2

The language environment

This chapter is designed to contextualise the comparative study on the features of CDS in Part II. In Section 2.1, the connections between children's linguistic input and their caregivers' attitudes towards caregiving, learning and the language itself will be explored. In Section 2.2, I present the results from interviews with adults in Raunsepna concerning those attitudes.[1] The participants recount diverse aspects of child rearing, language and child language acquisition. Their attitudes are then compared to previous research on Baining people and other non-WEIRD societies. I supplement this discussion with a presentation of results from a pilot study I conducted on the amount of speech Qaqet children receive from different interlocutors (Section 2.3). Additionally, I employ preliminary insights from the longitudinal data (see Section 1.4) to integrate the results from Section 2.3. The insights from both types of data are enhanced by data from participant observation in Raunsepna.

2.1 Child rearing practices and frameworks of interaction

The socio-economic environment in which children grow up influences what they are expected to learn. Keller (2007, 2012) describes three prototypical types of communities and the way the socio-economic

1 The terms *attitudes* and *ideologies* will be used synonymously referring to shared or individual sets of beliefs. For further discussion and differentiation see Dyers and Abongdia (2010) and Kroskrity (2004).

environment relates to the developmental trajectories of children growing up in these societies: Western urban, non-Western urban and non-Western rural societies.[2]

In prototypical Western, urban societies (corresponding largely to WEIRD or post-industrial societies), children are primarily expected to perform at school. The amount of formal education is typically high, and becoming a successful member of society is mediated by individual psychological autonomy: children are expected to know about their own inner states and to express them. Verbal communication is the most important means to meet these expectations. This results not only in a high amount of CDS, but also in frequent triadic joint attention, much face-to-face-interaction (Keller 2012; Mastin & Vogt 2015) and a high number of cognitive intentions in child-directed speech (Mastin & Vogt 2015; Vogt et al. 2015: 349). Cognitive intentions are, for example, goals to stimulate children's language development or, more broadly, their understanding and expression of their environment (Mastin & Vogt 2015: 345).

In many places, in order to become a successful member of society, children must become productive members of their subsistence-based community. This primarily entails taking on a variety of household duties from early on, like cleaning the house, fetching water or wood and caring for younger siblings (Lancy 2008). Children's motor independence is fostered, for example, by having them retrieve objects (Mastin & Vogt 2015). The leading principle of socialisation is communal action autonomy:

> Children are expected to be helpers who can act in self-determined and self-responsible ways with a focus on the functioning and wellbeing of the social unit. (Keller 2012: 15)

In such communities, children typically receive a small amount of CDS and much of their linguistic input takes the form of directives. Multiparty settings are the norm, and children spend a significant part of the day in the company of other children.[3] Despite all differences, however, the broad developmental milestones are similar across cultures (Casillas et al. 2020a).

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2 For illustration, in the present section I only describe the first and the last. The non-Western, urban societies lie somewhere in between these two poles.

3 This was described by Schieffelin (1990) for the Kaluli in Papua New Guinea, Ochs (1988) for Samoans in Western Samoa, Kulick (1992) for the Gapuners in Papua New Guinea, Bavin (1992) for Warlpiri in Australia, Pye (1992) for the K'iche' Maya in Guatemala, Lieven (1994), Shneidman and Goldin-Meadow (2012) for Yucatec Mayans in Mexico, Cristia et al. (2017) for the Tsimane in Bolivia, Vogt et al. (2015) and Mastin and Vogt (2015) for rural versus urban societies in Mozambique, Casillas et al. (2020b) for Tseltal Maya, and Casillas et al. (2020a) for Rossel Islanders in Papua New Guinea.

The expectations towards children correlate with parental ethnotheories of learning (Harkness et al. 2010; Gaskins & Paradise 2010). While in Western, urban societies, there is an emphasis on explicit instruction, in small scale rural societies, children often learn through a style called guided participation:

> Children in communities that allow or promote observation of adult activities may develop largely through their own initiative, through active observation and gradually increasing participation. (Rogoff et al. 1993)

Parental beliefs about learning can have pervasive effects on the input children receive. Well-known examples from the paradigm of language socialisation are described by Kulick (1992) and Ochs and Schieffelin (1984). Kulick describes how parents' beliefs about how children acquire language became a critical factor in the loss of the vernacular. In Gapun, the village described by Kulick, villagers came to associate their vernacular Taiap with backwardness while Tok Pisin, the lingua franca of Papua New Guinea, was associated with modernity and wealth. Subsequently, Taiap was increasingly undervalued and neglected. Therefore, caregivers chose Tok Pisin when speaking to their children, who, in turn, received hardly any input in the vernacular language. Moreover, the responsibility for language acquisition was perceived to lie in the hands of children; adults did not consider themselves capable of teaching them Taiap. They felt that even if they had decided to prevent the language shift, it would be outside of their ability to change their children's course of learning. These attitudes resulted in a rapid language shift towards Tok Pisin in that community.

For the Kaluli in Papua New Guinea, Schieffelin (1990) reported that adults did not believe young children could understand language until they used it productively themselves. Similar evidence is reported by Ochs (1988) for Samoan children, where adults likewise see no necessity in teaching their children language. In both cultures, children are not considered adequate conversational partners for adults and dyadic interactions between adults and children, the former primary target of language acquisition studies, hardly occur at all. Moreover, there is no simplified register for addressing infants. These are only some examples to show how much variation there is in language ideologies and theories of learning and the degree to which they are intertwined with the language

environment of children. For the Qaqet, Fajans (1997) reports that people do not think that it makes sense to talk to babies up to the age of six months.

Casillas et al. (2020a) argue that ideologies may not be the most important factor with regard to the amount and form of input children receive. Rossel Islanders see their children as adequate communicative partners, yet the amount of language used with children is comparable to what previous studies found for other rural small-scale societies. Thus, they argue that situational factors are at the root of comparable input rates in subsistence-based societies. Not ideologies, but rather the number of speakers present and the activities performed explained peak times of input for Rossel Island children. Those factors will be addressed in Section 2.3 for the Qaqet in Raunsepna.

In the following I will show that in terms of the community types described by Keller (2007), Raunsepna can be described as a fairly typical rural, non-Western community. People live by means of subsistence farming and although there is formal schooling, this has no practical relation to the future lives of many people, as most stay in the village as farmers. Moreover, school attendance is very irregular and students frequently drop out. The following analysis of attitudes will show that communal action autonomy is the main principle guiding child socialisation. The amount of input is comparable to input rates described for other small scale rural societies. Specific situational contexts as well as individual differences also play important roles. In terms of beliefs about learning, I will demonstrate that although a style of guided participation prevails, parents nevertheless consider themselves responsible for teaching their children Qaqet. I mostly make use of direct quotes obtained from the interviews to illustrate participants' attitudes.

2.2 Assessing attitudes

2.2.1 Methods and data

It is not a straightforward issue to come to know of a certain population's sets of beliefs and opinions towards one or more domains of society. In order to explore the relevant attitudes in Raunsepna, a method was developed in several steps, as presented in Table 2.1. Steps 1–4 are preparatory, and so the following discussion concentrates on the results from Step 5.

Table 2.1: Methodological steps towards an assessment of language attitudes in Raunsepna (RS).

Step	Activity	Purpose
1	Literature research	Find topics that interact with language environment of children
2	Open, unstructured interviews (not recorded)	Explore the relevance of topics in RS, find further topics
3	Coding of the interview notes	Identify salient and frequent attitudes in RS
4	Compile a list of statements as interview guideline	Summarise salient and frequent attitudes in RS
5	Semi-structured interviews (recorded)	Confirm/disconfirm the statements; elicit commentary

In the following discussion, the steps towards the final interviews are described. First (Step 1 from Table 2.1), I compiled a list of topics from the literature. I aimed for insights into spheres known to interact with children's language environment. To ensure that I targeted topics considered relevant by the villagers themselves, I conducted unstructured interviews during my preparatory stay in Raunsepna in 2015. I asked adults to tell me everything they considered important concerning children's lives, child care and language (Step 2 from Table 2.1). This resulted in 23 sessions with approximately 50 people.[4] Even during preliminary interviews, it proved challenging to talk about other people's motivations, as people were reluctant to speculate about the motivations of others, responding frequently to such questions with *mipela i no save long ol* 'we do not know about them'. This is a common attitude in Pacific societies that is referred to as the doctrine of the opacity of other minds by Robbins and Rumsey (2008) and can impact discussions on attitudes towards others' actions.

In order to create an environment as comfortable as possible for everyone (Du Bois 1980), I did not record those conversations. Instead I took notes and coded these for topic (Step 3 from Table 2.1). As a last preparatory step, I compiled a list comprising 64 statements targeting primarily four different domains (Step 2 from Table 2.1):

4 Due to the open setup and because many interviews were held in people's homes or gardens to avoid pressure on the participants, people often dropped in, participated for a while and dropped out again.

- learning/chore curriculum
- playing
- respect
- (child) language.

Several topics are not covered in the following discussion though they figured prominently in the unstructured interviews: I excluded religious education, as it is associated with much Tok Pisin use (Marley 2013) and adoption, although a central practice (Fajans 1997), because it would go far beyond the scope of the present work. The domain of maintenance activities (feeding and hygiene) has been shown to elicit large amounts of speech (Glas et al. 2018) and was also identified by the participants as a peak time of verbal interaction during the day. However, the explanations in the preliminary interview were focused on how to attend to children's bodily needs rather than on details of language use. For information regarding language use during such activities, naturalistic data are presumably more informative (as a first step) than an interview-format. On the other hand, given that the data elicited for the comparison of CDS and ADS are narratives, it would have been wise to include questions concerning storytelling practices between adults and children. Fortunately, I can refer to reports by Hellwig (2020) to explore this topic.

The interplay between the topics I included and language socialisation has been described in detail in Section 2.1, so I will only briefly recall their relevance here. **The chore curriculum** consists of all those tasks 'that all boys or all girls should master by a roughly agreed upon age and carry out willingly and efficiently' (Lancy 2012a). It has similar characteristics across many subsistence-based cultures (Jensen & Gaskins 2015) and structures the everyday life of children. It reflects adults' expectations towards children, which, in turn, are responsible for the communicative styles used towards them (see Section 2.1). **Play** was included, as there have been previous reports that Baining people, unlike nearly all the other cultures in the world, do not play with their children and even suppress child play (Fajans 1997). **Attitudes towards language and learning**, as described in Section 2.1, have a direct impact on the course of language socialisation. **Respect**, one of the moral values described by Dickhardt (2009) as a leading principle of morality among the Baining, was identified by interviewees as especially relevant for child education. The full list of statements I used in the semi-structured interviews is to be found in the Appendix. To illustrate the form of those statements, some examples are presented here:

- (1) *Ol pikinini i laik bihainim ol bikpela long wok*. 'Children like to imitate adults' work.'
- (8) *Ol pikinini ol i mas lain long wok gaden*. 'Children must learn to do garden work.'
- (33) *Taim i gat visita long haus, ol pikinini noken ran nabaut na pilai*. 'If there are visitors in the house, children cannot run around and play.'

The statements were read to the participants during the structured interviews in 2017 (Step 5 from Table 2.1). Participants were informed that those statements had been made by other people from Raunsepna and that in order to make sure that they really mirrored the attitudes held within the community, I was going to ask as many people as possible to deny or confirm the relevant statements.

Of course, it is possible that people assumed I expected them to confirm the statements. Excluding interviewer-bias is a challenge for the validity of any interview (Briggs 1986: 21). In fact, there was a great deal of confirmation in the answers; hardly any statements were rejected. This may be partly due to the methodology chosen: I mostly included only those topics that had already figured prominently in the unstructured interviews. More controversial topics may not have made it into the second interview session. Furthermore, the Qaqet Baining have a consensus-oriented interaction style (Dickhardt 2009: 271ff), and therefore might be reluctant to show dissent. One good indication, however, that the interviewees did report their own thoughts or those of the community was that they often completed the statement before I could finish reading it. See the quotation below:

> **Interviewer:** *Olsem ol i harim papa na mama ol i toktok …*
> 'So, they hear their parents talk …'
> **AMM:** … *na ol i bihainim*.
> '… and they imitate.' (Int_AMM_AVD)

Altogether, 22 interviews were conducted and audio-recorded with 36 participants. All the participants who had been involved as narrators or listeners in the pear story corpus recordings, and were still available in 2017, participated in an interview. Additionally, I included every other Qaqet L1 speaker who was available. See Table 2.2 below for the details about the participants. 'PS' indicates that those participants later participated in the comparative study described later in this volume. A question mark indicates that there is no information available.

Table 2.2: Interviewees' speaker code (ID), sex, age, number of children (Chi), participation in the comparative study in Part II (PS) and formal education.

Code	No.	Sex	Birth	Chi	PS	Formal Education
CCM	1	m	1975	8	no	Catechist school
AAI	1	f	1979	8	no	Grade 6
BJS	2	f	1986	-	no	Grade 10
CLS	3	f	1981	8	no	Grade 6
BFN	3	m	1977	8	no	VT Welder
AMM	4	f	1991	3	no	Grade 8
AVD	4	m	1983	3	yes	Grade 6
EAK	5	f	1993	1	no	Grade 8
DBK	5	m	1996	1	no	Grade 8
ASQ	6	f	1981	6	no	Grade 6
DCK	6	m	1977	6	yes	Grade 6
ABD	7	f	1980	7	yes	ES teacher education)
ACP	7	m	1978	7	no	Grade 10; Short Course in Business Education
ARB	8	f	1977	3	no	Grade 6
ADK	8	m	1963	3	no	VT Carpenter
AAS	9	f	1980	5	no	VT Sewing/Cooking
ARS	10	f	1983	1	no	VT
AMW	11	m	1974	3	no	Grade 6
AME	11	f	1980	3	no	Grade 6
ARN	12	f	1982	10	no	Grade 3
BCP	12	m	1976	10	yes	Grade 6
DCM	13	m	1957	16	yes	Grade 6
AMI	13	f	1962	16	yes	Grade 6
AMT	14	f	1990	2	yes	VT Tourism
CRN	15	m	2000	0	no	2017: Grade 6
BRS	15	f	1968	7	no	Grade 6
BLN	16	f	1985	4	yes	Grade 10
APA	16	m	1982	4	no	Grade 10
AMS	17	f	1980	1	no	Grade 6
ARL	17	m	1979	6	yes	Grade 6
AML	18	f	1991	1	no	Grade 8
ACM	18	m	1975	7	no	ES teacher education

Code	No.	Sex	Birth	Chi	PS	Formal Education
ASP	19	f	n/a	1	no	n/a
CAN	19	f	n/a	5	no	n/a
AGK	20	f	1984	1	yes	Catechist school
CCK	21	f	1988	0	no	PS teacher education

VT = 'vocational training', ES = 'elementary school', PS = 'primary school'.

All of the interviewees speak Tok Pisin fluently, but Qaqet is their first language. The education levels are quite diverse. Fifteen of the participants have finished Grade 6 of the Raunsepna primary school, four Grade 8. Four visited the secondary school outside of Raunsepna and finished Grade 10, while one woman left school after Grade 3. ABD and ACM are elementary teachers, CCK a primary teacher, and all teachers received their training outside of Raunsepna. Five participants received vocational training, three of whom are women. AGK and CCM have been trained as catechists. Thus, 14 out of 35 participants spent longer periods of their lives outside the village and its surroundings, and received extended formal education, which is not representative of Raunsepna. However, it is hardly surprising that those people most interested in participating in research are otherwise most curious about the world outside their village. During the interviews, in addition to agreeing or disagreeing with the statements, most participants supplemented their answers with statements in their own words and gave examples. These participant citations, which are exemplary of attitudes in Raunsepna, were transcribed and translated into English. They will be presented and analysed in the following text. This approach is dialogical, following a tradition framed by Duranti (2008: 87) among others:

> Rather than replacing native [sic!] discourse with the observer's monologic narrative (whether in the first or third person), as typical of analogical anthropology, dialogical anthropology promotes native talk to the position of prominence so as to give readers more direct access to how members represent their own actions as well as how they deal with fieldworkers and comply with their demands.

For each topic discussed, previous findings from the literature on Baining will first be presented, if available. Then the findings from the current study will be summarised and illustrated by citations from the interviews. Additionally, the number of participants who agreed or disagreed with the relevant statement from the interview guidelines will be reported.

This information will be given in brackets: (Question No.: number of interviews in which participants agreed with statement X/all participants who have been asked that question). The full results for all statements can be found in the Appendix.[5]

The next section starts with the description of Qaqet children's chore curriculum, which is framed by the community's lifestyle as subsistence farmers. Additionally, findings from participant observation will be employed if they deviate from the statements obtained during the interviews or add more information. If the data from both sources agree on a topic, no further comments will be made.

2.2.2 The chore curriculum: Living from the garden

As subsistence farmers (see Figures 2.1–2.3) mostly depending on the harvest of their gardens, the community members in Raunsepna highly value work in the garden. Villagers with large gardens who provide generously for their families and their guests are highly respected (Dickhardt 2009: 151). Children's chore curriculum, too, is framed by the task of becoming a successful subsistence farmer.

Figure 2.1: AMS on her way to the garden.
Source: Photograph by the author.

5 Note that not all the questions have been asked in all of the interviews as some people dropped out early.

Figure 2.2: AMS's children happy to see her coming to the garden.
Source: Photograph by the author.

Figure 2.3: AMS with her children on her way through the garden.
Source: Photograph by the author.

In the interviews, all of the participants (8: 20/20) agreed that children have to learn how to work in the garden. A quote from BCP illustrates this, see (1). Similar evidence on educational ideologies has been reported for Trobriand islanders by Senft and Senft (2018), among whom garden work figures as one of the leading rules in order to live a good life. For people depending entirely on their gardens for survival, this is hardly surprising.

(1) *Pasin bilong mipela, wok gaden em bikpela samting so mipela i laikim ol pikinini bai ol i mas bihainim mipela.*
'It is our custom that garden work is important, so we want our children to follow our example.' (BCP, Int_BCP_ARN)

In Raunsepna, children as young as three or four are able to fulfill household duties, as CCK in example (2) below describes it. This is normal in societies where the adults are typically engaged in activities that allow for the presence of children (Jensen & Gaskins 2015; Keller 2012; Lancy 2008).

(2) *So ol i lainim ol pikinini bilong ol olsem hia long kollektim paiawut, pulimap wara, halpim long wok gaden, em dispela.*
'So they teach their children to collect firewood, fetch water, help with the garden work, these kinds of things.' (CCK, Int_CCK)

Children as young as four years of age may be perfectly able to fulfill a range of duties and do so without anyone telling them, as two mothers reported (Int_AMT, Int_ABD_ACP). Those duties include lighting fires, finding leafy greens or staple foods in gardens close to the house, fetching water or firewood, or even cooking small meals (see Figure 2.4), sweeping the house, looking after animals or younger siblings (for short spans of time; see Figure 2.5), helping with washing the dishes, and helping with garden works like weeding (see Figure 2.6) and chasing parrots out of the peanut gardens.

Figure 2.4: ZCR carrying the food through the garden.
Source: Photograph by the author.

Figure 2.5: XSD carrying her baby brother ZLK.
Source: Photograph by the author.

Figure 2.6: YMN with a knife in the garden.
Source: Photograph by the author.

Already at a very early age, children are integrated into productive everyday life, and learn to act responsibly for others. Most interviewees confirmed that fetching water and wood would be the first tasks of children (7: 18/20). Two interviewees disagreed and explicated: before children learned to fetch water, they remarked, children would learn to go and fetch things inside the house. Gradually, then, the radius in which those children are expected to fetch things for others scales up. Everyone (11: 18/18) agreed that small children (who have just learned to walk independently) will be sent to accompany their older siblings, and learn by imitating what they do. The care of younger siblings constitutes a large part of children's responsibilities (13: 19/0) (see (3)).

(3) *Taim ol mama i lusim ol i go long gaden bai ol i lusim ol pikinini long han bilong ol bikpela bilong ol hia.*
'When the mothers leave the children to go to the garden, they leave them with their older siblings.' (AGK, Int_AGK)

Even four-year-old children may be left alone to watch over their baby siblings, but as all interviewees agreed, only for short periods of time. Children of around six may be left alone with younger siblings for entire days while the adults work in the garden. Hellwig (2020) reports a high

degree of mobility for children in Raunsepna. They are quite unrestricted in that they frequently roam the village among themselves. This, too, is typical of rural subsistence-based cultures, as opposed to the typical lives of many children in post-industrial, urban societies that frequently take place in mother-infant-dyads first and under the supervision of other adults later, following fixed timetables (Lancy 2012b; Lieven 1994). All interviewees (17: 16/16) agreed that from around six or seven years of age, boys and girls in Raunsepna begin to have slightly different duties.

While boys learn how to build a fence, cut trees and make a new garden, girls mainly learn to weed in the garden and fulfill tasks related to the household (see (4)).

(4) *Especially long mipela, ol pikinini meri, mipela mas lainim ol long wit. Bikos ol man, em i wok bilong ol long katim bus, katim diwai i go daun.*
'Especially for us, the girls, we have to teach them how to weed. Because the men, their work is to clear the bush, cut the trees.' (ABD, INT_ABD_ACP)

Still, this division is not entirely fixed, household duties may be shared especially among married people, as two women remarked (see (5)).

(5) *Long family yet, tupela wantaim bai mekim ol dispela wok, hia. Taim olsem mama em i go long gaden na papa em i stap, em i ken kuk. Em i ken swip.*
'Inside the family, both share these jobs. If for example the mother goes to the garden and the father stays, he can cook. He can sweep.' (CCK, INT_CCK)

If children are asked to fulfill specific tasks, people usually expect that they will do so. Obedience is described as an important moral value for the Qaqet community by Dickhardt (2009). However, if children express unwillingness, usually, after some prompts, they are not forced into work. A certain degree of individual autonomy is highly accepted in the community: mood changes in a person are respected, even in children. When asked what to do if a child really does not want to carry out a specific task, participants frequently comment *larim em!* 'leave him/her!' In interaction with children, however, I frequently observed how parents tried to persuade children by offering rewards or threatening punishments. In Raunsepna, children are perceived as eager to work (see (6)). All interviewees reported situations like the ones cited below, where children ask to participate in working activities. If children want to imitate adults working, they are usually supported (6: 20/20; see (6)).

(6) *Olsem liklik BK bilong mi. Mi sikirap, bai karai. Bai mi givim em singapu bai sikirapim.*
'Just like my small BK. I scrape taro, she cries. So I give her the Singapore taro to scrape.' (ABD, Int_ABD_ACP)

However, two interviewees mentioned that tools would not be handed over in situations where the parents need the tool the child is asking for. Sharp bush knives are not given to very small children. In those cases, one interviewee commented, it would be useful to provide safer tools like blunt knives to satisfy the children. Children are allowed to handle a variety of objects that might be perceived as dangerous by Western parents, and are hence allowed a great deal of autonomy in the sense of Keller (2012). Still, parents monitor their children attentively so that the risk stays within certain limits, and they can intervene, if necessary. As (6) shows, children are perceived as being able to initiate learning in Raunsepna (see Section 2.1). People described the normal style of learning as observational (2: 20/20), as in (7):

(7) *Papa i no inap tokim em olsem: Yu mekim dispela, yu mekim dispela, nogat. Ol i mekim – em tu em i lainim long–wanem samting em i wok long lukim.*
'The father would not tell them like this: You make this, you make this, no. They do it – He will learn from – what he sees.' (CCK, Int_CCK)

Instead of explicit instruction, children in Raunsepna learn through guided participation, which is typical in non-WEIRD societies (Rogoff et al. 1993). Still, when children fail to imitate successfully, they will be corrected. This might be a case where they damage things in the garden (see (8)).

(8) *Taim em i stat wok yu mas lukluk long em: 'Em taro hia, nogut yu katim. Yu lukaut long ol samting mama i bin planim.'*
'When she starts to work you have to watch her: 'That's taro, don't cut it. Be careful with the things your mother has planted.' (AAS, Int_AAS)

The first attempts of children of around two to four to imitate their parents' or siblings' work are not perceived as really useful, but nevertheless instructive (see (9)).

(9) *Em kain pilai bilong ol. Ol i wok long lainim nau– long wokim alluska nau. Em bai stap bai wokim paia, bai putim siton, bai kisim ol liklik kumu gras, bai wok long wokim nau– Em i lainim nau.*
'It's like a kind of game for them. They are learning now–to work steamed greens now. He will stay and make a fire, put stones, then take the leafy greens, he's working it now–He learns it now.' (ABD, Int_ABD_ACP)

All the interviewees (21: 18/18) agreed that children's very first attempts to imitate others' work are a kind of 'play' but are at the same time instructive. The *pilai* 'play' here seems to be used to denote an activity that is opposed to work that makes a 'real' contribution.

2.2.3 Children's play

2.2.3.1 Attitudes to play

Play has significant beneficial effects for various aspects of language development (Levy 1984; Akinyi Ojuondo 2015). Just to highlight a few of these, play creates a variety of learning opportunities for various kinds of language use, and stimulates innovation and the use of new words and concepts (Bruner 1985). While children obviously learn to speak in all societies, how they do so depends on their everyday activities, which is why the current section explores the topic of child play among the Qaqet Baining.

Gaskins et al. (2007) describe three types of societies that differ with respect to the value they attribute to child play. In urban, middle class, Western societies, play is cultivated and caregivers are expected to spend time and effort to support it. In other societies, play is culturally accepted, and valued as an activity that keeps children out of the way. On the other extreme of the scale are societies that curtail play like the Yucatec Maya (Jensen & Gaskins 2015). In her ethnography of the Baining people, Fajans (1997: 92) states that child play is little valued and frequently suppressed by adult Bainings, who devalue it as animalistic behaviour, opposed to work, which is valued as an activity that transforms natural things into cultural ones. These claims are based on data from life cycle interviews where people report that their parents once got angry as they were playing. Additionally, Fajans refers to her own observation:

> There is very little child culture among the Baining. The Baining do not consider that children learn from play. Parents do not make toys for their children. They do not give them miniatures of adult objects such as spears, baskets, tools etc. They rarely play with their children in a verbal or active way. (Fajans 1997: 92)

She argues that 'the Baining attempt to prevent children from playing, on the grounds that to play is to behave as an animal (i.e., in an asocial or 'natural' way)' (Fajans 1997: 7). With reference to these claims, Lancy

(2015) cites the Baining as the only society where children do not play. If that were true, it would have significant consequences for contexts in which language acquisition takes place.

However, while there is much variation between different societies regarding the attitudes to child play and the forms it takes (Jensen & Gaskins 2015), even in societies where play is curtailed, 'children do spend time playing, their play takes varied forms, and it is clearly an enjoyable activity' (Gaskins et al. 2007: 197).

Among the Baining, Fajans observed only few activities she identified as 'play'. While she does not offer any definition of 'play', she compares the children's activities to those of animals:

> One explanation [for the adults' negative attitude towards child play] might be related to the fact that the games played by children are not very structured or organized. They do not involve social values like work or reciprocity. Most of the games are forms of running, chasing, splashing, and throwing things. Such activities are both noisy and disorderly. They seem more animalistic than human. I hypothesize that it is this aspect that parents object to. (Fajans 1997: 92)

Given the attitude to children's play evident from the quote above, it seems hardly surprising that Baining children had little motivation to play in the researcher's presence (see also Section 1.3.3).

Gray (2019: 85f), following Vygotsky (1978), identifies as main criteria for playful activity (in young children) enjoyment, flexibility, and pretense/nonliterality out of the five criteria presented originally by Krasnor and Pepler (1980). For the description of children's play activities in Raunsepna, I will adapt this definition. While I cannot be sure that this definition is shared by the interview participants, as I did not discuss their concept of play with them, the examples they provided mostly fit the above criteria.

In the interviews, adults stressed several important functions of child play: all participants (20: 20/20) confirmed that children do need play as recreational activity. Moreover, most participants (22: 17/20) regarded play as an educational medium as example (10) illustrates.

(10) *Pilai bai lainim ol planti samting.*
'Play will teach them many things.' (ACM, Int_ACM_AML)

While 15 interviewees agreed that without play (as an educational or recreational activity) children would not be able to learn to work, in three interviews, people agreed that play was not necessary to learn to work. Even more interviewees were skeptical about the statement 'All parents everywhere have to play with their children'. Only 11 agreed, five explicitly disagreed and commented that they do not know about other countries. In addition to the recreational and instructive functions, another aspect of children's play frequently referred to in the interviews is the bonding effect (see (11)). There was no question referring to this in the questionnaire, so only two speakers' self-initiated reports are presented here.

(11) *Olsem mipela long hia, mipela i sa hamamas long ol pikinini na pilai long ol, mipela i lainim ol tu olsem long ol liklik ol pilai ol dispela kain.*
'It's like this, we over here, we are happy about our children and play with them, we teach them also those small games and the like.' (AMM, Int_AMM_AVD)

DCK in example (12) also comments that children are explicitly taught little games, some of which have already been taught by previous generations before to present-day adults.

(12) *Olsem mipela i bin gro ap na ol lapun mama bilong mipela ol i tok 'bipo, taim bilong mipela, mipela sa pilai olsem.'*
'Just like when we were growing up and our old mothers said to us: "In our times, we played like this".' (DCK, Int_ASQ_DCK)

Having addressed the attitudes towards the value and functions of play, I will now turn to the forms of play and who participates in play with reference to pictures from Raunsepna and sometimes Kamanakam, wherever possible. I will especially address the issue of adults' participation in these games. The types and definitions follow those proposed by Smith (2008).

2.2.3.2 Types of play in Raunsepna

I witnessed various occasions where adults played **social contingency play** with infants and toddlers, trying to make them smile about the adults' actions or reactions. Especially women frequently try to distract crying babies with such activities. Alternatively, they may pass them all kinds of everyday items to enable them to indulge in **sensorimotor play**, experiencing the sensory properties of objects.

I often observed **pretend play**: children imitate adult activities such as garden work, cooking, selling market produce, or imitating the traditional dances. These are the forms of play that are referred to by adults when they describe how play may teach them to fulfill their duties. However, Qaqet adults may even say that a child plays when she actually does help harvesting peanuts but is not focused and therefore not efficient. In the longitudinal corpus, we have several recordings of children engaging in **language games** such as the word repetition game described by Fajans (1997: 92). From these games, children may not only learn words for things, but even how to use possessive constructions or noun class suffixes (Hellwig & Jung 2020). As already noted by Fajans (1997: 92), children, usually in groups, frequently engage in **physical activity play**, running or climbing around or swimming in the stream (see Figure 2.7). Gosso et al. (2019) emphasises the value of these activities 'for the quality and viability of their childhood when they face the challenges and risks of their physical environment in their free and unsupervised daily play activities'. Some of these activities may involve objects found in the environment (see Figure 2.8a and 2.8b). Usually, the children play with them among themselves, but occasionally, adults may offer assistance (see Figure 2.8b).

Figure 2.7: Children playing in the stream.
Source: Photograph by Carmen Dawuda, with permission.

Both in groups and solitarily, children engage in **object play**. While there are few industrialised toy items, there are various toys made from bush material. The most frequent one is the *karki* 'car' (see Figure 2.9a), consisting of a long stick with a wheel of bamboo or wood attached to its end. It is frequently made by fathers for their children, but also by older siblings.

Other bush material toys are propeller-toys (see Figure 2.9b), stilts (see Figure 2.10a), or a ball made of the pith of a tree (see Figure 2.10b and Figure 2.10c). Additionally, parents may provide all kinds of everyday-items like rubber bands (Figure 2.11b) or grasshoppers (Figure 2.9c). Apart from the forms of play described above, there are also rule-governed games in Raunsepna.

With infants, adults may play rhythmic finger games (*aqerliska*, *aqalevupka*). The players grasp each other's hands (see Figure 2.11a), then they sing a short song. Each time it is finished, the player whose hand is at the bottom has to remove it and put it on the top again. String figure games (see Figure 2.11c) are played alone or with several players by manipulating strings in order to form multiple figures.

Older children, especially girls, frequently play a stone game: seven stones are distributed on the ground. The player throws one stone in the air and has to pick up one stone from the ground before catching the stone she threw into the air. This is repeated, though the player has to pick up first two, then three stones, and so on. Once she has picked up all stones from the ground, she throws them all up again, trying to catch as many of them as possible with the back of her hand. Many of these games and toys have also been observed by Senft and Senft (2018) among Trobriand children, such as string figure games, swings, palm leaf sleighs, stilts and even a similar 'pretend car' (see Figure 2.9a). Hoenigman (2020) describes string figure games among the Awiakay in Eastern Sepik Province (PNG).

Figure 2.8a: Two children playing with a part of a broken mower.
Source: Photograph by Carmen Dawuda, with permission.

Figure 2.8b: AMS helping her children to swing on liana.
Source: Photograph by the author.

Figure 2.9 Children engaging playfully with their environment.

Source: Photographs by the author.

Note:

(a) A toy karki, often built by parents or older siblings for small children.

(b) J with a self-made propeller-toy his mother taught him to build.

(c) XAT playing with a grasshopper whose legs have been torn out by his mother so it cannot run away.

Figure 2.10: Various items used as toys by Qaqet children.

Source: photographs by the author.

Note:

(a) Children walking on stilts their parents made for them.

(b) ZCL and ZTT carving a ball from the pith of a tree under supervision of their mother.

(c) The ball.

Figure 2.11: Parents in Raunsepna as they play with their children.
Source: Photographs by the author.
Note:
(a) ARN teaching her children a fingergame called aqerliska.
(b) DCK sorting ZEA's rubber bands for her to play with.
(c) ARN teaching her children a string game.

In this section I have presented evidence that Qaqet children engage in various forms of play, including rule-governed play. Furthermore, I have shown that adults do not suppress play, but may even value it for its instructive, recreational or bonding effects and offer support or guidance. The next section will deal with restrictions on play.

2.2.3.3 Play and respect

While child play in Raunsepna today is ubiquitous, its reception still depends on the context of the situation. It also happens that groups of children are told to be quiet or leave the place where they are currently playing so as to not disturb adults.

All of the interviewees (25: 19/19) agreed with the statement that children can be sent away and that it is a matter of respect not to disturb adults. This is exemplified in (13):

(13) a. ABK: *Olsem sapos mitupela i gat wanpela poroman i kam mipela i laik toktok long sampela samting em i …*
'So, if the two of us have a friend who visits and we want to talk about something that is …'

b. ARB: *Tupela i wok long sindaun insait na tupela i wok long pilai, bai mitupela i rausim tupela insait long haus, bai tupela i go pilai arasait.*
'The two sit inside and play, so we will tell them to leave the house and play outside.'

c. ADK: *Em – em – wanpela part bilong rispek, aah? Sapos tupela i laik stap, bai tupela i mas sidaun isi, aah?*
'That is– that is– a matter of respect, yeah? If they want to stay, they have to sit down quietly, yeah?' (Int_ARB_ADK)

In (13) ARB and ADK express their expectation that children have to respect adults' affairs. Below, I address respect as a value every interviewee confirmed as an important driving principle of Baining child education. The study by Dickhardt (2009) about morality among the Qaqet Baining is based on fieldwork conducted mostly in the village of Raunsepna. He describes several key dimensions of morality, comprising work, generosity and sharing, respect, allegiance, and shame as highly valued in the community. While all of these values have been referred to in the interviews, respect and shame figured especially prominently: respect towards other people and the resulting shame if one has behaved in a disrespectful manner are guiding principles of social interaction (Dickhardt 2009: 155). This has been especially emphasised by all interviewees with respect to what a child has to acquire in order to become a successful member of the Qaqet Baining society.

Respect entails caring for others, especially guests, not humiliating others, valuing their property and avoiding direct conflict (Dickhardt 2009). During the primary interviews, people frequently mentioned shame as a distinguishing trait of the Baining people. The same is reported by Dickhardt (2009: 160) to whom Raunsepna was introduced as *peles bilong sem* 'place of '. Children are taught with care to share, be generous and behave properly. Shame can also be caused by misbehaviour of adults' own children (see 14).

(14) *Em bai bringim sem i go long papa na mama bikos tupela i no wok long lainim pikinini.*
'That will bring shame to the father and the mother because they are not teaching the child.' (ABD, Int_ABD_ACP)

Reasons to be ashamed of the behaviour of one's children include disrespectful behaviour towards elders, laziness or stealing food. Stealing is highly stigmatised, whereas sharing, conversely, is highly valued (Dickhardt 2009: 153).

The generous provision, especially of food, for others is also a central principle of social life in Raunsepna (Dickhardt 2009: 153–55). Small children have to learn early to break their food and share it with their fellows, as all interviewees (29: 18/18) confirm. The youngest child, many interviewees (30: 14/18) agreed, takes on a special position. Babies usually get what they want and older siblings are expected to give up food in favour of the youngest. Altogether, as the current section has shown, generous and respectful behaviour towards other people, mixed with a belief in children's autonomous will to learn, frame child education in Raunsepna.

Similar observations hold also for child language acquisition.

2.2.4 Language attitudes and attitudes to child language acquisition

Marley (2013) investigated language choice between Tok Pisin and Qaqet, conducting her fieldwork entirely in the village of Raunsepna. She reports that language use is determined mainly by a person's perceived insider or outsider status: the former prompting Qaqet use, the latter Tok Pisin use. Children, according to Marley's data, are perceived as pure Qaqet speakers and mostly prompt the use of Qaqet (Marley 2013: 122–32). The Qaqet see themselves as responsible for the language acquisition of their children and say that they explicitly correct non-target-like forms (Marley 2013: 132).

For the Uramot Baining (or Ura),[6] Stanton (2007) reports slightly different insights from interviews about language attitudes: mothers especially take responsibility for the language of children, contrary to the perception among the Qaqet in Raunsepna that this is the task of both parents. Parents feel ashamed when their children produce non-target-like forms but still do not dare to correct these. Non-target-like Ura is conceived of as 'baby talk' and highly stigmatised. Ura fathers, unlike

6 Uramot is another language of the six members from the Baining family. The Ura live south of the Qaqet.

Qaqet fathers in Raunsepna, talk only Tok Pisin to their children instead of Ura. Nevertheless, the opinion prevails that children 'must learn their language well' (Stanton 2007) and mixed marriage is perceived as the main reason for language shift.

In the interview sessions, all people from Raunsepna (45/46: 20/20) agreed that children learn language because people talk to them (see (15)).

(15) *I qerl nani nyitaqen branini de nani ini ngatat*
'It's like this, you talk to the little ones and they learn it.' (ARL, INT_ARL_AMS)

One mother (see (16)) explicitly emphasised that talking even to newborn babies is important, despite all doubts that they are able to understand:

(16) *Baby, yu karim em stret na yu mas toktok long em. Yu noken ting olsem im i no inap harim.*
'When your baby is born then you have to start to talk to her/him. You must not think she/he does not understand.' (BLN, INT_APA_BLN)

An example everyone provided when I asked about how to teach a child language is what I will call a 'fetching routine'. Interactional routines (Bruner 1985; de León Pasquel 2011) are sequentially organised, repeated communicative acts that offer a niche for the child to participate in a given communicative exchange (de León Pasquel 2011: 96). They express 'values embedded in the culture and social structure' (Peters & Boggs 1986: 94). Through repetition of the interaction, the children can gradually draw the connections between the phrases and the actions or things they denote. Finally, the children themselves can become agents in the situation.

In example (17) a mother asks her son (12 months) to fetch the water bottle for her, which is lying next to him.

(17) *G.! Nyit tama kainaqi ip ngusup!*
'G.! Go and fetch the water for me to drink!' (AMS, INT_ARL_AMS)

Even small babies are sometimes given items like a betel nut and are told to give it to someone else, who then thanks the baby. In the opinion of the interviewees, the fetching routine is how children are taught words. Small children are regularly sent to fetch different kinds of objects, at first inside and around the house where people can point to the desired object. The pointing was described by everyone (56: 21/21) as necessary to help

the child identify the intended referent. I witnessed that elder children are regularly sent around for errands, especially to fetch all kinds of items. Messenger services are a typical task for children. With the fetching routine, young children are socialised early into their roles within their society, while simultaneously acquiring the words for things (and possibly names of places and people).

A similar routine figured in the comparative data for CDS and ADS. I will refer to this as the 'where routine' (see (18) with XAT, 34 months, and his father).

(18) a. XAT: *hoskiqua?*
'Where is the horse?'
b. ARL: *lira nyitluqi iqiatit*
'You have seen it walking just before.'
c. XAT: *hoskiqua?*
'Where is the horse?'
d. XAT: *kiatit kua?*
'Where does it go?'
e. ARL: *lamuk manem*
'There on the picture.'
f. XAT: *manemgua?*
'Where is the picture?'
g. ARL: *lamuk!*
'There!' (PearARLP 17-24)

XAT uses the where routine in a recursive style. He does not only ask for the location of the horse, like in (18a), but every time ARL answers his question he repeats the question for the new object of reference proposed by his father. Hellwig (2020) reports that in experimental settings with children and adults in Raunsepna the 'where' questions seemed most natural for them. During visits to the family's house, I witnessed the routine frequently initiated by XAT's mother, AMS, who enjoyed pursuing it into a near-infinite regress like the one also demonstrated by XAT. Hence not only children, but also adults towards children, make use of the routine as several other examples in the comparative corpus confirm. From my own experience in the everyday life of Raunsepna, I am aware of the salience of the topic of locations in everyday culture. The typical questions as one meets someone else around the village are 'Where are you going?', 'Where are you coming from?' and 'Where is… (a person, a thing)?'. The importance of location and direction has also been noted in other communities that

maintain a close connection to their land. For example, among Kwara'ae people on Malaita in the Solomon Islands, the 'where' question is used to distract crying children and calm them down (Watson-Gegeo & Gegeo 1986). I witnessed this also in Raunsepna; even if there was nothing to be detected, the children would still be distracted by trying to spot something. A similar situation is described by Bavin (2004) for Warlpiri speakers in Australia. She found that even four- to five-year-old children use locatives frequently, which is explained by the close connection to the land and the resulting salience of locations in daily interactions.

With the where routine, children have the chance to learn labels for things around them, as well as words describing locations. Moreover, while learning the linguistic means for talking about locations, they are socialised into a cultural context that attaches high importance to orientation. All instances I witnessed took place between children and their parents, reflecting the attitude expressed by the participants in the interviews. All interviewees (42: 20/20) confirmed that parents are responsible for their children's proper language acquisition, confirming Marley's results from 2011. All interviewees (62: 20/20) agreed that children's non-target-like forms have to be corrected and most (62: 19/20) agreed that you should do so even for other people's children. Children using incorrect language can bring shame upon their parents, who are blamed for not having taught them properly.

While most interviewees confirmed that everyone would talk to babies (49: 19/20), two interviewees said that it was usually mothers who talk to babies. One female interviewee even expressed the belief that fathers must not carry small babies, as their hands are too big, so they had few opportunities to talk to them. In fact, as long as children are breastfed, they are primarily carried by their mothers (Fajans 1997). In example (19), a speaker expresses the view that it is mostly the joy about the baby that makes particularly mothers talk to their babies, a view that all interviewees shared (47: 18/18).

(19) *Ol mama i gutpela long dispela. Taim pikinini ol i wok long kakarim na maski em i no save, tasol mama bai yu lukim em i wok long kakarim em i hamamas long em na em i wok long toktok long em.*
'The mothers are good at this. When the child, they are carrying him/her around and although he/she does not know, but the mother you see her carrying him/her around, she is so happy about him/her and is talking to him/her.' (DCM, INT_AMI_DCM)

All of the interviewees (58: 20/20) agreed that mothers sometimes modify their speech when they are addressing their small children. Only in 13 interviews people did agree that fathers also do so. A frequently cited example was the pronunciation of *nyisup!* 'you drink', which is rendered as *tup!* 'drink' in baby talk. With regard to the reasons for these adaptations, the interviewees commented that this change was due to an imitation of the child's own language (see (20)).

(20) *Tasol ol i sa bihainim pikinini. Taim pikinini em i lainim toktok em bai wok long tromoi ol dispela ol toktok 'tup'.*
'They are just imitating the child. When the child learns to talk he will use these kinds of words like *tup*.' (AGK, INT_AGK)

While some interviewees commented that this kind of speech adaptation might be helpful for the child (see (21)), most interviewees were more suspicious about this kind of change in speech (see (22)).[7]

(21) *Ol i bihainim stael blong pikinini bilong lainim ol.*
'They follow the style of the child in order to teach them.' (AMT, INT_AMT)

(22) *Ol mama gen ol i save – paulim dispela toktok gen – Olsem taim yu lainim pikinini bilong yu long tokples long save long toktok yu lainim em gut. Olsem yu noken sotim ken olsem tup, tup – nyisup, nyisup!*
'The mothers again they – they make this talk wrong again – Like this, when you teach your child to talk the vernacular you should teach him/her well. Like this, you should not shorten again like *tup, tup – nyisup, nyisup*!' (AGK, INT_AGK)

The doubts are primarily expressed towards those features that seem to be imitating the children's limited capacity, which expresses the worry that children might not learn the language properly. However, a short utterance length (an example explicitly mentioned by several interviewees) and a slow speech rate (61: 20/20) were acknowledged by all interviewees as helpful for comprehension.

Adults are thus considered primarily responsible for proper language acquisition in their children, and they consider them communicative partners. Still, I observed that it is often the older child who is the primary addressee of utterances. As young children spend a large portion of the day

7 I did not include this question in the interview guidelines, therefore no numbers are provided.

in the company of older siblings, they acquire a central role as interlocutors. Once children are old enough to join their siblings in play, it is mainly the siblings, all the interviewees (53: 18/18) agreed, who teach each other the language. This opinion confirms research reporting a high amount of sibling childcare in non-WEIRD societies (see Section 2.1). Through contact with other children, many children may also acquire their first knowledge of Tok Pisin (Marley 2013). It is seen as positive by everyone (44: 17/17) when children learn Tok Pisin. The language is appreciated as a means to communicate with outsiders, confirming the results of Marley (2013). In example (23), one speaker expresses the view that it causes shame when an outsider approaches her and she cannot understand him or her.

(23) *Nogut wanpela i kam na toktok long yu na yu sidaun olsem.*
'Otherwise it might happen that someone comes and talks to you and you just sit there like that.' (BRS, INT_BRS_DRN)

Still, all the interviewees (41: 18/18) agreed that children have to acquire Qaqet first. The importance of the Qaqet language is mainly associated with its deep connection to the culture (see (24)).

(24) *Tokples bilong yu yet i sa strongim kastem, pasin sa stap insait long em.*
'Your vernacular strengthens your culture, the good behaviour lies within it.' (AAS, INT_AAS)

People perceive the connection between language and culture to be very strong, which was also described for the Mali Baining by Stebbins (2004) and by Stanton (2007) for the Ura Baining. This may also provoke a certain indignation when people are asked about those parts of Baining land where language shift has already gone further into the direction of Tok Pisin (see (25)).

(25) *Mipela i laik strongim dispela dignity na identity bilong mipela, ol Baining. Bikos kastem em bikpela samting. Sapos mipela i strongim, em bai stap tasol. Bikos mipela i lukim nau long nambis, kastem em i lus pinis. Nau i ol i save singautim mipela long hia long taim bilong Firedance.*
'We want to strengthen our, the Bainings', identity and dignity. Because our traditions are important. If we strengthen them, they will stay. Because we see it now at the coast, the traditions are already lost. Now they call us for the times of Firedance.'[8] (ACM, INT_ACM_AML)

8 The Baining firedance is famous in all of Papua New Guinea. Dancers incorporating spirits with spectacular masks dance at night and step into the fire. In order to know the appropriate lyrics for the songs, good Qaqet knowledge is indispensable.

The reason for the language shift is mainly seen to be mixed marriages, confirming earlier research about Baining people (see Section 2.1). Participants perceive a strong connection between the arrival of outsiders from different regions of Papua New Guinea, intermarriage and the loss of their vernacular. In those regions, children would not be taught properly (see (26)).

(26) *kuasiqiretaqasu aruisa!*
'They do not teach their children properly!' (AMS, INT_ARL_AMS)

Still, for Raunsepna, the interviewees perceived the strength of the vernacular to be more stable than at the coast, in line with the results from Marley: there are few outsiders who trigger the use of Tok Pisin, and Qaqet is spoken in most domains of life, resulting in a healthy language situation (Marley 2013: 150). All of the interviewees (39: 20/20) expressed a strong interest in keeping their vernacular alive. Code-mixing is regarded with suspicion (see (27)).

(27) *Noken abusim toktok, noken mixim toktok!*
'You must not mix it, you must not mix the language!' (AGK, INT_AGK)

While this opinion is expressed frequently and firmly, I still witnessed numerous instances of code-mixing. The strong attitudes against this language practice must not be seen as reflecting everyday language choices but rather as an expression of worry about the growing dominance of Tok Pisin in various domains of everyday life, even though Qaqet is still strong in Raunsepna. Child language is often the main trajectory of language shift, as Kulick (1992) demonstrates in his description of the language shift of Taiap towards Tok Pisin. A language may have large numbers of speakers, but as soon as children do not learn it anymore, it is severely endangered. In this section, I have presented data on the attitudes prevailing in Raunsepna concerning various areas of life that are relevant for the language socialisation of young children. In a next step, the data on attitudes presented in the current section will be supplemented by a preliminary study on the amount of input three young children from Raunsepna receive.

2.3 The amount of input

Societies differ with regard to the amount and source of children's language input, as explained in the literature review in Section 1.2. Various researchers have reported that in non-WEIRD settings, young children receive less input overall and spend more time under the supervision of older siblings. Given that the adults in Raunsepna are busy with garden work during the day, similar patterns to this are to be expected.

In this section, the results of a pilot study are presented, which is intended: a) to provide a rough estimate of what children do and hear during a day in their life; and b) to test the methodology to allow for a large-scale study in the future.

This chapter reports on the quantitative and qualitative patterns found in audio-recordings of three children from Raunsepna. However, the reader should keep in mind that these patterns are probably not representative for Raunsepna as a whole due to methodological obstacles described in Section 2.3.1. Instead, this study is meant to provide a first impression of the amount of children's linguistic input in locally typical contexts and participant constellations.

2.3.1 Methods and data

I identified four families who had children within the desired age range (around 24–48 months). Another important consideration was that they were familiar enough with me and the linguistic work so as to be willing to try out a new method of data collection. The mean age of the children is 33 months. Two of the children, YDS (37 months) and ZDL (29 months), are focal children in the longitudinal study (see Section 1.4). The other children were XAT (35 months) and ZEA (32 months).

To record their daily interactions, the children carried a little woven bag. An audio-recorder (Zoom H2) was placed inside and the bag was closed with cable ties to prevent the children from playing with the audio-recorder. From the second recording session onward, the parents prepared the setup on their own. They were advised to monitor the children (or have siblings do so), to ensure they were carrying the bag, but otherwise to continue their usual, everyday work.

The children needed a certain amount of time to get used to the bag. Two of them (ZDL and YDS) did not adapt easily, and during the first sessions the bag was handed over quite quickly to their older siblings. Those data were excluded from the analysis. For YDS, who fell asleep during one other recording, there were no data left for which we could be sure that she was awake, hence her data are not part of the following analysis. First impressions from the few recordings of her data nevertheless confirm the high amount of individual variation. Due to the exclusion of YDS's data, the mean age of the children dropped to 32 months.

For the first recordings, I did not communicate clearly enough that the audio-recorder would not only record the children's talk but also everyone else talking around the child. For the focal families experienced with recordings that was obvious, but one family was surprised to hear their own voices on the recordings afterwards. As a result, I offered to exclude the data of these participants from the study and delete it. Thus, three sessions (i.e. three days of recording) for the participant ZEA were excluded. Altogether, 38 hours of recording had to be excluded from the analysis. The total amount of data used for the following counts is displayed in Table 2.3.

With the help of student assistants, the data were segmented in ELAN (equated with utterances, see Section 3.2.4 for details) and assigned to a speaker. Back in the field in 2017, I verified with the relevant families that the speakers were assigned correctly. Additionally, the speakers described the activities that the children pursued during the recording days. The data are not differentiated into overheard speech (henceforth OHS) and child-directed speech.

Table 2.3: Recorded hours per child.

Child	Hours
ZDL	1
ZEA	3
XAT	10
Total	**14**

2.3.2 Results and discussion

Table 2.4 shows the mean number of utterances the children heard per hour, combining directed and overheard speech. Utterances are equated with intonation units (see Section 4.2 for a discussion). The results are compared with those found for Yucatec Mayan children and children from Chicago in a study by Shneidman and Goldin-Meadow (2012) who analysed one hour of video-recording for each child. The Qaqet children and the Yucatec children hear much less speech than the children from Chicago. Shneidman and Goldin-Meadow (2012) remark, however, that their results probably underestimate the Mayan children's input as participants had difficulties in adapting to the recording situation, and produced fewer utterances than when not recorded.

Table 2.4: Utterances per hour, containing overheard speech (OHS) and CDS; Qaqet in comparison with results from Shneidman and Goldin-Meadow (2012).

Community, Age (months)	Utt./hr
Qaqet, 32	527
Yuc. Maya, 24	490
Yuc. Maya, 33	351
Chicago, 23	1,127
Chicago, 30	1,601

Table 2.5: Input (in utterances per hour) for the different child participants.

Speaker	ZDL	ZEA	XAT
Mother	184	139	104
Father	276	1	143
Siblings	306	90	30
Other children	38	5	1
Other adults	207	30	28
Total Utt./hr	1,011	265	306

Still, a closer look at the data from the current study reveals that the number of utterances heard by individual children differs vastly. Table 2.5 displays the rate at which the children heard utterances from different speaker groups. While ZDL heard 1,011 utterances per hour, resembling

the children from Chicago, XAT (35 months) with 306 utterances per hour, and ZEA (32 months) with 265 utterances per hour, had values even below those of the Mayan children.

However, preliminary data from the sub-corpus of the longitudinal data comprising 22:40:29 hours of recordings containing the two children YDS (aged 23–29 months) and YRA (aged 38–44 months) indicate that the rates in the current study are not representative, either. In Table 2.6 it can be seen that ZDL heard fewer utterances per hour than in the current data, but both children received more input than ZEA and XAT in the current data.[9]

Concerning the speaker groups from which the children receive the most input, compared to the Mayan data from Shneidman and Goldin-Meadow (2012), the input of the Qaqet children in this study is exactly reversed. While the Mayan children received 31 per cent of their total input from adults and 69 per cent from children, the Qaqet children in the current data received 31 per cent from children and 69 per cent from adults.

Again, preliminary results from the longitudinal sub-corpus show a different pattern: the children mostly spend the day with their mother in the garden. By far the largest part of their input (68 per cent) is produced by other children.

Table 2.6: Preliminary data extraction from the longitudinal corpus (Hellwig et al. 2014–19).

	ZDL	YDS
Age range	2;01.05–2;02.11	2;01.03–2;02.03
Amount of recording	3:10:00 hours	3:30:41 hours
Utt./hr (input)	900.1	704.9
Utt./hr (child)	658.4	270.6

The results from the current study can be explained by independently investigating the data from each child, with reference to the activities pursued during the recording sessions. Figure 2.12 shows the percentage of speech each child in the current study heard from the different speaker groups.

9 A future examination of the longitudinal corpus offers the possibility to carefully match comparable situations, and would therefore produce more representative results. The data presented here nevertheless allow for some hypotheses.

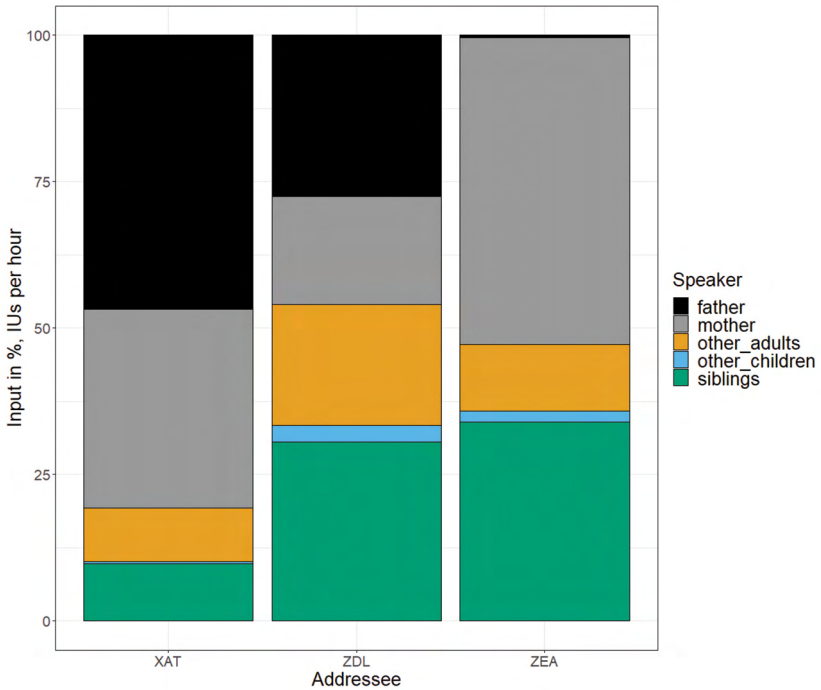

Figure 2.12: Input by speaker group and child, IUs per hour.

There are large differences among the children. In order to make sense of this variation, it is helpful to examine closely each child's individual situation. The youngest speaker, ZDL, is at home with his family. Both parents and all his siblings are present, as well as some visiting adults with their children. The adults are busy talking to each other. This results in a large amount of talk from unrelated adults (21 per cent) and both parents (18 per cent from the mother and 27 per cent from the father). The children play among themselves, 30 per cent of what ZDL hears comes from siblings, but only 4 per cent from the other children. ZDL himself produces 181 utterances per hour; accordingly, it is reasonable to expect that some of the others' talk is also directed towards him. For this family, as I witnessed during numerous visits at their house, the situation is very typical. There are often visitors around and large group communication contexts are the norm. The same is also confirmed by first impressions from the longitudinal data.

ZEA is mostly alone at home with her mother and her twin sister, so 53 per cent of all utterances she hears stem from her mother and 34 per cent from siblings. Some older siblings and a cousin living nearby play

close to the house, accounting for the 2 per cent of input from other children. The father is working in the garden close to the house, and does not talk at all. Most of the communication takes place between the mother and the two small girls. Just as another woman passes by, the mother talks to her, resulting in 11 per cent of input from other adults.

XAT is the only child for whom recordings from two different days could be used. During the first day, XAT is sitting with the parents, two siblings, an aunt and a cousin around the cooking fire, where the women are busy preparing the meal and feeding the children. Thirty-four per cent of the utterances XAT hears over the two days stem from the mother and 10 per cent from other adults. During the second recording session, the initial setting is much the same, but afterwards, XAT accompanies his father to the garden. From there on, for four hours, it is only the two of them who communicate with each other, resulting in 47 per cent input from the father. XAT is a talkative child, and involves his father in extensive conversation.

This study was designed to gain a preliminary impression of the input that children receive. The number of utterances the children hear per hour is largely comparable to what has been reported for Yucatec Mayan children (Shneidman & Goldin-Meadow 2012), while it is much less than what the children from Western, urban contexts received in the same study. The difference between the individual children who participated in the current study is large, not only in the amount of input but also with regard to the children's interlocutors. The individual results can be explained with reference to the context and the resulting participant structure. Moreover, parents' daily duties, the talkativeness of the children themselves, and of their interlocutors, shapes what a child hears and how much she or he interacts with others.

The study nevertheless offers first insights into the types of communicative situations of children in Raunsepna. Families staying at their village house prefer to receive many visitors, resulting in a large amount of (probably overheard) speech from adults and much input from different children. If one adult is alone with a child, the chance is high that the child will hear a lot of directed input from that adult. This may happen, for example, when a father is in the garden with his son, as was the case for XAT in the current study. Equally, though, the father might be too busy with his work or simply might not be a talkative person. It is not the case, therefore, that children do not receive input from adults. Rather, the amount of input

provided depends entirely on the context. The families of XAT and YDS often live in their gardens for extended periods of time, which usually results in little input from non-family members. In contrast, the families of ZDL and ZEA usually stay in their village house and therefore non-family members are frequently present.

The true salience of the different situation types and other factors in the life of each family and the amount of overheard and directed input the children receive can be assessed with a systematic comparison of the children's environments. This would require a larger data set than the current preliminary study offers. Careful sampling with attention to different situations and participation frameworks and differentiation between directed and overheard speech are necessary conditions to obtain representative results. Additionally, data from children spending time among themselves would have to be included, otherwise the percentage of input children receive from siblings might be severely underestimated.

2.4 Summary: Factors contributing to the language environment of children in Raunsepna

The current chapter is intended to contextualise the staged data in following chapters. In order to gain a full picture of the linguistic environments of young children in Raunsepna, the amount of input children receive and the attitudes and ideologies of people towards diverse aspects of child language socialisation have been described.

While the amount of speech the children hear can be compared to results from previous research on children's input in non-Western societies, the two data sets employed show conflicting tendencies regarding the speaker groups the children receive their input from. In the data collected for the present work, parents are the children's main conversation partners, while in the longitudinal data, it is the siblings who talk most to and around the children. This can again be thought of as an effect of the small sample size. Despite these criticisms, the study allows for valuable insights into the various factors that influence children's language environments. Personality, socialising habits and the timetables of their interlocutors shape children's linguistic worlds. While this first study underlines

the necessity of keeping individual variation in mind, the discussion of attitudes shows the influence of shared realities and agreements. The interviewees reported that they see children as eager to learn, which is why they have to be given the freedom to do so on their own, without explicit instruction. Yet, correction was seen as appropriate if children do something that does not conform to the norm. Their core curriculum, typical for non-WEIRD, subsistence-based societies (Keller 2012; Lancy 2008), consists mainly of duties that may be learned through guided participation. That way, children are given partial responsibility for their community's wellbeing from early on, while they are gradually socialised into their roles. There is not much organised play under the supervision of adults, but contrary to claims in previous research, there is no evidence for suppression of play. On the contrary, most interviewees emphasised the educational, emotional, and recreational benefits of playing. Describing various forms of child play, I have presented evidence of the richness of child culture and even of the active participation of adults in this world.

Regarding attitudes towards language, all interviewees emphasised the deep importance of the Qaqet language. Some commented that they consider language and culture to be deeply connected to such an extent that the loss of the language would also cause their culture to disappear. This is what interviewees perceived as happening in more accessible coastal villages where children do not acquire Qaqet anymore. The interviewees blamed the parents of these children, as they hold the primary responsibility for their offspring's language acquisition. It is considered as a prerequisite for children's language acquisition that parents talk to their children, who then imitate them. This is different from what Kulick (1992) describes for Gapun, where people do not consider themselves as having an influence on their children's language acquisition. In Raunsepna, even small babies are addressed as conversational partners, contrary to reports by Ochs (1988) for Samoans or Schieffelin (1990) for the Kaluli. Adults consider it important to correct children's linguistic errors and may feel shame about children's non-target-like utterances. This is similar to the situation described by Stanton (2007) for the Ura. Presumably, the difference is just that among the Ura interviewees, language shift was already further advanced than among the Qaqet. Ura caregivers do not trust their own language competence and therefore do not correct their children. While Qaqet adult caregivers, especially parents, are seen as holding the main responsibility for their children's language development, siblings also

play a salient role as frequent caregivers, like in many other small, rural language communities (Lieven 1994). Adults explicitly emphasise the importance of child interlocutors for children's language development.

There are conflicting opinions among adults in Raunsepna with regard to the way in which people talk to children or should talk to them. People agree that mothers usually do adapt their speech to children, but not everyone thought that fathers do so. They provided examples of phonetic changes and a few words of a babytalk lexicon. Many were critical about the effects of what they perceive as 'incorrect language' on children's language acquisition. Among the Ura, babytalk is even used as a term for language perceived as 'wrong'.

These attitudes towards children and child language are comparable to what Casillas et al. (2020a) report for Rossel Islanders and suggest a similar interpretation. While the socio-economic situation and children's chore curriculum are typical for non-Western, subsistence-based societies, the community members emphasise that it is important to talk with children. Parents' ideologies towards child language socialisation thus does not seem to be an important factor for the small amount of children's linguistic input in Raunsepna. Rather, participant constellation and activity type shape children's language environment.

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