Learning 'From Nobody': The Limited Role of Teaching in Folk Models of Children's Development

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Abstract

Among the Western intelligentsia, parenting is synonymous with teaching. We are cajoled into beginning our child's education in the womb and feel guilty whenever a 'teaching moment' is squandered. This paper will argue that this reliance on teaching generally, and especially on parents as teachers, is quite recent historically and localised culturally. The majority follow a *laissez faire* attitude towards development that relies heavily on children's natural curiosity and motivation to emulate those who are more expert.

Keywords: TEACHING, EDUCATION, SOCIALISATION, CHILDHOOD, PARENTING, LEARNING

Introduction

Among the contemporary world's intelligentsia (Western, Educated, Industrialised, Rich and Democratic [WEIRD] society *cf*. Henrich *et al*. 2010), raising children has become synonymous with *teaching*[1] them. Children spend a significant portion of their youth in school and they are conscripted as learners – even before birth – by parents who are eager to teach them. Parents are joined by a formidable cohort of teachers, carers, coaches, scout leaders, among others, who act to insure the child's nascent talents and intelligence are fully optimised. There is an urgency in this enterprise, fueled in part by a multi–billion dollar 'Parenting Aids/Guides' industry (Lancy 2008, 148)[2] and, in part by over-hyped research. In effect, the child-rearing practices of a single sub-culture are treated as *natural* or biological. What is basically the WEIRD 'folk' model (Quinn and Holland 1987) of child development has been transformed into a 'scientific theory' whose force is augmented via explicit government policies.

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In the first part of the paper, some of the highlights of this folk model will be examined. In the remainder of the paper, I will draw on the ethnographic (and to a lesser extent, the historical) record to make the case that, far from being essential to the processes of cultural transmission and child-rearing, active teaching either by parents or by designated instructors is extremely rare. In the process, I will construct a second, contrasting folk model highlighting common patterns illustrative of children as self-guided learners of their culture.

Scientists in the Crib

Recently the Disney Corporation felt compelled to offer refunds to millions of its customers and acknowledge to the devoted parents who had purchased the company's Baby Einstein line of videos that they just might not turn every child into Einstein (Henry and Sherwell 2009). Nevertheless, customers posting comments continued to endorse the products. Good, reliable educational products for babies are not common. But many cannot wait until their infants are born to begin the teaching process. One ethnographer had no difficulty finding a sample of expectant US parents who routinely talk, sing and read to the foetus (Han 2009, 13). The practice is prevalent in Asia as well (Shon 2002, 140–1) and arises from the need to solidify the teacher/pupil relationship as early as possible.

The education process is greatly facilitated by the child's acquisition of speech and child psychologists have fostered the idea of teaching pre-linguistic babies to use American Sign Language. Devotees express enormous gratitude for this opportunity to accelerate development (Acredolo and Goodwyn 2002). The rush to early teaching is driven in part by research on infant cognition, revealing hitherto unsuspected capacities (e.g. *The Scientist in the Crib* by Gopnik *et al*. 2000). From the preceding title, and others like it, one might infer that these claims are inflated. Indeed, that is the position of one noted scholar who, tongue-in-cheek, worries about the 'specter of these infant scientists threatening our job security' (Haith 1998, 176). He is a rare nay-sayer. Infant cognition research fuels well-funded federal and NGO programs like 'Zero to Three' whose message is that infancy is a critical period in the child's development that demands thorough programming to insure later success.[3]

Parents as Playmates and Teachers

A growing body of research describes and compares the context and methods parents use in teaching their post-partum children. The bedtime story is a time-honoured rite found primarily among the middle-class and instrumentally linked to learning to read early and easily. In turn, various programs have been developed to encourage and train *all* parents to read with their pre-schoolers (Lancy 1994). Another rich area of parental intervention is the 'dinner-table' conversation. In both popular and empirical literature benefits are promised, for example 'Mealtime [is] a richly supportive context for the use of rare words' (Snow and Beals 2007, 63). Children exposed to greater amounts of narrative and explanatory talk were advantaged on a number 'of language and literacy measures' (Beals 2001, 80). Conversations with one's offspring may not be limited to

mealtimes. In one study with well-educated mothers, discussions of the past were interspersed with 'open-ended questions that invited their children's participation in the memory conversation' (Haden *et al*. 2009, 127). Variability within the sample suggested that some of these 'Super-Moms' were not doing a stellar job. 'Children of high eliciting mothers showed higher standard scores' (Haden *et al*. 2009, 129).

There are numerous studies of (WEIRD) mothers playing with infants and preschoolers. The child's interaction with a varied collection of educational toys must be *mediated* by parents guiding exploration. This leads the child to discover attributes they might otherwise overlook. Mothers encourage and structure fantasy or make-believe even before the child begins to pretend on her own (Haight and Miller 1993). And this 'coaching' does enhance the literary quality of their play (Katz 2001, 58). Children will, of course, play with objects and engage in make-believe without adult guidance, as they will eagerly participate in play with siblings and peers. But, here too, middle-class parents have been observed *teaching* their children *how* to play with their own siblings or with peers (Cook-Gumperz *et al*. 1986). In the WEIRD society's folk model of children's development, nothing can be left to chance as they consult 'a small library' on child rearing, especially books on 'how to provide adequate "stimulation" for infants' (Harkness *et al*. 1992, 175).

Learning in the Kitchen

In a lengthy vignette, contained within the pages of a developmental psychology textbook, the author describes her four-year-old son inviting himself to join her in the kitchen. She had begun to make a cake but willingly turns this domestic task into a teaching opportunity. She slows down and changes her procedure in order to incorporate the child as a full partner in the undertaking, teaching him what he does not yet know. The author asserts that: 'Such didactic instruction is a mainstay of adult-child interaction'. On the contrary, I believe the discussion illustrates how folk wisdom gets transformed into scientific orthodoxy or how nurture becomes nature (Lancy 2010) because, in fact, the scene described is actually rare. Here is a contrasting and more representative example from Hawaii:

> Children's questions serve as irritating disruptions to adult activities … . "He asks a lot … I get so mad 'cause he constantly keep on asking the same thing. What you cooking? I tell him what I cook. Ten minutes, come back. What you cooking? I tell him. Again. I not cooking nothing! So, I tell him. Get lost. Go outside. Go play" (Levin 1992, 65).

Another developmental psychologist, actually sought *evidence* of parents who fit the Vygotskian model, patiently 'scaffolding' their children's acquisition of household skills within the 'zone of proximal development' – including cooking – in middle-class Australian households. Cases that fit this ideal were rare (Goodnow 1990), a finding acknowledged, in effect, by the State of California in its *First Five* program; which promotes the 'parent-as-patient teacher' as the gold standard of parenthood.[4] However, a similar initiative launched in the UK, provoked a sour reaction from the working class mothers it was aimed at (Buckingham and Scanlon 2003, 183). There are, indeed, several ethnographies documenting resistance or indifference from non-elite parents

towards assuming a demanding teaching role with children (Deyhle 1992; Heath 1983; Lareau 2003). In addition, there is a nascent (and controversial) resistance movement underway among scholars and social critics, as titles like *Confessions of a Slacker Mom* (Mead–Ferro 2004), *The Nurture Assumption* (Harris 2009) and *Free-Range Kids* (Skenazy 2009) suggest.

However, my purpose is not to argue for or against the efficacy of any particular folk model[5] but to use material from pre-modern societies to argue that teaching, as we currently understand the term, is largely absent or of minor importance in the transformation of mewling babes into competent adults. The Kpelle – West African swidden farmers – are typical in having a robust menu of 'cultural routines' that lighten the burden of raising children (Lancy 1996) – without actually 'teaching' them. This issue has theoretical import as well because so many scholars seem to have accepted the necessity for and universality of teaching. Kurt Fischer, director of the Mind, Brain and Education program at Harvard, was recently quoted as claiming that 'teaching is an ancient craft [that] … affected the developing brain' (Carey 2009; see also Csibra and Gergely 2009). Another recent pronouncement asserts that: 'parents are the primary, most committed and effective educators of their children' (Goldman and Booker 2009, 370) and, finally, we have:

> it is (almost) incontrovertible that teaching is ubiquitous among human beings … every person in every society has taught and has been taught by others … . A [tiny fraction] has been taught how to teach; yet all know how to teach (Strauss *et al*. 2002, 1476–7).

Having illustrated the role of teaching in the WEIRD model of child development, I turn now to 'village' or pre-modern folk models.

Teaching as Unnecessary Interference

I want to stress that, while I review the common child-rearing practices of many different societies, I will search for commonalities in a quest to construct a widely shared folk model of children's development. The methodology used involves canvassing the ethnographic record, assembling illustrative cases and, teasing out broad patterns. It is referred to as *ethnology* (Voget 1975). The current paper grew out of a comprehensive review of the ethnographic record pertaining to childhood (Lancy 2008). In that review, approximately 1350 published and unpublished reports were used and, since publication in late 2008, an additional 220 sources have been found and added to the corpus. It is comprehensive with respect to geography and subsistence patterns. One theme in the initial (Lancy 2008) review was the insistence, by many ethnographers, that the *teaching* of children is not called for.[6] A representative sample of those statements[7] is listed below:

- 'No formal instruction is practiced among the [!Kung] … learning …comes from the children's observation of the more experienced' (Marshall 1958, 51).

- '[There] is remarkably little meddling by older [Inuit] people in this learning process. Parents do not presume to teach their children what they can as easily learn on their own' (Guemple 1979, 50).

- 'In contrast to American parents, who seem to feel that knowledge is something like medicine – it's good for the child and must be crammed down his throat

even if he does not like it – Rotuman parents acted as if learning were inevitable because the child wants to learn' (Howard 1970, 37).

- 'If one asks a Chaga where he got his knowledge, in nine cases out of ten, the reply is: "From nobody; I taught it myself!"' (Raum 1940, 246–7).

- '[Manus] children accompany their parents and participate in adult activities that involve little skill. No attempt is made to develop skills – the emphasis is rather on the easy, pleasant identification with the activities of adults' (Mead 1964, 57).

There is also in these statements the idea that children are to learn from careful observation and emulation of their seniors, which we take up shortly. In the following section I will lay-out common patterns in the treatment of infants, young children, older children and adolescents that reveal underlying ideas about proper development and the role of teaching.

'Still Being Made'

Village parents tend not to actively teach or stimulate their infants and are rarely seen playing with them (Lancy 2007). The infant is both vulnerable and a threat to its family and others. In the Sepik region of Papua New Guinea, mother and baby are kept in seclusion for three to four months to protect them from both natural and super-natural hazards (Kulick 1992). High infant mortality and infanticide might also have fostered an atmosphere of seclusion and secrecy. If babies are largely hidden from view and kept quiet, they may be seen as non-persons. Among the Wari, 'babies … are *arawet*, "still being made"' (Conklin and Morgan 1996, 672).

Another component of many folk models is the notion that a healthy, happy baby is a quiet baby. Friedl (1997, 100) observed Iranian mothers strapping their frisky, gurgling baby into a cradle to calm it down because 'a happy … baby is quiet in voice and body'. 'A Kogi mother does not encourage response and activity, but rather tries to soothe her child to keep him silent and unobtrusive' (Reichel–Dolmatoff 1976, 277). This placidity is often achieved through closely confining the infant in a marsupial-like container (MacKenzie 1991, 130, Fig. 1). Tightly swaddled and attached to its mother (Tronick *et al*. 1994), or

Figure 1: Swaddled Apace infant in traditional cradleboard, 1903 (In the public domain. Library of Congress, Prints and Photographs Division, Edward S. Curtis Collection [reproduction number LC-USZ62–123456]).

to a cradleboard (Hilger 1957, 25), the child can be handily nursed back to sleep at the first sign of fussiness. Periods of wakefulness are not seen as opportunities for interaction or stimulation. Kpelle 'mothers carry their babies on their backs and nurse them frequently but do so without really paying much direct attention to them; they continue working or ... socializing' (Erchak 1992, 50, see also Paradise 1996, 382). Even among forest foragers where babies are publicly displayed, held constantly and treated with great affection, we do not necessarily see the use of play or baby-talk and the affectionate attention is as likely delivered by others in the band as the parents (Aka – Hewlett 1991, 94; Bofi – Fouts 2007, pers. comm). Babies 'are not thought to be perceptive or cognizant during this early period' (Platt 1988, 274). 'A [!Kung] child who is nursing has no awareness of things. Milk, that's all she knows' (Shostak 1981, 113). This situation does not change radically once the child is weaned.

Respecting/Encouraging the Autonomy of the Individual

In at least some societies teaching would be seen as diverting the child's in-born character and sense of autonomy (Sorenson 1976, 166–7). The Inuit 'see a child as already having a personality fully formed at birth in latent form [which] he will manifest and use in good time with but little assistance' (Guemple 1979, 39). The Yequana cannot conceive of trying to influence children. After all, the 'child's will is his motive force' (Gray 2009, 507). A surprisingly common scene in the literature describes a toddler wielding a sharp knife or machete with the tacit approval of the mother (Broch 1990, 61; Friedl 1997, 136; Sorenson 1976, 166).

In societies where fertility is high and inter-birth interval is relatively short (the majority), the mother will become pregnant while still nursing the current infant. This is seen as an unsavoury situation. 'A [Luo] woman who is pregnant [must] stop breastfeeding, since … the milk will be poisonous to the nursing baby' (Cosminsky 1985, 38). Weaning, often abrupt and emotionally painful, is accompanied by other actions designed to distance the child from its mother. So common is this phenomenon that the term 'toddler rejection' has been coined to describe it (Weisner and Gallimore 1977, 176).

> From weaning, [Kako] children get used to a hierarchical relationship with their mother … no play, talk, no cuddle; the relationship is one of authority and obedience … [and] children learn … to fit in a wider network of kin who care for them (Notermans 2004, 15).

Ideally, the toddler attaches itself to an older relative such as its grandmother (Richards 1939, 140), or an older sibling (Shack 1969, 294) or the neighbourhood play group (Whittemore 1989, 92). Indeed, on Samoa, interacting with one's weaned children undermines the dignity of rank (Odden and Rochat 2004, 42). The child, who is still not considered mature enough to be useful or educable (Lancy and Grove in press), is expected to remain on the periphery of adult affairs (Hilger 1957, 51), speaking only when spoken to (Ainsworth 1967, 12). Once Lepcha children have 'achieved physical independence very little attention is paid to them' (Gorer 1967, 279; Fig. 2).

However, the child can profit from careful but non-intrusive observation of the behaviour of others. '[Matsigenka] children are embedded in the middle of quotidian activities where they are positioned to quietly observe and learn what others are

Figure 2: Two male toddlers roaming around a Kpelle village, 1971 (Photo: David Lancy).

doing' (Ochs and Izquierdo 2009, 395). The assertion that children learn their culture largely without instruction has been validated by a series of empirical studies in Samoa. Odden and Rochat (2004) observed children of increasing age to study their growing competence in fishing and measured their knowledge of the social hierarchy and associated ritual and ceremony. They systematically observed children in settings where they might learn these aspects of the culture. In fishing, children might accompany expert fishers and play a supporting role but they never used fishing gear in an expert's presence, nor did an expert offer instruction. The children watched the expert and then, later, borrowed the equipment (nets, spears) to practice on their own, gradually becoming proficient (Odden and Rochat 2004, 44). Similarly, the children acquired 'knowledge … of the basic concepts underlying the chief system … through observation and overhearing adult discussions of it' (Odden and Rochat 2004, 46) *not* through any direct involvement or engagement with adults.

This quiet observation and emulation of the behaviour of one's elders (including older siblings) is considered the most appropriate experience for this stage of the child's development. 'Whatever I do (my son) also sits and listens. Will he not get to know it thus?' (Fortes 1970, 22). However, there are occasions when teaching or something akin may seem necessary.

Strategic Intervention

Bonerate parents are typical in claiming that children have their own pace of development and do not worry if a child does not talk or walk at a certain age (Broch 1990, 31). A

few societies, however, do accelerate the child's motor development to emancipate its mother. A Ugandan baby's training begins at three months. It is bundled in a cloth and placed in a hole in the ground to support its spine 'for about fifteen minutes a day, until able to sit unsupported' (Ainsworth 1967, 321). More forceful means may be used, viz, a Fijian two-year-old who is still not walking will be given a fiery pepper enema as an inducement (Toren 1990, 171). Another more popular strategy is aimed at integrating the child into the social group (who may offer supplementary or allomaternal care) through instruction in etiquette (Eggan 1956, 351), sharing (Morton 1996, 86) and proper speech and kin terms (Stasch 2009, 158). Samoan 'Toddlers were fed facing others and prompted to notice and call out to people' (Ochs and Izquierdo 2009, 397). Javanese and Kwara'ae adults use a very explicit training regimen with toddlers to impart kin terms and polite speech (Geertz 1961, 100; Watson-Gegeo and Gegeo 1989, 62).

These behaviour modification strategies represent almost the only occasions in the ethnographic record where children are given systematic instruction and one reason for the rarity of such intervention may be the widespread belief that young children are not particularly 'educable'.

Becoming Sensible

The child's growing ability to 'fit in' may be taken as the first sign of its emerging intelligence. Still, the Punan Bah are typical in believing 'that only from the age of about five when their souls stay put, will children have the ability to reason' (Nicolaisen 1988, 205). Numerous societies semantically mark this transition with a term that translates as 'sense'. In Sisala this is *wijima* (Grindal 1972, 28) and in Kipsigis, *ng'omnotet* (Harkness and Super 1985, 223). At this age, expectations change dramatically – the child attracts notice and is finally granted personhood (Lancy and Grove in press).

> The Nuer do not acknowledge a child until they are at least six years old because "(w)hen he tethers the cattle and herds the goats … [and] (w)hen he cleans the byres and spreads the dung to dry and collects it and carries it to the fire" he is considered a person (Evans-Pritchard 1956, 146).

Normally, this transformation of the child from observer to participant, from dependent to contributor occurs smoothly. Children are *eager* to be useful and self-reliant, but some children may require a degree of persuasion.

Ensuring Cooperation

In the ethnographic record, 'intelligence' includes traits like obedience, respect for authority and taking the initiative to be helpful. Intellectual curiosity, cleverness and expressing opinions would all be seen as dangerous signs of waywardness (Lancy and Grove 2010, 153; Morton 1996, 90).

> [On Borneo, village children] are not encouraged to ask questions or to seek explanations on why things are the way they are. When they do so, they will usually be cut short with a remark like "that is how it is", or "that is customary" (Nicolaisen 1988, 206).

Hence, a lazy, overly curious or, non-compliant child can expect to be 'corrected' by almost anyone in the community (Lancy 2008, 125). An Amhara adult may encourage a child to its chores 'by throwing clods of dirt or manure at him' (Levine 1965, 266). There are several strategies that form the core of this part of the folk model.[8] In a survey of the Human Relations Area Files, corporal punishment was found to be very common (Ember and Ember 2005, 609). The Wogeo are in the mainstream in averring that they 'beat their children only so they can learn' (Hogbin 1970, 144). So central is corporal punishment in folk models of development that parents are considered too closely attached and sentimental towards their children to enforce behavioural standards (Alber 2004, 41; Goody 2006, 254; Lutz 1983, 252) and grandmothers, while suitable caretakers for weanlings, are unsuited to the stern task of disciplining errant toddlers (Toren 1990, 172).

Proverbs (Raum 1940, 218), folk tales (Geertz 1961, 43; Williams 1969, 114) and scare tactics[9] are used to bring about a change in behaviour (Gorer 1967, 312). On Sarawak, adults believe 'that children should be afraid … or they will never take advice nor pay respect to their elders' (Nicolaisen 1988, 205). Kaluli mothers tease children who fail to observe the correct greeting etiquette (Schieffelin 1986, 170) and 'Ridicule [is] a common recourse in training Ulithian children' (Lessa 1966, 95). In many Pacific societies (Ifaluk – *cf.* Lutz 1983, 252; Taiwan – Fung 1999) caretakers cultivate the emotions of shame and embarrassment in order to control the child's behavior. On Java the child is made to feel '*isin* … shame, shyness, embarrassment, guilt [so] that at any formal public occasion [children] are exceedingly quiet and well-behaved' (Geertz 1961, 113). Chinese parents see 'shame as an essential social and moral emotion, a virtue' (Li, Wang and Fischer 2004, 794).

The commonality of coercive techniques[10] in the pedagogy of so many societies brings home a subtle truth. One of the earliest conclusions about human learning is known as the Yerkes-Dodson law. This 100-year-old finding suggests 'animals seem to learn more when they are in a state of moderate arousal than when they are in states of either low arousal or high arousal' (Byrnes 2001, 86). The high arousal associated with scaring or punishing children does not create ideal conditions for learning. Surely, if the society were confronted with the need to transmit a large volume of complex information and/or a full and intricate skill set, it would make appropriate revisions to its pedagogy. Coercion may not be very effective, in a general sense, but, in most cases, it does seem to fit the need.

The Chore Curriculum

One of the richest areas of the ethnographic record has been the study of children learning adult or mature skills. Surveys of this literature are available (Crown 2002; Lancy 1996; 2008; Lancy and Grove 2010; MacDonald 2007) so only an outline will be presented here. First, in the majority of cases, there is a preliminary/play stage in the child's acquisition of skill.[11] The child – in company with peers – initially engages in a carefully constructed make-believe replication of scenes of adult work (Lancy 1996). While adults do not participate in this play (Lancy 2007), they may enable it by giving the child cast-off tools and materials to use (Ruddle and Chesterfield 1977, 34) or by

making 'smaller-sized weapons, such as spears and blowpipes, for children to practice with' (Puri 2005, 282).

Second, beginning with the earliest chore – errand-running – we see an inherent scaling of complexity or difficulty.

> The simplest and earliest task for which children are given actual responsibility is the running of errands, transporting objects to or from people's homes or going to a local shop for a few cents' worth of goods. Considerably more difficult are the errands to the maize fields or other errands that require the child to go outside the community. Selling various items in the community may range in complexity from approximately the status of an errand to the cognitively complex task of soliciting buyers from anywhere in the community and of making change (Nerlove *et al*. 1974, 276).

The above case from Guatemala illustrates the *curricular* nature of the chore activity. That is, errand-running encapsulates a range of activity from the elementary to the complex. A parent can assign a short, uncomplicated errand to test the child's readiness. With each successful task accomplished, a more challenging one may follow. The child needs relatively little guidance or teaching because there is a step-wise or ratchet-like relationship between the child's understanding, strength, skill and the demands of the task (Bock 2001, 166). An Apache boy becomes a good hunter through a series of stages, from hunting lizards and birds with friends at eight years to accompanying (and observing) skilled hunters on a deer hunt at sixteen years (Goodwin and Goodwin 1942, 475). Acquisition of skill sets as diverse as camel herding (Spittler 1998), cattle herding (Moritz 2008), gardening (Polak 2003), and pottery-making (Crown 2002) have been documented (Fig. 3).
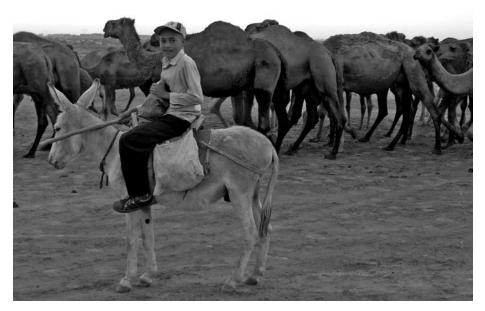

Figure 3: Young camel herder in Turkmenistan, 2007 (Photo: David Lancy).

Third, the assignment of chores occurs with little need for persuasion (unlike the trauma engendered by this process in contemporary society, *cf*. Ochs and Izquierdo 2009, 399). The child is eager, even over-eager, offering to undertake a task it has not yet mastered. The inexpert child might damage property or scarce resources like grain (Bock and Johnson 2004, 77). Also, children's 'help is often a burden that prevents the adults from doing effective work' (Broch 1990, 83). So there is a coalescence of the child's motivation and skill and the needs of the household. Of course a child may still be 'shouted at for failure to perform assigned chores or for dallying when sent on errands' (Ruddle and Chesterfield 1977, 36).

Fourth, we can specify the elements that are typically in place for learning to occur. The child must be able to observe skilled work and be interested in learning how it is done. The motivation arises partly from a desire to become accepted as a full-fledged member of a social group (Gaskins and Paradise 2010, 92–4). They must be at a level of cognitive and sensorimotor development that they can carry out a reasonable replication – in play, perhaps. The expert need not explain nor 'demonstrate' and, indeed, might have little interaction with the learner except to critique the performance (Odden and Rochat 2004, 44) or to exchange information necessary to the completion of the task (Paradise and Rogoff 2009, 117–8).

Fifth, since children are expected to be in the company of somewhat older peers most of the time, they have ready access to excellent role models, often more patient and forgiving of error than adults (Maynard and Tovote 2010). 'Older brothers initiate Guara children … of about five years of age … in the art of fishing' (Ruddle and Chesterfield 1977, 35).

Sixth, there is considerable variability but it is by no means random. In a few foraging or hunter-gatherer societies, such as Ju/'hoansi, the nature of the task environment is such that children require considerable strength, endurance and skill before they can make a meaningful contribution to the household. So, their early childhood is largely chore-free (Hames and Draper 2004, 334). Cross-culturally, the greatest variation occurs between girls and boys. The former begin helping their mothers from an early age and will typically relieve them of much of the burden of keeping their infant siblings safe, clean and contented. When not looking after a sibling, girls can be expected to assist with gardening, meal preparation and gathering resources such as firewood and water (Fig. 4).

Not surprisingly, the girl's marriage and transition to her own household may be characterised as her 'liberation' (Alber 2004, 38). However, the daughter is an 'understudy', preparing for her own role as mother and housekeeper. Sebei mothers 'are concerned that their daughters learn proper housekeeping so that their husbands will not beat them for neglecting their duties' which would be a blot on the mother's reputation (Goldschmidt 1976, 259). Again the mother is not expected to teach the child but only to assign her chores and insist they be carried out.

The experience of boys can be quite different. Remaining in close proximity to their mothers as helpers threatens their gender identity (Ember 1973, 425). Except in herding societies where boys can contribute from an early age, there are relatively few gender-appropriate tasks for them, hence they are free to roam and play with peers long after their sisters have become useful (Platt 1988, 282). Nor do boys necessarily partner their
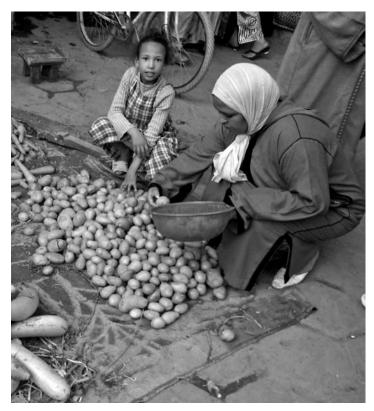
Figure 4: Mother and daughter in Ouarzazate market, 2008 (Photo: David Lancy).

fathers, again excepting some pastoral societies (Moritz 2008). In swidden agriculture, for example, men are responsible for tasks like brush clearing, tree-felling and fencing that take great endurance and strength. Where draft animals are used, again strength and experience are a necessity. In forest foraging and fishing little boys are seen as liabilities, reducing the catch (Puri 2005, 233), and they will not be welcome on forest expeditions until well into their teens (Peters 1998, 90). The very, very few examples we have of a father actively teaching a son involve brief strategic intervention to assist the child over a bump in the learning curve (Lancy and Grove 2010, 157). As Warao boys learn to make dug-out canoes 'there is not much verbal instruction … but the father does correct the hand of his son and does teach him how to overcome the pain in his wrist from working with the adze' (Wilbert 1976, 323).

A seventh point to be made about the chore curriculum is that, for any given skill set – hunting excepted (MacDonald 2007, 391) – skill acquisition is not difficult and mastery comes quickly (Bird and Bird 2002, 291; Kramer 2002, 305). In spite of the fact that the child is expected to learn largely on its own, anthropologists consistently sum up what they have observed with generalisations like the following: 'Kogi material culture … is limited to an inventory of a few … coarse utilitarian objects and the basic skills … are

soon mastered by any child' (Reichel-Dolmatoff 1976, 281). It is extremely difficult to find any skill set that requires a long period of training. Such cases are usually handled by an apprenticeship, which we turn to next, but it should be evident that children learn the food procurement skills of their seniors largely without the need for teaching.

Apprenticeship

On the face of it, we should expect to find active, sympathetic teaching in the apprenticeship. Apprenticeship connotes the acquisition of complex and refined skill set and of the presence of master and apprentice – somewhat analogous to teacher/pupil. Like the chore curriculum, the apprenticeship has been surveyed previously (Coy 1989; Lancy 2008) so only the highlights will be reviewed here.

Informal apprenticeships do not appear to be as common as we might expect. During field work among the Kpelle, when I asked craftspersons how they learned their craft, they often described being rebuffed upon approaching an expert for help or guidance (Lancy 1996, 149–53). Other ethnographers report similar tales. Reichard describes a Navajo girl who learned to weave in spite of her mother repulsing her interest (Reichard 1934, 38) which paralleled a case from Truk of a weaver/basketmaker whose kin were unsupportive of her efforts to learn their skills (Gladwin and Sarason 1953, 414–5).

Borofsky describes two young Pukapukan men learning from an older relative how to repair a canoe. The behaviour of the three men suggested that the learners and the expert were totally disengaged from one another. This appeared strange until Borofsky explained that the two learners 'did not want to appear subordinate'(Borofsky 1987, 99). There are, in fact, a whole host of reasons why experts might be reluctant to play the role of teacher. Another is that their knowledge may be closely guarded because it has intrinsic value (Bledsoe 1992) or that it is potent and dangerous to the uninitiated (d'Azevedo 1962, 29). Palauan men take no pains to teach youth their skills, so 'boys … straggle along observing and learning as the opportunity offers … [but] there are taboo areas, whole sectors of life that are completely closed [so] that even self-instruction is impossible' (Barnett 1979, 9).

Numerous *formal* apprenticeships have been documented ethnographically and, from these accounts, one can sketch a general pattern. First, unlike the chore curriculum, which is in effect mandatory, access to the skill set transmitted in the apprenticeship is restricted to those with high motivation and supportive kin. A fee may be charged to the parents before the novice is accepted. Second, the typical apprenticeship is lengthy, not because the skills are that difficult to master but because the novice must pay for the privilege through long years of service to the master. Indeed, during the first few years, the novice's work may be of the most rudimentary sort.

> [Tukolor apprentice weavers are] asked to wind bobbins for each weaver as needed … [and] other duties are to undo and prepare hanks for rewinding, fetch water for the other weavers and perform any other menial tasks that are required (Dilley 1989, 187).

Third, very little active teaching occurs. Novices are to observe and replicate (Wilbert 1976, 318). Any failure is attributed to their inattention, clumsiness, laziness or immature skill level (Wallaert 2008, 190). 'When a [Japanese] apprentice [asks] the master a

question, he will be asked why he has not been watching the potter at work, or the answer would be obvious' (Singleton 1989, 26). Fourth, with some exceptions, the primary teaching tool is punishment and, consequently, novices do not often apprentice to their parents. Apprentice Mende *morimen* (Koranic and ritual specialists) are usually poorly clothed, ragged and dirty … [and] endure severe and frequent beatings for … failure to learn … Suffering and hardship are … essential to gain the knowledge one seeks (Bledsoe and Robey 1986, 212).

While the apprenticeship has some qualities akin to schooling, the process hardly resembles contemporary notions of teaching. Another area of the ethnographic corpus that might yield evidence of teaching is the initiation rite.

'Bush School'

As with the use of corporal punishment, surveys of the ethnographic record find that initiation rites – primarily at adolescence – are fairly common (Schlegel and Barry 1980). Because of the inherent secrecy in many cases, detailed descriptions are uncommon and misconceptions can arise. In particular, initiation rites were sometimes seen as akin to schooling, hence the popular name 'Bush Schools'. However, an early survey argued that the pedagogy of the initiation rite resembled indoctrination rather than education (Lancy 1975). Ottenberg's assessment is apropos: 'Formal education in the initiations is minimal, as it is only occasionally desirable in everyday Afikpo life. There really is no "school in the bush", the specific knowledge that the boys acquire is not extensive' (Ottenberg 1989, 237).

As with the apprenticeship, there are sufficient well-documented cases to attempt some generalisations. First, all initiation rites involve some element of body mutilation ranging, mildly, from tattooing (Markstrom 2008, 132) to scarification (Wagley 1977, 163) to violent and excruciating penetration of the nasal passage (Herdt 1990, 376). Other anxiety-inducing treatments include forcible removal from one's home (Erchak 1992, 68), confinement or seclusion in a strange place for an extended period (Smith-Hefner 1993, 145) and physical ordeals such as bathing in ice-water and running until exhausted (Markstrom 2008, 131–2). 'The dominant theme of the initiation is that of an ordeal – trial and proof of maturity' (Goldschmidt 1976, 95–6). Consequently, as in the apprenticeship, parents tend not to be involved in their child's initiation.

A second theme represents an induction into the prevailing social order. This may be given a positive spin in celebrating the individual's transition from childhood to adulthood or a negative spin, putting the cocky adolescent in his/her place. Rites for girls emphasise subservience to senior women and obedience to one's future husband and those for boys, subservience to senior men and dominance over women (Tuzin 1980, 26). Didactic instruction in the 'lore' of the society is not evident. On the contrary, the initiation rite is an opportunity to impress upon young people their ignorance and powerlessness. In Kpelle society initiations 'create an atmosphere of fear which … intensifies respect for the elders and their … knowledge of the mystical powers of the secret society' (Murphy 1980, 199–200).

Another theme is the shaping of the child's behaviour to match adult expectations (Broch 1990, 137–8). A Tlingit girl would have a stone rubbed 'on her mouth eight times

… to prevent [her] from becoming a gossip' (Markstrom 2008, 145). Girls' attention is focused on fecundity (Yoshida 2006, 234) and the household (Guss 1982, 264), while that of boys focuses on fierceness (Spencer 1970, 134) and provisioning a family (Gregor 1970, 243).

Folk models of development concede that the child's natural inclinations take it quite far in the direction of learning the culture but not far enough or, that the gap between child and adult has somehow been widened due to anti-social tendencies that arise in adolescence (Weisfeld 1999). In the initiation, adults work collectively to dramatically adjust the adolescent's behaviour and character to better fit the role assigned to young men and women.

Teaching and Learning in School

Episodically between 1968 and 1971, I observed two village elementary schools 'up-country' in Liberia. I argued that what I observed more closely resembled 'Bush School' than the elementary schools I was accustomed to in the US and that Liberian students were getting indoctrinated but not educated (Lancy 1975). Among the noteworthy attributes of these schools was – the use of English exclusively, a language that the Kpelle-speaking pupils had only a limited command of; absolute authority and hegemony of the teacher as government employee and sophisticated outsider; heavy reliance on rote memorisation; overcrowding and near anarchy, interrupted only by lightning-like strikes on pupils' limbs; disdain for and harassment of girls; shortage of materials and whatever academic skill pupils did acquire – such as limited literacy – had no utility outside the school. Parents, perhaps because of their own lack of schooling or their appreciation of the limited utility of poor schooling to significantly alter the child's (and, therefore, the family's) economic prospects, provided little support either before or during the child's school years – beyond the mandatory school fees and uniform. Indeed, the child was regularly kept from school should its assistance be required. This unpromising and still-valid scenario has been repeatedly documented in North America (Deyhle 1991), Africa (Spittler 1998), Latin America (Macedo 2009), the Pacific region (Borofsky 1987) and Asia (Montgomery 2001). It is also largely characteristic of Koranic schools (Moore 2006).

Another issue is the inherent conflict between the village folk model which prescribes observation and avoidance of speaking in the presence of adults and the public school's expectation of active verbal participation and interaction with the teacher (Morton 1996, 170). Consequently pupils are considered overly shy, stupid or defiant for acting in the manner prescribed by their society (Philips 1983). On the other hand, teachers in these village schools overwhelmingly use the coercive pedagogy we have discussed earlier. This style of teaching may be effective in enforcing the chore curriculum but does not work too well to transmit knowledge of mathematics and use of the past tense. Attempts by the central government to promote more modern, progressive teaching methods are met with resistance (Moore 2006, 115). In Guinea teachers stand firm behind the view – '*Il faut suffrir pour apprendre* (to learn one must suffer)' (Anderson–Levitt 2005, 988). If teaching came naturally to adults, we would certainly expect to see this talent on display in village schools but we do not.

A Brief Survey of the Historic Record

In the previously cited survey (Lancy 2008) of the ethnographic record on childhood, parallels between the ethnographic corpus and materials available to historians were not hard to find and that is true as well for the study of teaching. For example, with respect to the cognitive stimulation of infants, Rawson notes that high infant mortality in the Roman era had the same effect as it does in non-western society – to mitigate against any really close relationship between children and their parents (Rawson 2003, 220). In pre-industrial Europe: 'Birth was a moment to be forgotten, not remembered …The notion of the "unborn child" was absent … Naming was often delayed until after the survival of the infant was certain' (Gillis 2003, 87).

Beginning in infancy, we note the ubiquity of confinement and the need to maintain a 'tranquil and protective environment' (Bai 2009, 11). Swaddling was universally practiced because it kept the baby secure without the need for close supervision. It made 'child care virtually idiot proof' (Calvert 1992, 24). So important was the need to keep babies quiescent, in the mid-late 1800s they were overfed and given opium to soothe them – often leading to their death (Sunley 1955, 154–5). This sensory 'neglect' of the infant was endorsed by social and religious arbiters. An archbishop in the late Middle Ages promised damnation for parents who might 'serve their children like idols!' (Cunningham 1995, 38). An authority writing in 1531 described those using baby-talk as '"foolish women" [engaged in] "wantonness"' (cited in Orme 2003, 131). The reasoning was, if you 'cockered' your child, you would have to undo the damage later (Sommerville 1982, 110).

"In the Middle Ages, children were generally ignored until they were no longer children" (Crawford 1999, 168) and, as in an African village, European toddlers were expected to stay out of their parents' way. This is supported by death records indicating that children died in accidents and fires that might not have occurred had an adult been present (Colón and Colón 2001, 207). Research in archaeology on internment practices suggests that adults expected to make only minimal investment in young children. 'In Etruria and other culture areas, the bodies of perinatals, infants and even children up to the age of five may be interred in contexts that are removed from the formal cemeteries used for "adults"' (Becker 2007, 282). With only a few exceptions the absence of ritual and perfunctory burials for children are attested from sites in every region of the world (Rawson 2003, 104).

Further parallels to the ethnographic record can be found. In Early Modern England corporal punishment was the preferred teaching method and good manners the prime lesson.

> Children … were bound to serve, to listen and to obey … . Their manners were required to be submissive … children bowing the knee and offing the cap to their parents, [was] the customary etiquette … [and] corporal punishment of children was repeatedly urged by medieval and Tudor writers (Orme 2003, 83–5).

Scare tactics were popular, including taking children to observe hangings and then whipping them afterwards to drive home the lesson (Bloom-Feshbach 1981, 88). But there was debate about this as some authorities reckoned that: 'Mothers should beat

their boys and girls … rather than subject them to affrightments' (Fletcher 2008, 38).

Children from about seven years (Heywood 2001, 37) in the Middle Ages were expected to learn their chores through observation and replication. Girls kept close company with their mothers and gradually acquired skills through sharing her work. There is evidence of a step-wise chore curriculum as in Orme's description of the development of a skilled huntsman out of a callow youth of seven years(Orme 2003, 315). Many of the literacy and numeracy skills now taught in school were then acquired on the job (Orme 2003, 307).

Apprenticeship had most of the characteristics described earlier. To apprentice a child, the family was placed under a considerable financial burden. The child could be expected to toil for years in a menial capacity before being permitted to assay simple items or work with costly materials. Any and all errors were treated harshly (Barron 2007, 51; Rawson 2003, 194). We can probably assume that this corrosive atmosphere is endemic to the apprenticeship. An ancient Egyptian proverb claims the novice has 'ears on his back', implying that he would not pay attention without a beating. A fourth century Greek letter from an apprentice contains complaints about his treatment: 'I am perishing from being whipped; I am tied up; I am treated like dirt' (Golden 2003, 14). So much potential for abuse existed that some of the earliest statutes aimed at youths specified the limits of the master's power (Barron 2007).

Teaching in the Earliest Schools

While Greece and Rome instituted schools for youth the little surviving evidence suggests that they were often rather casual affairs – 'many teachers met their students outdoors and held classes on the sidewalks or in piazzas' (Shelton 1998, 103). Private tutors were the preferred means of educating youth among the wealthy and these joined a staff of (mostly slave) child-caretakers from wet-nurses to *pedagogues* (Rawson 2003, 163–4). After the fall of Rome, schools disappeared from civilisation for over one thousand years. During the interim, literacy and academic learning were confined to the monastery. Oblates – placed in a monastery as young as six years of age – probably continued to learn much as their siblings did who remained at home – through observation, rather than by being taught. When observation and practice alone would not do – such as choirboys learning to sight-read – rote memorisation was employed along with frequent whipping to induce zeal (Boynton and Cochelin 2006, 16–17).

Monastic instruction was gradually transformed into schools open to non-novices. In addition to rote memorisation, another feature that Medieval schools shared with the village schools discussed above is the pupil's need to learn through the medium of a foreign language – in this case Latin. Like the Kpelle children I observed, pupils 'learnt to recognize words and pronounce them, but they could not understand what they read' (Orme 2006, 59), and they could be 'thrashed' for using their mother tongue.

> The birch was used to punish indiscipline and inability to answer. It was the favoured tool of English schoolmasters … the ferule, a wooden rod … for hitting the hand … was pierced with a hole that raised a blister. This appears to have been used for minor offences (Orme 2006, 144).

Figure 5: The Schoolmaster *(c. 1665), oil on canvas, 110.5 × 80.2 cm, by Jan Steen (1629–79) (Copyright of the National Gallery of Ireland, Used by Permission [NGI 226]).*

Having to recite and memorise meaningless prose for hours on end, inevitably led to boredom (Heywood 2001, 167). Recall from the earlier discussion of the Yerkes-Dodson Law that learning does not occur when arousal is *too low*. Boredom (in children) leads to hi-jinks, which leads to chaos, which leads to punishment (Fig. 5). Erasmus referred to schools as 'torture chambers' (cited in Cunningham 1995, 45). He proposed the then outrageous idea (which seems to have fallen on deaf ears) that pupils should *enjoy* their lessons. Another of Erasmus' radical ideas was that parents should begin the child's education quite early and at home. But parents had more important things to do and sent children to school as a safe alternative to letting them roam the streets. When they felt

compelled to begin their education early they hired tutors (often moonlighting clerics) for the task (Orme 2006, 62). As Orme (2003, 242) argues, given the injunction imposed on parents to expose children to the moralising impact of the Bible, one would expect them to take pains to teach their offspring to read but 'evidence … is hard to find'.[12]

Limitations of space preclude our tracing this evolutionary pathway from the mid-nineteenth century to the present but excellent treatments are available (Zelizer 1985). Suffice to say that much of the WEIRD model has been constructed in the very recent past. Demographic surveys show a dramatic rise in time spent in child care by college-educated parents which appears to coincide with increased competition for places in elite colleges (Ramey and Ramey 2009).

Conclusion and Implications

In the 'Learning in the Kitchen' section I quoted from recent scholarship asserting the great antiquity – to the beginning of humanity – of extra-scholastic teaching. These arguments are predicated on models of brain evolution and human development focused on tool-making and information processing (Gergely and Csibra 2006, 246). Indeed, teaching does have some efficiencies when it comes to transmitting large quantities of information or complex processes. On the other hand, if your theory emphasises brain growth to cope with an increasingly complex social world, then teaching does not seem so helpful. Learners should deploy their attention widely, carefully observing a range of individuals and building coalitions and alliances rather than focusing on just a single teacher. The latter theory is now in the ascendency (Bailey and Geary 2009; Maestripieri 2007). In fact, recent research suggests that, instead of a scientist in the crib, we have a Machiavellian in the crib (Povinelli *et al*. 2005).

It is assumed in the dominant folk model that teaching, particularly by parents, joined the culture long before schooling. I would argue that just the reverse is true. Teaching – even if defined, minimally, as self-conscious demonstration – is rare in the accounts of anthropologists and historians (and almost non-existent among non-human primates, *cf*. Boesch and Tomasello 1998). The kind of nuanced, student-centered, developmentally appropriate instruction by dedicated adults that we today take as the operational definition of teaching is a recent *product* of a long process of *educational* change (see also Vincent *et al*. 1994, 42). Furthermore, in the United States attempts at reform – such as *No Child Left Behind* – founder due to the dearth of 'good' teachers. From a practical standpoint, asserting that 'all know how to teach' is not just inaccurate but extremely unhelpful. Teaching should be seen as uncommon and really good teaching, exceedingly rare.

Teaching has been largely superfluous in the process of cultural transmission throughout human history. Parents increase their fitness by devoting attention to the production and care of additional offspring rather than lavishing further attention on a child who will likely thrive without it (Trivers 1972, 139). Following the 'demographic transition', smaller birth cohorts and drastically reduced infant mortality afforded parents greatly expanded opportunities to attach to, interact with and mold offspring to fit personal ideals (Kaplan and Lancaster 2000).

The body of knowledge and skill inherent in the village curriculum is not overly

demanding and size and strength may be the principal impediments to adult performance levels, not dexterity or knowledge (Bock 2001). On the other hand, the current 'information' economy may be driving the ever-more demanding school curriculum. School entrance/graduation exams, in turn, provide a Darwinian environment in which parents who teach or take steps to place their offspring in the hands of effective teachers are rewarded relative to parents who do not. For example, 'in terms of schooling there are in fact two Ghanas, one for the urban elite and a different one for everyone else' (Goody 2006, 258). While village schools consistently fail to educate children for the modern economy, the educated urban elite find excellent private schools, after-school tutoring and nursery schools to facilitate their child's progress through the ranks to a university degree (Goody 2006).

Acknowledgements

Notes

1. Contemporary definitions of teaching, education and pedagogy emphasise the active and systematic intervention of a teacher whose goal is to change the behaviour of a learner. However, these terms derive from roots closer to 'correct', 'discipline', 'point' or 'raise up'.
2. Baby Plus Prenatal Education System where the 'Womb is the best classroom' is one example – http://www.babyplus.com/
3. http://www.zerotothree.org/site/
4. http://www.ccfc.ca.gov/Help/atp.asp
5. In fact, the WEIRD folk model can be shown to have considerable utility. WEIRD parents are far more likely to detect signs of autism in their baby, be more knowledgeable about treatment options and seek early intervention (Van Meter *et al*. 2010).
6. Ironically, this disinclination to teach makes the ethnographer's job much harder, as several have noted (e.g. Fiske n.d.; Henze 1992; Nicolaisen 1988).
7. Even though anthropologists use the 'ethnographic present' tense, it should be understood that drastic culture change and globalisation have probably altered many of the patterns observed. Hence I am treating this material as historic, tense notwithstanding.
8. A very significant exception to this pattern can be found in foraging societies. Punitive or coercive tactics are largely absent and children are characterised as living 'in paradise' (Lancy 2008, 105–8).
9. A nice contrast can be made, at this point, to the pedagogy of the contemporary elite: 'In attempting to ease Tommy's fears about monsters, his mother uses the word imagination to help him understand where monsters come from and that he need not fear them' (Beals 2001, 77).
10. Praise or reward for children's accomplishments was uncommon – 'the very fact that a parent was satisfied with [the child] and with what [they had done] was enough reward' (Hilger 1957, 77).

11. Crawford (2009, 60) discusses how difficult it is to recover this play stage from the archaeological record. 'A small object may be a toy [or] a miniature intended for adult use …'.

12. However, as far back as 1800 in Sweden, books were published for parents advising them on the value of early literacy experience. In this Lutheran country in which literacy was a precondition for church participation (indeed, one could not marry without first demonstrating literacy), teaching children to read was a family responsibility (Söderbergh 1990).

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