetheless, foraging (and poaching) in the Omaheke continues to be practiced. Bush foods are highly prized items, but they do not make up the bulk of their diet.

Despite these limitations, hunting and gathering remains a crucial aspect of Jul'hoansi identity in both places, and the vast majority of people express a strong preference for remaining in their villages or communities, and continuing to maintain traditional practices as much as possible. Virtually all Jul'hoansi that we have worked with utilize bush food to some degree, and emphasize its importance both as a critical dietary supplement, and a central identity marker. Bush food, in contrast to store-bought food (the main item of which is maize porridge), is believed to keep one healthy, agile and alert. Men refer to their hunting practices as ontologically different from the hunting practices of other groups in the region, and *veldkos*² in general is considered to be "our food", the food known and sought after predominantly by the Jul'hoansi:

"Even now we must know how to live in the bush from the time we are children. When someone is alone in the bush, he must know what he must eat, and what he must not eat. The old people tell us not just to care about [store-bought food] but to eat things from the bush because it is nice for us. Because first in the world we were staying in the bushes, and life [depended] just from that" (Jul'hoan woman, Omaheke region; field notes Velina Ninkova - hereafter referred to as VN - 2008); "Knowing how to hunt with a bow and arrow is important, because it is our culture and because we get food from it." (young Jul'hoan man, Nyae Nyae; field notes Jennifer Hays - hereafter referred

to as JH - 2011)

As is common among foraging societies, traditional Jul'hoan culture is characterized by strongly enforced egalitarianism, a high value on personal autonomy, and sharing and exchange (Marshall 1976; Lee 2013). Social networks continue to provide the most secure access to resources for almost all Jul'hoansi. The Jul'hoansi that we have worked with actively maintain their kinship networks - because they depend on them for survival, and because they are central to their identity. Extensive kinship networks bind people together across large territories, and secure the physical and psychological well-being of individuals and whole communities. As we have argued elsewhere (Hays & Ninkova 2018; Ninkova 2017), despite the dramatic changes that have affected the Jul'hoansi over the past century, kinship continues to serve as a grid that directs people's movement in time and space, and that secures their long-term survival.

Jobs afforded by completion of formal education and within the mainstream cash economy are highly desired - but Jul'hoan individuals recognize that such positions are both limited and highly insecure (Diekmann *et al.* 2014; Hays 2016; Hays & Ninkova 2018; Ninkova 2017).

Jul'hoan children

For the purposes of the paper we define childhood as the period from the end of infancy (after weaning; 2-4 years of age) to the start of adolescence (sexual maturation; ab. 14-15 years of age). The literature on foraging Jul'hoan children draws a picture of an indulgent childhood, where infants are raised in constant contact with their mothers; cry little; and are breastfed on demand for the first few years of their lives. Toddlers and children spend most of their time playing in mixed age and gender groups under the supervision of adults; have intimate bonds with both their mothers and fathers; have access to all adults in the group and spheres of activity; are discouraged from showing aggression; are not physically punished; and are given time and space to outgrow tantrums and difficult behaviors (Draper 1976; Konner 1976, 2005; Marshall 1976; Shostak 1976, 1981). Notably, Jul'hoan children perform very little or no work until later in their adolescence - this differs from what has been reported for other hunter-gatherers in Africa, specifically Hadza children (Blurton Jones *et al.* 1994; Hawkes *et al.* 1995). This has been attributed primarily to the extensive and detailed nature of the skills and knowledge the Jul'hoansi had to acquire before they could become independent food providers in the harsh Kalahari environment (Blurton Jones & Konner 1976; Draper 1976; Lee 2013).

In terms of traditional learning styles, foraging Jul'hoan children are described as self-motivated learners, who acquire information within the intimate proximity of all other available members of their society (Biesele 1993). Acquisition of new skills and information happens experientially and over long periods of time, and adults and peers serve as models rather than instructors (Katz 1976). Despite changes in settlement and subsistence patterns, contemporary Jul'hoan children continue to acquire their culture and its related practices in a relaxed and self-directed manner.

Sedentarization, changes in subsistence patterns, and access to formal education have brought about changes in childrearing practices and children's lives. Sedentarized Jul'hoan children reportedly perform more work than foraging children; spend more time with peers than with adults; venture further from their settlements on their own; and exhibit more gender-differentiated behaviors (Draper & Cashdan 1988). However, our observations show that Jul'hoan children continue to live markedly different lives from neighboring Bantu children. They have freedom to organize their

daily activities as they wish and are not coerced into working or participating in activities they do not wish to; disciplinary strategies practiced by other groups are thus largely absent from Jul'hoan communities. Children are, however, strongly discouraged from exhibiting aggressive behavior – this is one of the only cases in which parents make an active effort to control children's actions. Finally, and importantly, Jul'hoan children are expected to learn their placement in their kin network from an early age. We will return to this last point shortly. In the sections below, we briefly describe two main arenas of socialization and knowledge transmission for contemporary Jul'hoan children – around activities associated with foraging, and around schooling.

Jul'hoan children and foraging activities

Jul'hoan children participate in foraging activities, both along with adults, and in groups that include only children. Neither of the authors has accompanied a foraging group that consisted only of children. Our data about children's foraging activities thus consists of observations of children who accompany their parents or other relatives (and us); and observations of children's activities upon returning from their own forays into the surrounding bush. Children freely participate in gathering trips that are organized by adults. On these trips, they are generally not expected to contribute significantly to the collection of plant foods, although they often collect easily obtained foods such as berries, or sweet sap that collects on trees – these are eaten immediately. They also play, either with other children present or on their own. This play may include activities that mimic that of the adults, such as digging for deep roots or collecting heavier foods like nuts. Such activities are generally performed on the go, frequently do not lead to actual food collection, and are easily abandoned as the group moves on through the bush. As a general pattern, children, especially when they are very young, perform these activities as play, and not as a means for procuring food for the group (although they may find food that they eat immediately themselves).

Play, of course, is a primary mode of learning – and much of Jul'hoan children's play around the village and in the bush involves mimicking adult activities, some of which are gender-based. Boys in particular play with small spears, slingshots, and bows and arrows, and might kill small animals (birds, lizards, etc.), which they clean, cook, and eat. Girls learn how to make beaded crafts; learn how to crochet and knit; and play mothers with toys or actual babies. Boys and girls will go in small groups into the nearby surrounding bush and collect foods that are easy to get. We have both often come across children in small groups cooking edible leaves that they have gathered in small pots or cans, or roasting insects, over a little fire. A key element of these activities is that they are driven by the children's interest – not because they are being told that this is what they should do. For children who do not go to school, this is their primary socialization and learning environment – observing adults' everyday activities, and then practicing these activities with other children as play. In both cases, it is the children themselves who direct their participation. These autonomous choices and play-based learning contrast sharply with the expectations of schooling; both of the authors have explored these dynamics in detail (Hays 2007, 2016; Ninkova 2017). While this contrast is not a central focus of this paper, it is worth briefly describing the dynamics around participation in schooling because of the important role of this institution in the processes and discourses of knowledge transmission.

Jul'hoan children and schooling

After Namibian Independence, Jul'hoan children have received increased access to formal education.

Like other San and like hunter-gatherers the world over, their participation in the education system remains marginal. In the Omaheke, most Jul'hoan children enroll in schools, however many drop out before completing senior primary (grade 7). The overwhelming majority of those who progress to secondary education, drop out within the first year after that. In Nyae Nyae, the vast majority of Jul'hoan children receive at most an education up to grade 4, with only a small proportion continuing beyond that. Formal education poses enormous challenges, as both authors have described elsewhere (Hays 2016; Ninkova 2017). Namibia is a very sparsely settled country, and most schools in rural Namibia are boarding schools that cater for students who come from remote areas. Jul'hoan families usually live far from towns and settlements with schools, and school-going children very often reside away from their families and communities while school is in session. For many children, this separation is difficult and painful, especially in cases where there is a lack of sympathetic teachers and caretakers, as is often reported to be the case. Complaints related to the boarding hostels are frequently given as a reason that students drop out (Hays *et al.* 2010; Ninkova 2015). Although this paper does not address issues of formal education, a discussion of knowledge transmission and its relation to livelihood and social support is directly relevant to questions of formal education (including access to and adequacy of). Our discussion in this paper takes place with this background in mind.

An often expressed concern about boarding schools for children from traditional societies is that prolonged separation from their parents and communities will lead to a loss of traditional knowledge, as contact between elders and children is limited to school holidays (Annahatak 1994; Ohmagari & Berkes 1997). Jul'hoan parents report, however, that school attendance and absence from their homes does not prevent children from acquiring knowledge about traditional subsistence practices. This is an interesting point, which we will return to below in this paper.

Kinship and social learning

The question from whom do hunter-gatherer children learn has attracted increased interest among scholars. Hewlett *et al.* (2011) describe the transmission of knowledge using geometrical and directional terms: vertical transmission describes parent to child; oblique transmission refers to adults other than the parents; and horizontal transmission describes knowledge that is communicated among peers. The visual metaphor of group members as existing on different “vertical” and “horizontal” planes (as the terminology implies), however, is an *etic* analytical tool, based on a linear conception of demographic life processes. This conceptualization does not correspond to how the Jul'hoansi perceive of life cycles, and most importantly, to how they perceive of group members' interconnectedness. It also goes against the Jul'hoansi's (and other foragers') egalitarian ethos that does not segregate individuals based on age or status (Woodburn 1982). Therefore, we suggest an *emic* approach to age and kin-relatedness among the Jul'hoansi, and then examine it in relation to learning and teaching. The remainder of this section will explore kinship relations and generational cycles, and connect these to social learning.

Kinship and generational cycles

Kinship is the “central organizational principle” (Lee 2013: 66) of Jul'hoan society, both in the context of foraging and post-foraging (Hays & Ninkova 2018; Ninkova 2017). An individual's kin network both determines and limits interpersonal relations in an individual's life, as well as his or her economic status, geographic mobility, and access to resources, including employment

opportunities. Non-related people have little trust between each other, and cooperation is neither expected, nor necessarily desirable. One of the main reasons for the failed development approaches of the Namibian government and NGOs working with marginalized Jul'hoan communities is rooted in lack of understanding of these internal group relations.

The kinship system of the Jul'hoansi is characterized by its universalistic character (Barnard 1992). The system has two types of kin relations between people – genealogical and namesake relations that allow a person to establish kin relations with virtually any other Jul'hoan (or with a Jul'hoan name) individual. Jul'hoan kinship places each individual in either a joking or an avoidance relationship with any other kin member. Joking refers to the use of sexual language and insults (referred to as *za* language; see Lee 2013: 126), whereas avoidance refers to the restraint from the use of such language. Generally speaking, people can joke with people from their own and alternate generations (same sex siblings, both sex cousins, grandparents and grandparents' siblings, grandchildren, etc.), and avoid joking with people from adjacent generations (parents, parents' siblings, offspring, etc.) and opposite sex siblings (Lee 2013; Marshall 1976).

Since kinship is maintained through naming, non-genealogical persons who bear the names of genealogical kin members can also form kin relations if they chose to³. Each newborn Jul'hoan individual (*!kuma*, younger namesake) is named after an elder family member (*!kun!a*, older namesake); the two namesakes thus form a dyadic entity. Most commonly children are named after grandparents and grandparents' siblings; when these names are exhausted, they can be named after paternal or maternal siblings. As Marshall writes, the Jul'hoansi “believe that the name is somehow a part of the entity of the person; when one is names for a person one partakes of that person's entity in some way” (1976: 203). When an individual receives an older relative's name, he or she is placed in the life trajectory of that individual, with the ultimate goal of replacing him or her one day, thus creating generational loops that are constantly renewed with each new generation. In a linear generational organization, older generations are thought of as being in the past. The Jul'hoansi speak of their older namesakes as being not behind but in front of them, thus indicating the inevitability of taking up their position one day; ultimately, at arriving at their full potential.

The organization of Jul'hoan life around these dyadic generational loops has implications for our argument in two important ways. First, older namesakes (who are never the parents) assume more formal teaching and role model positions vis-à-vis their young namesakes. Second, being members of such dyadic relationships frees children from their dependency position in regards to others. In this model, children contain all possibilities within themselves at any given time; thus are both receivers and givers in any kin relationship in which they participate. We elaborate on these two points in the following sub-sections.

Different approaches to different types of knowledge

Before becoming fully competent adults, children must acquire a large amount of important skills and knowledge. We would like to distinguish two types of knowledge for the purposes of our argument. On the one hand, hunter-gatherer children must acquire ecological knowledge concerning animal and plant species' distribution and availability, together with a number of practical skills such as identifying and procuring the plant and animal foods, cooking, maintaining a household, tool-use and making, etc. We refer to all of these as “practical” knowledge and skills. On the other hand, socialization within a certain culture requires the acquisition of the norms and values of this culture. Cultural knowledge has been recognized by cultural psychologists working with social

cognition as a knowledge structure that operates through principles characteristic of other types of cognitive and mental processes (Chiu & Hong 2007). Hewlett *et al.* (2011) call the norms and values pertaining to a culture “foundational schema”. The foundational schema that these authors identify for hunter-gatherers are egalitarianism, autonomy and sharing. We clearly recognize these as valid foundational schema for the Jul’hoansi as well. We would like to also include kinship and exchange among them. Sharing (of meat and other food items) and exchange (known as *hxaro*, of mostly non-food items) are two separate practices, each with specific sets of rules. While both have been affected by sedentarization, both, particularly gift exchange, continue to be practiced.

The Jul’hoansi acquire practical skills, not through consistent teaching or instruction, but through observation, participation and imitation. This does not mean that adults do not direct children’s acquisition of practical skills or occasionally give instruction; they do. But children often initiate their own learning at their own pace and time. Young girls, for example, learn how to make beaded necklaces next to their mothers, and mothers or other available adults can show children how to tie a knot, start or finish a necklace, or use scissors to cut a thread. Children learn how to tend fires, boil water, and roast edible roots alongside adult members of their families. During bush trips, older women often talk in much detail about the distribution of certain species they encounter along the way; they recollect stories about these species from their childhoods; or narrate properties of medicinal plants. While tracking animals in the bush, men are constantly identifying animal tracks and calls, discussing possible movements of animals, noting the direction of the wind. Children who accompany women on bush trips are exposed to their repetitive stories, and the older boys who go out hunting listen and watch along with their elders. Narrating women, however, do not direct these stories as much at children, as at other adult accompanying women; likewise the men discussing strategic approaches to hunting, or recollecting hunting trips around the fire, do so not to teach prospective young hunters. The primary listeners to these stories are other adult hunters. Children, however, skillfully imitate adults in their games, where they imitate from the simplest “playing family”, to more elaborate reenactment of adult social dynamics. They also retell bush trip or hunting stories they have participated in or heard about in great detail.

The acquisition of practical skills for the Jul’hoansi, therefore is a slow-paced and often child-initiated process. Because children are not expected to perform much work until in their late adolescence, parents do not show concern that children must acquire certain knowledge and skills as early as possible. This is not to say that parents do not think that the acquisition of practical skills is not important. They do, however, they trust children that when the time comes, they would have accumulated the necessary practical skills for their survival.

What adults actively teach children are the foundational schema of Jul’hoan society. Of these, the most important ones are one’s placement in their kin network, and learning to share from a young age. One of the few instructional games adults play with children is a “give-and-take” game, where an adult will give an object or a piece of food to a child as young as one year of age or younger, with the word *gu* “take”, and will shortly after take it back with the word *na* “give me”. The game can go on for long periods, and by the age of two, most children freely let go of objects adults snatch of their hands with the word *na*.

Perhaps the most important knowledge a Jul’hoan child must acquire, however, is his or her placement in their kin network: “When a child gets a little bit old, you start teaching them about their family. They must know that this one is your family, and this one is your family, and like that. This is very important.” (Jul’hoan woman, Omaheke region, field notes VN, 2013)

Since young namesakes are expected to replace their old namesakes one day, in cases when they live in close physical proximity, old namesakes take an avid interest in teaching their young namesakes proper manners and behavior both through verbal instruction, and simply as role models.

"My grandfather is teaching me about life, so that I can go in his footsteps one day. He is teaching me behavior, manners, his experience in life. I have to be like him when I get old." (Jul'hoan man, Omaheke region; field notes VN, 2013)

This teaching relationship is also evoked among children who share the same name. The affection between non-related namesakes is based on the affection an individual feels towards his or her own genealogical old namesake, extending it to any person with whom one shares a name: "We like each other because she has my grandmother's name" (Jul'hoan woman, Omaheke region, field notes VN, 2013). Thus, older children sometimes assume authority over young children and "teach" them "proper" behavior - to cover their intimate parts when they sit; to show respect for older kin members; to share food and toys. Since children even in the same age-set might fall in an avoidance relationship, they also learn from an early age with which other children they can joke (and use *za* language), and with which they cannot. Older children sometimes remind younger ones not to use strong language with children with whom they are not in a joking relationship.

Teaching has been defined as the intentional modification of a one's behavior in a way that "enhances learning in another" (Hewlett & Roulette 2016: 4). This certainly describes the act of teaching; however, it does not automatically follow that the people it is applied to perceive of it as such. We would like to suggest that for the Jul'hoansi, the modification of behavior that teaches practical skills may not necessarily be perceived of as teaching. The practices the Jul'hoansi perceive of as "teaching" - the transmission of cultural norms and values (foundational schema), on the other hand, do not necessarily involve the modification of one's behavior. The difference stems from the role of children themselves in each of these different teaching and learning practices. We examine this point in the section below.

Children as coevals

Bird-David argues that among the Nayaka, a hunter-gatherer group from South India, when adults provide children with care and food, they do not regard them as dependents but as "coevals" and "active recipients who can also feed others now or in the future" (2008: 537). We find this point particularly relevant for the Jul'hoansi for several reasons. Jul'hoan children are regarded as autonomous members of their society with access to all circles of everyday life. There is much focus on teaching children the foundational schema, and once these have been acquired, then children are able to navigate their lives more freely within their kin networks, and in the wider group. Within a kin network, as described earlier, a child is not a mere dependent. On the contrary, he or she is an autonomous full-standing member, who can assume either a younger or an older namesake (or any other genealogical or fictive kin) relationship with almost any other member of the group. A child as young as five years old can be affectionately referred to as "my older brother" by an old man, for example. That any child finds itself in a similar relationship with almost any other adult individual blurs the distance between providers and dependents, and also reminds children of their obligations within their networks.

The relative nature of this relationship between providers versus dependents is particularly visible in *hxaro* exchange networks. *Hxaro* is delayed gift exchange of non-food items that serves to

redistribute wealth and possessions, and to provide a sort of safety net in times of crises and uncertainty (Wiessner 1977, 2002). An individual can enter in a *hxaro* relationship at any stage of their life, however, many relationships are started from an early age. When an older individual establishes a *hxaro* relationship with a young child (usually a kin), the child will mostly receive gifts from the older exchange partner for as long as he or she is old enough to be able to reciprocate. If a child receives a plastic cup as a gift from a *hxaro* partner, the name of the person who provided the cup will be mentioned every time the child uses the cup, so that “you know, and then one day, when you have something beautiful, you will give it to the person...” (young Jul’hoan man, Omaheke region; field notes VN, 2013). In these types of delayed reciprocal exchanges, children are not seen as mere receivers but as providers, too. When an old person dies, his or her descendent might inherit their *hxaro* partners, an act that adds additional value to children as equal exchange partners. Once children have acquired the foundational schema of the group, and their long-term stability and security is established, they can self-navigate and self-direct their own learning. Perceiving children as coevals in terms of kin placement and exchange partners, means that adults see their teaching as a necessary investment in their own survival.

Children are also perceived by parents as providing a valuable socialization environment for other children: “It is good for children to go to the kindergarten and play with other children because in this way they are teaching each other...” (Jul’hoan woman, Omaheke region; field notes VN, 2013); “She [her daughter] should go to the kindergarten, so that she can learn from other children how to be a good Jul’hoan child.” (Jul’hoan woman, Omaheke region; field notes VN, 2013)

Children also describe learning from one another about skills associated with food procurement: “If our parents are busy, we just go out together – we teach each other in the bush. If one person does not know how to find a plant, another one will show her...” (Jul’hoan girl, Nyae Nyae; field notes JH, 2017); “I started going out hunting when I was around 10, with my father and brothers. Sometimes if the older men run too slow, we go out together, and we learn from each other.” (young Jul’hoan man, Nyae Nyae; field notes JH, 2017)

Melissa Heckler, who was one of the founding supporters of the Village Schools in Nyae Nyae (a community-based mother tongue education initiative where Jul’hoansi-speakers teach from grades 1 to 3; see Hays 2016), has observed over many years how Jul’hoan children also support one another’s learning processes in the Village School environment. She notes that “...the learning capacity of the children seems increased by the pleasure they take in teaching each other and making sure that down to the smallest child, everyone who wants to be, is included. Children sat together as they did in mixed age groups with adults, with arms and legs intertwined” (field notebook 1990: 39, Aotcha village, Nyae Nyae).

As noted earlier, neither parents nor children perceive being away at boarding school as necessarily a problem for children learning subsistence and practical skills associated with hunting and gathering, nor for learning the foundational schema. Foundational schemas are already actively taught before a child enters school after the age of seven. Subsistence and practical skills – particularly in foraging conditions, on the other hand, take a lifetime to acquire, and parents do not put a special emphasis on them. In addition, practical skills learned at school are also seen as valuable assets for one’s or a group’s survival. As long as the school environment is good (they are treated well by the teachers and the other children, and have enough to eat) and they are able to make regular visits home, there is confidence that they will learn the necessary practical skills and knowledge for their survival.

Post-forager resilience

As we described at the beginning of the paper, post-foragers like the Jul'hoansi have exhibited remarkable social resilience despite dramatic changes in subsistence and settlement patterns. The term "social resilience" was coined to allow for the analysis of responses to changes of ecological and also of social character, defined by Adger as "the ability of human communities to withstand external shocks to their social infrastructure" (2000: 361). While earlier studies of southern African foragers' flexibility and adaptability were mostly approached from an ecological perspective (Brooks *et al.* 1984; Lee 1979, 2013; Yellen 1977), more recently scholars have taken a "beyond-ecology turn" (Guenther 2007: 378), and have explored the persistence of a foraging ideology not only relating to subsistence, but also to patterns of cosmological beliefs, and social norms and values (Biesele 1993; Guenther 1999; Barnard 2002).

Hastrup argues that while resilience is regarded as a "system property", it nonetheless "resides in people" (2009: 20). From this standpoint, social resilience depends upon the preparedness of a community to continue to conform to culturally-valued social norms, and to engage with the complex relations within their "traditional" institutions. We suggest that the emphasis on the active teaching of foundational schema provides the basis for the resilience and the strong foraging ethos of the Jul'hoansi. Subsistence patterns are adapted to changing locations and conditions, and Jul'hoan children acquire the practical skills necessary for their survival while enmeshed in their immediate environments. The long-term survival and flexibility of Jul'hoan culture, however, has mostly depended on the successful transmission of the cultural knowledge encompassing the most important spheres of social life, namely egalitarianism, personal autonomy and exchange and sharing. While parents assume that their children will successfully acquire the practical skills necessary in any changed environment for their future survival, they enforce their children's acquisition of the main foundational schema of their society. In the long term, this ensures that Jul'hoan culture "resides in people".

Conclusion

The aim of this paper has been to suggest an alternative model for Jul'hoan children's social learning that draws from general understandings of knowledge transmission among hunter-gatherer children, but that addresses Jul'hoan-specific realities and values. The realities of the contemporary Jul'hoansi are similar to those of most post-foragers across the globe, and include threatened subsistence systems, combined with increased institutionalization and bureaucratization. The ideas in this paper ultimately stem from efforts by both of the authors to better understand the cultural and structural barriers to participation in the formal education system - one of the primary spaces in which the Jul'hoansi have contact with a state institution. We recognize that the Jul'hoansi are not only victims of the system - they are also actively responding in culturally appropriate and economically strategic ways, according to their own value systems. These responses are based in a continuation of a strong egalitarian and autonomous forager identity that persists despite the enormous disruption of associated subsistence patterns. Our main argument here is that the Jul'hoansi's resilience can be linked to the emphasis people place on the explicit transmission of their social practices (particularly kin membership and exchange). Within this "safety net" of a social network extending across time and space, children are free to develop as autonomous individuals who skillfully navigate their own learning. This paper is a first effort to explore these dynamics more closely, and we welcome discussions, critique, and similar or opposite examples

from other relevant contexts.

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Notes

1 The plural Ju'hoansi refers both to the people themselves and to the language. When referring to individuals, the correct term is Ju'hoan; this is also an adjective. The vertical slash represents the click consonant made by clicking the tongue against the palatal ridge *-tsk*. Alternatively, the term can be pronounced simply as Jutwan(si).

2 Bush edible plants, from Afrikaans.

3 Long-term visitors (including anthropologists) are also usually given a name, thus incorporating them into these kinship networks - and all of their obligations. This "fictive kinship" serves to provide visitors with social connections in the community, and with insight into how kinship networks function.