Childrearing through social interaction on Rossel Island, PNG
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Abstract:

This paper describes childrearing practices, beliefs, and attitudes in a Papua New Guinea society - that of the Rossel Islanders - and shows, through analysis of interactions with infants and small children, how these are instantiated in everyday life. Drawing on data collected during research on Rossel Island spanning 14 years, including parental interviews, videotaped naturally-occurring interactions with babies and children, structured elicitations, and time sampling of activities involving children, we investigate the daily lives of Rossel children and consider how these influence their development of prosociality and their socialization into culturally shaped roles and characters. We relate the findings to other work on child socialization in small-scale societies, with special attention to the Tzeltal Maya of southern Mexico, and argue that detailed attention to the local socio-cultural contexts of childrearing is an important antidote to the tendency to emphasize universals of child development.
1. Introduction (655 words)

1.1 Anthropology of child socialization and language

The first detailed ethnographic studies of child upbringing in nonwestern settings were focused on Papua New Guinea (PNG) and Oceania. Margaret Mead initiated the field with her (1928, 1930) studies of childhood and adolescence in Samoa and Papua New Guinea (PNG). Malinowski expended some of his many pages on childhood in the Trobriands (summarized in Malinowski 1980). But the modern study of child socialization through language began with the collaboration of Bambi Schieffelin (1986a,b, 1990), working among the Kaluli of mainland PNG, and Elinor Ochs (1982, 1988), on Samoa. Together they developed the study of language socialization, examining the ways in which, through social interaction, children are initiated into their language and culture and into the associated ways of talking, thinking, feeling, and understanding the world (Schieffelin and Ochs 1986a,b; Ochs and Schieffelin 1984, 2008; Kulick and Schieffelin 2004). Further PNG research in this paradigm was conducted by Kulick (1992), and there is ongoing research by San Roque (in press; Schieffelin and San Roque in press) and Rumsey (2013, 2015), among others.

This research brought the extensive cross-cultural variation in child rearing behaviours and attitudes to the attention of scholars interested in child development from various disciplinary perspectives, from those working in the traditions of Freud and Piaget to modern developmental psychologists and psycholinguists, and linguistic anthropologists. Questions raised include the effect of cultural practices on personality development, emotional development, and later, language development, socialization issues, interactional style and language acquisition. One theme in common across these diverse investigations is the claim that the social and cultural variability of interactional contexts for childrearing has important implications for all aspects of child development. In no part of the world, perhaps, has the diversity of approaches been as great as in work in Africa, where contributions have been made from the viewpoint of developmental psychology (e.g. the Whitings (1975), Levine et al (1994)), cognitive psychology (Michael Cole et al 1971), psychological anthropology (e.g. Weisner and colleagues (1977, 1982), psycholinguistics (e.g. Demuth on language acquisition in Sesotho (1992) and Bantu languages (2003)), language socialization (e.g. Takada (2005) on the Central Kalahari San), and most importantly, for current purposes, E.Goody's work in Ghana on children, social roles, and language, with her emphasis on dialogue as a tool with
which socio-cultural worlds - e.g. roles and associated norms - are actually constructed (e.g.

1.2 Data of this study.
The present paper is based on two sets of research into caregiver-child interactions conducted
in the Melanesian society of Rossel Island. The first is material collected during eight field
trips by the first author over fourteen years. The data include parental interviews, videotaped
interactions between caregivers and small children, observational time-sampling of child
activities, and systematic focused elicitation to probe joint attention and pointing behavior in
infants, child interaction patterns, and early vocabulary acquisition. Interviews were
conducted in English; videotaped naturally-occurring interactions were in the Rossel
language Yélî Dnye and transcribed and translated into English with the help of indigenous
assistants. A second source of data was collected by the second author who in a 2016 fieldtrip
made extensive day-long recordings of 55 children, carried out psycholinguistic experiments,
and assembled the demographic data for our samples. The field site of both was at the eastern
end of the island in the region centred around the Catholic mission site Jinjo.

1.3 Plan for the chapter
This paper describes the social and interactional context of children growing up in Rossel
Island. In section 2, we sketch the ethnographic background and the social context of
childhood and parental attitudes on Rossel. Section 3 presents some detailed examples of
naturally-occurring interactions with babies and small children, and considers their
implications for socialization. In section 4 we briefly compare Rossel child-caregiver
interaction patterns with those of other well-documented situations of child rearing in small-
scale societies. Finally, we draw out some implications for socialization theory.

2. The social context of childhood on Rossel Island [2492 words]

2.1. Setting
Rossel is the easternmost island of Papua New Guinea, at the end of the Louisiades chain,
some 400 km. from the mainland. It is a mountainous island about 25 km. long surrounded by
reefs. The island is remote and fairly isolated due to the difficulties of transport across the
surrounding seas, although it has long been connected by trade to neighboring islands. While
not part of the Kula ring, Rossels supplied important shells for Kula exchange, and the island
The language and culture of Rossel Island are distinct from those of neighboring islands. The population of about 6000 people speak a linguistic isolate - a so-called Papuan1 language - called Yélî Dnye, entirely unrelated to the mostly Austronesian languages of the other islands and with no known relation to any other language. English is the second language, learned through church and school and used in contact with virtually all outsiders, who consider the highly complex Rossel language to be unlearnable for adults. Occasional work on the mainland, along with a certain amount of intermarriage with people from other islands, ensure a degree of multilingualism with some of the surrounding Austronesian languages.

Rossel Islanders have a dual descent kinship system (Levinson 2006a). Rossel social organization is partly based on matrilineal clans which provide the core structures for the organization of marriage, the shell money system, and for cooperative networks. The residence pattern is predominantly patrilocal, however, and most land is inherited through the patriline. Personal names also are the perogative of the father's line. Subsistence agriculture is based on sago, taro, yams, sweet potatoes and manioc; these are supplemented with fish and (occasionally) pigs, providing protein. Coconuts are the main source of fat in the diet. Diving for beche de mer can be a seasonal source of PNG money (kina) for young men, as can copra production from the many coconut trees. With the exception of school fees and intermittent boat travel, however, kina are of little use on the island.

Without any infrastructure of roads, electricity, or piped water, and with no regular boat service connecting the island to the outside world, life on Rossel is an intriguing combination of ancient artifacts and customs - bush houses on stilts, outrigger canoes, shell money, grass skirts, sacred places and stories, witchcraft - and some modern accoutrements: for example churches and schools, secondhand Australian clothes, pop music on battery-run radio and occasional videos powered by generator. Rossel Islanders have a strong sense of identity, including pride in their famously difficult-to-learn language, and they span these two worlds with exceptional grace and dignity. Previous ethnographic work by Armstrong (1928) and Liep (1981, 1983, 1989a,b) focuses on the famous shell money currency of Rossel. Levinson has conducted anthropological linguistic work on Yélî Dnye since 1995 (e.g., Levinson 2000a,b, 2006a,b, 2007a,b, 2008, 2010, 2011). Levinson (in prep.) is a full reference grammar of the language.
2.2. Local institutions

In the area of study (the Jinjo region at the eastern end of the island3), the infrastructure relevant to children is largely provided by the Catholic church, which arrived on the island in the 1950s. They developed a large Mission site and built a church. They used to travel around the island to provide local church services and initially provided boat services, schools, and health clinics for the community. The official Catholic presence has gradually been withdrawn and funding for school and health clinic has now been partly taken over by the PNG government, but they are still only minimally integrated with the mainland system. A health clinic staffed with (mostly) local nurses provides vaccinations for children and monitors their health and growth monthly for the first five years. As rivals to the Catholic church, off and on there have been other denominations (Methodist, evangelical, and cargo cults). For the last 15 years there have been preschools run by local teachers trained off the island, and literacy begins in the indigenous language. The primary school uses mainly English, however, running through 8th grade. For pupils who do well in school, further education (increasingly being taken up) is available on other islands and on the mainland. Community activities center around church, school, and the health clinic, as well as traditional ceremonies and feasts. Football (soccer) is a favorite community sport for boys and men; until recently with bare feet and homemade ball, but now with uniforms and an official soccer ball. Netball is the girls' and women's equivalent. Women run a small market selling their garden produce twice a week, a service especially relevant for the teachers and nurses whose work precludes their growing a garden. Local councilors provide the first level of official organization and a connection to the PNG government through regional officials, elections, and services. Occasional handouts are produced by the local government or by foreign governments and the WHO - for example, medicines, mosquito nets, and food aid after calamities like cyclones - but essentially Rossel Islanders are aware that they are on their own, at least potentially, for long periods. The lack of any regular form of boat transport to the island means that those who travel to other islands or to the mainland may have to wait many weeks to find a boat going back. Rapid changes are afoot, however; a recent addition of a cell tower at Jinjo has quickly resulted in many people having access to mobile phone service, a dramatic change in the possibilities of communication both within the island and with the outside world.
2.3 Roles

Subsistence activities center on growing root crops in gardens, shellfish hunting, and fishing on the reef. All children learn these skills as well as those of canoeing, swimming, sago production, nut and coconut gathering, and acting as caregiver of younger ones. Many families raise chickens, virtually all have dogs, and some raise pigs. Some families engage in entrepreneurial activities (running small shops, or making and selling clothing) in which children may participate, though the lack of transport and hence access to fuel and goods severely limits these. Other roles are associated with particular expertise that only some obtain: e.g., songwriter of the indigenous vocal music genres, carpenter and house builder, outrigger canoe maker, local official (peace-keeper), store manager, church official, teacher, nurse, ritual specialist and care-taker of sacred sites, expert handler of shell money.

There are a handful of gender-differentiated roles. Men are the primary experts in managing shell money transactions, the sole singers of Rossel opera (tpile wee), the ones who go spear fishing or diving for beche de mer, slaughter pigs, build houses, and work on boats. Girls prepare themselves to be wife, mother, main cook, and to acquire the women's skills of collecting wild food and making baskets, grass skirts, and mats. Both men and women can be teachers, nurses, and church officials; teachers and nurses are often sent to work on other islands, or to a distant part of Rossel Island. All participate in fishing/gleaning on the reef, working in the gardens, and all take part in church services, traditional funerals, marriage ceremonies, and informal court hearings. (Speaking roles in these latter three are gender-differentiated: Men dominate the proceedings, but women do speak up sometimes especially as protagonists called upon in the dispute, and women can heckle the foregrounded male speakers.) Both parents are highly active in childcare and rearing.

2.4 Demographics of households with young children in the Jinjo area

The impression of Rossel Islanders as isolated from the rest of the world is mitigated by data that were collected by Casillas for an ongoing study of early communicative development from 43 families on the island who had children under 60 months in August 2016. The families in this sample primarily live at the eastern end of the island in hamlets around the villages of Jinjo, Nok:ia, Cheme, Pumba, and Kimbikpâpu. The data reveal that in this Mission-influenced region considerable intermarriage occurs with people from other islands: 21% of the sampled families have mothers from elsewhere in PNG and 23% of the households are multilingual (70% Yélî Dnye-English bilingual and 30% Yélî Dnye-English-
Other trilingual). Women who marry into life on Rossel Island typically find the language difficult to acquire as adults and so generally use English to communicate with others.

On average, a child under 60 months lives in a household with three adults and two siblings. Because the average time between births is 2.5 years, and most mothers of young children are typically young themselves, only 26% of the households had more than one child who was under 48 months. However, because Rossel hamlets are structured as tight clusters of houses, children—even those living in small households—typically grow up with a very large number of other children around. Take, for example, the hamlets around the village of Cheme, where we have a complete catalogue of young children. Among the 18 families with children under 60 months, there are 21 children between ages two and five. These children spend much of their day in large independent playgroups; it’s not unusual to see groups of eight or more children playing together in the late afternoon.

2.5 Childrearing practices, beliefs
Interviews conducted by Brown with 18 Rossel mothers of different ages provide a fairly consistent picture of customs, attitudes and beliefs concerning childrearing and development. Pregnant women continue working in their gardens till late in the pregnancy, then they tend to stay near home and do only light housework. There are various food taboos, for example pregnant women and new mothers do not eat octopus, or redfruit, both of which are believed to make a baby's skin spotty, nor do they eat 'big fish' like shark.

All the women in the villages where we worked go to the Jinjo health clinic to give birth, those nearby waiting until labour begins before they go, while women from farther away may come early and stay in a maternity facility in Jinjo to await the birth. There is no doctor on the island but the nurses are skilled in delivering babies and looking after new mothers. Cases that require a doctor's intervention are referred to the mainland hospital in Alotau, though getting them there in time depends on transport, and stillbirths and maternal death in childbirth are relatively common. If a mother dies in childbirth - or if she doesn't want to keep the baby - the baby is adopted, normally by a clan member of the mother, otherwise, after consultation, by any woman who will undertake to care for it.

The new baby receives its name while still in the hospital - these come from the repertoire of the father's clan names. Women tend to stay for about a week and then walk home, carrying
the new baby. For the first month or so they stay near home, but as soon as possible resume normal activities in the garden, and they routinely take babies traveling by foot, or by boat, dinghy, or dugout canoe. Babies are cared for principally by their mother in the first months, but there is considerable handing around of babies, and childcare is regularly shared with the father, siblings, relatives and neighbors.

A baby from its first days is exposed to many people who stop to admire, greet, smile and talk to the infant as a matter of course while passing by. There is a minimal baby talk register, consisting of high pitch and affect-laden intonation, as well as certain words (e.g., taataa, to show something interesting, apuu 'don't do that!') but generally people talk to babies as if they understood and get them involved in interactional routines (peekaboo, greeting exchanges) from very early on.

Mothers do not have special terms for developmental stages, though they may well note that the baby is 'smiling', 'crawling', 'talking (i.e. babbling)'. They do recognize walking as a significant achievement and often provide physical help in the form of sticks planted in a row for the child to hold as it takes its first steps, or patiently walk holding the child's hand saying 'walk, walk, walk.'

Children's development is monitored through regular health clinic visits. Every month the mothers return to Jinjo clinic to get the child weighed, and vaccinated or medicated as necessary; a record is kept and sent to the mainland authorities. This continues till the child is five years of age. The nurses use this opportunity to tell mothers about appropriate nutrition and safeguarding of their children.

The most remarkable thing about Rossel upbringing is how soon small children are encouraged to be independent. A large degree of freedom of movement is seen from the moment they are able to walk. They may wander all over the village area, following bigger children or playing by themselves with leaves, flowers, sticks, shells, or rocks. By age two many are in the river shallows on their own, with other children, and they learn to swim without any overt teaching. By two or three they can dress themselves, light a fire, look after their own breakfasts, crack nuts between rocks, and participate in peer-group games. By 5 or 6 some will be out in the lagoon paddling a dugout canoe. Not until age 6 or 7 do they start school, so they have many years of relative freedom to hang out, participate in chores, go
places with peers or family members, and invent play activities. Once they are schooling, they may go and live with a relative to be near the school (the local primary school draws children from the entire east end of the island, some a couple of hours' walk away).

Parenthood is considered both a joy and a serious responsibility. Children are much loved, indeed they provide probably the main source of daily entertainment in Rossel lives. There is a communal sense of responsibility for bringing them up - anyone may discipline a child, though (as we shall see) this is usually done indirectly and non-aggressively. Discipline centers on socializing children about the local dangers (the river, the fire), on decent behaviour (clothing, managing excretion, not swearing), and on treating others with consideration.

3. Interactional style with infants and small children 4484 words

We present four examples of interactions with small children (one- to three-year-olds), recorded in 2003-6 in the hamlet of our field site. This is a large settlement (of perhaps 500m²) with households of 4 families: 3 brothers with their wives and 15 children and their unmarried brother, and their elder sister with her husband, children, and grandchildren. The houses are set out along a river, a major resource for water, washing clothes, bathing and swimming for all the villages around. Houses are built of local materials on stilts, with sitting areas underneath and porches for socialising; the inside of the house is private space. At any one time, some older children may be off the island schooling, others may be living here with uncles in order to go to the local school, grandchildren and married-away daughters may be visiting. There are usually 10 -15 small children (pre-school-age) around, playing in communal inter-house spaces or in the river.

These examples of daily life surrounding the activities of eating, play and caregiving are drawn from the first author's video corpus of about 80 hours of naturally-occurring interactions, transcribed and annotated with the help of native speakers. They illustrate characteristic ways of interacting with small children in Rossel, and give us some insights into how this Rossel interactional style with children socialises particular ways of being in the world. In the excerpts, the focal child's turns are highlighted in boldface.
The first episode portrays efforts to engage in joint attention and interact with a one-year-old before he has any overt words, using various attention-getters and then getting him to produce for their entertainment his imitation of a local old lady. They summon his attention by calling *hee ee* or *a pwiye* 'come' or *a pinda* 'my namesake', saying *yaa* and hiding their face (invitation to peekaboo) or showing things (e.g. pencil, dog) and saying *taataa*. Several try to get him to engage in a favorite 'party game' of imitating and thereby mocking an elderly relative. It's intriguing that in this society where old age commands respect and even reverence, it's considered funny for babies to mock elders.

**Episode 1: 2005, v16 BK (age 15) and Kak (12 months)**

This episode of about 2 minutes is taken from an hour-long session on our house porch, featuring BK, a 15-year-old, caring for Kak (the 12-month-old son of his cousin). Other people are present some of the time or passing by: Maria/Kadamwe (red shirt) and Topowa (off screen), (both are FaMoDa, aunts) Mgîmêkaa (Mo), Lucy (FaMoBrWi), and cousins Ndunupwe, Niinii, Tooniye (age 9, blue shirt) and Kemeti (age 5) (all are FaMoBrCh).

02:12:000 Kak is standing on our porch about 6 feet from BK who is sitting on the edge of it. Kad also sitting on porch seat near Kak. BK summons Kak:

**BK:**

sst. (0.8) a pénta. a pénta. a pwiye

'sst. My namesake, my namesake. Come.'

**Kak:**

doesn't look to BK, and doesn't come

**BK:**

a pénta. a pwiye

'My namesake. Come.'

**BK:**

[holds hand half-way over face, playfully]

**Kak:**

[looks, then looks away, doesn't come]

**BK:**

[throws marker pen to him]

**Kak:**

[picks up marker, bangs on porch seat with it]

~3:30:

[Niinii comes to porch side, stands looking but doesn't interact.]

3:49:

**Ndu:**

kââpyââ Chaadî ló nté?

'Chaadî [name of elderly woman up the hill]. Granny Chaadî how (is she),'

**Kak:**

[raises eyes briefly, looks away, holds hand out towards Ndu] eee

**BK:**

[throws marker pen to him]

**Kak:**

[picks up marker, bangs on porch seat with it]

4:13:

[another try]

**Ndu:**

kââpyââ Chaadî

'Granny Chaadî'

**BK:**

Chaadî ló nté ka. Chaadî ló nté wunté

'Chaadî how (is she)? Chaadî how (is she), how does she do?'

**Kak:**

[lowers chin, raises eyes, his version of how she looks]

[all laugh, Kak puts face down on his hands, looks away]
This episode illustrates the communal nature of childcare at this age, anyone over the age of about 5 in the village can freely take over. It displays the small child as entertainment: getting him to imitate Chaadi’s eyes, or funny walks, or asking joke questions like ‘How did granny pass air?’ Getting one-year-olds to mock respected elders is a favourite game, and this is handled by giving the child control over it - others can invite him to produce his party trick, but he alone decides whether and how much to play.

Our second episode of about 10 minutes illustrates a process of prosociality training, with Kââ (2;5) being encouraged to share a treat he is eating in front of the other children. Notably the person urging him to share is not his mother (though she is present) but his aunt (MoSi), and the process is one of persuasion rather than overt force, as well as overt praise of an older child’s cooperative gesture and implicit disapproval of Kââ initially for not sharing.

**Episode 2.** 2006, v4s1, Aug.4 Kââti (2;5): sharing food with K:aam (3;1), Kap (3;2), Kak (1;11) with Anna (aunt) and Too (10)

Participants: K:aamgaa (b. 11/6/03, age 3;1), Kakan (b 28/8/04, age 1;11), Kââti (b. 13/2/04, age 2;5), and briefly Kapini (b 1/5/01, age 3;2), interacting with each other and with Anna (aunt) and Too (K:aam's sister, age 10). (Three adult women, Anna (aunt), Lucy (K:aa’m’s mother), Marg (Kââ’s mother) are also in vicinity but only Anna (briefly) participates.) K:aam is Kââ’s ‘uncle’ (son of Kââti’s MoFaBr), and Kak's cousin (son of his MoBr); Kapini is Kââ’s elder brother.

[video starts up at B's house, Kadamwe (prompted by P) summoning Kak to play with Kaam (at 1:06:). Kââti comes up hill, holding a large scone (a treat). Kids ignore it (and him), he runs back down hill, eats scone under Y's house. Kak and Kaam come to him, summon him to play (a pwiye ‘come’). The 3 boys are in the middle of the houses area (Kââ still eating, Kak kicking ball), Kaam first mentions scone - to his mother.

(-> marks turns with overt urging to share) 3:39:

Kaan: (whining) Maami. angene scone w:uu?

‘Mama, where's a scone (for me)?’

Mo [ignores, goes past carrying Marg's baby Pwee] 5:04: [Anna urges Kââ to give some scone to boys]

Anna: ka K:aamgaa pee ngmê nna y:eeni, apii, ka înmi k:ii, teete
‘Ok give K:aam a piece, ok? hurry up, ‘uncle’.

Kââ: eeee [holds his scone away from her, goes away] -Anna: Kââti pee u kwo ngmê yini, ka

‘Kââ, give him a bit, ok’

Kap: ..... [offering his scone]

Anna: ii Kapini ka nyi mb:aaamb:aa

‘Ii Kap, ok you are good.’ [praise for good behaviour modelled]

oo ball nya y:ii, ball. ball k:ii. balli ka tôô

‘oh, get the ball. Ball over there. Ball is there.’ [pointing]

ka pee ngmê y:ee yi, K:aamgaa, Kakan ye

OK give a bit to K:aamgaa and Kakan.’

ball n:aa nya, ball

T’ll bring the ball’

ee, Kapini, Kââti nyi mb:aaamb:aa

‘eh, Kap, Kââ, you are good’

ball n:aa nya, nyi wuwu, nyi dâ t:a

T’ll get the ball, you play, not you’ [to Kââti, implicit sanction for not sharing food]

chi lêpî
'Go away.' [to Kââti for not sharing his food]
ball naa nya, nmo wuwu té mwi [pointing]
'I'll get the ball, we are all going to play there.'

->5:41: ka pee ngmê y:ee yi Kakana, K.aamgaa ye
'Give half to Kakana and K.aam.'

5:58:
Kââ: ka a pwiye [walks up to Kak] wule. wule.
'OK come. Here you are' [presentative]

6:07:
Kââ: ala
'here' [hands K a bit of scone]
'Oh K:aam, K:aam, ok go to him. go to him. OK go to him. OK K:aam go.'

6:36: [K:aam goes to the 2 boys]
Kak: a tp:oo
'little (ones)' [points to puppies nearby]
Kââ: [looks] ee
K:aam: ee. ee. [holds out hand to Kââ, who gives him bit of scone]
K:aam: [eats it] (in yi tââ i)
Kââ: u ni tà. u ni a ta [giving some scone]
Kak: u ni a ta te .... ni ta

7:15:
Anna: [comes up with another scone] Kakan ala
'Kakan, here.' [holding out scone]
Kak: [takes it]
Anna: mb:aamb:aa. mbwodo ya dmyinê.
'Good, you guys sit down.'
K:aamgaa k:ii nyi yeyi
'K:aam, come sit down here.'

[The children sit there on the ground for about 4 minutes eating/sharing scones, asking for 'a bit more' ka pee tp:oo (or sometimes English 'more').]

These children are well on the way to automatic food sharing, a highly valued behaviour. It's considered very bad form to eat in front of others - especially in front of children - without sharing the food.

The third case illustrates one of the limits to freedom: small children cannot be allowed to play with sharp knives. (Other potential dangers guarded against include climbing steps or trees, falling off the verandah, or going into the river without supervision.) Yet in this case extracting a bushknife (a machete, a two-foot long sharp knife) from a two year old takes five minutes and exposes those trying to serious risk. The mother is summoned to intervene but resorts to the usual tactics of long-distance advice, empty threats to the delinquent child, and getting other children to do what's needed to solve the problem.

**Episode 3. 2003 Moopwe (2;9) with the bushknife, v4.** from 20:45: to ~ 25:51:
Moopwe is playing outside in house compound in Cheme, which has the houses of 5 families (4 brothers and their elderly parents). Others present include Jud's mother Ann sitting on ground with her Si-in-law's baby Eliz near new house some 30 feet away, Jud's father Mbu (off screen), and her cousins Kep and Pwee (both age ~10). 20:45:
Moop: [walks over to under other house, picks up machete, singing to herself. Walks over to banana trees and starts hacking at their dead leaves. Completely ignored by others around]
21:06:
Moop: hee! [brandishing machete and looking back towards the others]
21:10:
Kep: Moopwe! t:aa ngê ngê a chowpo. [he's off camera about 20 feet away]
    'Moopwe! You'll cut your hand with the bushknife.'
Moop: [continues hacking at banana leaves with bushknife]
21:22:
Kep: kââkââ Mbulu
    'Uncle Mbulu' (Moopwe's father) [calling to get him to intervene]
Ann: [calls something unintelligible from house 30 or more feet away]
Moop: [stops hacking at banana, moves to log on ground and chops at it with bushknife]
Ann: Moopwe, a pwiyé
    'Moopwe, come.'
21:39:
wom: Pweepyu u kuwo mbwilu.
    'Pwee, call out to her.'
Pwe: [standing 15 feet from Moop, he turns and looks toward woman who called to him, turns back away]
wom: Pweepyu u kuwo mbwilu!
    'Pwee, call out to her.'
Pwe: [looks at Moop happily chopping at log, walks away, then calls:
    Moopwe a pwiyé. (1.5) Moopwe a pwiyé.
    'Moop come. (1..5) Moop come.'
Moop: [ignores summons, continues to chop]
22:09:
Kep: [comes towards Moop, calls out] Moopwe! (1.8) Kakan u mtpili naa ngê ngê. Anna!
    'Moopwe! Don't touch Kakan's something.' [then, summoning M's mother] Anna!
22:16:
Kep: o t:aa ngê kuu a chowpo
    'She's going to cut her hand with the bushknife.'
Ann: [calls something unintelligible]
    [Kep bends down and tries to take the knife from Moopwe, saying] a kii!
    'Give it to me!'
    [Moopwe holds it up and threatens him with it and he backs off]
22:24:
Moop: ngââ!!
    [protest noise]
(1:0)
Ann: Kêpê u kwo naa ngê lee
    'K don't go to her!' [she'll cut you]
Kep: [rolls her log with his foot, distracting her?]
Moop: [unintelligible, protest noises]
22:40: [Pwee goes over to Kep and Moop, rolls the log with his foot, and says gently, persuasively] hee!
22:46:
Moop: I'll hit you with this thing.
    [Kep walks away, comes back with an empty tinned-fish can]
22:53:
Kep: te dââ mu du ma, :aa te dââ mu du ma
    'I ate tinned fish, I ate tinned fish.' [ploy to get her to give up machete]
Moop: [swings machete at/towards Pwee, who runs off]
22:57:
Ann: taa ngê a ngmê numu chowpo
    'They will cut themselves with the bushknife.' [still calling from far away house]
Kep: see te dââ
    'See the tinned fish.' [holding container out toward Moop]
Kep: apuu ala tpile, a lama [complaining voice, to Pwee who is playing with a small knife?]
    'No, this thing is mine, I know.'
Pwee: Moopwe! Mootpi kwi ala tpile
'Moopwe, tell him this one is mine.' [thing that Pwee has]

Moop: a nani!
'Its mine!' [machete]

Kep: ala tpile kwi
'This is mine, tell her/him.'

Moop: [resumes hacking at log]

Pwee: Kêpê ngê nani mu da ngê ngée tpii
'Kêpê has got yours and he's holding it.'

(5.4)

Kep: apuu ala daa nani, ee!
'No this is not yours!'

Ann: Kêpê yi tpile na ma tpii k:ii ngi k:ii ngi. yi naa ngê k:ii chii u mênê nyi k:ii y:i. Moopwe u po wa ghê, dê da ngê, ai ai (...) 'Kêpê don't hold that thing! Throw it away, throw it away [a tin lid]. Don't throw it there, go and throw it in the bush. Otherwise M will stand on it.' [Kep throws tin lid into bush]

Ann: ?? na ngê a k:i ee! chii u mênê u kwo na ngmê mê kee.
'?? don't give? it! Don't go into the bush!'

(3.0)

'Come home here, come home.'

24:03:

Kep: [puts hand on Moop"s shoulder and tries to shove her towards home, saying: a pwiyé. a pwiyé!]
'Come. Come!'

Ann: [calling] a pwiyé!
'Come!'

Ann: Moopwe taa a nuwo yi taa a nuwo yi yâpwo têdê naa lépî
'M bring the bushknife, I'll go to the garden.' [enticement]

(1.6) [the two boys walk away, go off camera]

Ann: taa nuwo yi taa nuwo yi Moopwé taa nêdê nyi kélê kélê hospital daa nê lee
'M bring the bushknife , if you get hurt with the bushknife I'm not going to take you to the hospital.' [threat]

alê ntênê nga té vyi. taa ngaa pee p: uu mênê di mi o!
'I'm telling the truth!'

taa ngaa pee p: uu mênê di mi o!
'I'm gonna get the bushknife and hit you on the bottom!' [threat]

[throughout this, Moop continues hitting at the log with the machete]

Moopwe pêla ngê yimi mênê vy:ee yi, pêla ngê yimi mênê vy:ee yi.
'M I'm gonna hit you with a stick, I'm gonna hit you with a stick. [threat]

[A continues scolding about using the pêla, M swings the machete a couple of times and scrapes the ground with it, then picks up a stick]

[A continues scolding: nkéli pyââ nkéli pyââ  ??
'The foreign woman (will do something)'

[M holds stick in left hand, cuts at it with machete. Then sits on ground and cuts at the stick with the machete.]

Ann: eee ee ee. daa ngê!
'ee ee. wu wu! 'She got it!'

(1.5)

Kep: kuu dé kpaa (ka) tóó
'Smack her hands, smack her hands.'

(1.3)

Ann: [sings singsong attractor nonsense song]

25:16:

Moop: [hacks two-handed at grass with machete]

Kep: ee Moopwe! Anna! u kuu a chapwo!
'Ée Moopwe! Anna! she's gonna cut her hand!'

Ann: [says something unintelligible,not directed at M]

[Moop stands up, hacks at ground with machete. Ann from far away sings 'My hands are clapping' song.]
Kep: [stands and turns to M, saying] Moopwe!

Moop: nyââ ‘yes’

Kep: Moopwe a pwiyé ...??? ???? [puts hand on her shoulder and leads her towards Mo, while Mo sings:]

Ann: [singing] My hands are clapping, clapping, clapping, my hands are clapping just like this

[25:46: as they are walking, Kep discretely takes the machete from Moop's hand, saying: ‘Got it.’ M runs and sits down next to her mother sitting on ground and singing some 30 feet away.]

This event illustrates the respect for a small child's autonomy that is evident in this society. Though safety considerations impose limits on her freedom of action, in this case the knife must be extracted, this is done in a very communal, and very non-heavy-handed way. Force or violence is not used, persuasion and distraction are the techniques used by her cousins, and fake enticements (I'm going to the garden') and threats ('If you cut yourself, I won't take you to the hospital') by her mother sitting 30 feet away. Note that despite the threats of physical punishment ('I'll hit you with the bushknife, or a stick'), smacking small children is rarely resorted to.

Another limit to personal freedom is the necessity of complying with social expectations about personal hygiene. Small children are mostly naked, so toilet training is relatively simple, children are encouraged to go to the relevant area of bush and are taken to the mangroves, where adults excrete, and shown what to do. Occasional mishaps are handled in a very casual way: overt mention (these events are 'mentionables') and sometimes a query ('Who did this?') or a negative comment (apuu 'don't do that' or 'yucky') without any other sanctions. This episode illustrates the communal 'noticing' of one such case, after K (age 1;2) calmly squatted and excreted on the path. The noticings (and clean-up process) went on for about 7 minutes. Again, there is communal disciplining but the child's autonomy is respected.

**Episode 4.:** 2004, v9muumuu picnic, 39:14: - ~ 43:

The extract comes from a one and a half hour session at a stone oven cooking place about 100 yards upriver from the village. Adults are busy cooking food in hot stones, all off camera including Lucy, K's mother, until she comes to clean up his mess. K is wearing nothing but a G-string. Note: this family speaks English, Yeli, and sometimes a bit of pidgin; the mother is from Sudest (the next island westwards). Participants: Lucy's and Loretta's families: 8 children age 1-10, Kaam (1;2), Dini (2;3), Ana (4;5), Nji (5;5), Wââ (6;0), Taa (almost 11), Kak (15). (Others there but not in this extract: Marg, Kap (3;3), Loretta's Mo Anne, Pat and Agnes, and Maria's sister Miriam.)

39:14:

[Kaamgaa squats, excretes on the path, says ee ee, runs off]

39:38:

[K comes back, looks at his poop in path, runs off again]

[Nji comes by, sees poop, points at it, goes off silently]

[Wââyââ comes running up path yelling yaa!]

40:03:

Wââ: [sees poop, points, comments on it and laughs at K]
   'Who pooped? Tell auntie' [Lucy]
   (3.3)
   auntie o. auntie! (6.0)
   ee! auntie kê vyi yi! 'Eh, tell auntie'

Wââ: eee! K këdê kn:aa
   auntie Lucy! K is pooping.'
   auntie ka vyi: 'tell auntie'

40:15:
Taa: auntie o! auntie! auntie ee! auntie ee!

40:49:
Taa: auntie o!

40:59:
Taa: auntie o! auntie! auntie ee! auntie ee!

41:04:
Nji: iiee K:aamgaa! ee K:aamgaa!
   oh K! eh K!
   Nji: u pwo chi ghêê
   'You stood on it!' [to 2 small children there: K, Dini]

41:16:
Kak: auntie kê vyi yoo. kn:ii lukwe diy:o nmye wuwu té
   'Tell auntie. Good one. why are you children playing?'

Taa: auntie. auntie u!
   auntie ka vyi yoo
   'Go tell auntie'

41:18:
Taa: auntie. auntie. K:aamgaa's pekpek
   'aunt! Kââmgaa’s pekpek’ [pekpek is the Pidg
   in word for excrement]
   Ana: K i pekpek on [the road]
   'K’s pekpek'
   auntie! Kêmêti ka kp:ee 'K is swearing'
   Nji: [pointing] k:ii mu dê kn:aa mu ngee kwo
   'He pekpeked there and there's another one here.'
   Nji: o k:ii knââ mboo ngee kwo
   'There, pekpek is there.'

42:38:
Wââ: [pretending to vomit] oo Kâamgaa
   [first overt sanction to K, + negative affect]

42:43:
Nji: [pointing] o mu ngee tóó
   'There’s some more there.'

Taa: km:ii dênê mu nya nyoo
   'Go and get another coconut husk.'

42:56:
Taa: [lifts K off the path onto side bushes, saying] oo chi (po). [points at poop] chup chup apuu, apuu, apuu! knîknî [stinky]!
   [second overt sanction to K]
   Taa: [grabbing/teasing K’s penis] oo oo oo!

43:29:
Taa: k:ââ puu mu dê pii, auntie.
   'I cleaned the bottom (of K), auntie.'
   Luc: ee?
   Taa: k:ââ puu mu dê pi
   'I cleaned his bottom.'
   Luc: mw:ââkkô
   Thank you.

Kaam: aa
?: al:ii. auntie al:ii [pointing]
   'Here. It’s here auntie.'
   Nji: Wââyââ. .......

44:25:
Taa to K: Amgaa! [babytalk version of his name. She's cleaning his bottom with coconut husk.]
   [Lucy now appears, bends over and cleans up mess on path]

44:33:
Taa to Dini: kn:î kn:î kn:î  [third overt sanction, this time to D]
[disgust sound]
[Taa walks past K and pats him on the head] [reassurance, it's ok]
[D bounces ball on K's head, playing]
45:01:  [L is cleaning up, and talking to K about his delict, softly]
K:  [walks up and hands me a keemî nut,saying] ee ma ‘eat’. ee ee.  [offering game, back to normality]
Kêm: Dinimgaa a dé – ‘Dini you throw it’ [ball]
later, 45:56:
Kêm: Penny, Kââmgaa pepek there.

Though there are multiple mentions of the delict and jokey comments on its unpleasantness, and the children make sure that K's mother (their 'auntie') intervenes, K is not scolded. It is noteworthy that Rossel adults do not quarrel openly or upbraid each other over small delicts. For large offenses (e.g. stealing, adultery, rape, witchcraft) there will be a public hearing, an informal court case where anyone (usually men) can speak out and harangue the offender; these are usually resolved with the payment of shell money by the offender to the victim. Adult overt aggression is restricted to this kind of verbal harangue in a court case, except for a few special contexts - for example at funerals it is customary for certain relatives of the deceased to hit the bereaved wife/husband with a hard smack on the back, and to throw coconut stem chunks at young male relatives, who are presumed to have neglected the one who died. Violence in this society is very much behind the scenes, in the form of witchcraft.7

4. Discussion

In sum, in this Rossel community small children are socialised through interaction in a secure, supportive, free, and creative environment, manifesting the 'secure' mode of training for prosociality ('behaviour carried out for the benefit of others') identified by E. Goody (1991b). This, she suggests, tends to co-occur with a high level of mother-child intersubjectivity and with independent interdependence with peers, as evidenced, for example, by Mbuti pygmies, and the Fore of PNG, as also in our Rossel case. The processes Goody mentions for influencing prosociality - shaping, scaffolding, modelling, training - are all abundantly present in the interactions we have observed, and generally in an atmosphere of good-humoured affectionate patience. There is a change in a child's status when a new sibling is born which can produce a temporary shock - the mother's attention turns to the newborn, and the child is shifted to an elder sibling or other relative as a primary caregiver and to peers for interaction - but this does not seem to produce long-lasting emotional effects (in contrast to what Carstairs (1958) observed in India). The early training in independence takes hold and by age 3 or 4 the Rossel child can pretty much stand on her own feet, immersed in her peer group activities.
The result, for most Rossel children, is very happy childhoods and confident adults. The data are compatible with Goody's suggestion (1991b) that there may well be general cross-cultural patterns in prosocial actions: nurturance and care of infants, sharing of scarce resources, protection of others from harm, are all emphasized by caregivers - of all ages - in this community as well. Another thing that is emphasized is ethnic pride - children are incorporated in cultural activities, for example, attending rituals, boys singing the all-night male opera form *tpile wee*, and school Fridays which focus on local cultural activities.

We can make an explicit contrast with a community on the other side of the world, that of the Tzeltal Maya of Tenejapa in Chiapas, Mexico, where we have also studied child interactions. Interactional styles in these two cultural contexts are radically different, with the Tzeltal non-child-centered; babies are carried tied onto the mother's back and very little interaction with babies occurs until they are about 9-10 months of age and beginning to make initiatory moves to interact. In addition Tzeltal infants have extreme constraints on their physical mobility - many Tenejapan babies are not put down on the ground and do not learn to crawl. Brown found radically different rates of interaction in the two settings: children initiate interactions with others twice as frequently in the Rossel data (Brown 2011).

Nonetheless, there are commonalities in their interactional development - pointing behaviour, for example, appears to emerge at about the same time as among the Rossel babies (Brown 2011), suggesting a biological predisposition - what Levinson (2006c) has called the 'interactional engine' - to the development of communicative interaction. There are sociocultural factors in common as well: there is a comparable emphasis on actions, rather than on objects, in the content of interactions in these two settings, in both societies, other children do a major part of the child-caring, and most interactions are multi-participant rather than the two party (mother-child) ones familiar in western contexts. Yet Tzeltal children are not encouraged to be independent actors from a young age, and they do not develop into the markedly competent and self-confident small children that we observe on Rossel Island.

The similarities and differences in these two contexts suggest that the contrast between 'child-centered' vs. 'situation-centered' styles of childrearing (Ochs and Schieffelin 1984) is too blunt an instrument. We need a more fined-grained typology of interactional styles of caregivers and children to capture the multiplicity of variations across societies and across contexts. To this end, the study of this process of socialization into language and culture is critical to understanding the biological bases, learning, and cross-cultural variability of social
interaction, as well as the role of social constructs and of culture more broadly in the social, cognitive, and linguistic development of children around the world.

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Goody, E.N. (2016?) notes for Dunbar paper


Papuan languages are non-Austronesian languages spoken in the Melanesian area.

Unlike on mainland PNG, English is the lingua franca in island PNG, not Pidgin.

The Jinjo area contrasts with the western end of the island, mostly Methodist dominated and with more contacts to the large island of Misima to the west.

In 2016 a doctor concerned about the high levels of maternal death in island PNG set up a base in Alotau, the mainland's nearest town, with a seaplane to provide airlifts for mothers in danger to the Alotau hospital.

If the baby doesn't drink its natural mother's milk but starts nursing with the new mother, it will belong to the new mother's clan. Otherwise it retains the clan of its birth mother.

Children's ages are given in years and months, separated by a semicolon. Children's ages are for the most part accurately known, due to their birth in the hospital and subsequent registration.

There are of course marital disputes but these are very much frowned upon if displayed in public.

The first author has worked in this community for over forty years and has a large audio- and videotaped database of Tzeltal caregiver-child interaction; the second author has collected intensive film samples of Tenejapan babies and conducted psycholinguistic experiments with them in 2014 and 2015.