

Arrernte at heart: Children's use of their traditional language and English in a Central Australian Aboriginal community

Susan Poetsch

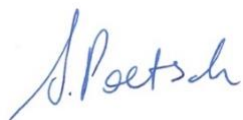
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This thesis was made possible through
the generous collaboration of Arrernte people.
The author claims no intellectual property or copyright over their language.

Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university. To the best of the author's knowledge, it contains no material previously published or written by another person, except where due reference is made in the text.

A handwritten signature in blue ink, reading "S. Poetsch". The signature is written in a cursive style with a large, stylized 'S' and a trailing flourish.

Susan Poetsch

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Abstract

This thesis is a rich description of a group of primary school aged children's language at Ltyentye Apurte, an Eastern Arrernte community in Central Australia. It documents morphosyntactic properties of their speech and broader aspects of their communicative competence. Notwithstanding variation in the cohort, this thesis finds that the children are essentially maintaining Arrernte rather than shifting to a contact code.

Theoretically and methodologically the thesis draws on aspects of language documentation and language socialisation traditions, combining discourse and ethnographic data. The discourse data comprises recordings in three contexts: textless picture book narratives, spontaneous first-person recounts told in the sand and classroom interactions. The ethnographic data comprises my participant-observations and conversations with parents/carers and educators which both contextualise and enhance interpretation of the discourse data.

Analysis of the narratives elicited through textless picture books is based on audio recordings of 17 children aged 5;9–10;10 and three adults each telling four stories, a total of 80 recordings. It investigates use of two morphosyntactic constructions that are distinctive features of Arrernte and integral to referent tracking and/or event packaging: the definitising function of 3sg pronouns and the switch reference system. Variation in the children's use of these constructions, when seen in the context of each child's language profile, is found to be better explained by social factors than by age.

Analysis of a culturally valued communicative event type, scary stories told in the sand, is based on the video recordings of five children aged 7;4–9;6, investigating their integration of speech, drawing and use of a stylus. It introduces a new approach describing how children lay out their stories with entities (people, scary beings, landmarks), path lines (protagonists' journeys) and swipes (transitions between scenes). Their drawings include 'Western' style icons and graphic elements found in adult performance of sand talk genres in Central Australian communities. The subject of the children's personal experience stories provides evidence of their growing understanding of the physical and social geography of the community, including locations and behaviours of widely known monsters and similar beings.

Analysis of classroom talk is based on a video recording of a mainstream curriculum Maths lesson in a Year 1-2 class of 20 students. It focuses on two of the students (aged 7;4 and 8;3) as they complete a pair task and talk with their teacher. They are found to work co-operatively and draw on both Arrernte and their early English language proficiencies to understand the requirements of the task and learn the lesson concepts. Their interactions and linguistic behaviours evidence early socialisation into the school environment.

This thesis contributes to research on children's language and ways of communicating in a contact situation, informed by empirical and qualitative data. It adds to the growing number of case studies of Aboriginal children's language in Australia and to the typological diversity in child language research globally. The study suggests factors that mitigate against language loss under pressure from English. It foregrounds the community's ideologies, advocacy and efforts to provide the linguistic, sociocultural and educational conditions that nurture children's Arrernte, alongside English.

Lists of Abbreviations, Acronyms and Conventions

Abbreviations

General

AAAC	Atyenhenge-atherre Aboriginal Corporation
ABS	Australian Bureau of Statistics
ACLA	Aboriginal Child Language Acquisition project
AFL	Australian Football League
ARC	Australia Research Council
AIATSIS	Australian Institute for Aboriginal and Torres Strait Islander Studies
BIITE	Batchelor Institute of Indigenous Tertiary Education
CAAMA	Central Australian Aboriginal Media Association
CALL	Centre for Australian Languages and Linguistics
CDC/CDS	Child Directed Communication/Speech
CDU	Charles Darwin University
CoEDL	Centre of Excellence for the Dynamics of Language
ELAN	EUDICO (European Distributed Corpora project) Linguistic Annotator
FASTIL	Federation of Aboriginal and Torres Strait Islander Languages
FLA	First Languages Australia
IAD	Institute for Aboriginal Development
ICIP	Indigenous Cultural and Intellectual Property
ICTV	Indigenous Community Television
JSS	Jesuit Social Services
L1	first language
L2	second/additional language
SAL	School of Australian Linguistics
SIL	Summer Institute of Linguistics

Education and Bilingual Education

ACARA	Australian Curriculum, Assessment and Reporting Authority
AITSL	Australian Institute for Teaching and School Leadership
APST	Australian Professional Standards for Teachers
AT	Assistant Teacher
EAL/D	English as an Additional Language/Dialect
EFL	English as a Foreign Language
ESL	English as a Second Language
GERM	Global Education Reform Movement
GOO	Growing Our Own (teacher education program)
ITE	Initial Teacher Education
LAAL	Living Archive of Aboriginal Languages
LBOTE	Language Background Other than English
LPC	Literature Production Centre
NAPLAN	National Assessment Program – Literacy and Numeracy

Education and Bilingual Education

RATE	Remote Area Teacher Education program
SAE	Standard Australian English
TESOL	Teaching English to Speakers of Other Languages
VET	Vocational Education and Training
WWCC	Working With Children Clearance

Australian states/territories

ACT	Australia Capital Territory
NSW	New South Wales
NT	Northern Territory
Qld	Queensland
SA	South Australia
Tas	Tasmania
Vic	Victoria
WA	Western Australia

Linguistic and Transcribing Conventions

-	morpheme boundary
.	separates parts of a portmanteau morph
∅	zero realisation
*	ungrammatical
(X)	intervening material/elements
()	In English translations, elements that are understood but missing from Arrernte utterances are bracketed.
S	subject of an intransitive verb
A	agent; subject of a transitive verb
O	object of a transitive verb
5;9	age of speaker in years and months
C01-C23	Child participants' unique identification, Child 1 through to Child 23
A01-A05	Adult participants' unique identification, Adult 1 through to Adult 5

Nominals and Nominal Morphology

NP	noun phrase	
Quant	quantifier	
Adj	adjective	
Class	classifier	
ERG	ergative	<i>-le</i>
NOM	nominative	
ACC	accusative	
ABL	ablative	<i>-nge, -nge-ntyete</i>
DAT	dative	<i>-ke</i>
INSTR	instrumental	<i>-le</i>
LOC	locative	<i>-le</i>
PROP	propriative	<i>-akerte</i>
AFTER	afterative	<i>-iperre, -ipenhe</i>
ASSOC	associative	<i>-arenye</i>
COM	comitative	<i>-larlenge</i>
POSS	possessive	<i>-kenhe</i>
ALL	allative	<i>-werne, -werne-atheke, -werne-athepe</i>
AVERS	aversive	<i>-ketye</i>
NMZR	nominaliser	<i>-ntyete, -tye</i>
NOM comp	nominal complement	
DEF	definite	
	outer surface contact; connected	
CONNECT	to	<i>-[ke]rleke, -ke-arleke</i>
grp	group	<i>-areye</i>
sg	singular	
dl	dual	
pl	plural	
1	first person	
2	second person	
3	third person	
REMEM	remember	<i>nhenge</i>
PROX	proximal, here, this	<i>nhenhe</i>
MID	medial, that, there	<i>yanhe</i>
DIST	distant, over there	<i>nhakwe</i>

Verbal Morphology

PRES	non past progressive	<i>-me</i>
FUT	non-past completive	<i>-tyenhe</i>
PAST	past completive	<i>-ke</i>
PAST CONT	past progressive	<i>-tyeme, -tyame</i>
RECENT PAST	immediate past	<i>-rne</i>
REMOTE PAST	remote past habitual	<i>-tyerte</i>
GenEvt	generic event	<i>-rle</i>
IMP	imperative	<i>Ø</i>
NegIMP	negative imperative	<i>-tyale</i>
dlS/A	dual subject agreement	<i>-rre, -lerre, -rlenerre</i>
plS/A	plural subject agreement	<i>-rltiwe, -rre, -warre, -re, -rrirre, -rnirre, -lewarre</i>
SR	switch reference	
SS	same subject	<i>-le</i>
DS	different subject	<i>-rlenge, -rleke, -nge</i>
SS SR	same subject marking in the switch reference system	<i>-me-le</i>
DS SR	different subject marking in the switch reference system	
PERC COMP	perception complement	<i>-rlenge</i>
NARR PRES	narrative present	<i>-me.le</i>
PURP	purposive	<i>-tyeke</i>
CONT	continuous	<i>-rlane/-rle.ne, -rle.pe; -rlte.ne, -rltepne</i>
CAUS	causative	<i>-ile or lhile</i>
INCH	inchoative	<i>-rre, -irre</i>
REFL	reflexive	<i>-lhe</i>
RECIP	reciprocal	<i>-rre, -irre</i>
tr	transitive verb marker	<i>-eme, -me</i>
PERM	permission	<i>-ye, -eye</i>
	hither, move towards place	
HITH	where speaker is	<i>-tye</i>
NEG	negative	<i>-tye.akenhe</i>
HYPO	hypothetical	<i>-mere</i>
SBSQT	subsequent	<i>-tyenhenge</i>
EMPH	emphatic	<i>-aye</i>
EMPH+	strong emphatic	<i>-ewe</i>
EMPH++	very strong emphatic	<i>-eyewe</i>

Associated Motion

DO ALONG	do continuously while in motion	<i>-rle.pe</i>
DO COMING	do verb action while coming	<i>-intye</i>
DO COMING BACK	do verb action while coming back	<i>-inty.alpe</i>
DO COMING THROUGH	do verb action while coming through a place	<i>-intye.lhe</i>
DO REVERS	do verb action while going back; do verb action back to; do on the way back	<i>-irtne</i>
DO PAST	do verb action while moving past or through a place	<i>-nhe</i>
DO DOWNWARDS	do verb action while moving downwards	<i>-tye-kerle</i>
DO UPWARDS	do verb action while moving upwards	<i>-ty.antye</i>
GO & DO	go to a place and do verb action	<i>-tye-lhe</i>
GO BACK & DO	go back to a place and do verb action	<i>-ty.alpe</i>
DO & GO	do verb action at a place and then go	<i>-rle.lhe</i>
DO & GO BACK	do verb action at a place and then go back	<i>-rl.alpe</i>
Quickly DO & GO	quickly do verb action and then quickly go	<i>-artne.lhe</i>
Quickly DO & GO BACK	quickly do verb action and then quickly go back	<i>-artn.alpe</i>
DO ON Y's ARRIVAL	X do something to Y when Y come to be at place X is	<i>-tye.intye</i>

Particles and Clitics

ASSERT	assertion (that X is the case)	<i>kwenhe</i>
bi-and	binary and (conjoining two entities)	<i>uthene</i>
BUT	on the other hand, by contrast, but	<i>kenhe, akenhe</i>
FACT	it's a fact	<i>pele, apele</i>
FOC	focal constituent	<i>-rle, -arle</i>
INTENS	intensifier	<i>anthurre, nthurre</i>
INTER	interrogative (checking clitic)	<i>-me, -ame</i>
is it?	is it	<i>-eye, -ye</i>
maybe	maybe, might, if, or	<i>peke, apeke</i>
maybe not	maybe not	<i>ithwenge</i>
QUOT	quotative, hearsay	<i>kwele, akwele</i>
REL	relative clause marker	<i>-rle</i>
SEMBL	semblative	<i>-arteke</i>
TOO	too, as well	<i>-rlke, -arlke</i>

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Chapter 1 Introduction

This thesis combines linguistic and ethnographic data to provide a rich description of aspects of the grammatical competencies and broader communicative skills of a group of 5-11-year-old Arrernte children in a remote Central Australian Aboriginal community. It draws on the tradition of language documentation/description and some of the tools and perspectives that language socialisation has brought to the study of child language.

The study takes place at Ltyentye Apurte (Santa Teresa), an Eastern Arrernte community located at the foot of the East MacDonnell Ranges on the edge of the Simpson Desert (Figure 1-1). The community is 85km south-east of Alice Springs, connected to that town by a mostly unsealed road. The population is 500, 99% of the residents are Indigenous, and most identify as Arrernte. The community is relatively young, with a median age of 23, and 190 children aged 0-14 years (Australian Bureau of Statistics, 2016b).¹

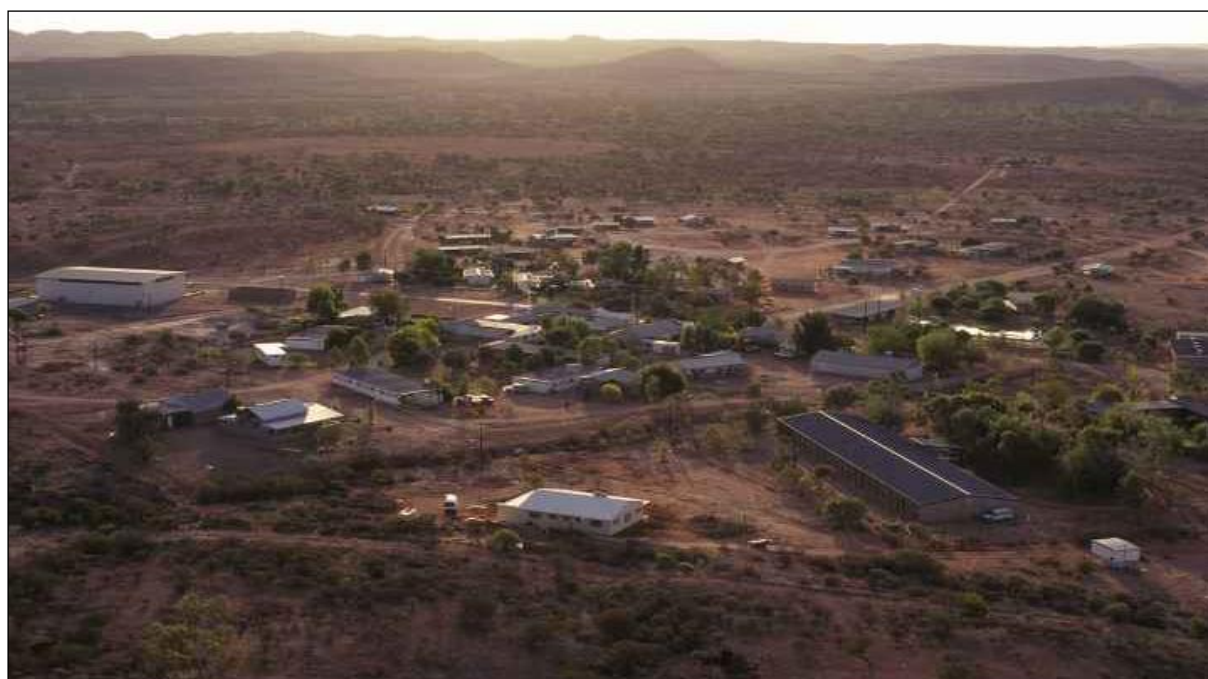


Figure 1-1. Ltyentye Apurte community at sunset from the hill above the water tank

The children are growing up in a linguistically rich environment. On a daily basis community members interact in their traditional language, including use of conventionalised hand signs. People spend long

¹ For comparison, the population of Alice Springs is 25,000 with a median age of 35 and 18% of the residents are Indigenous (Australian Bureau of Statistics, 2016a). Unlike Alice Springs few tourists visit Ltyentye Apurte.

hours together sitting around talking, sometimes using the sandy ground as a medium for storytelling. Children are exposed to other Aboriginal languages and English varieties when they visit other remote communities and Alice Springs, and they learn English through school.

Arrernte language maintenance is a prime concern for the community. The number of traditional languages in communities across Australia spoken by children is decreasing. Language change has been in progress, in the development of new Indigenous languages such as Kriol and formally mixed languages, and shift to varieties of English. Senior Arrernte educators are aware of signs of shift in younger generations, and are concerned that their language and culture continue into the future.

In November 2013 I was introduced to the community by Ailsa Purdon, who was then the Languages and Literacy Officer for Catholic Education NT. The school was my first contact point. The Arrernte and non-Indigenous staff were welcoming, interested to find out more about how the children were speaking, and interested in collaborative teaching work. We began with informal conversations about possibilities for the project. These were determined by a combination of three factors: research funding available, Arrernte educators' interests, and my skills and background.

My career has included Primary school teaching, English language teaching, curriculum development for school systems, and an Indigenous languages education program for teachers, all providing me with some insider professional understandings to facilitate many conversations about children and learning with my collaborators at Ltyentye Apurte. Through this PhD project I was interested in working with the community and school to explore children's language in this Arrernte-English contact situation; and contribute to a better understanding of the language competencies they bring to school and develop in the Primary Education years.

During each field trip I enjoyed spending lots of time in classrooms, in the playground, at school assemblies and in the staff room. In the Arrernte room I had a dual role of teaching assistant and learner who sat on the floor with the kids. I also got to know children outside the school context, with their families, at church, in the park, store, community garden, recreation hall, art centre, on short bush trips close to the community, at sports events and activities.

The children in this study are in an age group characterised by a widening range of interlocutors and expanding communicative competencies. They are interested in ideas and experiences in and beyond

their community. Their social worlds are a mixture of Arrernte and non-Indigenous, old and new, knowledge and practices from their community and the regional, national and global connections they have access to. Their linguistic and social realities offer opportunities to explore the tussle between language maintenance and shift, between bilingualism and the risk of traditional language loss, how the children are incorporating English into their linguistic repertoire, and how they negotiate these different worlds.

This study is informed by ethnographic data (my participant-observations and conversations with children, parents/carers, Arrernte educators and non-Indigenous teachers) and by discourse data recorded in three sample situations (selected with people at Ltyentye Apurte and explained in detail in the methodology Chapter 3). The study aims to provide a rich description of the 5-11-year-old participants' grammatical and broader communicative competencies. It investigates:

1. What are the language repertoires of the children in this study?
2. How do they deploy their linguistic resources and communicative skills in three sample contexts:
 - telling narratives, prompted by four textless picture books (17 children)
 - giving spontaneous first-person recounts, told in the sand (5 children)
 - learning mainstream curriculum content (in a Year 1-2 class of 20, with a focus on 2 children).
3. Given concerns about language shift, what are some morphosyntactic properties of the children's Arrernte?
4. What are some sociocultural dimensions of the discourse and interactions in the data?

The textless picture book narratives enable comparison of command of Arrernte across a larger group and underpin further insights for research question 3. Adult tellings of the same four picture books provide a foundation for analysis of the children's narratives. The sand stories enable investigation of children's capabilities for a genre involving linguistic, cultural and aesthetic properties, significant both for the content (about monsters) and for the channel. These recordings underpin further insights for research question 4. The classroom data is relevant for showing children's learning of Maths concepts through English and the role of L1 in the classroom. It also sheds light on research question 4. All discourse data sets contribute to research question 1. The ethnographic data enhances the findings for all four questions.

1.1. Motivations for this research

This study has two main impetuses – one academic in nature, the other seated in a community imperative, both concerned with the strength of children’s Arrernte. From an academic perspective, child language acquisition research is estimated to cover just 70-80 languages or 1-2% of the world’s languages, with most studies conducted in the youngest age-groups, in mother-child dyadic interactions, in urban settings, in technology-oriented societies, on major languages of north-western Europe (Lieven & Stoll, 2010; Stoll, 2009, 2015).

The past 40 years has seen considerable progress in research on learning specific languages. However, research on learnability challenges of most of the world’s languages are still in early stages (Bowerman, 2010; Lieven & Stoll, 2010, p. 152; Stoll, 2009). English acquisition research continues to overwhelmingly outweigh all other languages in world-leading child language conferences and journals, with some representation of languages with large speaker communities, e.g. Spanish, French, Dutch, German, Mandarin, Japanese, Turkish, Catalan and Danish (Hellwig et al., 2021; Kelly & Nordlinger, 2014, pp. 180-184).

Responding to this gap, some intensive research in Australia in the past decade has been building up portraits of language ecologies and child/youth language in several remote Aboriginal communities (Disbray & Wigglesworth, 2019; Simpson & Wigglesworth, 2008a; Wigglesworth, Simpson, & Vaughan, 2018). This thesis is among the projects that have been supported variously by the Australia Research Council (the Aboriginal Child Language Acquisition (ACLA) project and Centre of Excellence for the Dynamics of Language (CoEDL)); the University of Queensland School of Languages and Cultures and the University of Melbourne Research Unit for Indigenous Language. This work has significantly increased the number of Indigenous languages for which investigations have begun. It is providing more diverse evidence not only for acquisition pathways, but also for preservation of endangered languages and the evolution of new Indigenous languages (Kelly, Kidd, & Wigglesworth, 2015).

Interruption to intergenerational language transmission and damage inflicted on Indigenous languages through invasion and colonisation has been widespread. In national surveys conducted periodically since the 1980s, Arrernte has been one of the few languages spoken by all generations. Currently it is one of only 11-12 of the 250-300 Indigenous languages of Australia categorised as *strong* (Angelo et

al., 2019; Australian Government Office for the Arts, 2020; AIATSIS & FATSIL, 2005; Henderson & Nash, 1997; McConvell & Thieberger, 2001; Schmidt, 1990; Yallop, 1982).

These surveys have been based on researcher estimates, self-reporting and census data which is not straightforward to collect or interpret (Karidakis & Kelly, 2018; Simpson, 2013; Simpson & Wigglesworth, 2018). Even traditional languages currently used as a first language by all generations are vulnerable, given the trends of loss and shift, and the small population of speakers for each, typically 1000 – 4000 people (Simpson, 2019, p. 8; Simpson & Wigglesworth, 2008b, pp. 4-5). Where a language is spoken in more than one community (as is the case for Arrernte), language use can vary in those different locations.

For such reasons, qualitative case studies add value to the quantitative survey data (Simpson et al., 2018). This thesis contributes an empirical case study of children's language in one Arrernte community. It builds on studies of children's production of Arrernte in the 1990s, and situates the Ltyentye Apurte case in the context of studies of children's language in other remote communities.

The other impetus for this thesis is Arrernte adults' concerns for the future of their language in younger generations. Before first going to Ltyentye Apurte, and during the years of this research project, I compiled a collection of quotes related to these concerns (gathered from publications, grey literature, media and social media, websites and reports) from the 1970s through to today.

From the start of this period, Arrernte people's perspectives and work on their language emerged, as Central Australian languages began to be supported through the establishment of organisations such as the Institute for Aboriginal Development in 1969, the School of Australian Linguistics in 1974, Central Australian Aboriginal Media Association in 1982, and the Department of Education Aboriginal Teacher Education Centre in 1999 (which later became Batchelor College/Institute), all of which began to take roles in language rights and community development (Black & Breen, 2001).

Adults expressed strong beliefs that Arrernte should be used as often as possible and by all generations. In Alice Springs, where speakers of several different Aboriginal languages live or visit, all communication within the Arrernte group was expected to be in Arrernte; and children sent away together to secondary boarding schools were expected to maintain their own language and use it among themselves (Harkins, 1994, pp. 17-19).

The use of Arrernte in new and more numerous domains instilled a degree of confidence in the vitality and future of the language e.g., courses for adults, interpreting and translating services, radio and television programs, bilingual school programs (Henderson & Dobson, 1994, p. 8; 2005, pp. 267-269). However, this optimism was also tempered by detecting signs of language change, e.g.:

Eastern and Central Arrernte are relatively strong languages ... used as the language of everyday life ... and children are still learning to speak them. However, the languages are under considerable pressure from English, which dominates in many important areas such as government services and the media ... Many older people believe that younger people are no longer learning or using their language as well as they should be. (Henderson & Dobson, 1994, p. 8).

Developments in the school at Ltyentye Apurte paralleled the establishment of Yipirinya school in Alice Springs in 1978, in a political climate of self-determination and through the advocacy of Aboriginal families and their supporters. They founded a community-controlled, bilingual, bicultural learning environment for their children (Cook & Buzzacott, 1994; Kral, 2017). Education was seen as a means for guarding against language loss often attributed to media:

In 1970 our language was strong. All the children spoke strong Arrernte. Then we got TV and videos. All the children started to speak English, even at home We had to change our thinking. As well as teaching in English, we have to start teaching in Arrernte to keep the children speaking strong Arrernte. (Arrernte teacher Imelda Palmer, who later became Deputy Principal of Ltyentye Apurte school 1991, pp. 4, 7).

Many young people growing up don't know the language and culture right through anymore. We must keep our culture strong and alive. Aboriginal people don't want to lose their language and culture. ... At Santa Teresa we had to change our thinking. As well as teaching in English, we had to teach in Arrernte. (Arrernte community leader and educator Veronica Dobson, in Institute for Aboriginal Development, 1992).

Bilingual education was introduced largely because many people felt that Arrernte was being weakened, especially since television and videos became available in the

community, and that an unwanted mix of languages was occurring (Teacher-linguist for the bilingual program at Ltyentye Apurte Sister Robyn Reynolds, 1994, pp. 106-107).

Such concerns have continued through to the present. The most severe views, largely held by some Arrernte people based in Alice Springs, are that shift to English has already occurred. For example, the Arrernte online course information describes the language as *now spoken mostly by older people* (Charles Darwin University, 2020). Similarly, some community leaders believe that many families mostly speak English:

I very strongly want to see people learning, talking [Arrernte] fluently, you know. At home the children, lot of children, just speak English. And also their parents, the young parents talk English too. And we say to them, 'Hey don't talk English. Arrernte angkaye! Arrernte angkaye ampe ngkwinheke. Ampe ngkwinhe akaltyele anthaye Arrernte! Talk language to your child! Teach your child to talk language!' (Arrernte Elder and community leader MK Turner, 2017b).

Families are considered to have stronger receptive than productive skills:

In Alice Springs [there are] people who can hear Arrernte but they can't speak it, you know. There are a lot of families out there who are capable of hearing but they are a bit shame to talk or say it out. ... The kids out in the communities, they prefer to talk our language and you know, that's where they get stronger. ... In town here the kids more often speak English. ... We want to keep Arrernte really strong because like some of the younger parents are talking English to their kids, they don't really speak right in Arrernte. (Amelia Turner, in a CAAMA radio interview with Hughes, 2018).

Parents as well as children are seen as needing support to maintain their language and culture:

... our children [are] not speaking Arrernte language properly and not knowing their culture properly. ... Even [adults] want to learn more because they missed out on their cultural experience and language. When I go back to my homeland I talk to the older adult grandchildren, and they ask me so many questions about the old ways. I tell them how I've learnt from my grandparents – grandmothers especially. They told me it's very

important to keep going with language and culture, so the older ones can teach their own kids. (Leonie Palmer, who has lived at Ltyentye Apurte and in Alice Springs, cited in Children's Ground, 2017, p. 7).

We want to get them strong in language and culture. This means talking to the parents as well. We can talk about the plants, the bush medicines, the seasons and what food grows when; we can use our own calendar. ... I brought up my kids and my grandkids out here. They were always learning. They know this country and it was the best way of teaching them. But now their kids aren't being taught the same way. We worry for those little kids. (Leonie Palmer 2016).

Language maintenance is seen as connected to knowledge of Country, culture and history:

To teach children we must tell the stories, take them out bush, move around out there with them. Go out hunting, look for what you want to find, talk to them about what you're looking for. It is survival. Teach children not to go hungry, but where to look for good food. Teach them to dance and sing in their country, explain to them the way our lives changed as we moved on to the mission and away from our homelands. They should still learn about the country and survival. (Kathleen Wallace, in Wallace & Lovell, 2009, p. 170).

Collectively, such quotes capture the main themes in community observations, fears, challenges and Arrernte maintenance strategies that have persisted from the 1970s through to today.

1.2. The research site

Arrernte people's contact with English dates back 160 years. They were increasingly dispossessed of their land, through successive waves of colonial expansion, which intensified from 1860 when John McDouall Stuart 'explored' Central Australia and recommended its development. From 1870 the Adelaide to Darwin telegraph line was constructed, and pastoral and mining industries began to be established. Alice Springs started as a telegraph station in 1872. A railway reached the town in 1929, increasing its population, and adding tourism to the industries under development (Donovan, 1988).

From the 1920s churches in several religious denominations were established in Alice Springs. It was the Catholic Church that predominantly worked with Eastern Arrernte people who had become fringe dwellers in town relying on government rations distributed via police stations. By 1935 the Little Flower Catholic Mission was established. From 1937 it was based at Charles Creek near Anzac Hill in Alice Springs, and schooling began. Arrernte people held various domestic jobs in Alice Springs and brought food back home for their families each day. (Pye, 1989, pp. 8-10).

During World War 2, several thousand troops were stationed in Alice Springs, then under military control (Donovan, 1988). Arrernte people contributed to the war effort, carting sand and gravel for road construction, unloading stores and equipment. In 1942 the mission was suddenly and forcibly moved from Charles Creek to Arltunga 70 miles (112 km) east of Alice Springs. Arltunga, once a major gold rush settlement, had been a ghost town for 50 years. At this location Arrernte people found good hunting opportunities, and some worked on nearby cattle stations to sustain their families. However, the missionaries considered the allotment too small for the population of 200, and it became apparent that the site lacked reliable and sufficient water supply. In 1952, following a land grant application, the church received a 480 mile² (1,100 km²) Crown land block south-east of Alice Springs. In 1953 the mission was relocated to this new site, and was renamed Santa Teresa. (Pye, 1989, pp. 11-20).

During each relocation, mission staff and Arrernte people worked together to establish the community (Heffernan, 2018, pp. 107-108; Pye, 1989). They built houses, amenities, administration blocks, clinics, halls, recreation facilities and classrooms. They did fencing and stock work, installed water tanks, sank bores, laid pipes, grew fruit and vegetables, staffed the store, worked the bakery and laundry, sewed and mended clothes. The mission introduced wages for Arrernte people in 1951. By the 1970s it was training and employing 200 people, though not on full wages. Government funds (at times meagre) were subsidised by missionary resources and people's own efforts. Incomes were also supplemented by hunting. (Pye, 1989, pp. 34, 38, 50). The grandmothers of the children in this thesis are either from the first generation born at Santa Teresa or were young children when the mission moved to this location in 1953.

From the 1970s missionaries began to formally hand over community management to Arrernte people, through the Village Council, Progress Committee and Housing Association, and by 1977 the mission land became an Aboriginal land trust (Pye, 1989, p. 32). A relatively short-lived period of greater self-determination followed, associated with socially progressive movements and government policies

nationally, and the NT Aboriginal Land Rights Act 1976. The community was renamed Ltyentye Apurte (Santa Teresa).

However, the 1990s saw the beginnings of a fundamental shift away from the recently established period of community control, intensified through and since the controversial 2007 Northern Territory National Emergency Response, often referred to as 'The Intervention' (Calma, 2007). Community management and job opportunities have increasingly been transferred to the local government area council, currently called the MacDonnell Regional Council. Local communities such as Ltyentye Apurte have essentially become operational centres for the Regional Council based in Alice Springs.

Re-asserting the intention to determine its own priorities and direction, in 2010 the community formed the Atyenhenge-atherre Aboriginal Corporation (ACCC). It represents the ten main family groups in the community and works in partnership with Jesuit Social Services (JSS). In 2013 ACCC became the local facilitating partner for *Stronger Communities* the Australian Government Indigenous Advancement Strategy for selected NT locations (a recalibration of The Intervention).² Since its inception ACCC has initiated many programs at Ltyentye Apurte e.g., community garden, Men's Shed and traditional craft centre, horse-work course, job provider reference group, store and sports committees, coffee cart, hairdressing training and salon, indoor skateboard park.

Educational and employment opportunities vary for people at Ltyentye Apurte, creating differences in families' financial security. Some adults are employed, but many rely on welfare payments. Paid work is limited and insecure. The school is a major employer. Of its 35 employees, 20 are local community members working as teachers, assistant teachers, cleaners, and in administrative, canteen and facilities maintenance roles. Other employers in the community include the childcare centre, aged care services, the store, health clinic, police, Centrelink, AAAC, Keringke Arts, and the ranger team working on feral animal and weed control. Some parents of the children in this research project travelled away for work, e.g. one worked on highway maintenance, one built and repaired houses in other communities, one worked as a police liaison officer in an Arnhem Land community.

The school is within the NT Catholic Education system but is one of five remote schools where management decisions are devolved to a greater degree to the local community (Catholic Education

² <https://www.niaa.gov.au/indigenous-affairs/education/stronger-communities-children>

Northern Territory, 2013). Experienced Arrernte staff and community members are part of the school's leadership team. Compared with other remote schools, now, as in past decades (Reynolds, 1979), there is a relatively low turn-over of non-Aboriginal staff.

The church continues to be central to many people's lives. They have a strong Catholic faith, described as *Altyerre*-Catholicism, a dialogue between Arrernte Dreamtime beliefs and knowledge and Roman Catholicism, resonating with *eco-theology* in today's church (Bowden, 2019). On a hill above the community is a large crucifix, clearly visible on approach from Alice Springs. The interior walls of the church have ceiling to floor murals of Biblical and Arrernte Dreamtime and Country images painted by local artists (Nardoo, 2005). Each Sunday, and for all special celebrations, parts of the service and several hymns are in Arrernte, with the text projected on a screen. This is one of the few domains in which Arrernte is written and read. Many families have religious statues and images in their yards and homes. Several people from Ltyentye Apurte have been involved in Bible translation work with Summer Institute of Linguistics (SIL) linguists. And several have made pilgrimages with Christian tour groups to the Holy Lands and sites in Europe.

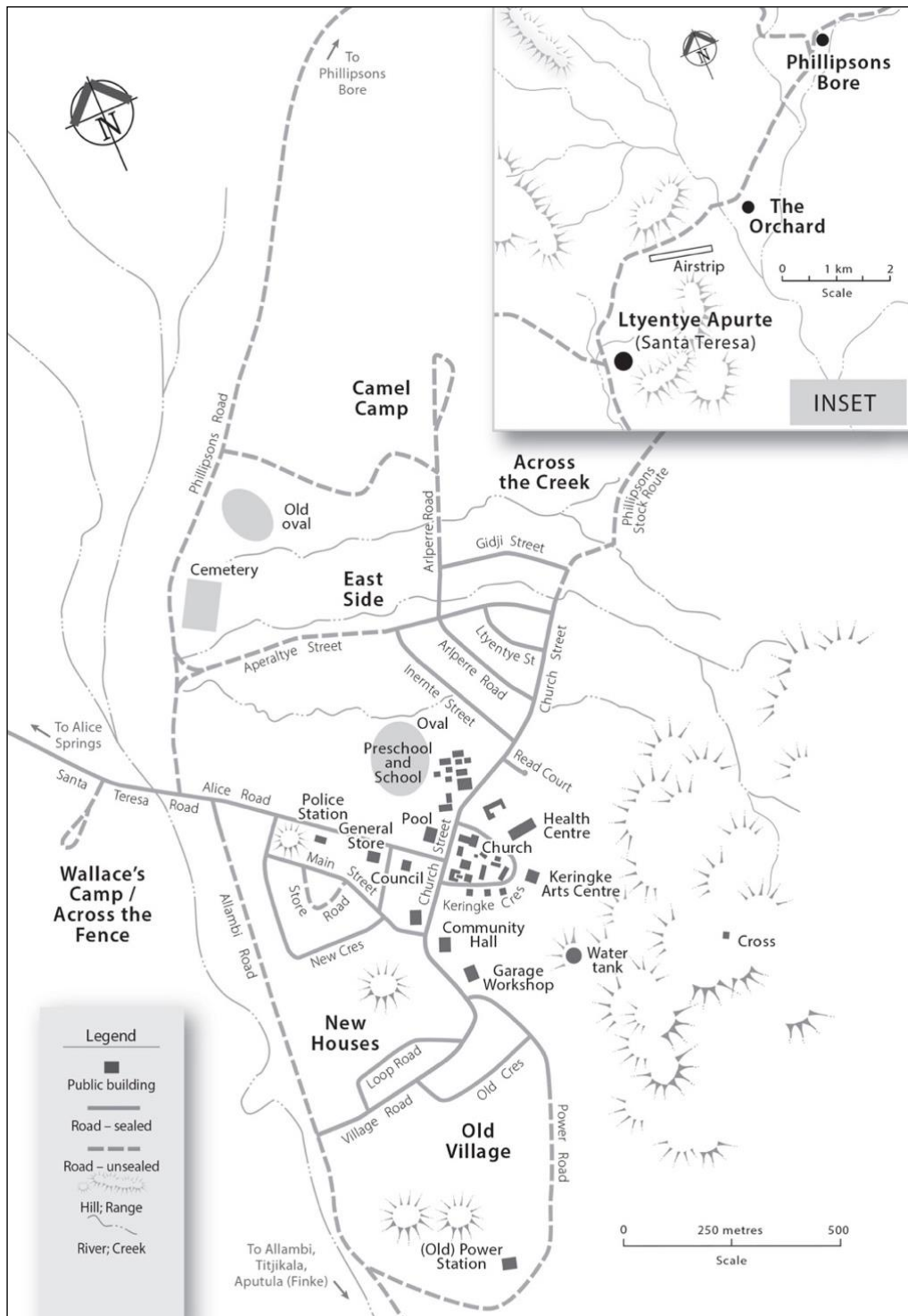
An instrument of assimilationist policies in the past, the work of the Catholic church has become more engaged with Arrernte people's beliefs and of greater service to them (Bowden, 2019). Many priests and religious brothers and sisters have lived in the community, during and since the mission days, working on various community development projects.

Currently several Arrernte women are involved in an art and craft program (called the Spirituality Centre) for which the parish provides facilities, materials and training, and assists promotion and sale of the participants' work through Facebook and Catholic organisations Australia-wide. Every year the parish Sister coordinates 15-20 inter-state non-Indigenous visitor groups, who want to learn about Arrernte culture and do volunteer work in the community. Back in their home parishes and schools, they fundraise and send resources or donations to Ltyentye Apurte (Weimers, 2020).

Daily life

Ltyentye Apurte is a vibrant community. Children are active after school. They climb the nearby hills, play basketball, ride bikes, go to the park. Many have play equipment at home in their yards e.g., trampolines, swing-sets, inflatable pools. Families live in six main areas: East Side (top end and bottom

end), Across the Creek, Old Village, New Houses, Across the Fence and Camel Camp. A few people live just outside the community beyond the airstrip at The Orchard. And there is one family on an outstation at Phillipson Creek Bore, also a few kilometres from the main community (Map 1.1).



Map 1.1. Ltyentye Apurte community layout. Map: Brenda Thornley

Various service providers (e.g. AAAC, Catholic Care NT, the regional council) offer after-school programs. People of all ages gather at the community recreation hall for activities and events, e.g. indoor basketball and skate-boarding, band practice and performance, a computer room. The swimming pool is open during summer. Police officers spend an afternoon each week at the purpose-built outdoor BMX track, developing children's bicycle maintenance and safety skills. There is also a large outdoor track for remote control car racing. The school organises social and fundraising activities, e.g. kid's disco and movie nights. Nevertheless, some older children/youth sometimes get into mischief, or trouble with the police. Community members and school staff think these incidents are less likely to occur when programs are running reliably.

People like to spend hours *talking story* together in a yard or on a verandah, around a fire if it's cold. Cruising around the community is a favourite pastime for those who have cars. They like to see what's happening and how everyone is going. Some homes have beautiful gardens, and there is an annual garden competition organised by ACCC.

The community's Christmas light show has received national media attention. Houses are decorated with strings of lights and images of reindeer, Santa Claus and nativity scenes. It's an exciting time for kids. ACCC organises judges and awards prizes and many people share photos on Facebook. Families also use solar powered lighting to decorate gravestones in the frequently visited cemetery at the community's edge. At night it glows with multi-coloured lights.

The community hosts an annual sports weekend and is also known for its annual (horse) race meeting. Everyone has a favourite AFL professional football team and also follows their community team in the local competition. Card games are also popular, especially with women, who play for many hours at a time.

On weekends families like to go on bush trips, visiting special places, swimming, collecting bush foods and medicines, cooking kangaroo tail and sweet potato on the fire. These kinds of activities are easier to do if/when people have vehicles.

People go to Alice Springs regularly for grocery shopping and visits. Many cars leave for town on Fridays when school finishes. Ltyentye Apurte is often quieter over the weekend. People who go to town on Friday might stock up on items such as sweets, chips, soft drinks, and sell them on Sunday,

when the community store is closed. Messages about what's for sale and at whose house are posted on Facebook (in Arrernte or English). Smart phones are common in the community.

Arrernte Elder and artist Kathleen Wallace observes significant changes experienced across generations – from the knowledge and skills of past generations who had little contact with white people, through to her own bush childhood and reluctant transition to station and mission life, though to young people who grow up these days in *two worlds* from the outset (Wallace & Lovell, 2009). Such experiences and observations have been shared by many older Arrernte and other Central Australian Aboriginal people whose childhood was markedly different from children today (Bowman, 2015; Heffernan, 2018).

Ltyentye Apurte community members see language and culture as flourishing but are also aware of significant changes. Boys' initiation ceremonies, and gatherings for women and girls, usually in the warmer months of each year. The start of the school year is often delayed because boys are away for ceremony, and women are busy dancing and cooking for them. New practices have also emerged. People choose their spouses rather than entering arranged marriages according to right skin.³ Newborn babies are smoked and rubbed with emu fat, but also baptised at church. There is a sorry camp outside the community, and families also hold church funerals and burials. People have knowledge of bush medicines and prepare them at home and consult the community *ngangkere* (traditional healer) when unwell. They also use the local clinic and Alice Springs hospital. People use communication technologies daily, and also speak to ancestral beings. On one of my first visits to the community, a 6-year-old taught me to address the grandfather-grandson rock formation as we walked up a nearby hill.

Language and culture change in remote aboriginal communities has also been positively framed as creative adaptation, as children and youth lead new and dynamic expressions of identity in response to the current social, material and technological features of their lives (Eickelkamp, 2011a, 2013b; Kral, 2012; O'Shannessy, 2013d; Robinson, Eickelkamp, Goodnow, & Katz, 2008). Complex contemporary identities, and linguistic and cultural practices that speakers develop, including ways of using English, in fact continue to hold and reflect uniquely Arrernte values and ways of being (Wilkins, 2000). In an ongoing context of continuity and change, this thesis investigates children's production of Arrernte,

³ Thus, in some families children are growing up with Arrernte and another Aboriginal language (discussed in § 4.2.2 and 6.2.4).

alongside English, and sociocultural conditions that have a bearing on their learning and deployment of their communicative repertoire.

1.3. The unfolding of this study

This study is based on data collected during eight months of fieldwork between November 2013 and May 2018. Full details are in Chapter 3 (Methodology). Here I give a brief overview of how the study unfolded and the research approach taken.

As a starting point, 17 children's narrations of four textless picture books were recorded to establish the children's preferred code, whether Arrernte or a contact code. The analysis of the children's narratives, informed by four adults' tellings of the same picture books, revealed much basic Arrernte morphosyntax intact in the children's speech, despite concerns expressed by Arrernte educators and the length of contact and pressure from English. Initial interrogations of this data set made it clear that the children's production could be analysed for more complex aspects of Arrernte grammar. This higher bar revealed variation amongst the cohort, with age as a weak predictor of children's use of the more complex grammatical features. Thus, the project came to include a search for other possible explanations for differences between the children, informed by ethnographic data.

This study also grew to consider children's broader communicative skills, as Arrernte adults' interests extended beyond grammar, to include the importance of children's Arrernte identity and cultural knowledge and practices, and the importance of English for *a good education* and living well in two worlds. Recordings of children telling *tyepetye* (sand stories) were added to the study. These recounts, told through an orchestration of speech, gesture and drawings in the sand are unusual globally, but a special characteristic of some Central Australian speech communities, including Arrernte (e.g. Green, 2014; Green & Turpin, 2013; Wilkins, 1997a). A classroom recording was also included, to investigate how children are incorporating English into their linguistic repertoire as they are socialised into the school setting.

1.4. Organisation of the thesis

Chapter 2 sets the scene by outlining the existing body of research on Arrernte grammar, and reviewing literature on documentation/description of remote community Aboriginal children's use of their traditional languages. This thesis is then positioned as one that draws on some of the understandings and methods that the language socialisation approach has brought to the study of child language. That is, by integrating ethnographic with linguistic data, the description of children's language production incorporates sociocultural aspects of their upbringing and discourse.

Chapter 3 outlines the methodology, including ethical considerations, the participants, the three contexts in which the linguistic data were recorded, and transcription procedures. This chapter also explains the ethnographic data (my participant-observations and conversations with children, parents/carers, Arrernte educators and non-Indigenous teachers) which complements the discourse data.

Chapter 4 unpacks the Ltyentye Apurte language landscape, i.e. the history and consequent linguistic composition of the community; ways Arrernte is positioned in relation to English by the community and by the dominant society; and adults' expressed and enacted ideologies about their language which influence the input children receive and the codes they produce. The chapter concludes with a profile of each child in the study, illustrating his/her particular experience of the general language landscape.

Chapters 5-6 examine morphosyntactic properties of children's Arrernte. Four textless picture books elicited 12 narratives from 4 adults, and 68 narratives from 17 children aged 5;9 – 10;10. This data set is firstly used to fundamentally establish whether the children primarily speak their traditional language or have begun to shift. Preliminary examination of the data will show that, while there are English elements in the children's Arrernte production, some are also in adult speech, and none indicate a systematic contact code. The data could then be repurposed to examine more complex grammatical features. Analysis of the adult narratives determines the constructions to be investigated: (a) the definitising function of third person pronouns, for tracking previously mentioned protagonists (b) the switch reference system (marked on verbs), for tracking which protagonists are performing which actions, and for foregrounding and backgrounding events. The analysis describes children's production of the constructions, and forms they select when they do not produce the more expected

adult-like ones. Ethnographic data is included in this chapter to add Arrernte educators' assessment of the children's Arrernte, and their explanations for differences in the strength of children's Arrernte.

Chapter 7 describes first-person multimodal *scary stories* told spontaneously by five children (all girls) aged 7;4 – 9;6. The analysis organises their integrated speech, drawing and use of a stylus into the three main categories they use to lay out their stories: entities (landmarks, people, scary beings), path lines (protagonists' journeys) and swipes (transitions between scenes). It examines ways the young narrators convey information in the content stream within and across the communication modes. Through their choice of protagonists and events, they demonstrate their growing understanding of the physical and social geography of their community, including the existence, locations and behaviours of commonly known monsters and similar beings.

Chapter 8 describes a Maths lesson in a Year 1-2 classroom of 20 students in the community school and focuses on two of them as they complete a teacher-designed pair task. The chapter analyses turn/clause units in the discourse, to examine how the children draw on both English and Arrernte, for achieving the planned learning outcomes. The analysis also finds linguistic and behavioural evidence for their early socialisation into communicative practices in their Primary school classroom.

Chapter 9 draws together the linguistic and ethnographic findings of the thesis and reviews the linguistic properties of the children's discourse and their broader communicative skills.

Chapter 10 revisits the study's research questions and concludes the thesis with the significance of this study, its limitations, and possible areas and directions for future research.

Eastern Arrernte is the dialect of Arrernte associated with Ltyentye Apurte. In the community people simply refer to it as Arrernte, which is how I refer to it throughout this thesis, except where it is necessary to distinguish it from other dialects.

Chapter 2 Literature review and theoretical framing

2.1. Introduction

This chapter reviews linguistic work on Eastern and Central Arrernte, and the three previous studies of children's production of this language. It also situates this thesis in the literature on remote area Australian Aboriginal children's use of their traditional languages. Finally, the chapter positions this study as one that draws on the tradition of language documentation as well as some of the perspectives and tools that the language socialisation approach has brought to the study of child language.

2.2. Eastern Arrernte

The traditional language of the community in this study, Eastern Arrernte, is a dialect of Arrernte which belongs to the Southern/Lower subgroup of Arandic languages in the Pama-Nyungan family of Australian languages (Henderson, 2013, pp. 10-12; Henderson & Dobson, 1994; Koch, 2004; Wilkins, 1989, pp. 5-6; also informed by Hale 1962). See Figure 2-1 (Wilkins, 1989, p. 15).

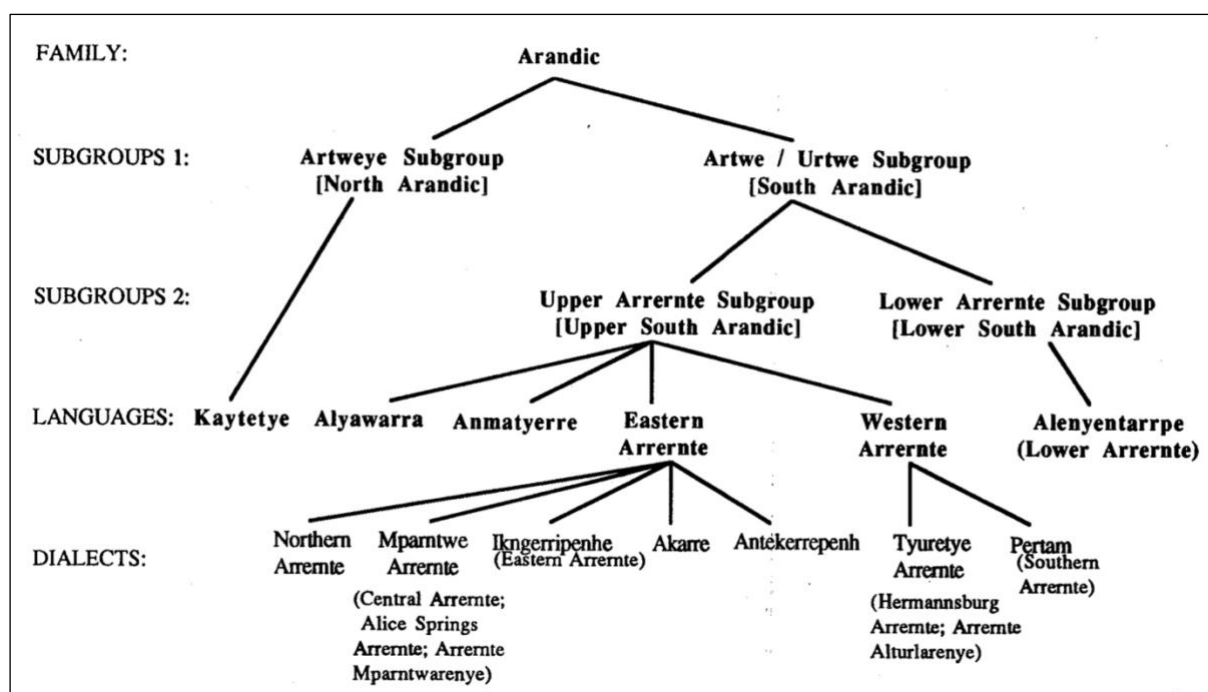
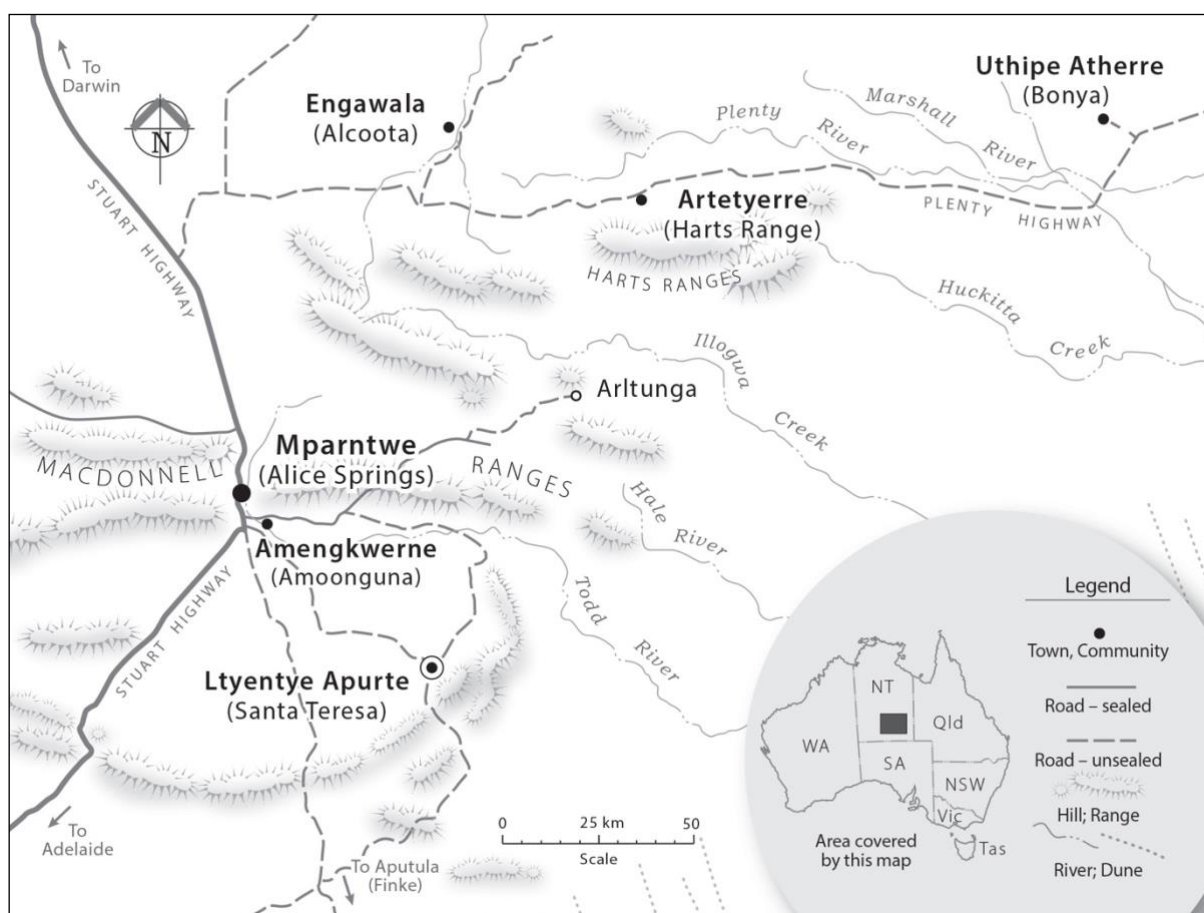


Figure 2-1. Arandic languages and dialects (Wilkins, 1898, p15)

Eastern and Central Arrernte are included in the same reference grammar and dictionary, informed by linguistic analysis and speaker judgements of mutual intelligibility. Differences between Eastern and Central Arrernte are more social than linguistic (Henderson & Dobson, 1994, pp. 8-10; Wilkins, 1989, pp. 9-10). The dictionary recognises five varieties of Eastern-Central Arrernte: south-eastern, central, northern, eastern and north-eastern (Henderson & Dobson, 1994, pp. 9-10). Concentrations of Eastern and Central Arrernte speakers are in communities and outstations in the region, including Engawala, Artetyerre, Uthipe Atherre, Ltyentye Apurte, Amengkwerne and Mparntwe (Map 2.1).



Map 2.1. Main communities associated with Eastern and Central Arrernte. Map: Brenda Thornley

2.2.1. Documentation

Concerted fieldwork on Eastern and Central Arrernte began during a dynamic period of documentation of Indigenous languages in Australia in the 1970s-1990s. It was the first effort to describe this language, and therefore focused initially on recording older people's speech and cultural expertise e.g., traditional narratives, ecological knowledge. This period was also characterised by partnerships between linguists and speakers to produce a practical orthography and materials useful for community

purposes. Initial grammatical work – along with advances in technologies for recording, storing and analysing data – provided foundations for further lines of inquiry e.g., multimodal communication, child-directed speech, child/youth language, speakers' use of English.

Relative to many Australian languages, Eastern-Central Arrernte is well-documented with:

- an extensive dictionary (Henderson & Dobson, 1994)
- a comprehensive reference grammar (Wilkins, 1989) and further documentation (Henderson, 1998, 2013)
- analyses of particular constructions, e.g.:
 - free forms, clitics and suffixes in Arrernte word formation (Reynolds, 1984)
 - particles and clitics for criticism and complaint (Wilkins, 1986)
 - form and function in the switch reference system (Wilkins, 1988)
 - anaphora, topic and lexical items in discourse cohesion (Reynolds, 1988)
 - semantics, pragmatics and diachronic development of the associated motion verb system (Wilkins, 1991)
 - motion verbs (Wilkins & Hill, 1995)
 - non-referential 3sg pronouns in adverbial phrases (Henderson, 2000)
 - grammatical resources for expressing spatial concepts (Wilkins, 2006)
 - semantic structure of inter-propositional relations (Broad, 2013)
- descriptions of co-/non-verbal communication modes:
 - pointing (Wilkins, 2003)
 - gesture and sign (Green & Wilkins, 2014; Wilkins, 1997a, 2016)
- details of phonetics and phonology (e.g. Breen, 2001; Breen & Dobson, 2005; Breen & Pensalfini, 1999; Tabain, 2016)
- a sociohistorical study of the development of literacy practices (Kral, 2000).

Unusually, there is some work on child-directed communication and child language production:

- *baby talk* in Arandic languages (Turpin, Demuth, & Campbell, 2014)
- stories told in the sand by adults to children (Green & Turpin, 2013; Wilkins, 1997a)
- the influence of English on children's production of Arrernte (Wilkins, 1993)
- children's production of verbs for expressing motion events (Wilkins, 1997b, 2004)
- acquisition of argument structure for the verbs *put* and *look* (Wilkins, 2008a).

There are also materials for Arrernte and non-Indigenous learners of various ages:

- a learner's guide (Green, 1994) with example sentences on cassette tape
- a picture dictionary (Broad, 2008) with audio files on the Institute for Aboriginal Development Press website
- a Year 7-8 classroom teaching resource (Kral, Dobson, & Jackson, 1999)
- readers produced in the bilingual education era, some of which are available online via the Living Archive of Aboriginal Languages (M. Christie, Devlin, & Bow, 2015; Devlin, Bow, Purdon, & Klesch, 2015)
- published bilingual texts, on bush foods and ecological knowledge (Ryder & Carew, 2017; Turner-Neale, Henderson, & Dobson, 1994), traditional healing (Dobson 2007), oral history, biography and personal memoir (Bowman, 2015; Henderson, 1986; Turner, McDonald, & Dobson, 2010; Wallace & Lovell, 2009).

2.2.2. Grammatical features

Eastern-Central Arrernte has agglutinative suffixing morphology, rich nominal case marking, an extensive pronominal system, and a complex verb structure. The brief overview presented here is informed by the Arrernte grammar (Wilkins, 1989). I highlight morphosyntactic features that are generally evident in or specifically investigated in children's language in this thesis.

Nominals (including nouns, adjectives, pronouns) have case markers/forms indicating their roles in a sentence. In transitive clauses, common nouns are ergative-absolutive (ERG-ABS) in pattern while pronouns are nominative-accusative (NOM-ACC) in pattern (only 1sgS and 1sgA are different forms). NOM and ACC (non-pronominal) NPs are not marked for case. Other nominal inflections (corresponding in part to English prepositions) are dative (DAT), instrumental (INSTR), locative (LOC), ablative (ABL), allative (ALL), possessive (POSS), proprietive (PROP), associative (ASSOC), comitative (COM), afterative (AFTER) and aversive (AVERS).

The usual constituent order is Agent-Object-Verb (AOV) or Subject-Verb (SV), though all orders are possible, determined pragmatically; and sentences can be verbless. (Verbless sentences can have a copula equivalent (Reynolds, 1984, p. 17; 1988, p. 42)). Typically, core arguments precede the verb, and peripheral case-marked nominals follow it. Argument ellipsis is common.

Interrogatives can be case-marked, e.g. *nthenhe-le* (where-LOC) ‘where at?’; *nthenhe-nge* (where-ABL) ‘where from?’; *nthenhe-werne* (where-ALL) ‘towards where?’; *nthenhe-ke* (where-DAT) ‘where to?’, i.e. with the goal being reached. Demonstratives can also be case-marked. They make a three-way proximal-medial-distal distinction: *nhenhe* (this/here), *yanhe* (that/there), *nhakwe* (that/over there). Stem forming suffixes can derive a transitive/intransitive verb from a noun (CAUS, INCH) or a noun from a verb (e.g. NMZR).

An unusual feature of Eastern-Central Arrernte is fixed order in NPs. Elements cannot be split, as they can in other Central Australian languages. A fully expanded Arrernte simple NP can have up to six slots, typically ordered as in Table 2-1. Case is marked on the final element of NPs, i.e. by peripheral attachment (Wilkins, 1989, p. 102; 2006, p. 26).

[Classifier Noun] _{head}	Adj.P	Quant.P	Demonstrative	3rd person Definite	-case
1	2	3	4	5	6

Table 2-1. Slots in a fully expanded simple NP

Minimally an NP is made up of the final constituent, which is obligatory, and any one of the other elements, e.g. *akweke-ke* (little-DAT) ‘for the little one’; *ingkerreke-nge* (all-ABL) ‘from all of them’. Third person pronouns in slot 5-6 mark the case of a NP and definitise it. Such definitised NPs are discussed further in Chapter 5 and are investigated in the speech of the children in this study. While Table 2-1 presents the structure of simple NPs, complex NPs have an additional embedded NP, e.g. relative clauses, conjoined NPs, NP relator phrases (possessives, proprietives etc.) (Wilkins, 1989, pp. 102-103).

Pronouns have NOM, ERG, ACC, DAT and POSS case forms. They do not distinguish gender in third person, and are inflected for number in a three-way system (singular, dual, plural). There are two sets of non-singular personal pronouns: one for expressing internal kin-relations of the group referred to, and one used when group kin-relations are not relevant (Wilkins, 1989, pp. 123-129). In the 1980s younger speakers’ use of the former began to diminish (Reynolds, 1984, p. 16; 1988, p. 30). By the mid-2000s they were mainly using the set in which all members have the same skin group, e.g. brothers and sisters together (Henderson & Dobson, 2005, p. 267). Since this change had already been observed, it is not investigated in this study. The elicitation tasks required only the basic set.

Arrernte verbs have a complex structure with seven slots, as in Table 2-2, though only the first and last are obligatory (Wilkins, 1989, p. 226; 1991, p. 210; 2006, p. 28). The final inflection for verbs in main clauses marks tense or mood. The final inflection for verbs in dependent clauses may mark the clause as a complement, or as a temporal, causal or conditional adjunct, or may be one of the suffixes in the switch reference system, which expresses whether the actor in a dependent clause is the same as or different from that in the main clause. The switch reference system is discussed further in Chapter 6 and is investigated in the speech of the children in this study. Verb negation (NEG) also occurs in slot 7. Subject number is optionally marked, and distinguishes dual and plural (but not person); singular is zero marked.

Verb root	Derivational suffixes	Category of associated motion	Continuous aspect	Number agreement with subj	Reduplication (aspect)	Verb-final main and dependent verb suffixes
1	2	3	4	5	6	7
<i>angke-</i>	<i>-rr</i>	<i>-inty.alpe</i>	<i>-rle.ne</i>	<i>-rre</i>	<i>-pe-rre</i>	<i>-me</i>
speak	reciprocal	DO COMING BACK	CONT	dlS/A	FREQ.rdp	non-past prog
two people frequently speaking continuously to each other while coming back (towards here)						

Table 2-2. Arrernte verb structure

There are six tenses: past progressive, past completive, remote habitual past, recent past, non-past progressive and future. Other verb inflections and/or stem forming derivations include imperative (IMP), negative imperative (NegIMP), generic event (GEN EVT), verb negation (NEG), purpose (PURP), reciprocal (RECIP), reflexive (REFL), causative (CAUS) and inchoative (INCH).

Associated motion is a notable grammatical category in Arrernte (slot 3 in Table 2-2). Complex events can be expressed in a single verb with associated motion verb suffixes. 14-15 types of motion can be indicated as concurrent with, prior to, or subsequent to the main action, e.g. the verb stem action is performed while going upwards or while going past, or it is done immediately before going (Wilkins, 1989, 1991).

2.2.3. Previous studies on children's Arrernte

To date there have been three studies of children's production of Eastern-Central Arrernte (Wilkins, 1993, 1997b, 2008a). All are broadly concerned with morphosyntax and are based on the speech of children residing in Alice Springs or Ltyentye Apurte in the 1990s.⁴

The first was commissioned by Yipirinya School in Alice Springs, which at the time was an Aboriginal-controlled bilingual-bicultural school (Wilkins, 1993). It responded to concerns about the influence of English on children's Arrernte, including those of the Arrernte teacher at the time, Carmel Ryan, who is identified as A01 in this thesis. She is still teaching Arrernte, now at Ltyentye Apurte, and is close to retirement.

At the outset, the study made clear that speakers of all ages use some English-derived words when speaking Arrernte, and those would be transmitted from Arrernte adults to Arrernte children in everyday language. A six-point scale (based on Thomason & Kaufman, 1988, pp. 50, 74-109) was used to examine the intensity and impact of language contact:

1. borrowing content words for things that are new to the minority culture.
2. borrowing function words that are frequently used in the dominant language, but have no obvious equivalent in the borrowing language, e.g. conjunctions, adverbial particles.
3. content words in the minority language are displaced by equivalents from the dominant language.
4. basic elements of the grammar of the minority language are replaced, e.g. if Arrernte nominal case markers were to be replaced by English prepositional phrases; or Arrernte pronouns, demonstratives replaced by English ones.
5. borrowing inflectional affixes, restructuring of grammatical paradigms, re-organising of complex syntax; extreme simplification of the minority language grammar.
6. phonological, lexical and grammatical shift.

⁴ Data for the 1993 and 1997b publications were collected from children at Yipirinya School in Alice Springs. Data for the 2008 publication was collected in 1997 from children both at Yipirinya and Ltyentye Apurte schools.

Frog, where are you? (Mayer, 1969) narratives were collected from two adults and six children (aged 7 – 10). Signs of strength found in the children’s discourse were Arrernte verb stems, common nouns, the dual S/A pronoun, nominal case endings, verb tenses, adult-like ordering of words in sentences, and complex sentences.

Same subject (SS) and different subject (DS) marking in the switch reference system were among the complex sentence constructions in the children’s narratives, as in the following examples. The switch reference system morphemes in the dependent clauses, and the main finite tensed verbs on which they depend, are in bold. Children’s use of this system today is in the analysis in Chapter 6 of this thesis.

Kele re **tnyetyalpe-rlenge**, kngwelye nhenhe honeybee-le **alwerne-me** anteme.

O.K. 3sgS fall.down-DS dog this honeybee-ERG chase-non.past now

So while he’s falling down, this dog is being chased by honeybees. [where 'he' refers to the boy]

Kele akngwelye-le **antyerne-mele**, honeybee mape **are-ke**.

O.K. dog-ERG **smell-SS**, honeybee group(pl) **see-past**.

When he was sniffing around (for the frog), (he) saw a mob of honeybees.

(Wilkins, 1993, pp. 10-11)

The report for Yipirinya school also identified some signs of weakness in the children’s speech, i.e. English-derived lexical items, particles, interjections, adjectives, adverbs, demonstratives, pronouns and some phonology, e.g. use of fricatives. The proportion of English-based language was higher in the six children’s narratives (which ranged 14% – 31%) compared with the two adults’ narratives (5%, 9%) (Wilkins, 1993, p. 15).

Adult Arrernte was between the second and the third degree of influence on the 6-point scale. Some of the children’s language was beginning to show evidence of third (in some instances, a small amount of fourth) degree influence. The study was preliminary in nature, noting that differences in strength of Arrernte from family to family also need to be considered (Wilkins, 1993), a suggestion this thesis begins to respond to, by developing a language profile of each child in the study (Chapter 4).

In a subsequent study on spatial language for path segments in complex motion events, the six children’s Frog stories were compared with six Arrernte adult tellings. Further, the Arrernte

narratives were compared with those of 12 nine-year-old and 12 adult English speakers, giving a total of 36 Frog stories. (Wilkins, 1997b; republished as Wilkins, 2004).

The analysis focused on two journeys. For the journey in Figure 2-2, considering all 36 narratives, one or both of two path segments were overtly linguistically encoded: the frog's escape from the jar and out the window of the bedroom. For the journey in Figure 2-3, considering all 36 narratives, up to 14 path segments were overtly linguistically encoded, including: the deer getting the boy, going towards the cliff, approaching and arriving at the cliff, and the boy moving off the deer, down towards the ground and into the water.



Figure 2-2. Frog story p.2

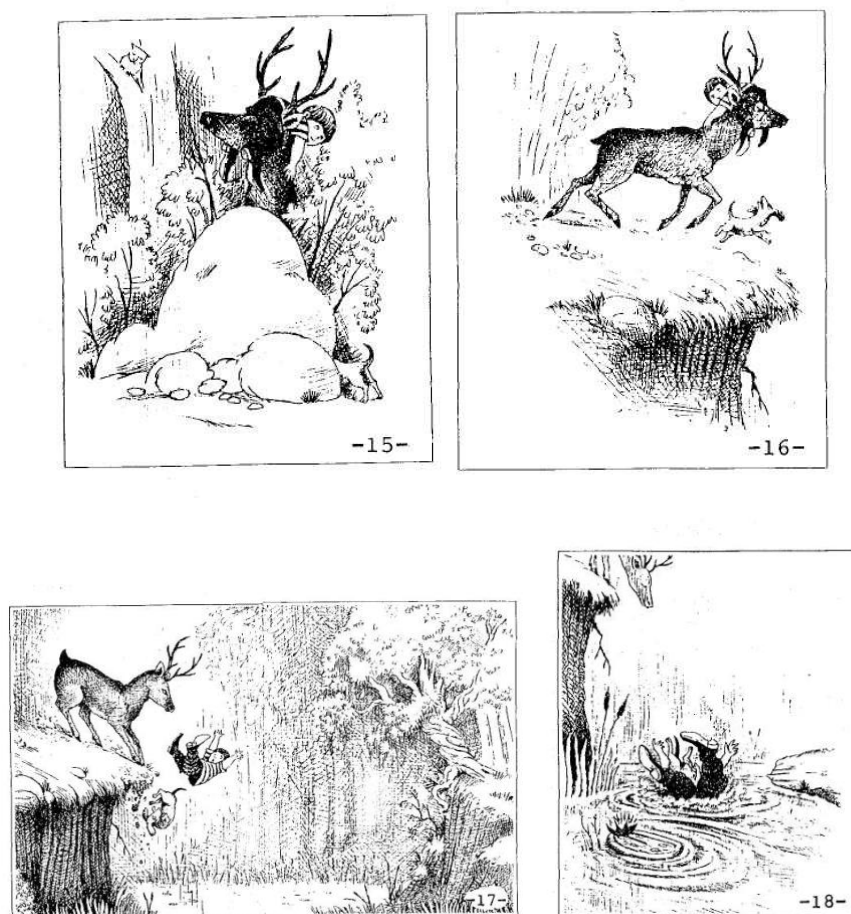


Figure 2-3. Frog story pp.15-18

For both journeys, Arrernte adults encoded more path segments than Arrernte children, English-speaking adults and English-speaking children. Arrernte children encoded slightly more complex journeys than English-speaking children. To narrate the journeys, all Arrernte adults used the associated motion verb system, in which a *verb stem action happens against the background of a motion event with a specific orientation in space* (Wilkins, 1997b, pp. 298-299). No Arrernte child used this system in their narratives. They did, however, display adult-like narrative attention. That is, they encoded the same path segments and/or they encoded the segments that are encoded with a head verb (rather than dependent verb) in the Arrernte adult tellings.

For page 15 in Figure 2-3 for example, Arrernte adults encoded the path segment 'start to go' using the DO&GO associated motion inflection *ine-rle.lhe-ke* (get-DO&GO-PAST), meaning '(the deer) got

(the boy) and then started to go off.’ This segment is absent from the narratives of all English-speaking adults and children. Although Arrernte children did not encode ‘start to go’ with an associated motion verb, their narrative attention aligned with that of Arrernte adults. Children’s accounts began with the same path segment as the adults but used different linguistic means. In the following example, the child attended to the action (DO, in this case ‘get’) and the motion (&GO), but uses independent clauses to encode the two components.

Then thing re-nhe ine-ke, alhe-ke.
 then thing 3sg-ACC get-PAST go-PAST
 Then something (the deer) got him (the boy), and went.
 (Wilkins, 1997b, pp. 301-302)

The third study investigated whether 15 children aged 6 – 10 treated the verbs *arrerne-* (put) and *are-* (look, see) in a syntactically mature way (Wilkins, 2008a). In Arrernte, both verbs take three NP arguments (marked for ERG, ACC and DAT). Thus, cross-linguistically Arrernte has an unusual argument structure for look/see, which only requires two arguments in many languages.

For *arrerne-* (put) the DAT argument marks the end location of the accusative argument. For *are-* (look, see) the DAT argument is the end point of the sight path, the location of the object being seen. Arguments are not obligatorily expressed in Arrernte. However, they are semantically required and understood even if elided (Wilkins, 2008a, pp. 146-150).

In Arrernte texts, conversations with children and stories for them, *arrerne-* (put) occurs with higher frequency than *are-* (look, see). The DAT argument is statistically more likely to be overtly realised in *arrerne-* (put) constructions but elided from *are-* (look, see) constructions. And, the DAT argument is more likely to be placed adjacent to the verb in *arrerne-* (put) constructions than *are-* (look, see) constructions. Thus, the DAT argument is more salient in input to children for *arrerne-* (put) compared with *are-* (look, see) constructions (Wilkins, 2008a, pp. 153-154, 156-159).

In naturalistic data (four hours of video-ed classroom activities highlighting putting and looking actions), all adults and children used DAT case marking for the location argument of *arrerne-* (put) constructions. Children were not having difficulty with this. However, there were no examples of *are-* (look, see) with dative of location in the naturalistic data.

It was narrative data using a textless picture book (Egan, 1986) that successfully elicited DAT marked arguments in *are-* (look, see) constructions (Wilkins, 2008a, pp. 155-156, 158). On one page of the story three people are depicted looking at a bird in a nest. Four of the five adult narrators produced the DAT argument, as in the following example:

Kele imarte itne **antywe kwene-ke** thiye akweke-Ø anteme are-mele.

OK then 3plS[=ERG] **nest inside-DAT** bird small-ACC now see-narr.pres

So, after that, they see a baby bird inside a nest.

(Wilkins, 2008a, p. 156)

Of the 15 children, 13 used *are-* (look, see). Of those, five provided the DAT argument; four elided it; and four selected the wrong case-marker (usually ABL) for the intended meaning or left the DAT NP unmarked for case. Children as old as ten were having difficulty with the DAT argument for *are-* (look, see), treating it as if it is a two-argument structure.

In sum, the children who participated in these studies were (a) producing morphosyntactic features of Arrernte, while also using some English (b) expressing motion events using Arrernte constructions, if not the same constructions as adults (c) more easily acquiring the argument structure for a frequently used verb, compared with the argument structure of a less frequently used verb. Building on these previous studies, this thesis set out to investigate children's Arrernte approximately 20 years later, and in the light of the types of changes that have recently been documented in children's language in remote communities.

2.3. Aboriginal child language studies in remote Australia

Three main *types of change* have become evident in the language of children and youth in remote Aboriginal communities in Australia: (1) traditional language retention with relatively minor change (2) hybridisation (3) more thorough shift to a creole or English variety (McConvell, 2008a, p. 238). This section organises existing research into these categories (Table 2-3). For each type, I review different studies from the ones McConvell discusses as examples; and foreground the aspects of these studies that inform this thesis. The three types could be considered points on a continuum, as findings fit more or less definitively into them. (Studies of adult production of child-directed speech are excluded from Table 2-3).

Type of change	Languages	Communities	Studies
(1)	Dhuwaya Koine, dialect shift, Yolngu varieties	Yirrkala, NT	(Amery, 1985, 1993)
	Warlpiri	Yuendumu, NT	(Bavin, 1987, 1990a, 1990b, 1991, 1992, 2000, 2004; Bavin & Shopen, 1991; Browne, 2019a, 2019b; Browne & Gibson, 2021; O'Shannessy, Disbray, Martin, & Macdonald, 2019)
	Eastern and Central Arrernte	Alice Springs and Ltyentye Apurte, NT	(Wilkins, 1993, 1997b, 2004, 2008a).
	Pitjantjatjara	Utju (Areyonga) and Pukatja (Ernabella), SA	(Langlois, 2002, 2004; Minutjukur, Tjitayi, Tjitayi, & Defina, 2019; Wilmoth, Defina, & Loakes, 2021)
	Murrinhpatha	Wadeye, NT	(Davidson, 2018; Forshaw, 2014, 2016; Forshaw et al., 2017; Kelly, Nordlinger, & Wigglesworth, 2010; Wood, 2020)
	Ngaanyatjarra	11-12 communities, especially Warburton and Tjukurla, WA	(Ellis, Green, & Kral, 2017; Ellis, Green, Kral, & Reed, 2019; Kral, 2007, 2009, 2010, 2011, 2012, 2014, 2020; Kral & Ellis, 2008, 2016, 2019; Kral, Green, & Ellis, 2019; Kral & Heath, 2013)
(2)	Light Warlpiri	Lajamanu, NT	(O'Shannessy, 2005, 2006, 2008, 2009, 2011, 2012, 2013a, 2013b, 2013c, 2013d, 2015, 2019, 2020a, 2020b, 2021)
	Gurindji Kriol	Kalkaringi, WA	(McConvell & Meakins, 2005; Meakins, 2008a, 2008b, 2009, 2010, 2012, 2014; Meakins & O'Shannessy, 2010, 2012, 2016)
	Tiwi with youth features: Modern and ultra-modern Tiwi	Bathurst Island, NT	(J. Lee, 1987; A. Wilson, 2013; A. Wilson, Hurst, & Wigglesworth, 2018)
	Alyawarr English, with passive competence in Alyawarr	Murray Downs, NT	Alyawarr English (Dixon, 2013, 2015, 2017, 2018, 2021)
(3)	Kriol, with Walmajarri substrate	Yakanarra, WA	(Moses, 1995, 2009; Moses & Wigglesworth, 2008; Moses & Yallop, 2008; Rendle-Short & Moses, 2010)
	Wumpurrarni English, with Warumungu substrate	Tennant Creek, NT	(Disbray, 2008, 2009, 2016; Disbray & Simpson, 2005)
	Shift from Dyirbal to English dominant code	Jambun (Murray Upper), Qld	(Schmidt, 1983, 1985a, 1985b)

Table 2-3. Linguistic studies of child/youth language production in various communities

2.3.1. Type 1: Traditional language retention, relatively minor change

Ngaanyatjarra is an example of language change type (1). Multilingual and multimodal repertoires are found in the several communities in the Ngaanyatjarra lands in WA (Kral & Ellis, 2020). It is common for adult community members to be speakers of Ngaanyatjarra and the mutually intelligible Western Desert dialects spoken by other residents (Ngaatjatjarra, Pitjantjatjara, Pintupi), as well as English, with frequent switching between these codes.

Infants and toddlers are scaffolded through baby talk register to become Ngaanyatjarra speakers, and children begin school as English language learners. Children and youth are immersed in traditional oral narratives with instructional and metaphorical meanings for behaving in socially valued *tjukaruru* (straight) ways. They are also exposed to strong speakers of their language participating in *tjumangkarriku* and *tjumalku* (telling stories and gossiping) and who produce now less-practiced speech styles such as *yaarlpirri* (early morning oration to publicly discuss issues, express grievances, disseminate information). (Ellis et al., 2019; Kral, 2012; Kral & Ellis, 2008, 2016, 2019; Kral et al., 2019).

Wangkarra (everyday speech) is commonly accompanied by nonverbal modes, i.e. *mara yurriku* (gesture and hand signs), *yurriira watjara* (speaking by moving). Girls learn the *mama mama ngunytju ngunytju* game and *tjinytja/mirlpa* drawings that accompany storytelling in the sand (Ellis et al., 2017; Kral et al., 2019; Kral, Green, & Ellis, 2020). This practice is discussed further in Chapter 7, which examines ways that Arrernte girls demonstrate similar multimodal communicative skills in the sand.

Younger generations are still using their traditional language in everyday social interactions and maintaining ‘correct’ Ngaanyatjarra grammar. However, older speakers consider young peoples’ speech to have less lexical range; fewer complex sounds and grammatical forms; increased code-mixing with English; and a diminishing repertoire of Ngaanyatjarra special speech styles, respect and avoidance relationship registers. Language shift has been accelerated by emphasis on English language and literacy in the education system, lack of consistent support for mother tongue school programs, and changes in language socialisation practices, e.g. reduced time spent on Country and participating in cultural practices which facilitate in-situ development of context-specific language forms and specialist knowledge (Kral & Ellis, 2008, 2019).

Ngaanyatjarra youth use media and digital technologies as vehicles for expressing their identities, bridging their traditional and contemporary ways of being (Kral, 2012; Kral & Heath, 2013). They do so outside of formal learning contexts, drawing on both their traditional language and English, in largely self-initiated and self-directed arts-based projects, such as music and film-making (Kral & Heath, 2013). They have rapidly adopted new technologies and been active content producers (Kral, 2009, 2010, 2011, 2012, 2014, 2020). Although this component of the body of research on Ngaanyatjarra focuses on an older age group in their teenage years, it is relevant to this thesis because it describes integrating identities through two (or more) very different languages and cultures, as is the case for the children growing up at Ltyentye Apurte. A difference between the Ngaanyatjarra research context and this thesis is ease with which community members can travel to English-dominant regional town. Ltyentye Apurte is 85km from Alice Springs, compared with a one way 800-1,200 km journey to Kalgoorlie or Alice Springs for residents in Ngaanyatjarra communities.

2.3.2. Type 2: Hybridisation

Studies of mixed languages are relevant to this thesis because pervasive, structured, codeswitched input has been identified as a factor in their development (McConvell, 2008b; McConvell & Meakins, 2005; O'Shannessy, 2012). Codeswitching is common at Ltyentye Apurte, and is in the input children receive (discussed in Chapter 4). Shift to a mixed language may be more likely where there is essentially only one traditional language group in a community (McConvell, 2008a), which is the case at Ltyentye Apurte. This contrasts this with communities in which several languages are represented, resulting in shift to the 'neutral' language Kriol/Aboriginal English rather than to a formally mixed code which would continue the heritage of only one language (McConvell, 2008a, p. 255).

Gurindji Kriol at Kalkaringi (Meakins, 2008a, 2008b, 2012) and Light Warlpiri at Lajamanu (O'Shannessy, 2005, 2006, 2008, 2012, 2013a, 2015, 2019, 2020a, 2020b) are formally mixed languages. They can be distinguished from codeswitching, and contain elements not found in the source languages. Speakers can be proficient in both the source languages and the mixed language. It is possible to distinguish them (grammatically and in terms of social uses) despite shared features. Both Gurindji Kriol and Light Warlpiri are categorised as V-N mixed languages, i.e. the verbal tense-aspect-mood structure is derived from Kriol/English and nominal constructions from the traditional language.

A key part of Warlpiri grammar, the pronominal-tense auxiliary system, is the basis for an innovative system in Light Warlpiri, substituting forms from reanalysed English subject pronouns with cliticised tense, e.g. I'm. Sentence (1a) is a Light Warlpiri example, translated into Warlpiri in (1b) and into Kriol in (1c). Elements from Warlpiri are in italics, those from English and Kriol in capitals and the innovation is underlined (O'Shannessy, 2020a, pp. 2-3).

(1a) Light Warlpiri

<i>Ngajarra-ng</i>	WI= <u>M</u>	BAI-IM	DRESS- <i>pawu</i>	<i>kurdu-pawu-k.</i>
1DL.EXCL-ERG	1PL.S-NFUT	buy-TR	dress-DIM	child-DIM-DAT

We two bought a little dress for the child.

(1b) Warlpiri

<i>Ngajarra=rlujarra-rlu</i>	<i>payi-manu</i>	<i>warrpa-pardu</i>	<i>kurdu-pardu-ku.</i>
1DL.EXCL-1DL.EXCL.S-ERG	buy-CAUS	dress-DIM	child-DIM-DAT

We two bought a little dress for the child.

(1c) Kriol

MINBALA	BIN	BAIY-AM	LIL-WAN	DRES	BA	DET	LILGEL
1DL.EXCL	PST	buy-TR	little-NOM	dress	PURP	DET	young.girl

We two bought a little dress for the girl.

During the 1960-80s children were exposed to pervasive codeswitching between Gurindji and Kriol, which they began to conventionalise. As they grew up, it stabilised as their normal way of talking, and became a separate language. Since the 1990s children have been learning Gurindji Kriol as a single language, through input from their parents' generations. At Kalkaringi today only old people speak Gurindji, though younger people have some passive knowledge of it. Younger generations predominantly speak Gurindji Kriol when in their home community, and a more general Kriol (without Gurindji mixing) when interacting with Aboriginal people from other communities and towns across the region. (McConvell, 2008b; McConvell & Meakins, 2005; Meakins, 2012).

Light Warlpiri emerged in similar circumstances. In a two-stage two-generation process, adults used a baby talk register and frequently codeswitched using a consistent pattern of Warlpiri with English/Kriol insertions. In the second stage, that pattern was internalised as a single system – Light Warlpiri – by children who then grew up transmitting that code to the subsequent generation. Light

Warlpiri has become the preferred code of community members currently under the age of approximately 40. These younger generations, however, can also produce Warlpiri. (O'Shannessy, 2020a, 2020b).

Although Light Warlpiri uses few verbs from Warlpiri, and does not include full Warlpiri morphology, it is not necessarily a sign of a trajectory towards traditional language loss. In fact, code-switching practices can be analysed as a sign of language maintenance, especially for higher-frequency items in the traditional language, since codeswitching into Warlpiri requires use of Warlpiri verbs and verbal morphology (O'Shannessy, 2021).

2.3.3. Type 3: More thorough language shift

In this type of change, children (in the present or a previous generation) have shifted to a creole or English variety but have retained a few elements of the traditional language (McConvell, 2008a, pp. 246-247). Wumpurrarni English, spoken by Warumungu families living in Tennant Creek NT, is an example of this type (Disbray, 2008, 2009, 2016; Disbray & Simpson, 2005).

This example has similarities with the Ltyentye Apurte context, and can illuminate this study. Both language groups have community members living in several locations, some of whom have close connections to a major regional town. Adults aged 35-50 with relatively strong Warumungu proficiency grew up on cattle stations in the region where their families were living and working before the 1970s when they moved into town, as employment opportunities declined with new technologies and the right to equal wages for Aboriginal stockman. Warumungu continued to be transmitted at Rockhampton Downs and Banka Banka Stations for longer than at other locations (Disbray, 2009, pp. 31-32).

In the case of Ltyentye Apurte, shift may be in progress or may have already happened in some families. There is greater concern in the community that this is the case for children who spend more time in Alice Springs. Shift is more likely to be to a variety of English than to Kriol, though some families in this study have connections to families in the Kriol region across northern Australia and periodically travel to communities there. Profiles of each child in this study (Chapter 4) illustrate such connections.

Another overlap between this thesis and Disbray's study is the investigation of children's developing narrative competence and referent tracking. Warumungu-valued stylistic features are evident when the narrator's code choice is Wumpurrarni English, e.g. structures used for marking discourse prominence, repetition of clauses and elements of clauses, and elaboration (Disbray, 2008, 2009, 2016). This thesis uses narrative data to investigate children's production of Arrernte constructions for tracking known referents.

At the outset of this thesis, a language change type 2 or type 3 (Table 2-3) seemed a possible finding, based on concerns about language shift expressed by Arrernte educators, Arrernte-English codeswitching typical in adult speech, and strong connections between Ltyentye Apurte families and Alice Springs. In fact, the children's language is found to be more accurately categorised as type 1, Arrernte maintenance with relatively minor changes. However, the study also finds variation amongst the children, described in Chapters 5-6.

2.4. Sociocultural views on the linguistic data

To provide a rich description of the participating children's communicative skills, to understand social conditions that may help to explain why McConvell's type 1 is the case at Ltyentye Apurte, and to search for explanations for the variation amongst the children, this study draws on two traditions of inquiry (Figure 2-4). It combines a language documentation/description approach with some of the methods and theoretical lenses that language socialisation is known for and has brought to the study of child language.

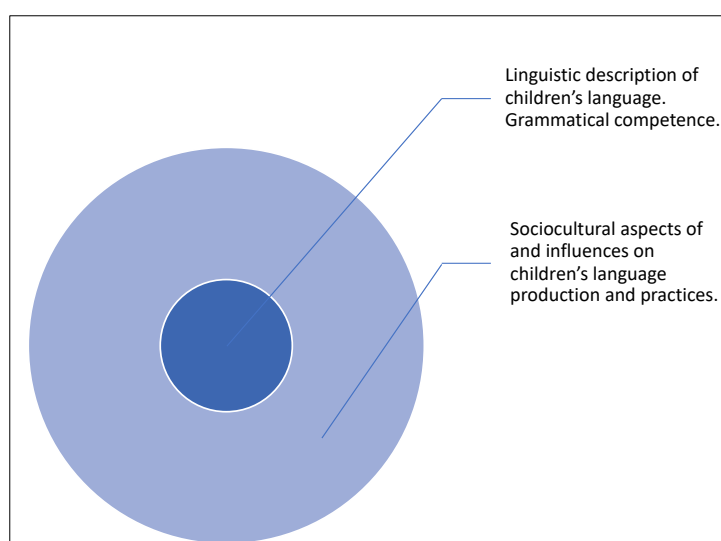


Figure 2-4. The two main traditions of inquiry underpinning this thesis

2.4.1. Language socialisation

Like documentary/descriptive linguistics, the language socialisation approach responds to the lack of typological diversity in child language research. Ochs and Schieffelin co-pioneered this field in the 1980s to bridge theoretical and methodological boundaries between the disciplines of linguistics, developmental psychology, anthropology and sociology. As originally defined, the approach addresses both *socialization through the use of language* and *socialization to use language* (Schieffelin & Ochs, 1986a, p. 163). The roots of language socialisation lie in Sapir's view of language as the most powerful socialising force; in Gumperz's and Hymes's ethnography of speaking paradigm, and notions of speech community and speech events; and in Bourdieu's concepts of habitus and practice, i.e. social practices and dispositions that members of a society are apprenticed into, participate in, and can also interpret and creatively reconstruct (Ochs & Schieffelin, 2012, 2017).

Socialisation occurs in routine *communicative practices*, accumulated in moment-by-moment physical, social and discursive interactions between experts and novices (whether the novices be children, or any learner of any aspect of a community's speech and behaviours). Through engagement in such interactions, novices acquire both the language itself and community-valued ways of interacting. Language socialisation investigates how they become speakers of culture as well as speakers of language (Ochs & Schieffelin, 2012).

In remote Australian Aboriginal communities, some traditional *communicative practices* for adult speech to infants and children have been described: baby talk register (e.g. Laughren, 1984; Turpin et al., 2014); naming routines for teaching connections to relatives in the skin system (Bavin, 1993); developing children's knowledge of spatial and directional terms (Mary Laughren and Wendy Baarda in Nicholls, 2013); multimodal storytelling in the sand (e.g. Green, 2014, 2016; Wilkins, 1997a); adult-child collaborative construction of knowledge of Country (Reeders, 2008).

In Murrinhpatha, young children (aged 2-5) are socialised into understanding and expressing their affiliations and membership of various categories e.g., clan, kin, country, salt/fresh-water, dance groups, totemic plant, animal and spirits. Through daily micro-interactions, such as known-answer questions and *Thama!* (You say/do it!) routines, adults ask children questions, prompt them to complete an utterance, or encourage them to repeat a modelled utterance. For example: What's your mother's Country? My mother's Country is Say 'My mother's Country is Nangu.' Thus, children not

only acquire language forms but also learn and express cultural knowledge about their multiple affiliations and non-affiliations (Davidson, 2018, pp. 48-59, 64-65, 84; Kelly and Davidson, in Hellwig et al., 2021).

Early language socialisation work on Western Samoan in the south Pacific and Kaluli in Papua New Guinea investigated infants' and toddlers' linguistic, social and cultural development (Ochs, 1982a, 1982b, 1983; Ochs & Schieffelin, 1983; Schieffelin & Ochs, 1986a, 1986b). This work brought into question conditions of acquisition that had been assumed to be universal, informed by research on a limited number of languages, e.g. adults providing input that has modified pitch and intonation, ascribing meaning to babies' babbling as if in conversation with them. Such practices were not prominent for Western Samoan and Kaluli, yet children acquired these languages. Input and interactions with children were instead shown to have culturally-specific aspects, determined by community-held ideologies about child rearing practices, maturity, learning and wellbeing (Ochs, Solomon, & Sterponi, 2005, pp. 557-558), and by children's participation in multiparty interactions (Ochs & Schieffelin, 2008, 2012, 2017).

Linguistic research had focused predominantly on children's acquisition of grammatical forms, and had also begun to include studies of developmental pragmatics (e.g. Blum-Kulka, 1990; Ervin-Tripp & Mitchell-Kernan, 1977). Language socialisation research drew greater attention to aspects of communication that are integral to language development but had often been overlooked, especially speech community-specific cultural factors in any given situation, and non-verbal modes such as gesture, eye-gaze, body orientation, pointing, facial expressions and actions (Ochs, 1979).

Such cultural and paralinguistic factors are given attention in this thesis, alongside the children's speech – in the personal recounts told multimodally with use of a stylus and drawings in the sand (Chapter 7); and in the concrete materials, physical demonstrations and hands-on shared experiences in the early years bilingual classroom (Chapter 8).

Language socialisation in multilingual contexts

While early language socialisation research investigated small-scale mostly monolingual communities, contemporary studies incorporate linguistically heterogenous settings and cultural hybridity (Ochs & Schieffelin, 2017). Language socialisation research assumes: (1) languages and communities across the world are undergoing transformation (2) children's cultural and linguistic production is influenced

by this transformation (3) children contribute to the transformation in language contact zones (Ochs & Schieffelin, 2012, pp. 14-15). Cultures and ways of being are not permanently fixed and unchanging. Novices and experts not only reproduce but also transform the social and discursive practices of their societies. While powerful languages undergo relatively incremental change, minority languages are more susceptible to a radical pace of change, under pressures to shift to the national language.

Compared with infants and toddlers (the age group that has traditionally been the focus of language socialisation research), the children in this study are of an age which is more significantly exposed to English, in compulsory years of schooling. They are socialised into the physical and linguistic architecture of classroom routines (Burdelski & Howard, 2020). In the process of experiencing schooling through more than one language, they develop new intercultural identities (Duff, 2017, 2020). They experience multiple language practices, and learn ways of using their linguistic repertoire and social values associated with them (Howard, 2017).

These themes of intercultural contact, transformation and hybridity are pertinent to this thesis. Families at Ltyentye Apurte are connected to numerous social, historical, political and economic structures, institutions and processes, in and beyond their community, although largely from positions of economic and educational disadvantage.

The influence of language ideologies

Language ideology is an extensive field of study in its own right, and a core component of language socialisation research. Ideologies may be *explicitly articulated or implicitly embodied* in communicative practice (Kroskrity, 2006, pp. 496, 498). They may operate from micro-interactional through to macro-societal levels; may be unconscious and unspoken or baldly stated and prescribed; and may encompass everything from *unexamined assumptions* to *politically-charged dogma* (Riley, 2012). Widely-cited definitions of language ideologies are: *shared bodies of commonsense notions about the nature of language in the world* (Rumsey, 1990, p. 346); and *beliefs, or feelings, about languages as used in their social worlds* (Kroskrity, 2006, p. 498). In this thesis, I use the term broadly, to also encompass attitudes, beliefs, views, conceptions, perspectives and expectations regarding children's language and learning.

Although there can be inconsistencies and contradictions between speakers' stated beliefs and actual actions (Kroskrity, 2006; Ochs & Schieffelin, 2012, p. 12), ideologies are discoverable in people's explicit

talk about their language, in ways they may regiment language use, in their unexpressed assumptions, and in their embodied language use social practices (Woolard, 1998, pp. 9-10). In endangered language contexts, the study of language ideologies can provide insights into reasons for both language decline and maintenance, can contribute to *ideological clarification* (Dauenhauer & Dauenhauer, 1998; Kroskrity, 2009) for a community, and can increase the effectiveness of language revitalisation efforts to strengthen a language (Austin & Sallabank, 2014). Consideration of language ideologies is especially helpful in settings where a community's linguistic repertoire has unequal status at the state level, and majority language hegemony is institutionally embedded, most pronounced in the case of colonised Indigenous societies (Philips, 1998, pp. 486-489).

Code choice ideologies can lead to shift. This has been the case in the village of Gapun in Papua New Guinea (PNG), where the contact code Tok Pisin was associated with reason and progress, while the vernacular Taiap was associated with emotional outbursts and backwardness (Kulick, 1992). A different ideological position explains shift in a different part of PNG. Arapesh communities' shift to Tok Pisin is underpinned by an *openness of attitude*, interest in learning other speech varieties, enthusiasm for acquiring distant valuable things. Metaphorical roads (social interactions and exchanges) and physical roads, prominent in people's discourse, characterise an *importing culture*. Despite positively valuing Arapesh, community members nevertheless speak in ways that have diminished its use (Dobrin, 2014).

On the other hand, where Indigenous languages are unexpectedly being maintained in contact situations, studies have sought to understand how ideologies support language maintenance. Speaker's attitudes to their language have even been described as *the most important factor* in language preservation (Thomason, 2001b, p. 14).

In an Australian example, three traditional languages continue to be widely used in the small north-west Arnhem Land community of Waruwi, and most children speak two (Singer & Harris, 2016). Ideologies quite different to those found elsewhere help support maintenance of multiple small languages. English is dispreferred. Each of the traditional languages is equally valued; none is perceived to have higher status. Ideologies influence linguistic practices. The diglossia and small-scale societal multilingualism found at Waruwi are supported by individuals' diverse linguistic repertoires and by widespread use of the *Lingua Receptiva mode* in which interactants each speak their own

language and understand each other. They produce their own language and have receptive skills in the languages of their interlocutors (Singer & Harris, 2016).

In north American examples, Montana Salish speakers' attitudes exemplify *deliberate non-change* through *non-borrowing* (Thomason, 2001b). That is, even for introduced items, they prefer to construct new words, e.g. *p'ip'uysn* (automobile, literally 'it has wrinkled feet'). After 150 years of intense contact, all current speakers of Montana Salish are also fluent in English. Their traditional language has only a tiny handful of borrowed words and no detectable structural interference from English (Thomason, 2001b). Similarly, resistance to loan words, language purism and language-identity connections valued by the Tewa of Arizona are central to explanations for language maintenance by this community (Kroskrity, 1998).

Ideologies play out uniquely in different contexts, however. The description of ideologies in this thesis, will contend that speakers do not resist borrowing from, codeswitching into, or use of English. Yet Arrernte is spoken by members of all generations (variation notwithstanding). By describing a set of ideologies associated with *Arrernte rltarrke atnyene-tyeke* (Arrernte strong hold/look.after-PURP) keeping Arrernte strong, Chapter 4 will unpack reinforcement of the traditional language alongside English in the particular circumstances at Ltyentye Apurte.

From a language socialisation perspective, linguistic input is enmeshed in ideologies about children's language learning and what is required for developing their communicative competence (Ochs & Schieffelin, 2008, 2017). Ideologies about how essential Arrernte language is to children's identity, wellbeing and future, and the role of education in supporting Arrernte, are embedded in the social fabric of the community and the lives of the children in this study.

Ideologies play a significant role in determining the medium-of-instruction policies in institutional schooling, impacting on home language maintenance/shift and educational attainment for speakers of minority languages (Burdelski & Howard, 2020; Hornberger, 2005b; Howard, 2017). In this thesis education sectors and systems will be highlighted as a key site for enacting ideologies, with the school program as a community priority for reinforcing children's Arrernte. My description will centre on ideologies not only commonly expressed but also observably enacted by adults in the community, by the education system and wider society; their influence on the input children receive and the production expected of them in home and school contexts. In a comparable remote community

setting, shared ideologies underpin classroom practices developed collaboratively by Warlpiri educators in four locations, sustaining four decades of *Warlpiri pirrjirdi* (strong Warlpiri language) teaching and learning. Regular teacher professional sharing and development workshops are key platforms for articulation of collective community ideologies and strategies for classroom implementation. (Browne & Gibson, 2021).

Language socialisation work on narratives

Finally, this thesis also draws on language socialisation research on narratives (e.g. Heath, 1982, 1983, 1986; Miller, Koven, & Lin, 2012; Miller & Moore, 1989; Miller, Potts, Fung, Hoogstra, & Mintz, 1990; Ochs, 2006a; Ochs & Capps, 2001). Collectively this body of literature describes the rich diversity in the nature and purpose of daily conversational narratives that children from different speech communities and social groups are exposed to and tell. Narratives are culturally organised and are mechanisms for socialisation. In this thesis, children tell ‘Western’ school-style narratives guided by a set of picture books designed to resonate with characters and events in remote communities. They also tell Arrernte-style multimodal sand stories, personal recounts about monsters and similar beings that inhabit their community. The children skillfully respond to the linguistic and cultural structures of these different tasks.

2.4.2. A child-directed communication framework

This study combines ethnographic and discourse data, a hallmark of the language socialisation approach, which aims to bridge research in anthropology (where language received less attention) and language acquisition (where culture received less attention) (Ochs & Schieffelin, 2012, pp. 11-12; Schieffelin & Ochs, 1996). In this thesis, the ethnographic data facilitates the foregrounding of community members’ priorities for and insights into children’s communicative skills. It also helps to explain similarities and differences in competencies across the cohort of children in the study. Further, it assists with bridging the discourse data micro-analyses and the macro-level sociohistorical sociopolitical context in which they are growing up, using both Arrernte and English, in and outside of school.

Each discourse data chapter in this thesis is introduced with the six-dimensional Child-Directed Communication (CDC) framework developed by Ochs et al. (2005) to describe interactions of members of social groups across situations and cultures. The framework views children as active communicators

(not just recipients of communication directed at them). The dimensions – ideologies, habitats, participation frameworks, activities, semiotic repertoires and artifacts – are intertwined when realised. Ideologies have a prime place in the framework (Figure 2-5).

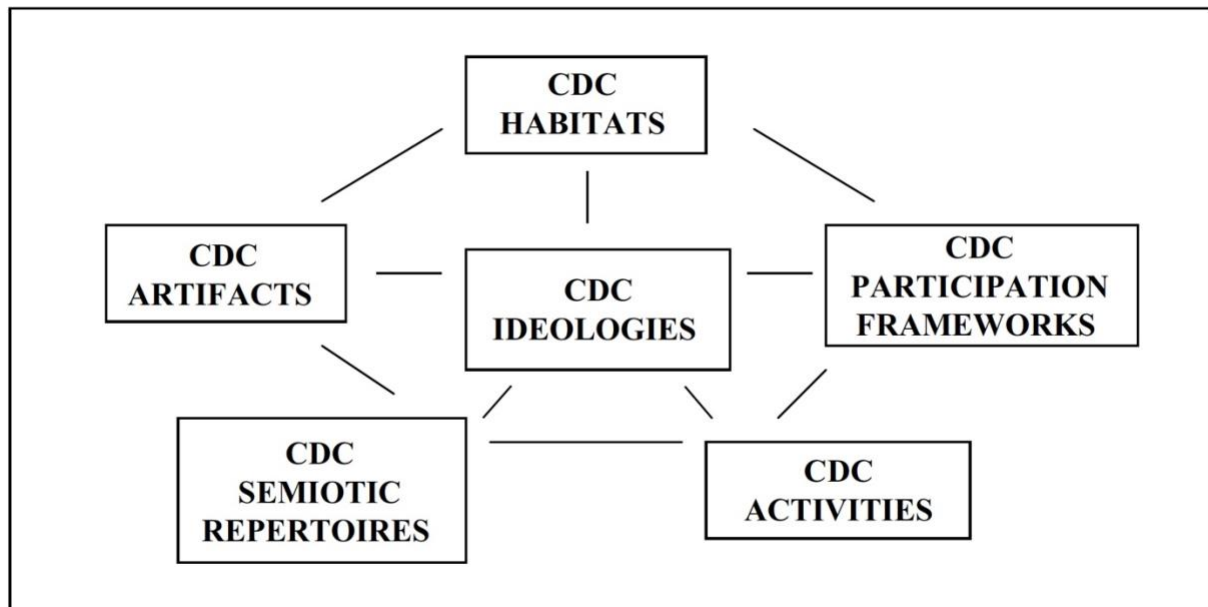


Figure 2-5. Child Directed Communication framework (Ochs, Solomon, and Sterponi 2005)

What follows is a general explanation of each dimension (Ochs et al., 2005, pp. 553-560). The introductions to Chapters 5-8 specifically apply the dimensions to each of the three distinct contexts in which data were recorded for this study, systematising the description of children's differential deployment of their communicative skills, co-/non-verbal aspects as well as speech.

Ideologies. In interactions with children, caregivers use and expect particular spoken codes and other modalities, according to implicit and explicit beliefs associated with them. Social groups also have beliefs about language acquisition which underpin whether speech simplification and accommodation towards children is necessary or appropriate. This thesis finds ideologies a helpful explanatory tool for considering the adult models and social messages that children are exposed to regarding the role of Arrernte and English in their lives; and the broader society institutional ideologies which differentially position and value Arrernte and English.

Habitats. At different developmental stages, children's access to communicative activities are organised according to territorial range and ecological niches in a social group's habitat. Micro-

ecological niches include corporeal positioning (i.e. where and how infants are held) and material niches (e.g. beds, slings, baby-seats). Macro ecological niches include a community's architectural structures and landscapes (e.g. houses with or without interior or exterior walls). This thesis explores the physical locations in which the discourse data were recorded, and describes how the locations are an aspect of the children's communication, e.g. use of the ground and locations in their community when telling their stories in the sand; growing familiarity with the classroom setting.

Participant frameworks. Preferred configurations of participants in interactions, such as those in Figure 2-6, are determined by the maturity of the child, activity-specific roles, artifacts and spaces relevant to the particular situation at hand. Configurations may be dyadic or multiparty. They afford and promote, or constrict and limit, the engagement of social actors in interaction. This thesis describes children's communication in variety of frameworks, including telling a picture book story to an adult; telling a sand story to an audience of peers and an adult; whole-class and pair-work in classroom interactions.

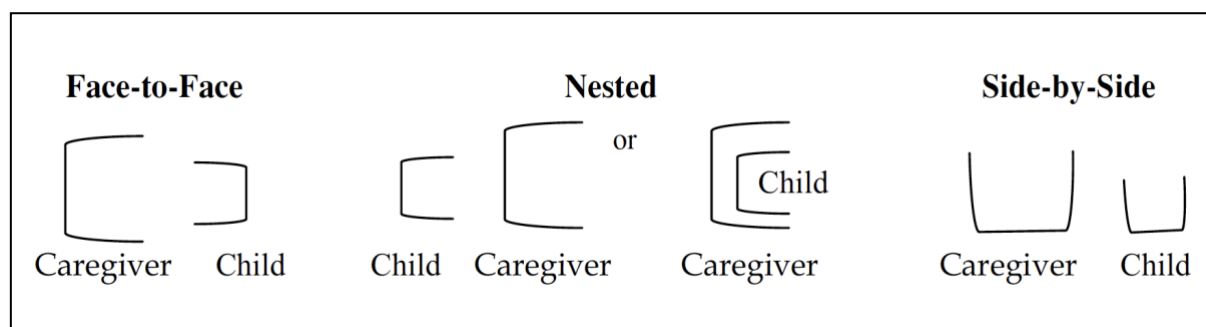


Figure 2-6. Participant framework possibilities in Ochs et al (2005, p.555)

Activities. Children's communicative skills are developed through participation in routine social activities, e.g. greetings, songs, games, teasing, soothing, questioning, prompting, instructing, describing, explaining, storytelling. The nature and prominence of particular activities, and the expectations of caregiver and child involvement in them, vary across situations and social groups. This thesis describes children's participation in an Arrernte storytelling style in the sand, and in more English/school-like activities (picture book narration and a classroom Maths lesson) which are not unfamiliar to Arrernte families after three generations of schooling in this community.

Semiotic repertoires. In addition to the complexity of verbal speech at all levels (phonological, morphosyntactic, lexicon, discourse), members of social groups draw upon semiotic repertoires in

communicating with children from birth on, e.g. pointing, eye gaze, facial expressions, rhythmic movements, vocalisations, pitch. Semiotic repertoires broadly include somatic, visual, vocal and musical resources. They are often coordinated in cross-modal, kinaesthetic communicative activity. This thesis describes children's use of gestures and icons drawn in their sand talk; image sequences they interpret in picture books; and symbols and communicative routines they encounter in a classroom setting.

Artifacts. Social groups have various artifacts, items and objects that mediate children's acquisition of linguistic and other semiotic resources relevant to their communities, e.g. games, books, alphabets, numerical systems, musical genres and notations, imagery, and other symbolic representations. This thesis describes children's use of a stylus, their hands and body in sand talk; their use of the picture book elicitation tools; and their manipulation of materials guiding their classroom discourse.

2.5. Conclusion and directions

While Eastern-Central Arrernte is well documented/described, children's production has received relatively less attention. Given the vulnerable status of Arrernte, the documentation/description aspects of this thesis aim to describe children's production of grammatical structures. The language socialisation aspects aim to describe their communicative skills more broadly, i.e. use of non/co-verbal resources, use of their linguistic repertoire in ways that align with older models, and innovations that represent their emerging bilingual bicultural identities, as young members of a speech community that has been in contact with the dominant society language and culture for several generations. The next chapter outlines the project methodology, including ethical considerations and data collection.

Chapter 3 Methodology

This chapter addresses ethical and logistical considerations related to collecting data and researching children's language in a remote Aboriginal language community. It provides an overview of the three audio/video discourse data sets and the ethnographic information which will complement them. The methodology is also connected back to the study's theoretical underpinnings and research questions.

3.1. Background

Fieldwork for this study was conducted between November 2013 and April 2018, at 6 or 12 month intervals. Each trip was one month in length, giving a total of eight months in the field, seven of these at Ltyentye Apurte: November 2013, May 2014, November 2014, May 2015, November 2015, May 2016, May 2017, April 2018. All trips involved getting to know school staff, community members, children and their families; as well as a mixture of recording and transcribing, and gathering ethnographic data. I spent the final trip in Alice Springs, and used this time to visit Arrernte programs in two schools, the Alice Springs Language Centre, and the early childhood program run by Children's Ground.

At the beginning of this project, I had no knowledge of Arrernte. This contrasts with researchers who spend many years living in the community and/or region, acquiring proficiency in a language before starting a research degree on it (e.g. Disbray, 2009, 2018; Green, 2014; Moore, 2012, pp. 33-38; O'Shannessy, 2006). My lack of Arrernte proficiency necessitated close collaboration with bilingual speakers at Ltyentye Apurte, tutoring sessions with David Wilkins who wrote a grammar of the variety of Arrernte spoken in the community (Wilkins, 1989), and use of the documentation and learner guides indicated in Chapter 2.

Funding for the trips – including casual employment of Arrernte adults as research assistants, who facilitated the recording sessions and assisted me to transcribe the data – came initially from the Aboriginal Child Language Acquisition Project (ACLA, phase 2) ARC Discovery Grant DP0877762 (Chief Investigators Jane Simpson and Gillian Wigglesworth) and later from the ARC Centre of Excellence for the Dynamics of Language (CoEDL) CE140100041 (Directors Nicholas Evans and Jane Simpson).

My background is predominantly in Education. I began my teaching career in the late 1980s on Thursday Island in the Torres Strait. After completing a Grad Dip (Teaching English as a Foreign Language), I did several years of ESL teaching in Australia and EFL teaching overseas. After completing a coursework Master of Arts (Applied Linguistics) with a focus on Australian languages, I worked at the Katherine region Aboriginal languages centre in the NT, and then in Aboriginal languages curriculum development in language revival settings in NSW. Prior to starting this PhD, and throughout the period of this project, I have been working as a lecturer in Teacher Education for Indigenous and non-Indigenous students at the University of Sydney.

My personal motivations for the research included gaining skills that are developed through the discipline of Linguistics, especially language documentation, and use of recording and transcribing tools. I sought these skills to complement my background in Education, and to benefit the project and people I would be collaborating with at Ltyentye Apurte.

3.2. Ethics

This project was approved and conducted under Australian National University Human Research Ethics Committee protocol 2013/241 (current until 31/11/2020), including:

- plain English information sheet about the project, including the right not to participate and the right to withdraw at any time
- participation consent forms signed by a parent/carer of each child; and by the teachers, assistant teachers and community members who participate in the audio/video recordings
- agreement on archiving the recordings at the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS).

The school's Arrernte program teacher, Carmel Ryan, introduced me to the children's parents/carers. She explained the project plans to them in Arrernte, and we also discussed them in English. I also:

- received letters of approval and support from the school Principal, Deputy Principal and Director of Catholic Education NT

- discussed the project with the Ltyentye Apurte Atyenhenge-atherre Aboriginal Corporation Chair, who advised me to work through Arrernte staff in teaching and leadership roles in the school
- maintained a Working With Children Clearance (WWCC), also known as a Safe NT Ochre Card (valid for two years at a time, issued after a National Police History Check by the Australian Criminal Intelligence Commission)
- obtained a Central Land Council permit to enter and remain on Aboriginal Land, for research purposes
- consulted the Australian Linguistic Society (1984, 1990) and Australian Institute of Aboriginal and Torres Strait Islander Studies (2012) guidelines on the rights of communities and ethical obligations of researchers.

While these various documents and approvals are important ways for meeting ethical standards, I still faced conundrums in implementing them authentically. Additional deliberations underly this project, mindful of historical culturally insensitive research practices and of research continuing to be site of struggle between the interests of Indigenous peoples and institutional discipline-specific ways of pursuing and constructing knowledge (L. T. Smith, 2012). Discussions about such issues in the literature, and on-the-ground between researchers and communities, have been fraught but also productive in recent years. Indigenous researchers and community groups have been instrumental in shifting some of the characteristics of academic work.

Australian Aboriginal researchers in the field of Education have called for *Indigenist* approaches which arise out of *the lived historical experiences, ideas, traditions, dreams, interests, aspirations and struggles* of community members (Rigney, 2006, pp. 39-45). To reflect Aboriginal ways of *knowing, being and doing*, researchers are advised to reframe eight established procedures, so that: the purpose of the project is to protect and preserve people and Country; the research questions prioritise a community agenda; the literature review includes Aboriginal experts; the research design is fundamentally relational; all communications in conducting the research are sensitive; the analysis includes community perceptions and strategies; the interpretation is centred in community voices; the dissemination of findings re-presents the research to the participants and maintains their relatedness to it (Martin & Mirrabooa, 2003).

Australian Aboriginal researchers in the field of Linguistics lead by example, through their motivation to rank the interests and futures of speakers over those of the linguistic profession (Bell, 2007). In language revitalisation research, this involves weaving responsibility to their own local community and Indigenising the academy (Radley, 2021). Linguistic justice, skills sharing between linguists and community members, and making technical linguistic materials more accessible and transparent to community members are priorities (Gaby & Woods, 2020; Woods, 2009, forthcoming).

Indigenous community organisations in Australia advocate for local community members' input into and control over educational and linguistic research outcomes, researcher-community team approaches, and respect for Indigenous Cultural and Intellectual Property (e.g. Federation of Aboriginal and Torres Strait Islander Languages, 2004; First Languages Australia, 2015). National and state/territory education authorities, in partnership with Indigenous educators and communities, have developed protocols to ensure local community control of language and culture program development and implementation (e.g. Australian Curriculum Assessment and Reporting Authority, 2015b; Northern Territory Department of Education, 2017).

In the 1980s in Australia questions about the social value of theoretical work in economically underprivileged minority language communities and the need for linguists to be cognisant of the social and historical context of their work were raised (Wilkins, 1992). These debates and efforts have continued in journals, conferences and fieldwork practices in Australia and other countries where Indigenous people have suffered invasion, colonisation and language suppression.

In Canada for example, there are model projects and advice on traditional notions of the role of linguists becoming inclusive of social responsibilities, i.e. to work *on* language through research that is *for*, *with* and *by* communities, thus *empowering* them in the process (e.g. Czaykowska-Higgins, 2009; Rice, 2006, 2009, 2010, 2011). This requires the five 'R's of recognition, respect, responsibility, reciprocity, relationships (Rice, 2006, 2009, 2010). Both traditional works (the Boasian dictionary-grammar-texts trilogy) and new opportunities can result, and in ways that are more conducive to community direction of the research (Rice, 2011). Collaborative approaches recognise expertise in communities and contribute practical knowledge for social change (Czaykowska-Higgins, 2009).

Community-driven research has also been framed in terms of the need to *decolonise linguistics*, to shift power imbalances and work equally with linguistic and community goals (Leonard & De Korne,

2017; Stebbins, Eira, & Couzens, 2018). Researchers are advised to carefully incorporate community needs into determining a topic, building trust and allowing sufficient time for a project to form through genuine partnership (Leonard & Haynes, 2010). Despite the fact that university-based linguists are accountable to the academy, which typically undervalues or does not recognise community-friendly material as research output (Pensalfini, 2004; M. Walsh, 2005),⁵ endangered languages contexts require holistic, humanistic, reflexive research practices, and useable documentation that is valuable to the community (Austin, 2010).

Central Australia based researchers – working in various disciplines – echo many of the principles outlined above, and also have pertinent insights on conducting ethical research in this particular region (Strangeways, Lovell, & Judd, 2018). The expertise of *fly-in fly-out* outsider researchers is limited because *getting the story right* requires truly knowing the context by *being here*. *Being in place* enables a deeper relationships with Aboriginal people involved in a project, greater understanding of their ways of doing things and daily lived realities (Judd, 2018, pp. 6-7). Ethical research can only be conducted *through an everyday engagement with context that comes by being in place* and in *honest and enduring* relationships (Judd, 2018, pp. 9, 11). Effective communication can go some way towards bridging physical distances between major cities and Central Australian communities (Benveniste & King, 2018). Ethical relationships are vital to successful, valid, responsible and responsive research, informed by the particular geographic, linguistic and cultural landscape of any given Central Australian community (Strangeways, 2018, p. 12). Through reciprocal relationships and iterative dialogue, collective processes can thrive, and Aboriginal and non-Aboriginal collaborators can be left with *a good feeling* at each transition point in a research project (Hall et al., 2018).

This brief overview represents the many ethical considerations that were on my mind before meeting the community, in the initial stages of setting up the project, for its duration, through to now thinking of ways I can continue mutually beneficial connections and projects with people at Ltyentye Apurte into the future. During this PhD research, the two overarching issues I was most conscious of, were my geographical distance from the community and that no-one in the school or community is likely to find this thesis useful. It is not a practical document or written in a way that someone without a degree

⁵ This contrasts with linguists based in language centres across the continent who are instead employed to work on community determined projects. The centres were set up through the joint advocacy of linguists and community members, starting the 1980s, to set up organisations in regional locations to respond to local community-identified language needs and plans (Dixon & Deak, 2010; Kimberley Language Resource Centre, 1997; Marmion, 1994; McConvell & Hudson, 1984; Olawsky, 2010; Sharp & Thieberger, 2001).

in Education and/or Linguistics could straightforwardly read or apply. This excludes almost all the people I have been working with.

So, I came to regard the process as important as the ultimate product of the research. And for the process to be ethical, the principles of relationship and reciprocity became key drivers for me. During, between and since completing all field trips, I have attempted to maintain good relationships and reciprocate in the following ways. These were requested of me by community members or school staff, and/or made use of skills that I had to offer.

During each field trip I worked with individual, pairs or small groups of children in classrooms, supporting their learning of mainstream curriculum subject areas. In the Arrernte classroom, I worked with the teacher and assistant teacher on lesson planning, resource making (especially using technology such as developing interactive whiteboard activities), bush trip logistics and school report writing.

One advantage of my area of research interest is that children's language and learning is also of intrinsic interest to families and educators. Many conversations about Arrernte maintenance and English learning also stimulated ideas and professional discussions with teachers and parents/carers. Having established some details of the children's Arrernte grammar in the first stage of this project (the textless picture book data analysis), we moved to think about strengthening their L1 skills as well as supporting their emerging bilingual skills in classroom contexts.

For example, I gave talks at staff meetings on children's English language learning, based on audio recordings made early in the study, and worked with teachers to unpack the EAL/D (English as an Additional Language or Dialect) guide that accompanies the mainstream national curriculum (Australian Curriculum Assessment and Reporting Authority, 2015a). I contributed to two workshops in Darwin for Catholic Education NT remote school Aboriginal language teachers: oral and literacy teaching strategies (in October 2014) and teaching and assessment strategies (in October 2015).

In April 2018 in Alice Springs, through Al Strangeways (Senior Lecturer in Education, Charles Darwin University), I gave a set of workshops to preservice teachers on teaching mainstream Australian Curriculum content to Aboriginal children whose L1 is not English, based on Ltyentye Apurte classroom video recordings and preliminary analyses. That month I also joined in on a few Vocational Education

and Training (VET) Applied Languages Certificate II and III classes in Alice Springs taught by an Arrernte teacher and David Moore (McCormack, 2019), to share information about my research with these high-school aged students who were developing their Arrernte skills and learning about career pathways in Language work.

At Ltyentye Apurte, skills sharing occurred through the process of transcribing together. My research collaborators assisted me to learn Arrernte and I was able to assist them with computer, L1 literacy and language analysis skills. They were also remunerated for their transcribing work, bilingual expertise and insights, through the ACLA and CoEDL funding.

I made copies of recordings for each parent/carer, and also left a copy of the whole set on an external hard drive in the Literature Production Centre in the school (an air-conditioned facility, the best option for local storage of the materials). I laminated a photo montage of each child who participated in the research. These tangible mementos of the research were popular with their families.

In between field trips, and since completing all data collection and transcribing, I have kept in touch with my research collaborators by phone and Facebook. Three of them have come to visit Sydney. I have also maintained contact with several of the non-Indigenous teachers. Some of us have given talks and published about the children's L1 and L2 learning, bilingual education rights and the need for teacher professional support (Cavanagh, Smithies, Purdon, & Poetsch, 2017; Poetsch & Ryan, 2016; Williams et al., forthcoming). Conference talks help to bring the applied and locally valued aspects of the research to the fore and enable a continuation of discussion amongst ourselves about research purposes and audiences. Although we discussed these topics when establishing the project (including when signing consent forms), I believe we are still developing better shared understandings about them.

3.3. Child language documentation standards and guides

The field of language documentation is being reworked and extended from its traditional core focus on formalism, informed by (spoken) texts, seeking to be more inclusive of language use in all its forms, *a humanities of speaking* (Epps, Webster, & Woodbury, 2017). In the face of language endangerment, special uses that are unique and emblematic become increasingly important for any particular community (Epps, Webster, & Woodbury, forthcoming). An ideal corpus has come to be understood as encompassing not only *description* of the forms and rules of a language, but also *documentation* of the linguistic practices and traditions of a speech community (Himmelfmann, 1998, 2006, 2012). Spontaneity and naturalness of data are important considerations in this effort (Himmelfmann, 1998, pp. 185-186) including:

- **natural communicative events:** unaffected by external interference into the conventional communicative routines of the participants. This is more of an ideal than achievable, especially for a researcher who is not a community member.
- **observed communicative events:** external interference is limited to the fact that the event is being observed and recorded.
- **staged communicative events:** including events for which only general instructions are given by the researcher to the speaker participants (e.g. tell me that story about ...) and events with props (e.g. pictures, toys, a film).
- **elicitation:** a type of communicative event invented for conducting Linguistic research, e.g. speakers are asked to comment on a word or construction, translate, evaluate the grammaticality of a formation.

Eisenbeiss (2006) modifies Himmelfmann's typology for the purposes of encouraging linguists to include child language, and argues for combining spontaneous and elicited data types, to capture a broad range of children's linguistic abilities:

- **observed communicative events:** provide positive (but not negative) evidence. If a certain type of utterance does not occur in a large spontaneous speech sample, this might simply be due to the discourse situation in the recording, and might lead to an underestimation of their ability to use more complex constructions.

- **experimental data:** involves systematic manipulation of linguistic variables and requires detailed prior knowledge about a grammatical phenomenon. It can only be used when detailed knowledge about the relevant construction is already known from previous studies or at a later stage in a documentation project.
- **staged communicative events:** are very promising for child language documentation projects. They can provide more cross-linguistic comparability as well as more controlled and richer data sets than observation of communicative events.
- **elicitation:** requires well-developed meta-linguistic abilities on the part of the children, and is not easily applicable to child language studies.

Children's language is increasingly acknowledged as a necessary inclusion in language documentation and requires researchers to think through best-practice standards in challenging data collection contexts, without compromising research quality (Hellwig et al., 2021). Even Eissenbeiss's modified standards can be difficult to achieve in lesser-known under-described language contexts (Kelly, Forshaw, Nordlinger, & Wigglesworth, 2015; Kelly & Nordlinger, 2014). That is, in small remote communities in Australia, researchers face challenges such as geographical and climate conditions; cultural differences about work expectations; the relatively low likelihood of community members having L1 literacy skills to assist with data transcription; researchers' developing proficiency in the language; family travel impacting on longitudinal studies; and getting adequate sample sizes. Meakins, Green, and Turpin (2018, p. 216) add the challenges of the high level of funding required to undertake fieldwork, the extent to which the target language has been documented (as spoken by adults), and the extra time often involved in transcribing children's speech.

Finding ways around such challenges are important for quality research on a greater proportion of the world's languages, to respond to community concerns for language maintenance in younger generations, and better inform educational practice. Even smaller data sets and sample sizes have already informed and expanded current models and theories and provided a basis for future work, e.g. child acquisition of complex verbs in the polysynthetic language Murrinhpatha (Kelly, Forshaw, et al., 2015; Kelly & Nordlinger, 2014).

Linguists and anthropologists working in remote Aboriginal community contexts have trialled and developed a range of strategies for capturing child speech and language practices in various participant frameworks, with different referents of talk, in more and less controlled conditions. A productive

elicitation tool has been textless picture books independently narrated by children or adult-child joint narrations/conversations (Bavin, 1995, 2000, 2004; Disbray, 2008, 2009; O'Shannessy, 2006; Wilkins, 1997b, 2004, 2008a).

Other successful strategies have included picture card and director-matcher games (e.g. Meakins, 2008b), cartoon image sequences (e.g. Hill, 2008), toy play sessions involving multiple children (e.g. Dixon, 2012; Dixon, 2015), classroom discourse (e.g. Angelo & Hudson, 2018; Dixon, 2013; Moses & Wigglesworth, 2008; Moses & Yallop, 2008), intergenerational conversations on family bush trips (Davidson, 2018; Forshaw, 2016; Kelly, Forshaw, et al., 2015; Reeders, 2008), conversations about culturally-valued topics such as kinship system terms (e.g. Bavin, 1991), ethnographic accounts of local community literacy activities as social practices (Eickelkamp, 2008a, 2013a; Kral, 2012; Kral & Ellis, 2008), and combinations of naturalistic conversations, picture prompts and oral narratives of personal experiences (e.g. Bavin, 1987, 1990a, 1992).

There are also examples of research on child comprehension and processing of sentences, investigating perception and receptive skills, through interpreting images or manipulating toys/figurines (Bavin, 1990b; Bavin & Shopen, 1985, 1989; O'Shannessy & Meakins, 2012). In their fieldwork guide, Meakins et al. (2018, pp. 225-233) recommend child language researchers consider a mixture of naturally occurring speech, carefully planned experimental elicitation, and comprehension tasks in longitudinal and/or cross-sectional studies.

3.4. Data collection for this study

My data collection is informed by, and builds on, the above principals and strategies used in similar remote Aboriginal community settings. My study adopts some of those ideas, and was also guided by the unique circumstances and my collaborators at Ltyentye Apurte.

Discourse data	Event type	Spontaneity of discourse	Referents of talk determined by:
Textless picture book narratives	staged	unplanned	researcher
Sand talk	staged	unplanned	child participants
Classroom discourse	observed	unplanned	child participants and their teacher

Table 3-1. Data sets in this research project, and the degree of spontaneity in the speech

Table 3-1 summarises the types and nature of the data collected for this thesis. Each of the three recording contexts has a different degree of spontaneity and naturalness, as set out in Himmelmann (1998) and Eisenbeiss (2006). Two of the data sets (textless picture book narratives and sand talk) could be described as *staged communicative events*. The classroom data could be described as *observed communicative event*. The discourse in all recordings is spontaneous or natural in that it is not pre-rehearsed or scripted. The spontaneity and naturalness of the speech is influenced to a significant extent by who determines the referents of talk. In that sense, the sand talk recordings are the most natural. The picture book recordings are the least natural, however they are important as they elicit grammatical structures not found in the other data sets.

The data sets are significantly different from each other and provide snapshots of children's language in three contexts. Each is introduced below, to explain: how it became part of the corpus for this thesis, the particular approach to its analysis, and the research questions it addresses. Any required additional information is included in the analysis Chapters 5-8.

When selecting the children for this study, the main criterion was that they spend most of their time living in the community and would likely be there when I returned for recordings each field trip. There was no expectation that they be *good at* Arrernte or English, nor school in general, nor that their school attendance rate was high, nor that they should have any characteristics such as talkativeness. So, a variety of academic abilities and personalities are represented in the sample. Carmel Ryan described the selected children as ones who grew up in the community *from baby*. Participant numbers for each data set are presented below.

Textless picture book narratives

Using textless picture books was my suggestion. We used four of the stories created by O'Shannessy (2004): *Sick woman*, *Guitar*, *Monster*, *Horse & cow* (Figure 3-1). To begin, two boys and two girls were selected from each of five classes in the primary school (the Transition⁶ class and Years 1-4), a total of 20 children. When I returned for the next fieldtrip (6 months later) three of the children were not present. So this data set is comprised of 68 narratives collected from 17 children aged 5;9 – 10;10, told in Arrernte. Four adults were recorded telling the same stories, giving a further 12 narratives. All recordings are audio only.

⁶ This is the name for the first year of school in the Northern Territory education system.



Figure 3-1. Cover pages of the four textless picture books

The stories were a helpful starting point, offering a straightforward way to begin collecting data. When transcribing with Arrernte speakers, the images gave a clear context and enabled me to better understand and predict what was being said in a language I was beginning to learn. The stories were also appealing because the plots and characters were designed to resonate with children in remote communities. The young narrators were less likely to be hindered by culturally-loaded images, difficult for them to interpret. The children were well able to do the task. In casual conversation outside of recording sessions, some of them remembered and talked to me about the stories. This contrasts with researcher reports of difficulties finding suitable materials that successfully engage Aboriginal children in various kinds of talk (e.g. Gould, 2008, 2009; Hill, 2008; Moses & Wigglesworth, 2008).

To explore the textless picture book data, I examine children's use of Arrernte grammatical features and narrative cohesive devices. The adult recordings are used to establish which features could be expected. Because stories are amongst the elicitation tools used by other researchers of Aboriginal children's language in Australia (e.g. Dixon, 2017, 2018; Meakins, 2008a, pp. 68-69; O'Shannessy, 2006, pp. 265-274, 283-286), this data set is the one that provides comparative information on the three possible types of language outlined in Chapter 2.

This textless picture book data addresses the questions: *What are the linguistic repertoires of the children in this study? How do the children deploy their linguistic resources and communicative skills for telling narratives prompted by four textless picture books? Given concerns about language shift, what are some morphosyntactic properties of the children's Arrernte?*

Sand talk

Recording children's sand stories (*tyepetye*) was suggested by the mother of one of the children in the study. She drew my attention to this activity that her daughter and friend enjoy (Figure 3-2). In the first recording she encouraged them to tell a scary story. We used this as the theme for subsequent individual recordings with another three girls, giving four recordings, with five girls aged 7;4 – 9;6. The data set also includes one adult recording, which provides baseline information about topics and ways of telling sand stories. This rich and interesting data set, one I had not thought of collecting, highlighted for me the importance of involving community members, rather than pre-determining the research focus and products.



Figure 3-2. Video recording screen shot of two children drawing and telling stories in the sand

To explore this data, I use Jenny Green's multimodal framework which organises communicative signals into the vocal/auditory modality and the visual/kinesic modality (Green, 2014, pp. 3, 10). I also introduce an approach to analysing the stories, detailing how the children lay out their stories with entities (people, scary beings, landmarks), path lines (protagonists' journeys) and swipes (transitions

between scenes); and how their first-person stories are built on locally-valued knowledge of the physical and social geography of their local community.

This data set addresses the questions: *What are the linguistic repertoires of the children in this study? How do the children deploy their linguistic resources and communicative skills for giving spontaneous first-person recounts in the sand? What are some sociocultural dimensions of the discourse and interactions in the data?*

Classroom discourse

The classroom data became a component of this study, through the collegial relationship that developed between me, the teacher and assistant teacher in the Year 1-2 class of 20 children (aged 6-7 years). They were willing to allow me to video in their classroom I spent much time in this particular classroom. After school hours we had many conversations about teaching, learning, programming, planning, resources, curriculum and assessment. Figure 3-3 shows one of the various types of interactions in the video recording, and the two children who are the focus of the analysis, as they complete a teacher-designed pair task.



Figure 3-3. A scene from the classroom video data

To explore this data, I analyse how the children use Arrernte and English, with different interlocutors, for the purposes of classroom learning, in this case a 36-minute Maths lesson. They participate in the

routines and practices of English-medium schooling and also draw on their L1 to respond to the linguistic and social demands involved in this context.

This data addresses the questions: *What are the linguistic repertoires of the children in this study? How do the children deploy their linguistic resources and communicative skills for learning mainstream curriculum content? What are some sociocultural dimensions of the discourse and interactions in the data?*

Transcribing

Transcribing was a co-operative effort by me and any of six adult Arrernte speakers, depending on their availability. Three of the transcribers had L1 literacy skills, however even they tended to leave the writing to me. The data were transcribed in ELAN (2019). All transcripts were also checked in Sydney by David Wilkins (1989), who assisted me to gain better understanding of all recordings and improve the quality of my transcripts.

Ochs (1979, 2006b) describes the transcribing process as selective, reflecting the researcher's theoretical goals and assumptions about linguistic and social meanings; and as a process that needs to be foregrounded. Further, it needs to integrate contextual information with transcription of speech and non-vocal conduct. My goals and assumptions are embedded in the *tiers* I set up in each set of ELAN files, to include speech as well as non/co-verbal and other information associated with each utterance, e.g. Figure 3-4.

The screenshot displays the ELAN 5.2 software interface. The top window shows a video of a young child sitting on the ground, looking down. The bottom window shows a list of annotations with time stamps. The annotations are organized into tiers, including 'Arr', 'Interlinear gloss', 'Eng', 'Visual kinesics', and 'notes'. The 'Arr' tier contains a list of 19 annotations with their corresponding time stamps. The 'Interlinear gloss' tier shows the glosses for the first four annotations. The 'Eng' tier shows the English translations for the first four annotations. The 'Visual kinesics' tier shows the visual information for the first four annotations. The 'notes' tier shows the researcher's notes for the first four annotations.

Arr	Begin Time	End Time	Duration
1 anwerne-are are-ka pwerle akertne-le a light ire-inye-enge	00:00:05.244	00:00:13.278	00:00:08.034
2 anwerne anteme apetye-alpe-ka apmeme-weme	00:00:14.942	00:00:18.290	00:00:03.348
3 munny ayenhe anteme apetye-ka	00:00:18.791	00:00:21.141	00:00:02.350
4 ayenge pick-me-up-le-yeke	00:00:21.366	00:00:23.126	00:00:01.760
5 anwerne anteme alpe-ka	00:00:23.126	00:00:24.430	00:00:01.304
6 light re arle akwale iwe-le ire-inye-enge	00:00:24.966	00:00:27.516	00:00:02.550
7 anwerne anteme half way yanhe anteme anwerne stop-ire-ka	00:00:28.451	00:00:32.311	00:00:03.860
8 imarte anwerne anteme early part alpe-ka	00:00:33.211	00:00:36.521	00:00:03.310
9 light re arle kele ire-enge	00:00:36.916	00:00:39.848	00:00:02.932
10 imarte anwerne anteme early-ka anwerne anteme alpe-ka apmeme-weme	00:00:40.371	00:00:46.891	00:00:06.520
11 inte-yeke	00:00:47.311	00:00:48.171	00:00:00.860
12 anwerne anteme early akeme-ire-ka	00:00:48.391	00:00:50.351	00:00:01.960
13 anwerne anteme are-ka	00:00:50.961	00:00:50.961	00:00:00.000
14 kele light akwale arrangkwe	00:00:52.946	00:00:54.796	00:00:01.790
15 imarte anwerne anteme school-weme alpe-ka	00:00:55.411	00:01:00.271	00:00:04.860
16 anwerne anteme apetye-alpe-me-le apmeme-weme	00:01:01.371	00:01:03.861	00:00:02.490
17 kake ayenhe imarte ayenge pick-me-up-le-me-le	00:01:11.246	00:01:14.346	00:00:03.100
18 nodding	00:01:25.816	00:01:26.980	00:00:01.164
19 kele	00:01:29.626	00:01:30.556	00:00:00.930

Figure 3-4. Example ELAN file tiers and annotations

In the picture book narrative ELAN files (audio only) I set up *tiers* for: Arrernte transcription, interlinear gloss, English translation, and notes. The three speech *tiers* capture child use of Arrernte grammar and discourse construction. The notes *tier* holds points raised by the adult speaker-transcribers, e.g. commenting that something is grammatically ‘wrong’, expressing it in a more accurate or complex way, assessing a child’s hesitations and re-starts, providing insights into how widely a particular child-like word or expression is used. These are a rich source of qualitative data and became an important part of the analysis, building the description of the grammatical strength of children’s Arrernte. They are also a source of information on adult ideologies about children’s Arrernte.

In the sand talk ELAN files I set up *tiers* for: Arrernte transcription, interlinear gloss, English translation, visual/kinesic resources, and notes (Figure 3-4). The visual/kinesic resources *tiers* hold my descriptions of the child’s drawing, gesture and use of stylus while talking. These *tiers* show relationships between the modes of communication. The notes *tier* holds adults’ comments which add background information about the events in the girls’ stories, and any interpretation of the drawings, building the description of the girls’ multimodal communicative skills and locally shared knowledge needed to tell and understand the story plots.

In the classroom talk ELAN files I set up *tiers* for: Arrernte transcription, interlinear gloss, English translation and notes for each speaker. This was a long and complex file to transcribe, with a great deal of overlapping talk. The notes *tier* (associated with each annotation for each speaker) is where I recorded information on what the speaker was physically doing (e.g. sitting on the floor, categorising pictures as directed by the teacher), artefacts the speaker was using (e.g. scissors), his/her interlocutors (e.g. one or more peers, the teacher). It also included any comments and insights from the Arrernte speaker-transcriber, building the description of communicative skills the children are acquiring as they are being socialised into the classroom context.

Regarding spelling in the transcriptions and examples throughout this thesis, I use the orthography developed in the late 1970s – early 1980s by speakers and linguists working through Yipirinya School and the Institute for Aboriginal Development. It is used for the Eastern and Central Arrernte dictionary and bilingual education school materials (Henderson & Dobson, 1994, p. 11; Wilkins, 1989, p. 74). While the final vowel is often omitted in natural speech, I have written it unless it is being followed by a bound morpheme beginning with a vowel. All words end in a non-contrastive final vowel (hence its omission).

3.4.1. Ethnographic data

The ethnographic data in my study will be introduced in Chapter 4 and also woven through the data analysis Chapters 5-8. It consists of:

- numerous comments added to the *tiers* in each ELAN file (outlined above)
- multiple conversations about children's language I have had with school staff members (both Arrernte and non-Indigenous) and parents/carers, 2013-present
- attention to Arrernte adults' stated and observable ideologies about children's language and learning
- my observations of the children's social worlds, school life and daily activities
- historical teaching programs, reports and curriculum materials that I retrieved from the 1980-1990s, which illuminate the history of bilingual education in this community
- application of my knowledge and experience of curriculum, assessment and Teacher Education, and interpretation of how these play out in the context of this community.

Collectively, this data adds situational information and community observations and ideologies to the formal linguistic understandings of the children's language. It links microanalytic accounts of children's discourse to beliefs and practices through which children are being socialised constructed from ethnographic data, including recorded and transcribed social interactions, interviews and participant observations (Schieffelin & Ochs, 1996, p. 252). Although such data were collected for this PhD research, and the study involved fieldwork, the project is not an ethnography per se. Rather, this study draws on such perspectives and tools that the language socialisation approach has brought to the study of child language, to contextualise and enhance interpretation of the recorded discourse.

3.4.2. Data archiving and child consent

Careful archiving and storage of Aboriginal language and culture data for research purposes, and for community access to that data, are significant concerns for research projects (Barwick, Green, Vaarzon-Morel, & Zissermann, 2019). Recordings of old people and their sophisticated knowledge of language and culture are highly prized. However, the potential value of child language recordings to future generations of families and communities should not be under-estimated either.

According to the consent forms discussed for this thesis, parents/carers agreed with the idea of archiving the data in AIATSIS. As the primary national institution for safe storage of language and culture materials, this is the best long-term permanent storage option. It has a return of materials program for community members seeking copies that relate to themselves, families, linguistic and cultural groups. Conditions of deposit enable the depositor to opt for return of materials to participants themselves and their families only.

Consent is another significant issue for this thesis. While parents/carers signed consent forms on their children's behalf, this needs to be renegotiated when they become adults. Disbray is currently doing this, several years after completing her PhD and having kept in touch with the families (Disbray, 2009). Similarly, several years after completing her PhD, Meakins has negotiated that the transcripts can be made publicly available but not the video data (Meakins, 2008a). These two models demonstrate the importance of parent/carer and child participant input into consent and archiving decisions. I plan to follow these examples, and talk to the children in my study again in the years ahead.

3.5. Conclusion and direction

Together the discourse and ethnographic data enable analysis of children's communicative skills in three sample circumstances, as they access and deploy their language repertoire, and paralinguistic means alongside speech. The next chapter draws on ethnographic data to describe the language landscape the children in this study are growing up in and sets the context for the discourse analyses (Chapters 5-8).

Chapter 4 The language landscape

4.1. Introduction

This chapter describes the language landscape at Ltyentye Apurte community, starting with the main codes in the input to children. It also unpacks a set of community held and enacted ideologies on *keeping Arrernte strong*, and dominant society language ideologies visible in policy settings and resource allocations, which nurture or work against the children's Arrernte use and their learning of English. The chapter concludes with a profile of each child in the study, illustrating his/her particular experience of the general language landscape.

A small amount of census data and two kinds of qualitative data inform this chapter:

- ethnographic observations during my fieldwork 2013-2018, including conversations with adults and children about language and culture learning, and which languages they speak.
- sources which make clear Arrernte people's ideologies on language, e.g. formal publications, grey literature, unpublished manuscripts, reports, newsletters, webpages, news media, social media, historical and current curriculum materials.

4.2. Language landscape

The main codes children at Ltyentye Apurte are exposed to are: (a) Arrernte (b) other Aboriginal languages (c) less standard English varieties (d) more standard English varieties. The ones that emerge as the focus of child language production in this thesis, are shaded in Figure 4-1.

4.2.1. Arrernte

Eastern Arrernte is the language most used amongst most people on a daily basis in the community. In the community, people mostly refer to it simply as Arrernte, rather than Eastern Arrernte, or Eastern and Central Arrernte. Throughout this thesis, I also simply use Arrernte, unless distinguishing Eastern Arrernte from Central Arrernte or Western Arrernte.

As outlined in Chapter 1, from the late 1800s through to 1953 generations of Arrernte people gathered for safety and protection as they were dispossessed of their lands. They gathered as a group at Charles Creek, were forcibly transported to Arltunga, and were later moved to Ltyentye Apurte, a location within Eastern Arrernte Country. This contrasts with histories of other remote communities, where people from several different language backgrounds were forced to live in one location, many of them off their traditional lands.

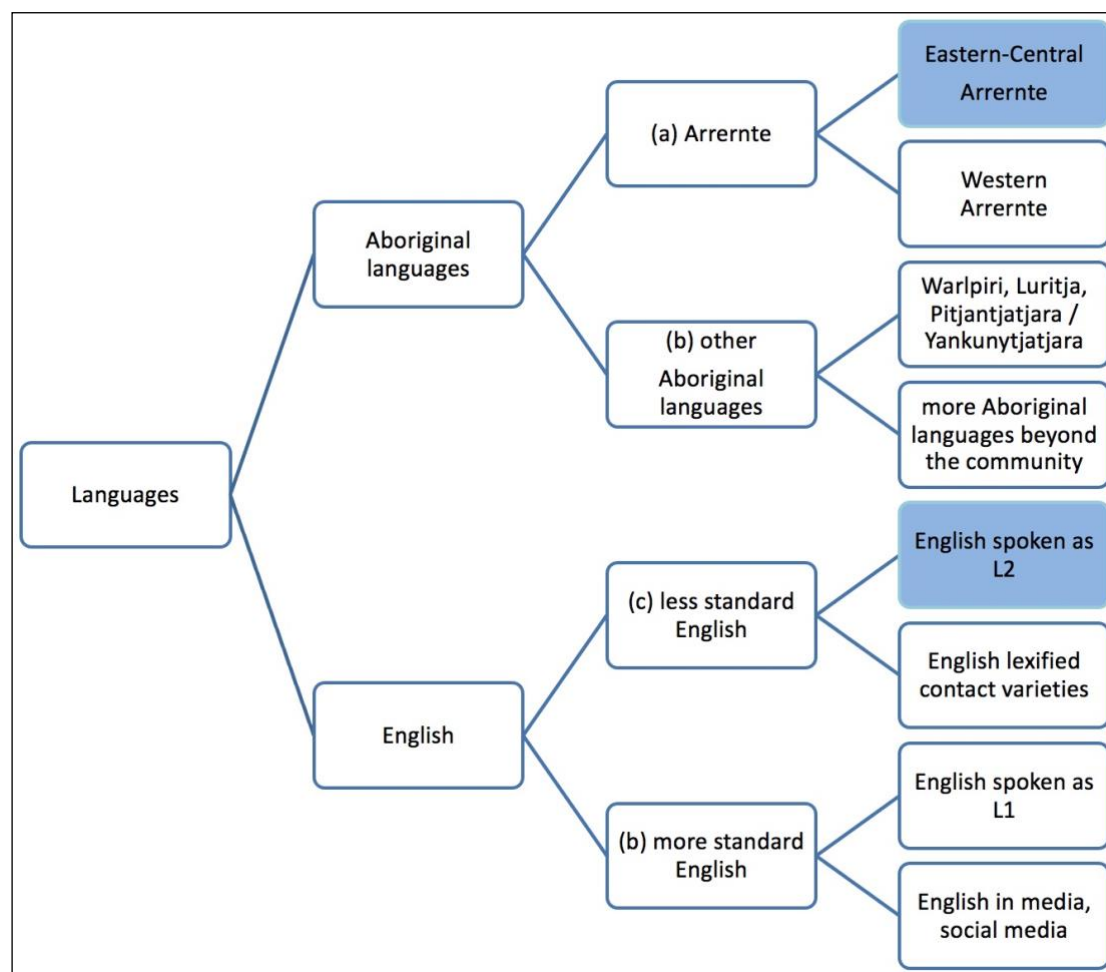


Figure 4-1. Codes children at Ltyentye Apurte may be exposed to

It is beyond the scope of this thesis to investigate ways different generations speak Arrernte. However, it is relevant to point out that the grandparent generation community members who worked with me in this study believe that many parents do not speak Arrernte as well as they themselves do. Both parents and grandparents agreed that the *old people* (i.e. the great grandparent generation to the children in this study) speak the strongest Arrernte. However, since most members of that generation

have passed away, few children have opportunities to hear them. Only 18 people are 65 years or older at Ltyentye Apurte (Australian Bureau of Statistics, 2016b).

Children are also acquiring conventionalised hand signs that are integral to spoken Arrernte –*iltyele angkeme* (talking using hands), *iltyeme-iltyeme* (communicating with hands), *iltyele ileme* (hand signs/talk). I have casually observed children using these (Figure 4-2). I have not formally collected data on this co-speech communication mode in conversational contexts, however gesture will be discussed as a component of the sand talk data analysis (Chapter 7).



Figure 4-2. Conventionalised hand sign for asking *What's up? What? or Who?*

Some families at Ltyentye Apurte (including children recorded for this study) have connections to families at Ntaria (Hermannsburg), a predominantly Western Arrernte community, and visit it periodically. Western Arrernte is distinct from Eastern-Central Arrernte, both from speakers' and a linguistic perspective. Eastern-Central Arrernte is closer to Alyawarr and Anmatyerr than Western Arrernte (Wilkins, 1989, pp. 11-14).

4.2.2. Other Aboriginal languages

In the 2016 census, eighteen people reported speaking Warlpiri and three people reported speaking Yankunytjatjara at home (Australian Bureau of Statistics, 2016b). Adults in my study also identified small numbers of Luritja and Pitjantjatjara speakers. Children I talked with identified the same languages and speakers, demonstrating the accuracy of their understanding of the linguistic composition of their community. Warlpiri children at Yuendumu are similarly attuned to the different languages around them, including details of speaker proficiencies (Browne, 2019a).

More languages are coming into Ltyentye Apurte through what people refer to as *inter-marriages*. For the grandparents of the children in this study, marriages were customarily arranged (Heffernan, 2018, pp. 114-117; Wallace & Lovell, 2009). However younger Arrernte men and women at Ltyentye Apurte now make their own choices. As one mother told me: *These days, love is love*. Newcomers from other speech communities learn and use Arrernte to varying degrees, as will be illustrated in the profiles of the children later in this chapter.

Children hear numerous Aboriginal languages spoken in Alice Springs, when there with their families for grocery shopping, visiting family, football games etc. Families also have short- and long-term stays in other remote communities, regional towns and cities in the NT and interstate for family visits, cultural responsibilities, funerals, medical appointments, work opportunities, sports events etc. On those visits children are exposed to a range of Aboriginal languages, including varieties of Kriol.

Annual events where children are exposed to many Aboriginal languages at Ltyentye Apurte are the horse races and sports day. People travel from many different and distant communities for these events, the population of the Ltyentye Apurte swells, and the visitors camp or stay with relatives in the community.

4.2.3. Less standard varieties of English

In my experience it is not difficult to have conversations in English with most adults in the parent and grandparent generations at Ltyentye Apurte, if discussing familiar topics and by using plain English. I notice a wide range of proficiencies though, and people report that not all of the English spoken to them by non-Indigenous people is clear to them. For example, Arrernte educators told me they find it difficult to follow the level and speed of English used at school staff meetings.

Several of the parents of the children at Ltyentye Apurte went away for some of their high school years, on Catholic school scholarships in the NT (Darwin), SA (Adelaide), Qld (Townsville, Charters Towers, Atherton Tablelands), Vic (Melbourne, Ballarat) and NSW (Forbes). English was the language of schooling, and the lingua franca amongst the boarders from many different language backgrounds. They have confidence in approaching and speaking English with non-Indigenous people like me.

Most adults at Ltyentye Apurte speak English with L2 learner features, or their English speech could be described as a systematised non-standard variety, which researchers working in Alice Springs and/or communities of the region have labelled variously as *Aboriginal English* (Harkins, 1994), *Central Australian Aboriginal English* (Koch, 2011), *local English* (Moore, 2012). This thesis does not attempt to determine which less/non-standard English features may be learner features from those which may be a systematised variety of English spoken by Aboriginal speakers.

Children also have regular contact with non-Indigenous L2 English speakers at Ltyentye Apurte. During the time of this study, the community store managers were recent migrants to Australia from India; a Catholic Care employee was Samoan-Australian; there was a priest from Korea and one from Vietnam.

Children at Ltyentye Apurte are learners of English. A teacher of the Transition class (the first year of school in the NT) told me that it may be several weeks, or even months, before children begin to produce their first words and talk with her in English. Arrernte assistant teachers are especially needed in the younger classes, to translate for the students. At the same time, a few children at the school may be more comfortable speaking English. For example, early in this study I made a practice video recording of three children at Ltyentye Apurte who also spend time in Alice Springs and go to school in both places. In the video, their grandmother (A01 in this study) speaks Arrernte with them. They understand but reply to her, and speak with each other, in a variety of English.

4.2.4. More standard varieties of English

English was reported as spoken at home by only 23 of the 500 people at Ltyentye Apurte (Australian Bureau of Statistics, 2016b). These are non-Indigenous residents such as the parish staff, vehicle mechanic, health clinic staff, childcare centre manager. School is the main place where children hear L1 English speakers, i.e. their teachers, the principal, a school administrative staff member and the canteen manager. However, this input is limited to school hours, in class sizes of 15-25 students, and with no L1 English-speaking peers.

During each school year, a number of L1 English-speaking visitors to the school interact with children, e.g. health and dental check teams, audiologists, speech pathologists, personal safety program teachers. Children also participate in activities where they meet both child and adult speakers of English, e.g. classes travel to Alice Springs for school excursions and inter-school sports carnivals.

Children at Ltyentye Apurte are also exposed to English via media, including a range of varieties from around the world. Audio-visual teaching resources from the internet are commonly used in classrooms. The community library has a set of computers, where community members access websites, games, social media in English. Several households share digital televisions, with access to 110 free-to-air stations. At the time of this study, the Disney movie *Frozen* was very popular with children.

4.2.5. Codeswitching and code choice

Arrernte people's capacity for speaking English, their phonological and morphological assimilation of commonly used English loan words into Arrernte speech, and the common practice of Arrernte-English code switching have long been observed. Documentation in the 1980s indicated that it is usual for adult Arrernte to be peppered with English, with the amount of English varying according to genre and subject (Wilkins, 1989, pp. 30-31). That is, based on an analysis of 17 texts, discussions about traditional knowledge had lower percentages of words of English origin, while those about present concerns had higher percentages: 0.7% in expository texts describing native fauna; 1.8% in procedural texts describing use of native plants; 2.9% in traditional narratives; 11.4% in personal narratives about contemporary events; 24% in oratorical-hortative texts, which often contrast past lifestyle with present-day social challenges.

It is usual for adult speakers of Arrernte and other Aboriginal languages to use their various languages in each other's company. Language choice rules when interacting with other bilingual/multilingual Aboriginal people were summarised in Harkins (1994, p. 30):

1. Speak one's own language wherever possible.
2. Always take account of the other participants in the speech situation, and modify one's own speech accordingly.
3. If the other participants do not all understand one's own language, use the most appropriate language that everyone can understand.
4. If all else fails, try English.
5. Use code-switching to fine-tune the selected language, according to:
 - a. one's own group identification;
 - b. the other participants in the speech situation;
 - c. the topic.

From a language socialisation point of view, in bilingual/multilingual settings, experts model norms and expectations for using different codes for novices (Howard, 2017, p. 171). At Ltyentye Apurte today, English-Arrernte codeswitching is common practice amongst Arrernte-speaking adults, at word, phrase, sentence and discourse level. Thus, children are not only receiving input in and developing proficiency in Arrernte and English, but also developing skills and understandings about code choice.

4.2.6. Arrernte and English at school

At the time of this study (2013-present), each class in the school receives two 45-minute Arrernte language and culture lessons per week. One focuses on literacy skills, the other on culture. Literacy lessons involve worksheets on sounds and letters, picture-word/sentence matching, shared reading of traditional narratives, comprehension questions, and writing practice through joint construction of texts. The culture lessons cover topics such as kinship, bush foods and medicines, directions, geographical features and traditional narratives. Classes go on short bush trips close to the school each term, and on overnight bush trips once or twice a year.

The school has a Literature Production Centre (LPC), staffed by two part-time Arrernte workers who help to resource the Arrernte program, e.g. repairing or reproducing books that are worn out from use. Materials in the LPC are organised according to age/class or theme/topic, stored in folders or kits.

The school's Arrernte program is taught by Carmel Ryan (A01 in this study) who completed a Primary Education degree, and the Assistant Teacher (AT) Mia Mulloodad (A03 in this study) who is also a *ngangkare* (traditional healer). In a conversation I recorded with Carmel Ryan in April 2019, she summarised the program:

In the classroom I teach about the country, about the history, skin names, who they [the students] are connected to through the land, and the natural environment and the things we see out bush, birds and bush medicine, goanna, kangaroo, animals, things that are up in the air, in the ground.

We take them on bush trips too, especially when it's winter season. It's the best time to take the kids out bush, and show them the country and all the things that are growing out in the bush. We talk about the country, and who owns the country, who is the traditional owners and connected to the land, and the stories for that country, and which kere [meat] and merne [plant food] and bush medicine that is out there today [i.e. in season]. ... On bush camping trips we teach about the stars and universe at night; name the planets, the stars in the sky, they all have names. We tell stories about the night sky, [like] the seven sisters [story], that occurred in the Dreamtime.

... I talk about the sounds, how it's pronounced, and then ask [students] put it into a sentence. Have a go at writing by themselves, correcting it, along the way when they make mistakes.

Mia helps me to put the resources up. And we both work with language, using stronger language, and putting them into sentences. ... We are a good team and we have strong knowledge. She is older than me, and she has more knowledge and more stronger words than me. But I understand what she tells me. And we discuss how we can teach and what words we can teach to the kids.

Additionally, each class in the school participates in a two 45-minute Art and Spirituality lessons each week. These are also taught in Arrernte and involve the children in a variety of activities, e.g. painting and craft, learning prayers and Bible stories, preparing for sacraments. These lessons are taught by another Arrernte teacher who has a Primary Education degree and by an Arrernte AT.

All other subjects are taught by non-Indigenous teachers in English, according to the current mainstream Australian Curriculum English, Maths, Science & Technology, History, Geography, The Arts, Health & Physical Education. Arrernte ATs in each class help manage the students, translate instructions and content, and work with individual and groups of students. Arrernte staff and students typically use Arrernte and Arrernte-English codeswitching with each other in classrooms and the playground, and use English with the non-Indigenous staff members.

4.3. Ideologies

As foregrounded in Chapter 2, one of the core components of the language socialisation approach to child language research is investigation of the ideologies that are enmeshed in communities' ways of speaking to children, according to local theories of how knowledge, maturity and wellbeing are attained (Duranti, Ochs, & Schieffelin, 2012, p. 17). This chapter now moves to outline the ideologies that facilitate, or else undermine, children's learning and use of Arrernte.

At Ltyentye Apurte adults' concern that English is impacting on children's Arrernte is often expressed as *English is coming in*, or even *English is taking over*. They are surprised that these days even young children, before starting school, can say things in English. They are conscious of the need to remain vigilant to ensure that Arrernte continues, often expressed as *Arrernte rlterrke atnyene-tyeke* (keep Arrernte strong). For several decades community leaders have been working in multiple ways to stem the possible risks and consequences of language loss in younger generations. Underpinning this work is a set of ideologies on the value and place of Arrernte and English, which I have grouped and labelled as:

- a. language-land-culture-identity
- b. Arrernte past-present-future
- c. Arrernte can be written and spread
- d. education systems and sectors can support Arrernte
- e. English, alongside Arrernte.

4.3.1. Language-land-culture-identity

The most essential ideology connects Arrernte language to land (Wilkins, 1989, pp. 1-4).⁷ Experienced Arrernte-English translator, interpreter and high profile community leader M.K. Turner, set out an Arrernte view of the central place of language in people's lives in her memoir (Turner et al., 2010) and in poster form, see Figure 4-3 (Turner, 2017a). In this view, language is not only a means for everyday communication but also associated with land, as the title of the poster makes clear. And through Country, language is deeply connected to culture and identity.

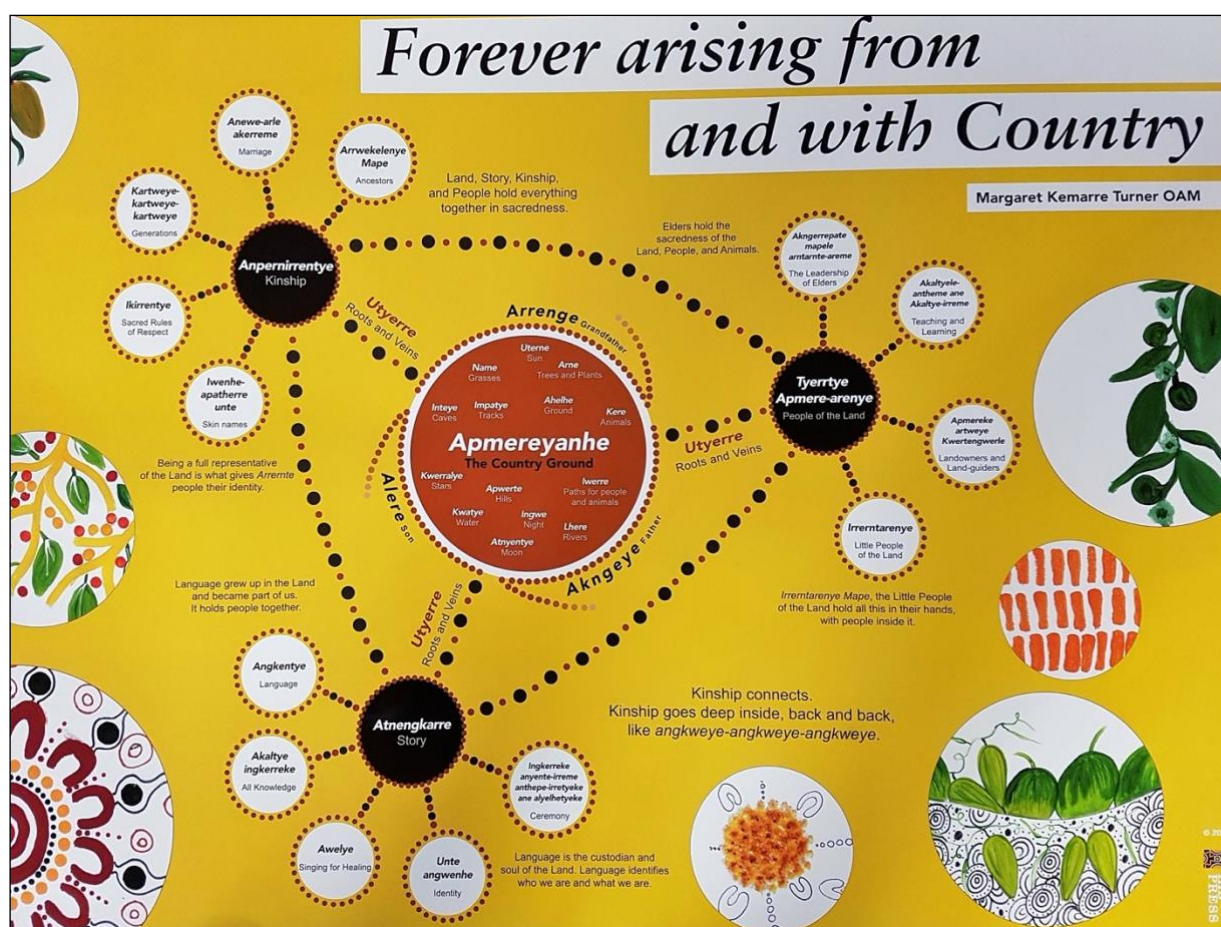


Figure 4-3. M.K. Turner's (2017) poster on relationships between land, language, culture, identity

Language is essential to knowing one's place in society and in relation to Country. Turner (in Turner et al., 2010, pp. 194, 196) refers to this knowledge as essential to *being you*:

⁷ This connection has been extensively discussed in linguistic, anthropological, land rights and native title literature for many Aboriginal groups (e.g. Merlan, 2014; Nash & Henderson, 2002; Povinelli, 2002; Rumsey, 1993).

We come from the Land, and the language comes from the Land. And everything that grows from the Land, it really relates to our languages well. ... Being you is to know your language from the Land and for the Land.

Long-term Arrernte educator and activist Rosalie Riley sums this up as: *The country is important to us because we belong to the country and the country is part of our culture, language and our spirituality* (in Dobson, Riley, McCormack, & Hartman, 1997, p. 24).

Another well-known Arrernte advocate, researcher and educator Veronica Dobson, discusses a selection of key terms to explain people's connections to particular plants, places and land-based knowledge and practices. This information is shared on YouTube and includes presentation and description of these relationships using the sandy ground as the medium (Figure 4-4).



Figure 4-4. Screenshot. Veronica Dobson video clip on language, people, country relationships

Over many decades these and other Arrernte community leaders have authored and co-authored publications in Arrernte (with English translations) that articulate many aspects of the ideology that connects language to land, culture and identity. The opening pages of their published works on kinship, bush foods and medicines, traditional healing, ecological knowledge in land management, and personal and community histories, identify two intended audiences: Arrernte families who need

information and assistance to maintain their language and culture, and non-Indigenous people interested in Arrernte language and culture. Some are additionally published in multimedia web form and/or in Apps. (Bowman, 2015; Dobson, 2007; Dobson & Henderson, 2013; Henderson, 1986; Ryder & Carew, 2017; Turner et al., 2010; Turner-Neale et al., 1994; Wallace & Lovell, 2009; F. Walsh, Dobson, & Douglas, 2013).

At Ltyentye Apurte, families highly value having some access to on-Country activities such as bush trips. In a local area promotion video, one of the parents of the children in my study stated: *Why I like living here at Ltyentye Apurte is because of the connection with the land, going out hunting and to also teach kids about our culture and history* (Young, 2017).

Similarly, the school's Arrernte program teacher connects strengthening children's language to knowing their culture, Country, identity and community (in the conversation I recorded with her in April 2019):

It's important that I deliver the program. It's very important for the school, for the community especially for the children to keep their language and culture strong ... to speak strongly and to know their culture and families who they are connected to. To know the important things they need to know about family, language, country, connection, skin names. Even things that are out bush they need to know. Otherwise they will just lose it completely. ... It's important for their identity. ... We need to teach the kids more and more each day, making it stronger.

4.3.2. Arrernte past-present-future

Families and educators regularly talk about the importance of maintaining old ways, traditions, knowledge and stories. At the same time, Arrernte ways of being are not considered to be locked in the past. Rather, Arrernte has a contemporary face, and is easily integrated into current daily experience. It is used to talk about life today, and isn't at odds with the future. Arrernte is viewed and used as a language not only for discussing traditional knowledge but also as suited to discussing present activities and requirements. Arrernte is used, without issue, in contemporary cultural expression and innovative ventures such as the five organisations discussed here:

Established at Ltyentye Apurte in 1987, Keringke Arts is a centre where practitioners have a space and materials for their work, which is sold nationally and internationally. The artists are all local, and are all family members of the children in this study. The centre is named after a rock-hole site near the community, formed when an ancestor kangaroo travelled through the country, a favourite destination for school bush trips. The centre's website describes the artists' work as reflecting both enduring cultural knowledge and traditions, and innovative materials, subjects and perspectives:

... the stories and imagery of this vast country has influence on the works produced by the Keringke artists ... [A]ge old motifs, landscape forms and patterns of movement lay the groundwork for dynamic images formed from a personal expression of self within the modern world. (<https://keringkearts.com.au>)

Similarly, the Santa Teresa Traditional Craft Centre reinforces the current value of traditional knowledge. It was founded in 2017 by a group of proud Arrernte men from Ltyentye Apurte, who state on the centre's website that they established it to revitalise culture and traditions that were at risk of being lost, which they learned from their grandparents and wish to pass on to their children.

The Eastern Reggae Band and Eastern Arrernte Band (both from Ltyentye Apurte), and other local musicians, rehearse and play in the community hall, and have participated in the annual Bush Bands Bash in Alice Springs. They write and perform in both Arrernte and English.

Children experience their language as one that is used on radio and television. The Central Australian Aboriginal Media Association (CAAMA) and Indigenous Community Television (ICTV) provide some programming in Arrernte (and other Aboriginal languages).

The Akeyulerre Apmere Cultural Healing Centre, a bush medicine social enterprise in Alice Springs, showcases traditional Arrernte knowledge and its relevance today for Arrernte people's and non-Indigenous people's health and wellbeing.

Through individuals and through organisations such as these, children see adults affirming Arrernte ways as living and thriving, fusing traditional knowledge and practices and contemporary identities. Language use in contexts such as these shows Arrernte as adaptive and continuing.

Children are viewed as emblematic of connection from the past to the future-oriented nature of language use, e.g. M.K. Turner (in Turner et al., 2010, pp. 196-197):

*You gotta akaltyele anthele ampe ngkwinhe-areye, you gotta teach your kids what language is, and what language belongs to that country ... Not only **you** speak that language, but generation upon generation upon generation of your families have also spoken it. And so language is really, really important.*

4.3.3. Arrernte can be documented and spread

The ideology that Arrernte can be documented and shared has been evident since the 1970s-1980s when Arrernte people began to work with linguists to develop an orthography and produce dictionary-grammar type documentation (Broad, 2008; Henderson, 1998, pp. 16-17; Henderson & Dobson, 1994; Reynolds, 1979, 1994). Arrernte staff at Ltyentye Apurte school today make use of the dictionary. The picture dictionary is especially popular. The Arrernte teacher uses it in her classes, and some families have copies at home.

Documentation and sharing of Arrernte assumes that Arrernte people are the ones who are making decisions about the purpose and direction of the work. In Alice Springs, the Arrernte language office, in the Centre for Australian Languages and Linguistics (CALL), at the Desert People's Knowledge Centre is a space for community-driven projects, such as books, apps, song and hand sign documentation. The Centre provides support from linguists and an opportunity for younger Arrernte people to get work experience. Arrernte Elder in Residence Harold Furber liaises with the local community and advises the office on development and implementation of projects.

Arrernte advocates have also put considerable effort into promoting their language as valuable and important for the wider public who are living and working, or holidaying in their Country. To maintain the visibility and status of their language and culture, they have partnered with non-Indigenous organisations and people with relevant skills in linguistics, education, technology, media, publishing, the arts, environmental sciences and community development.

Veronica Dobson and M.K. Turner (for Eastern-Central Arrernte) and other activists, notably Christabel Swan (for Pertame/Southern Arrernte), are regularly interviewed by local journalists (e.g. Harrison,

2019; Hughes, 2018). They make public the nature of, and motivations for, their language and culture work, raise the profile and status of Arrernte, increase intercultural understanding, and combat racism. Their interviews are also often shared on social media, e.g. YouTube, SoundCloud.

Historically the wider public has shown little interest in learning Arrernte, however there is now a small but critical mass of non-Indigenous people who are supporters of the language and culture. Both the Alice Springs Language Centre and Charles Darwin University (in partnership with Batchelor Institute of Indigenous Tertiary Education) currently offer Arrernte classes. Most of the students are non-Indigenous people employed in various organisations and services in Alice Springs. The courses are co-taught by an Arrernte speaker and linguist (Charles Darwin University, 2020, March 4, 2020).

Non-Indigenous people also access *Apmere Angkentye-kenhe* (the Place for Language), a ‘pop up’ centre in Alice Springs with Arrernte-related exhibitions, sound works, screenings and learning resources. It began with the *50 words project* (i.e. 50 Arrernte words that Alice Springs residents and visitors should learn and use), and grew to 30 phrases everyone should know (Hughes, 2018), available on the *Awemele Itelaretyeke* (Listen to Understand) App.

At Ltyentye Apurte school, introduction to Arrernte language and culture sessions, taught by local Arrernte staff, are incorporated into the orientation program for non-Indigenous teachers at the start of each year. Throughout the year the teachers accompany their class to one of the two Arrernte lessons each week. They also go on bush trips with students, as part of the school’s Arrernte program. They do not become proficient, however they develop an appreciation for Arrernte. In these ways, children are given messages about the importance and value of their language and culture, not only for themselves and their own community but also for non-Indigenous people.

4.3.4. Education sectors can support Arrernte

The field of Education is a significant context in which Arrernte people have overtly stated and enacted ideologies on the continuation of their language and culture. Ltyentye Apurte is among the few Central Australian communities that were afforded opportunities in the early childhood, school, vocational and higher education sectors, during the bilingual education era. This era began in the NT in the 1970s and included many achievements as well as setbacks (Devlin, Disbray, & Devlin, 2017). It coincided with burgeoning linguistic documentation of Central Australian languages and was an endeavor for which speakers, linguists and schools were initially supported to work together. However, schooling has also been a site of ideological struggle between people's aspirations for teaching and maintaining their languages, and the dominant society's provision and expectations of education. This clash plays out at Ltyentye Apurte, evident in contrasting periods of stronger and weaker alignment of Arrernte and dominant society ideologies regarding language education priorities for children and adults.

A period of stronger alignment between Arrernte and dominant society language education ideologies

Bilingual education in the NT aimed for children's maintenance of their traditional language and development of their English language skills. One of the many additional benefits of bilingual programs was the involvement and training of adult community members (Disbray, 2014). They participated in L1 language and literacy courses developed through the School of Australian Languages and the Institute for Aboriginal Development in Alice Springs (Black & Breen, 2001; Hartman, 1995, pp. 24, 43). Some also gained teaching qualifications through the Remote Area Teacher Education (RATE) program (Reaburn, Bat, & Kilgariff, 2015). This network of initiatives was driven by an era of government support for self-determination and self-management for Indigenous Australians, following the earlier waves of policies of Christianisation, protection and segregation, assimilation which had largely thwarted maintenance of their languages, cultures and identities (Hartman, 1995, pp. 20-29).

In 1977 when the possibility of a bilingual program was first being discussed at Ltyentye Apurte, the community decided not to go ahead. Attitudes began to change as a result of trialling some materials with older students, further development of the orthography, production of a community newsletter in Arrernte, scripture translation work and a research project conducted in the community by Jane Davis, an Arrernte trainee teacher and literacy worker (Reynolds, 1994). People's interest in writing their language intensified from 1978, as bilingual education initiatives gained momentum (Reynolds,

1979). The school's teacher-linguist, Sister Robyn Reynolds, and staff at other missions, began to access Summer Institute of Linguistics (SIL) courses. Sister Robyn also completed Honours and Masters theses on Arrernte (Reynolds, 1984, 1988).

The school officially became a bilingual school in 1990 (Reynolds, 1994). Arrernte curriculum and teaching materials development continued into the 1990s, and educators advocated for Arandacised curriculum and pedagogy (e.g. Bowden, 1994; Cook & Buzzacott, 1994; Dobson et al., 1997; Graham, 1983; Hartman, 1994; Institute for Aboriginal Development, 1992, 1993; Kral et al., 1999; I. Palmer, 1991; Reynolds, 1994; Woolley, Riley, & Dobson, 1998). The mid-1990s was also the time when Catholic Missions as an institution was being closed. Ltyentye Apurte School (which had been a part of the Mission since 1953) was then becoming a part of the Catholic Education schools system (Catholic Education Northern Territory, 2013, p. 10).

The *Intelyapelyape Akaltje Project*, an early childhood language and culture education program funded by the Van Leer Foundation in the early-mid 1990s, is remembered as an important initiative by Arrernte staff at Ltyentye Apurte school today. It expanded to include the Primary years of schooling, and also received Australian Government funding (Hartman, 1994, 1995). The project drew on Arrernte pedagogy and explored links and integration with non-Indigenous pedagogy (Woolley et al., 1998). Curriculum and resources were developed collaboratively by Arrernte teachers, trainee teachers and assistant teachers from Yipirinya school, Our Lady of the Sacred Heart and the Catholic High School in Alice Springs, Santa Teresa, Harts Range, Red Sandhill and Hermannsburg community schools, with support from non-Indigenous educators and IAD linguist Deborah Hartman (Hartman, 1994, 1995; Institute for Aboriginal Development, 1992; I. Palmer, 1991).

Teaching plans were recorded in progress reports and workshop summaries at the time. These are important grey literature records of people's ideologies and plans for their language. They include curriculum overviews such as the one in Figure 4-5, as well as statements about suitable pedagogy underpinned by on-Country learning experiences, guidance from Elders, and wider community participation, as in Figure 4-6, and also described in Dobson et al. (1997).

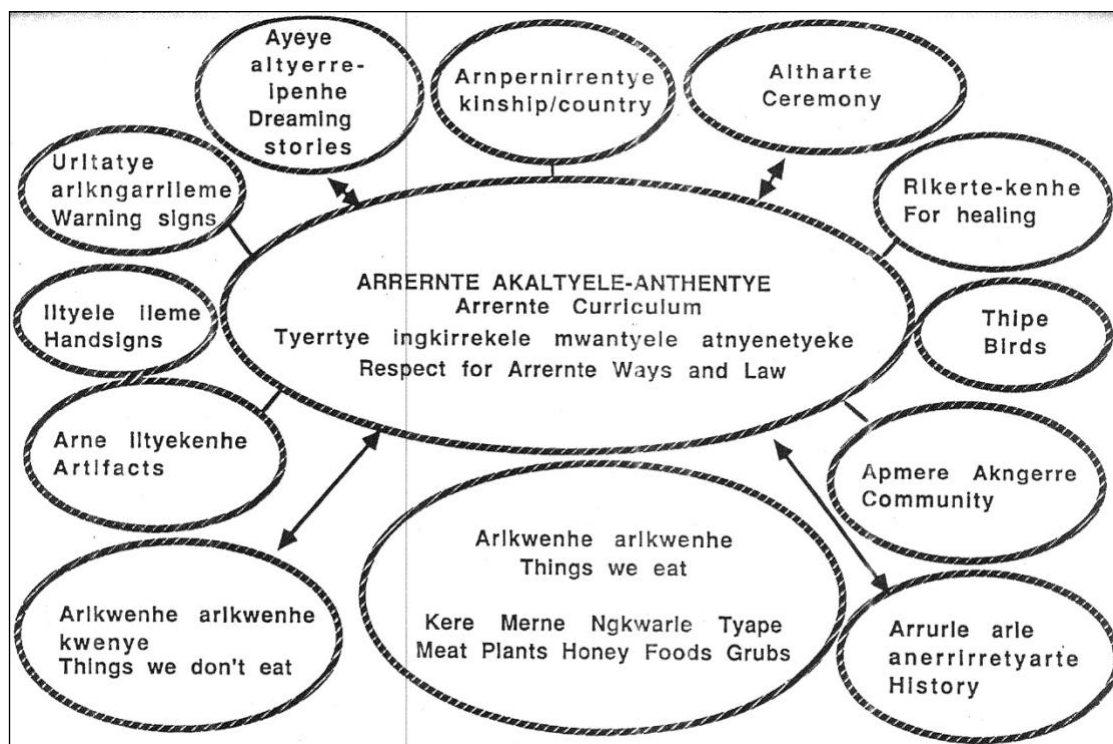


Figure 4-5. Arrernte curriculum plan overview from a teacher workshop report 1991

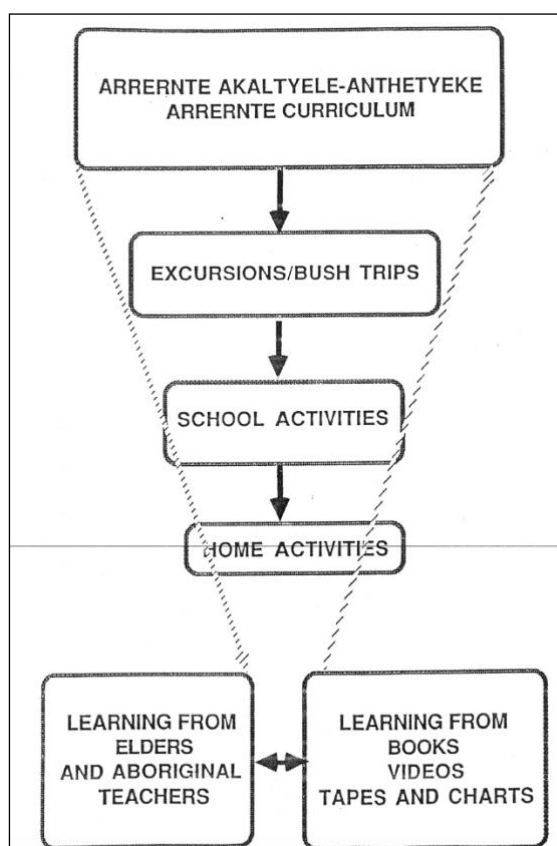


Figure 4-6. Arrernte curriculum implementation plan from a teacher workshop report 1991

A period of weaker alignment between Arrernte and dominant society language education ideologies

Although bilingual programs experienced an initial growth period, they were subsequently continually subjected to decreased funding and support (Hoogenraad, 2001; Nicholls, 2005; Simpson, Caffery, & McConvell, 2009; Wilkins, 2008b). A mother tongue language rights approach began to be replaced by policies which emphasised English literacy but without sufficient resourcing for quality for L2 English teaching (Kral & Ellis, 2019). Decreased support for bilingual programs also impacted negatively on Aboriginal teacher training, curriculum and resource development, and the status accorded local Aboriginal staff. In 2013 Ltyentye Apurte school officially shifted to an Indigenous language and literacy program (Catholic Education Northern Territory, 2013, p. 14), though the transition had been in progress for many years. That is, it changed from one with a higher degree of integration of Arrernte and 'Western' learning and language development to one in which Arrernte is a stand-alone separate program, with fewer timetabled hours and fewer Arrernte educators working on it.

Ultimately, this change reflects a complex set of ideologies playing out in national and global policy spheres, the Global Education Reform Movement (GERM). It is characterised by standardisation and narrowing of curriculum, large scale high stakes testing regimes and accountability, big data, regulation, corporate management practices, privatisation, competition, consumer choice (Fuller & Stevenson, 2019; Lingard, Martino, & Rezai-Rashti, 2013; Sahlberg, 2021; Spillman, 2017). It privileges national languages at the expense of minority languages, intensifying language shift (Howard, 2012, 2017). Since the 1990s, standardised curriculum and assessment have been developed for implementation in all Australian schools, with detrimental impacts on classroom teaching and student achievement in schools where children's L1 is a traditional or new Indigenous language (Angelo, 2012, 2013; Macqueen et al., 2019; Simpson et al., 2009).

Similarly, teacher training has become increasingly regulated (Connell, 2009). Teacher registration bodies in each state/territory, united through the national Australian Professional Standards for Teachers (Australian Institute for Teaching and School Leadership, 2011), now accredit all Initial Teacher Education (ITE) degree programs, and direct all professional learning for teachers throughout their careers (Australian Institute for Teaching and School Leadership, 2019).

Together, such standardised curriculum, assessment and teacher education accountability regimes have decreased funding and attention to local views held by remote community members on what

constitutes a good education and a good teacher for their children in their context (Bat, 2011, 2013; Bat & Shore, 2013; Guenther, Disbray, & Osborne, 2014; Guenther, Osborne, Disbray, & Bat, 2016). They add to the systemic and structural barriers already faced by Aboriginal remote community residents who want to qualify and work as teachers (Hall, 2016, 2018). When such high level, nationally instituted regulations drive school operations and teacher education, remote communities such as Ltyentye Apurte are left to rely heavily on highly local possible sources of support for their ideologies, primarily a sympathetic principal and non-Indigenous colleagues.

The current school arrangements at Ltyentye Apurte provide more staffing and timetabling for the local language than most similar remote schools (e.g. Kral & Ellis, 2008, 2019). However, it is a much-reduced form of the program (Gale, 1990; Purdon & Palmer, 2017; Reynolds, 1979, 1994). Local staff have become translators, interpreters and behaviour managers, compared with their past ground-breaking educational leadership roles. Non-Indigenous teachers struggle to apply standard curriculum and assessment priorities in this and similar schools (e.g. Angelo & Hudson, 2018; Edmonds-Wathen, 2015; Gawne, Wigglesworth, Morales, Poetsch, & Dixon, 2016; Poetsch, 2020).

The Ltyentye Apurte school benefitted from teacher training receiving more advocacy and attention in the Catholic compared with the public school system, through the Growing Our Own (GOO) program, a partnership between Catholic Education NT and Charles Darwin University, delivered in five school sites. The GOO program was developed and continued for several years after the Batchelor College/Institute RATE program closed. However it too closed, after ten years of operation (S. E. Smith & McPeake, 2019; Strangeways, 2017; Strangeways & Pettit, 2019; van Gelderen, 2017).

Both programs were underpinned by a belief in the expertise of local educators, and took a work-integrated learning, place-based, both-ways approach to teacher training (S. E. Smith, 2019). However, there were also significant differences between them. While the RATE program drew on Arrernte pedagogy for training Arrernte teachers for Arrernte children in schools on Arrernte Country, the GOO program aimed for a similar focus but was also unavoidably subject to Australian Institute for Teaching and School Leadership (AITSL) standards for Initial Teacher Education (ITE) program content requirements. The standards were developed and took effect from 2011. All ITE providers in Australia must comply with the standards, for their programs to be accredited. And all programs must be periodically re-accredited (Australian Institute for Teaching and School Leadership, 2019). The unique and crucial skills of local educators in remote Aboriginal communities – not least their bilingualism –

are outside of, not even mentioned in, the standardised definition of an effective teacher in the Professional Teaching Standards (Australian Institute for Teaching and School Leadership, 2011).

Ltyentye Apurte school currently has two recently trained teachers (graduates of the GOO program), and several women who trained in the 1980s-1990s (graduates of the RATE program, who also participated in L1 language and literacy courses in Alice Springs or through teacher-linguist guidance in the school's Literature Production Centre). These women are now mostly in assistant teacher rather than teacher positions, and are approaching retirement age. They often expressed, to me and their colleagues, their concerns that there are so few young Arrernte teachers to replace them in the future. Several of the parent generation staff members told me they would like to be able to read and write Arrernte, however suitable courses have not been available for many years.

The multitude of factors discussed in this section make Ltyentye Apurte one of several remote community schools that, since the late-1990s, has experienced gradually decreased early childhood, school, vocational and higher education sector support to implement approaches that are more inclusive of their languages (Devlin et al., 2017). A conversation I recorded in November 2017 with an assistant teacher (**AT**) at Ltyentye Apurte school captures something of her experience of differences between periods of stronger and weaker alignment between education providers' ideologies and Arrernte people's ideologies, over several decades described above. The other participants in the conversation are the non-Indigenous class teacher (**CT**), the Languages and Literacy Officer for Catholic Education NT Ailsa Purdon (**AP**) and me (**SP**).

AP: *What made RATE so good?*

AT: *Planning. Plus I used to work in the Lit Centre [Literature Production Centre]. I did some of my training in Arrernte working in the Lit Centre.*

AP: *Where did you learn to read and write in Arrernte?*

AT: *In 1986 – in the Lit Centre with Sister Robyn, Brother Leo and Jane Davis. We made lots of resources. All the training teachers used to go to the Lit Centre.*

AP: *What was good about teaching in Arrernte?*

AT: *Going out bush with the kids. We went out bush with kids and did our research [for our teacher education coursework] looking at our country, bushfoods. We went out with old people and they told us stories.*

...

SP: *Can you tell us about Intelyape-lyape program development days? I've heard they were really good.*

AT: *Well, we usually do our studies, and work in the classroom. A lecturer used to come out, and do the course with us, as a group. We used to sit down with her and do a lot of planning, like different bush foods, and dreamtime stories and country visits, skin names. We used to organise everything in themes.*

SP: *Everyone was training to be a teacher; is that right?*

AT: *Yeah. And we used to get a lot of old people to come in to be with us and work together. We was learning from them as well, in our studies and on country visits. We used to take like two or three school classes to Arltunga way and all that.*

SP: *What were the non-Indigenous teachers doing then?*

AT: *They used to come with us, and they used to learn too. We used to learn them too about our way.*

CT: *So what was it like back at school?*

AT: *We used to teach Arrernte in the classroom too ... We used to teach Arrernte half time part time, and part time English. But there used to be a white teacher there too.*

CT: *Half-half split.*

AT: *Yeah. But now there's [the stand-alone separate] Arrernte class now.*

SP: *That is quite a different way to organise everything, isn't it? So every class used to have its own Arrernte teacher.*

AT: *Yeah, that was before. But now every class goes to [the Arrernte room] for Arrernte class. Just Carmel [Ryan] is teaching all that now.*

...

AT: *Our young assistant teachers, like [name] and all that. We'd like to have a talk with them about the curriculum that we made, and pass that on to them.*

SP: *I've seen a lot of things in the Lit Centre, like some of the books people made and ...*

AT: *Yeah, they were things that we made. The old people told us, so we had to do some resources for the classrooms that we used to teach from there now. Then that was moved to the [stand-alone separate] Arrernte program now.*

AT: *Before, we all learnt to become a teacher from RATE with our lecturer.*

SP: *Was there more people doing teacher training before ...*

AT: *Yeah, in the 1980s we started doing our RATE teacher training, but that was good because there was plenty of us.*

CT: *Why do you think there's less now, less people doing teacher training?*

AT: *Batchelor, they used to do- Batchelor we started, but I don't know what happened then. Nothing's happening there now.*

CT: *Just GOO and that's it.*

AT: *Just GOO.*

SP: *It must've been exciting when you were doing RATE and you had many people all doing it together. That would've been great.*

AT: *It was really good. We used to be really busy ... working in the classroom in the mornings, and in the afternoon going to our studies, doing tasks and assignments.*

SP: *Were you making resources for the classroom as well?*

AT: *Teaching resources, and teaching as well. Planning our work, teaching, and then teaching.*

SP: *That would be busy.*

AT: *I started GOO - it was really hard. But Batchelor - when we used to do stage 1, 2 and 3 RATE it was all right. ...*

SP: *At that time you were teaching just exactly what you wanted to teach, all of the Arrernte knowledge.*

AT: *Yes.*

SP: *Whereas now teachers have got to do all subjects – Maths, History, Science, Geography, everything, not just Arrernte.*

AT: *Yeah.*

Longevity and consistency of ideological positions

For several decades Arrernte educators have consistently expressed the importance of passing on their knowledge of language and Country, and the role of the school in supporting this work. The acknowledgements page of the *Intelyape-lyape* guide lists 29 Arrernte teachers, seven Arrernte literacy workers, 19 Arrernte Elders, five other Arrernte contributors, in addition to the seven lead members of the curriculum project team (Intelyape-lyape akaltye project team, 1997).

As a researcher who is new to the Arrernte education scene, several years after the *Intelyape-lyape* project has lain dormant, I am struck by the fact that I recognise many of the names on the list. Approximately 20 years later, those educators are still working in early childhood, school, vocational and higher education programs for their language and culture. They have continued their involvement

in education, even in recent decades of reduced institutional support. They have been steadfast in their ideologies and actions, in spite of waxing and waning policy and support.

Further evidence of the longevity and consistency of their ideological positions about the responsibility of education sectors to support Arrernte language and culture maintenance is available in a study by the current school principal (Colley, 2019). The study aimed to inform the school, and the Catholic school system more widely, about how to respond to the mismatch between national curriculum expectations and student and community needs identified *by those who experience the problem*. This includes Arrernte and non-Indigenous staff.

Arrernte interviewees reiterated the need for: increased community input into school leadership and priorities; Arrernte staff L1 literacy training and teacher education opportunities; more Arrernte curriculum content, bush trips, language and culture days; extended intercultural awareness and skills development for non-Indigenous staff; more team teaching with ATs having a greater role in collaborative planning; more digital literacy resources to engage students in Arrernte learning; curriculum that prepares students for the wider world, including English language. There are many overlaps with the findings from the extensive survey of Central Australia schools and communities in the *Red Dirt Education* project (Guenther et al., 2014; Guenther, Osborne, et al., 2016).

The importance of individuals

Local actors and agents are critical to micro- and macro-level language policy and planning (Baldauf, 2008; Hornberger, 2009; Liddicoat & Baldauf, 2008). Dedicated individuals make a difference to community actions and attitudes to their language, and thus to language continuity (Thomason, 2001b, p. 24). In a small-scale community like Ltyentye Apurte, prominent individuals have high visibility. The children in this study interact every day with school staff, who are their family members, community leaders and role models, who have not only advocated for inclusion of their language and culture in the curriculum but also been the ones to implement the program. The combination of stated and embodied ideologies is powerful.

While there is relatively regular turn-over of non-Indigenous teachers, the local Arrernte staff are always there, and have long years of service and commitment. The importance of contributions by local educators such as these has also been observed in similar remote schools, often despite lack of

recognition and appreciation of their skills and knowledge (e.g. see Browne & Gibson, 2021; Hall, 2018; Hall et al., 2019; Kral & Ellis, 2019 for Warlpiri, Pitjantjatjara and Ngaanyatjatjara teachers' experiences).

Non-Indigenous supporters have also contributed to sustaining Arrernte people's wishes. In the face of national structural barriers, non-Indigenous allies at the local level, as well as those in policy positions for school, vocational and tertiary education contexts have also argued for and sought development of programs and opportunities for Arrernte language and culture.

4.3.5. English, alongside Arrernte

From an ideological point of view, there is no opposition to English. It is viewed as useful and necessary for participating in society. Arrernte speakers use English, as and when they need. Educators' and community leaders' *identity* view of Arrernte sits alongside their *instrumental* view of English.

The work of educators and parents/carers dating back to the bilingual education era is evidence for their aspiration for children to both keep Arrernte strong and learn English, e.g. as reported in Reynolds (1994, pp. 106-107):

Community attitudes to language are very strong and clear. ... Bilingual education was introduced largely because many people felt that Arrernte was being weakened ... and that an unwanted mix of languages was occurring. Maintaining Arrernte language is therefore a top priority in the school, but English is also seen to be important.

In a much more recently established educational initiative, Children's Ground, the early childhood program in Alice Springs, Arrernte advocates continue to refer to the importance of both languages, e.g. (L. Palmer, 2016): *We want to teach our kids language and English, so they are strong both ways.*

Adults at Ltyentye Apurte talked to me about wanting 'a good education' for their children, in the context of conversations about seeking secondary boarding school experiences for their children, so that they can learn English learning beyond the community, for future educational and employment opportunities. (For studies on aims, benefits and challenges of boarding school education, see e.g. Benveniste, Dawson, & Rainbird, 2015; Guenther, Milgate, et al., 2016; O'Bryan & Fogarty, 2020;

Osborne, Rigney, Benveniste, Guenther, & Disbray, 2019). The availability of suitable education, training, employment, travel and other opportunities determine the level of English proficiency that individuals are able to reach.

Summary and review

Arrernte people's ideologies for keeping their language strong in their community and in younger generations can be unpacked into the components discussed above and summarised in Figure 4-7. Broadly, an *identity* view of Arrernte sits alongside an *instrumental* view of English.

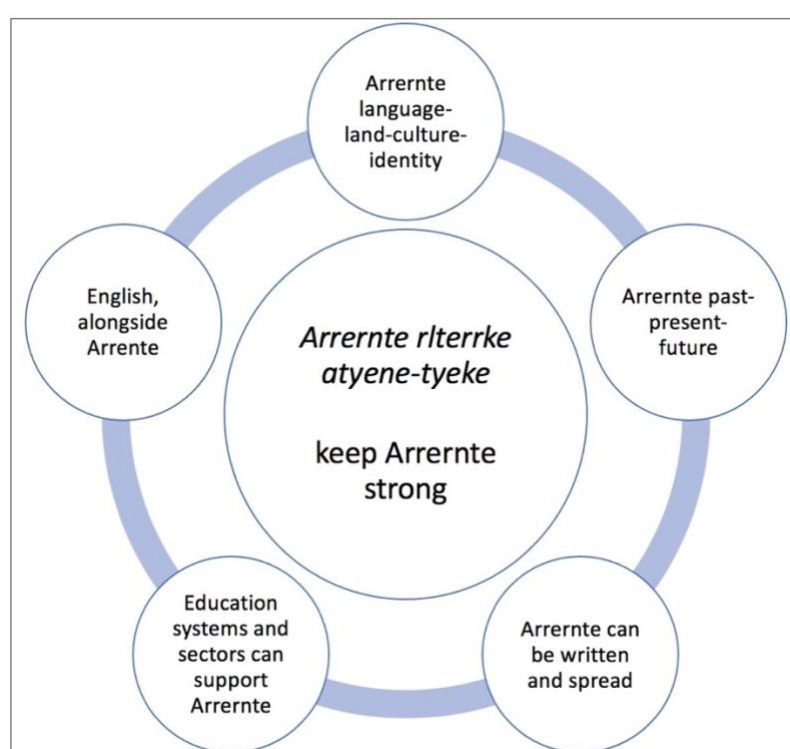


Figure 4-7. Keeping Arrernte strong ideologies

Community members' actions exemplify the Hornberger (2005b) notions of (a) opening and filling up of *ideological* and *implementational* spaces (b) bottom-up language planning in relation to resources and (c) working at both policy and local levels for developing individuals' language capabilities and identities. When speakers fill implementational spaces with bilingual/multilingual practices, they occupy ideological spaces which have been opened up by existing policies and stimulate more favorable ideological spaces in the face of restrictive policies. Ideological spaces created by policies can carve out local implementational spaces, and implementational spaces can also demand the

opening of ideological ones (Hornberger, 2002, 2005a, 2005b). However, Arrernte people's language maintenance efforts – in home, community and education contexts – have been in the context of a monolingually-oriented English-dominant society and over the course of 160 years of intense contact.

Ideological positions on the value and place of Arrernte and English held and enacted by Arrernte people themselves and by the dominant society and its institutions impact on the input children receive and the language they produce. This section has illustrated some of these ideologies in operation. It is in these contested arenas, that Arrernte people (and their supporters) have consistently asserted their views on the importance and value of their language, alongside English – Arrernte for identity purposes and English for instrumental purposes.

4.4. Profiles

The final section of this chapter provides a short profile of each child in this study, to show how the possible range of languages in Figure 4-1 apply in the social life of particular children. The profiles are based on information I gathered in conversations with parents/carers, teachers and assistant teachers, and from my own observations and conversations with the children. Initially I simply made notes while getting to know the children and their families. However as the study progressed, the notes also became helpful for interpreting the discourse data, understanding variation in the children's Arrernte. Where information about family members is shared by siblings/cousins, it has been repeated in each child's profile.

In some of the profiles I use quote marks for 'English'. This is to indicate that people I talked with compiling the profiles could possibly be referring to any of a number of different codes: a less standard variety with English L2 features; a more systematised Aboriginal English variety; a code that is typologically different from English such as a variety of Kriol; or a more standard variety of English.

A total of 18 children participated in this study. However, the number code applied to de-identify them does not simply range 1 – 18. This is because some children recorded in fieldtrip 1 were not present in subsequent fieldtrips.

Child 1 (C01) was 6;4 and in the Transition class (the first year of school in the NT Education system) in the first recordings of her in this study. Her mother and father both grew up at Ltyentye Apurte with

Arrernte as the main language they speak. C01 has one brother several years older, and a baby sister several years younger than her. Their house is in East Side.⁸ The family mostly stays in the community, except when they go to Alice Springs for shopping, or away for short trips. C01's mother has worked as an AT in the school for several years, and is completing vocational education certificates in assistant teaching. C01's mother is also an artist, and sells her work through Keringke Art Centre. C01's father started working as an AT in the school in 2016. Prior to that he worked in the community for the Shire Council through the CDEP program. C01's great grandmother (father's mother's mother) speaks strong Arrernte and lives in Alice Springs. C01's family visit her there on weekends, and sometimes the old lady comes to the Ltyentye Apurte and stays at C01's house. A03 in this study, who also has strong Arrernte, is a grandmother figure to C01 too, and they spend time together in the community. C01 walks around with C14 (A03's daughter's daughter) who also lives in East Side, and also some of the girls in her class who live in Old Village.

Child 2 (C02) was 5;9 and in Transition in the first recordings of him in this study. His mother and father both grew up at Ltyentye Apurte, with Arrernte as the main language they speak. C02 has two older sisters, one of whom is C05 in this study. Their house is in Old Village. The family mostly stays in the community, except when they go to Alice Springs, or away for short trips. C02's mother works at home full-time. His father was working at the plant nursery run by Catholic Care NT as a CDEP program, preparing seedlings and cuttings, and selling potted plants to community members. C02's and C05's mother's mother lives in Alice Springs. They visit her on weekends and she speaks strong Arrernte with her grandchildren.

Child 5 (C05) was 7;5 and in Year 1 in the first recordings of her in this study. Her mother and father both grew up at Ltyentye Apurte, with Arrernte as the main language they speak. C05 has one younger brother (C02 in this study) and one older sister. Their house is in Old Village. The family mostly stays in the community, except when they go to Alice Springs, or away for short trips. C02's mother works at home full-time. Her father works at the plant nursery run by Catholic Care NT as a CDEP program, preparing seedlings and cuttings, and selling potted plants to community members. C02's and C05's mother's mother lives in Alice Springs. They visit her on weekends and she speaks strong Arrernte with her grandchildren. They visit her on weekends, and sometimes C05 stays longer with her instead of going to school at Ltyentye Apurte.

⁸ See map of the community in Chapter 1 for the six main residential areas: East Side, Across the Creek, Old Village, New Houses, Across the Fence and Camel Camp.

Child 6 (C06) was 7;3 and in Year 1 in the first recordings of her in this study. Her father grew up at Ltyentye Apurte, with Arrernte as the main language he speaks. Her mother is Luritja, and an Arrernte L2 learner/speaker, who has been living at Ltyentye Apurte since she finished secondary school and started to have her family. She speaks Luritja to her children but they usually answer in Arrernte. C06's mother has family at Titjikala (Maryvale)⁹ and Finke (Aputula)¹⁰. C06 goes with her family to visit both of those communities from time to time. Her family mostly stays at Ltyentye Apurte though. C06's father works as a driver taking people to the renal unit in Alice Springs for dialysis treatment three times a week. C06 is the fourth of five siblings. She has an older brother (who she described as a man, living at Finke), an older sister, another older brother, and a baby sister. C06's father's parents (who were both Arrernte) have passed away. C06 didn't really know them. After school and on weekends C06 walks around with C16 (and C16's younger sister), and spends time at their house. A05 commented that she was impressed by C06's Arrernte when the two of them happened to meet up while each was visiting Finke (Aputula). They had a discussion in which A05 noted that C06 was able to discuss traditional healers and healing with her. A05 considered this to be a complex topic for C06 to be able to talk about in Arrernte.

Child 7 (C07) was 6;10 and in Year 1 in the first recordings of him in this study. His mother grew up at Ltyentye Apurte, with Arrernte as the main language she speaks. His father's family is Western Arrernte from at Ntaria (Hermannsburg). C07 has one younger sister, who has impaired hearing. The family stays mostly at Ltyentye Apurte but sometimes go to at Ntaria (Hermannsburg) for family visits. C07's mother works part-time in the Centrelink office at Ltyentye Apurte, e.g. helping people to meet various government work-income requirements and sometimes find (temporary) work in a different community. C07's father works for the recreation club in the community, e.g. opening the rec hall, swimming pool and the shed where men do vocational skills training, such as welding and carpentry. C07 lives in a set of connected households in East Side with his extended family. He has 3-4 members of the grandparent generation in his extended family around him there each day. C07's behaviour is lively but it can also be a problem at home and school. He finds it hard to settle down and concentrate. His mother's mother and her sisters think maybe he has too much sugar or maybe he'll grow out of it

⁹ Titjikala (Maryvale), 120km south-east of Alice Springs, population approx. 200 Pitjantjatjara, Luritja and Arrernte people.

¹⁰ Aputula (Finke), 420km south-east of Alice Springs, population approx. 160 Pitjantjatjara, Yankunytjatjara, Luritja and Arrernte people.

when he's older. After school and on weekends he walks around with a lot of his brothers and cousin-brothers and other boys from school who come to his families' houses area.

Child 9 (C09) was 7;7 and in Year 2 in the first recordings of him in this study. His mother grew up at Ltyentye Apurte, with Arrernte as the main language she speaks. His father is Luritja from Titjikala, and is a quiet man, who mostly stays at home with the family. He is an Arrernte L2 learner/speaker. C09 has one older brother and one younger sister. Their house is in Old Village. The family mostly stays at Ltyentye Apurte but sometimes go to visit family at Titjikala. They listen to their grandparents talking Luritja then. C09's mother's mother was born at Ltyentye Apurte and has lived there all her life. She speaks strong Arrernte. C09's mother's father is a member of the stolen generation and speaks only English. He can hear Arrernte but can't speak it. He has now moved from Ltyentye Apurte to Alice Springs. The family visit him there on weekends. C09 and his older brother spend time with all the boys at C07's family's houses.

Child 10 (C10) was 7;10 and in Year 2 in the first recordings of him in this study. Both of his parents grew up at Ltyentye Apurte, with Arrernte as the main language they speak. His mother works at the community store, and is completing vocational education certificates in retail management. She went to boarding school near Cairns for some of her high school years. C10's father was employed by Department of Main Roads and often travelled to distant locations in the NT for several weeks at a time for this work. More recently he has been employed by the Council, collecting garbage in the community. C10's mother's mother was born at Ltyentye Apurte and has lived there all her life. She speaks strong Arrernte. C10's mother's father is a member of the stolen generation and speaks only English. He can hear Arrernte but can't speak it. He has now moved from Ltyentye Apurte to Alice Springs. The family visit him there on weekends. C10 has two older brothers (C19 in this study, and an older teenage brother, who has been away at boarding school in Queensland). In 2015 the family went on a holiday to the Gold Coast in Queensland. They stayed with friends, and visited popular tourist attractions such as Sea World and Movie World.

Child 11 (C11) was 7;6 and in Year 2 in the first recordings of her in this study. Her mother grew up at Ltyentye Apurte, with Arrernte as the main language she speaks. Her father is Alyawarr and lives at Alcoota.¹¹ He also lives in Alice Springs sometimes. C11 has occasional contact with him. C11 is the

¹¹ Alcoota, 200km north-east of Alice Springs, population approximately 160, mostly Arrernte and some Alyawarr people.

third of four children. She has an older brother (a young man), a teenage sister and a younger brother. Her mother worked as a check out operator at the community store and then as a community development officer for Atyenhenge-atherre Aboriginal Corporation, a job that involved a lot of travel to major cities for conferences, training and meetings with Indigenous women from many different parts of Australia. C11's mother lives in a house with her new partner and young son. C11 stays there sometimes but also often stays with her mother's mother or one of her mother's mother's sisters in a set of connected households of her extended family in East Side. She has 3-4 members of the grandparent generation in her extended family around her there each day. There are always many children in those houses and yards, and C11 spends time with lots of her siblings and cousins there. C11 also walks around with C14.

Child 12 (C12) was 7;6 and in Year 2 in the first recordings of her in this study. She has been adopted by her mother's mother, who has held teaching and leadership roles in the school and community. C12 is the only child in her household in East Side, where she lives with her grandmother and two of her grandmother's sisters, all of whom grew up at Ltyentye Apurte, with Arrernte as the main language they speak. C12's great grandmother (mother's mother's mother) also lives with them. She is very old and provides more and even stronger Arrernte input for C12. They mostly stay at Ltyentye Apurte. They only go into town for shopping, and don't spend much time in other communities. So C12 is usually at Ltyentye Apurte, though during one of my fieldtrips she was living in Alice Springs and going to the Catholic school there because her grandmother was sick in hospital at the time. C12's mother's family are in Alice Springs. C12's teachers and ATs also commented on her strong English skills. The Arrernte teacher (A01) and other ATs (including A03) commented on C12's strong Arrernte, and attributed it to the fact that she 'listens well' in Arrernte classes and to the influence of her grandmothers. C12's maternal grandmother and her sisters were all part of the bilingual education movement in the 1970s-1990s. All have Arrernte literacy skills, and teaching qualifications, and all continue to work at the school today.

Child 13 (C13) was 9;2 and in Year 3 in the first recordings of him in this study. His father grew up at Ltyentye Apurte, with Arrernte as the main language he speaks. C13's father's father lives in the community and speaks Arrernte with C13. C13's mother grew up in Kununurra WA and speaks 'English' (possibly Kriol). She also speaks some Arrernte because her father was Arrernte from Ltyentye Apurte. He went to Kununurra to work as a stockman and met his wife there. Over the years they brought their children (including C13's mother) from Kununurra to Alice Springs and Ltyentye Apurte to visit

their father's family. C13's parents met at Ltyentye Apurte. C13's father is working on a contract, fixing houses. C13's mother has worked in the school canteen. C13 has one older sister and two younger sisters. Their house is in Old Village. They go on holidays to Kununurra sometimes. C13 has a small motorbike and spends time with C15 who also has one. C13 also spends time with all the boys at C07's family's houses. C13's class teacher commented that C13 was very bright, and was learning the mainstream curriculum subjects as well as other students he had taught in the past in non-remote schools.

Child 14 (C14) was 8;6 and in Year 3 in the first recordings of her in this study. Her mother grew up at Ltyentye Apurte with Arrernte as her main language. C14 also has Pitjantjatjara heritage from her father. However, her mothers' second husband, an Arrernte speaker who grew up at Ltyentye Apurte, is the one who is raising C14. C14's parents both went to boarding school in Darwin for some of their secondary school years. C14's mother's mother (A03 in this study) speaks Arrernte as her L1, and learned Pitjantjatjara from her husband and his family. They don't travel to C14's grandfathers' family but they might bump into some Pitjantjatjara family in Alice Springs sometimes. One of C14's names is from Pitjantjatjara '*kungga*' (girl). C14's mother's mother is a *ngangkere* (traditional healer), who spends a lot of time looking after C14, and teaching her Arrernte knowledge. C14's mother's mother is also the AT in the Arrernte language and culture program in the school. C14 has three younger sisters. Their house is in Old Village, and C14 also often stays in her grandmother's (A04's) house in East Side; her mother's younger brother lives there too. C14's class teacher described her as energetic and bright but also easily distracted at school, and as having good spoken English skills. The Arrernte program teacher (A01) commented that C14 has strong Arrernte. C14 walks around with C01, C11 and C17 but also has a solitary, independent character. She goes her own way and spends time with whoever she comes across.

Child 15 (C15) was 8;7 and in Year 3 in the first recordings of him in this study. His mother grew up at Ltyentye Apurte and in Alice Springs, with Arrernte as the main language she speaks. She works as an administrative officer for Shire Council office in the community. C15's mother's mother and mother's father were born at Ltyentye Apurte, and have lived there all their lives. C15 has one younger brother. The extended family live in live in New Houses. They have two houses there, side by side, with a lovely garden and shady trees. C15's mother's younger brothers live there too. The family mostly stays in the community, except when they go to Alice Springs for shopping, or away for short trips. C15's father is Yolngu from Maningrida. C15 did travel there once to see him but he doesn't have much contact

with him at the moment. C15 joins in the remote-control car club, held at the community racetrack once a month. He also has his own small motor bike which he enjoys riding around the community, with C13. C15's class teacher commented that he enjoys school and does well. He was also chosen to be a deputy librarian at school, which is seen as a responsible job for children in their upper primary school years. His mother's mother described him as a thoughtful boy.

Child 16 (C16) was 9;2 and in Year 3 in the first recordings of her in this study. Her mother grew up at Ltyentye Apurte, with Arrernte as the main language she speaks. She works at home full-time. C16's father is from Alpururulam (Lake Nash).¹² He identifies with Alyawarr but mostly grew up with 'English' as the main language he speaks. He is a health worker at the community clinic, and is active in the community, arranging sport activities and competitions for kids and adults. C16 is the eldest of four siblings. She has a sister and two brothers. Their house is in East Side. The family mostly stays in the community, except when they go to Alpururulam (Lake Nash), e.g. for holidays and funerals. C16's mother's mother was born at Ltyentye Apurte and has lived there all her life. She speaks strong Arrernte and spends a lot of time with C16's family. C16's mother's father is a member of the stolen generation and speaks only English. He can hear Arrernte but can't speak it. He has now moved from Ltyentye Apurte to Alice Springs, so the family visit him there on weekends. C16's class teachers and ATs reported she does very well at school and has very good oral English and literacy skills. After school and on weekends C16 walks around with her younger sister and C06.

Child 17 (C17) was 9;3 and in Year 4 in the first recordings of her in this study. Her father grew up at Ltyentye Apurte, with Arrernte as the main language he speaks. C17's father's mother (an Arrernte speaker) passed away. C17's father's father lives in Alice Springs. The family visit him on weekends, and he talks Arrernte with them. C17's father met his wife when they were at boarding school in Darwin. Several of the parents of children at Ltyentye Apurte went to the same school, so C17's mother knew several community members before she moved to the community. C17's mother is from Halls Creek WA and identifies as Jaru, though she speaks 'English' (possibly Kriol?) with her children. She also understands some Warlpiri and is able to have conversations with Warlpiri families living at Ltyentye Apurte. She told me she can hear Arrernte but not really speak it. She works part-time as a community research assistant for Ninti One, surveying people in the community about various topics and projects, e.g. wild camel management. One of the women who transcribed recordings with me

¹² Alpururulam (Lake Nash), 1000km from Alice Springs, population approximately 400 mostly Alyawarr people.

thought that C17 had grown up at Ltyentye Apurte and been there long enough to be a good Arrernte speaker. Another one thought that C17 is still in early stages of learning the language and that her Arrernte is weak but she's getting there slowly. C17 has one younger brother. Their mother thinks he is more confident than C17 in speaking Arrernte. C17 spends time with C14. C17's house and C14's mother's mother's house are near each other in East side.

Child 18 (C18) was 9;9 and in Year 4 in the first recordings of her in this study. Her mother grew up at Ltyentye Apurte, with Arrernte as the main language she speaks. She is in and out of Alice Springs a lot, so C18 usually stays with her mother's mother at Ltyentye Apurte. She also sometimes stays with A01 in this study, who is a kind of grandmother to C18. So C18 gets strong Arrernte input from her mother's mother and A01. Both houses are in East Side. C18 has a younger brother and a younger sister. C18's father is from another community but not a primary carer for her. C18 was teased a lot by boys in her class, and so was often absent from school.

Child 19 (C19) was 9;7 and in Year 4 in the first recordings of him in this study. Both of his parents grew up at Ltyentye Apurte, with Arrernte as the main language they speak. His mother has worked for a long time at the community store, and is completing vocational education certificates in retail management. She went to boarding school near Cairns for 3-4 of her high school years. C19's father was employed by Department of Main Roads and often travelled to distant locations in the NT for several weeks work at a time. More recently he has been employed locally by the Shire Council, collecting garbage in the community. C19's mother's mother was born at Ltyentye Apurte and has lived there all her life. She speaks strong Arrernte. C19's mother's father is a member of the stolen generation and speaks only English. He can hear Arrernte but can't speak it. He has now moved from Ltyentye Apurte to Alice Springs, so the family visit him there on weekends. C19 has one younger brother (C10 in this study) and one older brother who has been away at boarding school in Queensland. In 2015 the family went on a holiday to the Gold Coast in Queensland. They stayed with family friends and visited popular tourist attractions such as Sea World and Movie World.

Child 20 (C20) was 10;4 and in Year 4 in the first recordings of him in this study. His mother grew up at Ltyentye Apurte, with Arrernte as the main language she speaks. She works in the community crèche. C20's father is Pitjantjatjara from Aputula (Finke)¹³ but he has family at Ltyentye Apurte

¹³ Aputula (Finke), 420km south-east of Alice Springs, population approximately 160 Pitjantjatjara, Yankunytjatjara, Luritja and Arrernte people.

(through his mother's sister). He has lived at Ltyentye Apurte for several years but he struggles to speak Arrernte. He tends to speak Pitjantjatjara or 'English' with his children. C20 has an older brother, a younger sister and a younger brother (who has an illness which requires his mother to take him to Adelaide for treatment on a regular basis). C20's family's house is in New Houses. C20's mother's mother is Arrernte from Ltyentye Apurte but she's often away, always on the move. C20's mother's father was Arrernte from Ltyentye Apurte but he passed away some years ago. C20 and his older brother often travel with their father to his home community, Aputula (Finke). They spend time with Pitjantjatjara family there. C20 is one of approximately 15 children in the school who has been assessed as hearing impaired and wears a hearing aid (during school hours only).

Child 23 (C23) was not officially enrolled in the school but she was attending the Year 3 class for a while and is approximately 8 years old. She lives sometimes in Alice Springs, sometimes at Ltyentye Apurte, and sometimes at Maningrida. C23 has one younger brother and one younger sister. C23's parents both grew up at Ltyentye Apurte, with Arrernte as the main language they speak but neither is living at Ltyentye Apurte now. C23's father is the nephew of A01 in this study. At the time of this study C23 was vulnerable since her parents were not taking care of her. A01 and other women in the community were looking after her.

Information about language input in the profiles above is distilled in Table 4-1, Figure 4-8, and Map 4.1. All children in the study are growing up with Arrernte spoken by at least one parent/primary carer and/or grandparent. The important role of grandparents in language maintenance will be revisited in Chapter 6. Some children are also growing up with other Aboriginal languages: Luritja (C06, C09), Pitjantjatjara (C20), Warlpiri (though no child included in the data analysis in Chapters 4-7) and Kriol (C13, C17).

Language repertoire	Children	Number of children
Children who predominantly hear and use Arrernte and English	C01 C02 C05 C07 C09 C10 C11 C12 C14 C15 C16 C18 C19 C23	14 of 18
Children who hear and use Arrernte, English and another Aboriginal language	C06 C13 C17 C20	4 of 18

Table 4-1. Main languages of the children in this study

All children in the community are connected in many ways to many people. As in similar small-scale communities, everyone is related through the kinship system, if not biologically. Figure 4-8 is a rudimentary diagram which aims to illustrate basic familial and friendship relationships simply and only amongst the children in this study, i.e. peers the participants spend time with. Figure 4-8 supports a few qualitative observations in Chapters 5-6. Although beyond the scope of this study, in the future a more detailed and systematic profile could be developed for each participant, informed by social network theory and using the associated data collection strategies and analysis tools (Milroy, 2000).

Remote area Aboriginal community members are often described as *highly mobile*. This description fits the families of the children in this study well. While Ltyentye Apurte is their home, most also have family contacts and reasons to travel to other locations, which impacts on the languages that children are exposed to. The map in Map 4.1 illustrates the considerable geographical extent of connections of the children in this study.

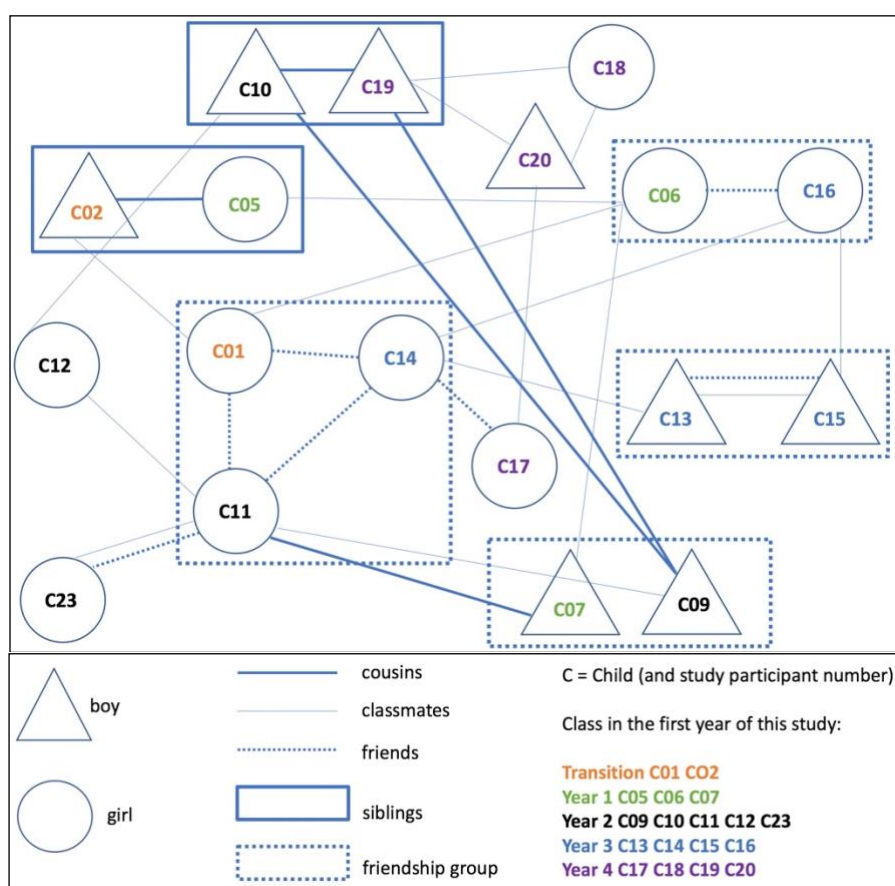


Figure 4-8. Diagram (and key) representing relationships amongst the participating children



Map 4.1. Places children in this study are connected to. Map: Brenda Thornley

4.5. Conclusion and direction

This chapter described the sociohistorical, sociopolitical and sociocultural conditions, including the Arrernte community and dominant society ideologies that influence the input children receive. In the main they are growing up with Arrernte and English varieties, and codeswitching is usual. However, a profile of each child shows unique experiences of this general language landscape. The ethnographic information in this chapter lays foundations for the suite of discourse analyses in Chapters 5-8.

Chapter 5 Textless picture book narratives: Part 1

5.1. Introduction

The description in chapters 5-6 is a usage grammar study. It examines morphosyntactic properties of 17 children's Arrernte, in narratives elicited with four textless picture books. Preliminary examination of the data, discussed in this chapter, establishes that although there are English elements in the children's narratives, their speech is not a creole/Kriol, mixed language or English variety. Much basic Arrernte morphosyntax is found to be present in their discourse, e.g. NP word order and case marking, pronominal forms, tense, aspect and mood inflections, expected constituent order (SV, AOV) and variation of constituent order in main clauses, PURP-marked complement clauses and further constructions.

Thus, the data could be used to investigate children's use of more complex aspects of Arrernte grammar, selected on the basis of analysis of the adult narratives: (a) the definitising function of third person pronouns discussed in this chapter and (b) the switch reference system discussed in Chapter 6. The analysis focuses as much on children's grammatical competence as it does on narrative abilities, as it aims to provide a measure of the strength of their Arrernte. To do so, it examines grammatical production of the structures, and structures they produce when not using the more adult-like forms.

Chapters 5-6 find considerable variation in the children's use of the two features investigated, yet the differences are not clearly age-related. The last part of the analysis (at the end of Chapter 6) therefore seeks other possible sources of differences amongst the cohort. It is informed by experienced Arrernte educators' general assessment of the strength of each child's Arrernte; their explanations for the variation; and factors they observe supporting strong Arrernte in members of this age group.

5.1.1. Research questions

Of the research questions set for this thesis, the ones that feature in Chapters 5-6 are emphasised in bold here:

- 1. What are the language repertoires of the children in the study?**

2. **How do they deploy their linguistic resources and communicative skills in**

three sample contexts:

- **telling narratives, prompted by four textless picture books**
- giving spontaneous first-person recounts, told in the sand
- learning mainstream curriculum content, in a classroom setting.

3. **Given concerns about language shift, what are some morphosyntactic properties of the children's Arrernte?**

4. What are some sociocultural dimensions of the discourse and interactions in the data?

5.1.2. Language socialisation lens

To systematically frame children's deployment of their linguistic repertoire (described in their profiles in § 4.4. and summarised in Table 4-1) and sociocultural aspects of their communicative skills in the three distinct discourse data situations, I use the six dimensional Ochs et al. (2005) model:

Activity. An Arrernte adult guides each child to look through each picture book to become familiar with the plot, and asks him/her to tell the story in Arrernte. The task is not set up to be a shared experience involving a mixture of telling and having a conversation about the story and images. Rather, it requires the child to produce a narrative independently.

Participation frameworks. In each recording the Arrernte adult is expert and the child is in novice role. The children are familiar with the adult making the recording.

Habitat. The recordings were made in the Arrernte classroom in the school or a similar room nearby that was quiet. The children are familiar with these spaces.

Artefacts. Picture books are foreign in the sense that families in the community have strong traditions of verbal- and manual- narrative practices (such as those to be highlighted in Chapter 7). Book-literacy and all of the social practices that are associated with it are relatively recent introductions rather than long and intergenerationally established cultural conventions (Kral, 2000). At the same time, the children, their parents and grandparents are familiar with books in Arrernte and English, through their schooling.

The picture books require the children to construct narratives about entities and events that are not matched to 'traditional' Arrernte life. However, the depicted characters and plots are within the realm of present-day experiences in the community, e.g. playing a guitar, pushing a sibling on a swing, seeing a dog in a yard, lifting a fence, towing a car. In fact, children are more familiar with these kinds of items and events than 'traditional' ones such as boomerangs for hunting.

Semiotic repertoires. Since the recordings are audio only, the analysis is unimodal. It centres on speech production. The activity also involves visual semiotic resources (Ochs et al., 2005, p. 558), as the narrators need to interpret images, and how the image sequences form each story. Participants produce tellings that accord with the intended plot, with only a few deviations, e.g. one child interpreted an image of a drum to be a cake, two interpreted an image of a cow to be a camel.

Ideologies. The language expected in the recording situations was Arrernte. This was motivated by a belief – held by the adults, and me as researcher – that it is valuable to systematically investigate the vitality of children's Arrernte, and that aspects of the grammar could be studied through monologic narrative data. The activity was set up in ways that emphasised to the children that they should use strong Arrernte; it is a performance style task, in the Arrernte classroom, in the presence of an expert adult Arrernte speaker.

5.2. Data collection

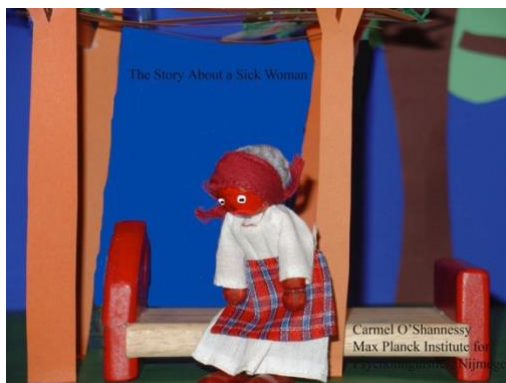
5.2.1. Elicitation tool

The following four stories used to elicit the data are from the collection created to investigate Warlpiri children's language (O'Shannessy, 2004).

Sick woman story

Synopsis: A girl and boy saw a woman in bed unwell. They assisted her by trying to get her up, going in a vehicle to gather some bush medicine, returning to the house to prepare and give her the medicine. At the end of the story, she was well again.

Sick woman story



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Figure 5-1. Sick woman story

Guitar story

Synopsis: A girl was asleep, and her guitar was leaning against the wall beside her bed. Meanwhile a boy came into her room and took her guitar. She woke up and saw him leaving her room, and followed him outside to ask for it back. He returned it to her. While she felt pleased about this, he was disappointed. She went to get a drum for him, which made him happy. Then they played the instruments together.



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Guitar story



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Figure 5-2. Guitar story

Monster story

Synopsis: A girl was playing with her dog and then pushing her little brother on a swing. She was unaware of a monster watching her, until it kidnapped her dog. She and her mother and brother called out after the monster. She and her mother chased the monster to try to save the dog, but they were unsuccessful. The monster put the dog in a yard and lay down to sleep. The mother rescued the dog and took it back to the family's camp. Everyone was happy then, around the fire.



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Monster story



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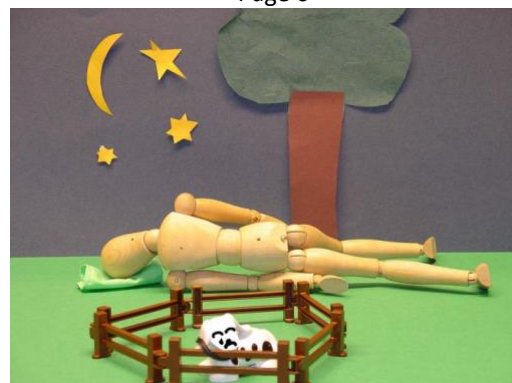
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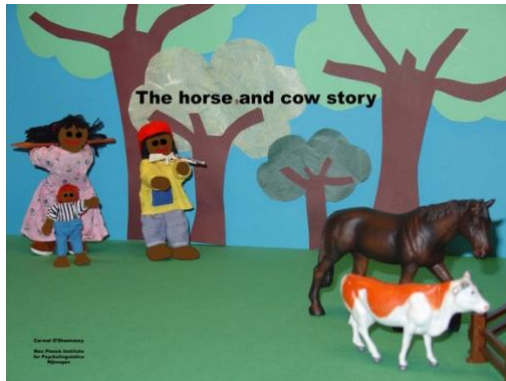


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Figure 5-3. Monster story

Horse and cow story

Synopsis: A family was on a hunting trip. The father shot a cow dead, which then fell on a fence. A horse got caught under the fence and was injured by some barbed wire. The father and son lifted the fence to assist the horse, while the mother sat and held the horses' head in her lap. It recovered and walked away. With the dead cow tied to the bonnet of the car, the family members continued their journey. They came across a man who has had an accident, a tree having fallen on his car. They lifted it off and towed the man and his car home.



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Horse and cow story



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Figure 5-4. Horse and cow story

O'Shannessy did not design the *Sick woman* and *Guitar* stories to elicit any particular structures.¹⁴ However, the *Monster* and *Horse & cow* stories are specifically intended to elicit overt transitive subject nominals in Warlpiri. In both plots, the characters performing the main actions change often, and several events involve transitive verbs. These two features of the plots maximise the chances of Warlpiri narrators producing ergative case marked NPs for each new (or re-introduced) character in A role.

However, the *Monster* and *Horse & cow* stories provide information about different aspects of Arrernte. As in Warlpiri, the ergative suffix occurs with low frequency in Arrernte because subject arguments are often elided (as are other arguments). However, Arrernte definitised NPs end with a pronoun that marks NOM/ERG case (one of the structures selected for analysis in this thesis), which further reduces the number of tokens of the ergative suffix, compared with Warlpiri tellings of the same stories. One of the Arrernte adults told the *Monster* story without a single use of the ergative suffix. In any case, the stories proved valuable for

¹⁴ <http://www-personal.umich.edu/~carmelos/methodologies.html>

analysing the children's discourse, both the English elements in their speech (discussed in § 1.3 below) and the Arrernte structures (presented in Table 5-5 below and in Chapter 6).

5.2.2. Participants and recordings

I recorded four adults telling two or four stories (depending on their availability). They are all from the same generation, and are grandparents to the children in the study. (Table 5-1).

adult participant	gender	age at fieldtrip 2	stories	number of stories recorded
A01	F	50;11	<i>Sick woman, Guitar</i>	2
A02	F	60;2	<i>Monster, Horse & cow</i>	2
A03	F	59;8	<i>Sick woman, Guitar, Monster, Horse & cow</i>	4
A04	F	57;9	<i>Sick woman, Guitar, Monster, Horse & cow</i>	4
				12

Table 5-1. Adult participants and stories recorded

Children were recorded during two fieldtrips at a 6-month interval. *Sick woman* and *Guitar* stories were recorded during fieldtrip 1; *Monster* and *Horse & cow* during fieldtrip 2. Twenty children were recorded in fieldtrip 1. Four children (two boys and two girls) were selected from each of five classes in the school (the Transition¹⁵ class and Years 1-4). When I returned for fieldtrip 2 three of the children (C03, C04, C08) were not present, all of them at the younger end of the range (aged 5;7 6;7 7;4 respectively). Only narratives of the 17 children who participated in all story recordings are used for the analysis (Table 5-2).

child participant	gender	age at fieldtrip 1	age at fieldtrip 2	number of stories recorded
C01	F	6;4	6;10	4
C02	M	5;9	6;3	4
C05	F	7;5	8;1	4
C06	F	7;3	7;9	4
C07	M	6;10	7;4	4
C09	M	7;7	8;1	4

¹⁵ Transition is the name for the first year of school in the NT education system.

child participant	gender	age at fieldtrip 1	age at fieldtrip 2	number of stories recorded
C10	M	7;10	8;4	4
C11	F	7;6	8;0	4
C12	F	7;6	8;0	4
C13	M	9;2	9;8	4
C14	F	8;6	9;0	4
C15	M	8;7	9;1	4
C16	F	9;2	9;8	4
C17	F	9;3	9;9	4
C18	F	9;9	10;3	4
C19	M	9;7	10;1	4
C20	M	10;4	10;10	4
				68

Table 5-2. Child participants and stories recorded

For each recording the adult/child first looked through the book, to get a sense of the whole story. They were then recorded telling it page by page. The recordings of adults were made by me in my accommodation in the community. The recordings of the children were made by their Arrernte teacher in the Arrernte classroom in the school. If she was not available, recordings were made by one of the Arrernte women who worked with me on transcribing the data, who also worked in the school (in assistant teacher role) and knew the children well. The recording situation was set up this way so that the children could be at ease in a room and in the company of Arrernte educators they were familiar with. This social situation was designed to maximise the likelihood that the children would produce their strongest Arrernte.

5.3. Preliminary examination of the data

Preliminary analysis of the data took into consideration concerns raised by three experienced educators (A01, A03, A05) during the process of recording and transcribing. They gave examples of ways in which they believe children's Arrernte is not strong (Table 5-3). Broadly these relate to pronunciation and lexical items, and an overall concern about English elements in children's Arrernte.

	Educators' observations	Educators' examples children's language
1	Kids don't speak clearly. They don't say their words properly. In the Arrernte program, we have to break down the words for them.	• <i>akngerre</i> (big) for <i>ikngerre</i> (east) • <i>atwe</i> for <i>artwe</i> (man) • <i>anthurte</i> for <i>anthurre</i> (very) • <i>untwe</i> for <i>unte</i> (2sgS/A)
2	In the Arrernte program, we need to keep teaching words for directions, plants, animals, family.	• <i>yanhe</i> (there) or <i>nhakwe</i> (over there) instead of using compass terms. • kids don't know names of all the birds or trees, or family words
3	They say <i>kid words</i> . These are words that adults don't say. Two examples the educators raise often are <i>alpe-irtne-me</i> and <i>itne-areye</i> .	• <i>alpe-irtne-me</i> return-REVERS-PRES returning back Adults expect <i>alpe-me</i> (return). • <i>Kele itne-areye anteme ake-ke.</i> ok 3pl.S/A-grp now cut-PAST They (the girl and boy) cut (bush medicine). [C15_8;7_sick woman, p4] Adults expect the pronoun to be <i>re-atherre</i> (3dIS/A)
4	Kids say some words too many times in one sentence. They use <i>-ewe</i> (EMPH) too often.	• <i>kele</i> (ok) • <i>anteme</i> (now) • <i>thing</i> (um; what's.it) • <i>Are-Ø-yewe!</i> look-IMP-EMPH+ Look!
5	Kids put English words when they could put Arrernte words.	• <i>tingk-irre-me</i> drink-INCH-PRES drinking Adults expect <i>antyweme</i> (drinking).

Table 5-3. Educators' concerns about children's Arrernte

Of the items in Table 5-3, although pronunciation is an important part of language change (item 1), this study focuses instead on morphosyntax; no domain-specific vocabulary tests were conducted (item 2); the words in items 3-4 do appear often in the data; and item 5 is discussed in the next section of this chapter.

Regarding item 2, in the mid-1990s Arrernte teachers in several communities believed children needed explicit teaching of the extended set of pronouns for referring to people in certain relationships to each other, cardinal direction terms and orientation, and Arrernte

relationship terms (Hartman, 1995, pp. 47-48). Children at Ltyentye Apurte were considered more adept at direction and orientation because of more opportunities to go out bush, however A01 and A03 voice the need to continually and intentionally teach these areas today, as part of their ongoing efforts to keep Arrernte strong.

Regarding item 3 in Table 5-3, in adult speech *-areye* (grp) is only added to groups of three or more individuals or entities to signify their connectedness (Wilkins, 1989, p. 559). Adults consider *-areye* (grp) redundant on *itne* (3pl). In the textless picture book data, half of the children use *itne-areye* (3plS/A-grp) in contexts where adults expect *re-atherre* (3dIS/A), or use them interchangeably. Using *itne-areye* (3plS/A-grp) for dual entities *re-atherre* (3dIS/A) matches the semantics of the English pronoun *they*. In some instances, those children do express duality but in a non-adult-like way, as in 5.1, with a quantifier rather than the dl pronoun.

- 5.1 Kele itne-areye **atherre** anteme thing ane-rne friend atherre.
 ok 3pl-grp **two**(NOM) now what's.it be-RECENT PAST friend two/both(NOM comp)
 Then they those **two** um were um friends together.
 [C06_7;3_guitar, p11]

If the lack of distinction between dl and pl increases in frequency and in the number of children producing it, in the future it could become an example of the kinds of internal changes, found in type (1) languages outlined in Chapter 2, also observed in Arrernte children's language in Wilkins (1993). Example 5.1 also illustrates children's typical use of another lexical item that adults note (item 5, Table 5-3), i.e. *thing* (um; what's.it).

5.3.1. English elements in children's Arrernte

Consistent with the educators' general observations about children's speech, there are English elements in the narrative data drawn from the textless picture books. These elements are examined here, in the light of documentation from the 1980s which established that it is usual for adult Arrernte speech to be peppered with English loans, or English-based forms which may have come into Arrernte speech from the pidgin spoken in earlier generations. Some of these have long been fully incorporated into Arrernte, e.g. *mape* (from 'mob'), *ante* (from 'and'), *perape* (an intensifier, from 'proper'). Some have become clitics or suffixes, e.g. *-tayeme* (from 'time'), *-thayete* (from 'side'), *-kine* (from 'again') (Wilkins, 1989, pp. 30-32).

The adults' and children's narratives in this study include these and similar well-established loans.

In language contact situations generally, function words frequently used in the sociopolitically dominant language are further examples of loans that are more easily borrowed and adopted earlier, depending on length, type and degree of contact (Thomason, 2001a; Thomason & Kaufman, 1988; Wilkins, 1996). Both adults and children commonly use the Arrernte words *imarte* (then) and *kenhe* (BUT) in the picture book data. However, children also use the English temporal markers and conjunctions *then, after that, first, but*. Adults do not use these in their more consciously Arrernte speech in this elicitation task.

Loans for introduced items/concepts are found in the adults' and children's narratives, e.g. *mwetekeye* (from 'motor car') and bush¹⁶ (in *Sick woman* story); room, door, bed, drum, guitar, band (in *Guitar* story); swing, yard (in *Monster* story); *pweleke* (from bullock), *makite* (from musket), fence, gate, barbed wire, rope (in *Horse & cow* story).

Loans for which there are Arrernte counterparts are also in the data. Where children use 'happy', 'sad', 'sick' and 'tree', adults use *akangkeme*, *alhwarrepe*, *rlkerte*, *arne* respectively. For any given item, there is variation amongst the children; some predominantly use the Arrernte, some predominantly use the English, some use both.

Nominal loans are consistently regularised to conform to Arrernte grammar by both adults and children, with suffixes for cases such as ASSOC, DAT, ALL, ERG, ABL, as in 5.2 – 5.6.

- 5.2 Kele itne-areye atherre anteme alhe-rre-rne
 ok 3pl-grp two(NOM) now go-dIS-RECENT PAST
 OK they, those two, went now
- merne **bush-arenye** medicine ine-tyeke.
 plant.food **bush-ASSOC** medicine(ACC) get-PURP
 to get food/medicine **from the bush**.
 [C06_7;3_sick woman, p3]

¹⁶ The distinction bush/town is an introduced concept.

- 5.3 Kele urreye akweke re anteme arrkene-irre-tyame **guitar-ke**.
 ok boy little 3sg(NOM) now play-INCH-PAST CONT guitar-DAT
 And the little boy was playing with the guitar.
 [C15_8;7_guitar, p6]
- 5.4 Artwe inentye re-arle akngwelye re* aknge-ke **bush-werne**.
 male kurdaitcha 3sgS-FOC dog 3sg(NOM/ERG)* take/carry-PAST **bush-ALL**
 The monster took the dog **to the bush**.
 [C17_9;9_monster, p5]
- 5.5 Nanthe renhe anteme **barb wire-le** atanche-ke.
 horse 3sgACC now **barbed wire-ERG** pierce-PAST
 The barbed wire cut the horse.
 [C16_9;8_horse & cow, p4]
- 5.6 Kele arne renhe anteme iwe-ke **mwetekeye-nge.ntyele**.
 ok tree/branch 3sgACC now throw.off/away-PAST **car-ABL**
 Then (they) threw the tree **off the car**.
 [C07_7;4_horse & cow, p9]

English verbs regularised to conform to Arrernte grammar are also in the data. This is another aspect of adult speech documented in the 1980s (Wilkins, 1989, pp. 264-265). Transitive loan verbs are marked with *-em(e)* (probably taken into Arrernte from the local pidgin spoken in the early contact period) and the Arrernte suffix *-ile* (CAUS). Intransitive loan verbs take the Arrernte suffix *-irre* (INCH). Arrernte derivational and inflectional verb suffixes attach to these transitive and intransitive stems.

Phrasal verbs are also incorporated into this pattern, e.g. lift up, tow back. When using the loans, children consistently adapt them in expected ways into Arrernte verb morphology. See 5.7 – 5.10 for transitive and 5.11 – 5.14 for intransitive examples in children's speech.

- 5.7 Family-arle ine-tyeke apetye-ke, **visit-em-ile-tyeke** renhenhe.
 family(NOM)-FOC get-PURP come-PAST **visit-tr-CAUS-PURP** 3sgACC
 The family came to get, **to visit** her.
 [C11_7;6_sick woman, p2]

- 5.8 Urreye akweke anyente-arle irrpe-intye-ke, door **open-em-ile-me-le**.
boy small one(NOM)-FOC enter-DO COMING-PAST door(ACC) **open-tr-CAUS-PRES-SS**
One little boy came in, **opening** the door.
[C13_9;2_guitar, p3]
- 5.9 Marle akweke re-arle kake ikwerenhe swing-nge **push-em-ile-tyame**.
girl little 3sg(ERG)-FOC brother 3sgPOSS swing-ABL **push-tr-CAUS-PAST CONT**
The little girl **was pushing** her brother on the swing.
[C17_9;9_monster, p3]
- 5.10 Ampe akweke uthene daddy atherre-le kenhe fence **lift-em-up-ile-ke**.
child little bi-and dad both-ERG BUT fence(ACC) **lift-tr-up-CAUS-PAST**
The child and his dad **lifted up** the fence.
[C14_9;0_horse & cow, p5]
- 5.11 Marle anyente anteme **lonely-irre-ke** nanthe ikwere.
girl one(NOM) now **sorry-INCH-PAST** horse 3sgDAT
The girl **became sorry** for the horse now.
[C13_9;8_horse&cow, p5]
- 5.12 Nhenhe anteme akwele tree atnye-ke, ante artwe re anteme thing **dizzy-irre-ke**.
this/here now FACT tree(NOM) fall-PAST and man 3sg(NOM) now um **dizzy-INCH-PAST**
Now here the tree fell, and the man **became dizzy**.
[C09_8;1_horse & cow, p8]
- 5.13 Artwe inentye renhe* **rest-irre-tyenhenge** alhe-ke.
male kurdaitcha 3sgACC* **rest INCH-SBSQT** go-PAST
The monster went so he can rest / **to rest**.
[C10_8;4_monster, p7]
- 5.14 Kele arrpenhe nhenge mape anteme **help-em-irre-rne**.
ok another REMEM mob(NOM) now **help-tr-INCH-RECENT PAST**
Just now those others **helped**.
[C13_9;8_horse & cow, p9]

Adults use fewer of these adapted English loan verb structures in their narratives, and use Arrernte root verbs in the same scenes that children describe with English borrowings (e.g. 5.7 – 5.14). A02 and A03 produce none of these structures in their recordings. A01 produces one (*boilemilemele*). A04 is the adult who produces the most (*boilemilemele*, *pushemileke*, *towemileke*, *drivemileke*). Children's production most closely aligns with A04.

Another known feature of adult speech is English deontic modals (gotta, can't, can, should) followed by an Arrernte GenEvt (generic event) inflected verb, indicating an event that is, should or would be expected to occur in the normal course of events (Wilkins, 1989, pp. 231-232). The entire textless picture book data set includes only one token produced by one adult and four tokens produced by three children, e.g. 5.15 – 5.17.

5.15 Kete atyinhe akwele yanhe.

guitar 1sgPOSS(NOM) QUOT that/there
That's my guitar.

Unte **gotta** ayenge apaye-uthne-**rle**.

2sg(ERG) should 1sg(ACC) ask.for/about.sthing-GenEvt
You have to ask me (if you want it).

The ngenhe anthe-mere.

1sg(ERG) 2sgACC give-HYPO
I could give (it) to you.
[A03_59;8_guitar_p7]

5.16 I'll ngkwenge drum ine-tyeke alhe-**rle**.

1sg-will 2sgDAT drum(ACC) get-PURP go-GenEvt
I'll go to get the drum for you.
[C18_9;9_guitar, p9]

5.17 She **couldn't** akeme-irre-**rle**.

3sg couldn't wake/get.up-INCH-GenEvt
She couldn't wake/get up.
[C12_7;6_sick woman, p2]

Unlike adults, the children produce this construction with English pronouns, though this observation is based only on the 4 of the 1243 clauses (0.3%) in the children's narratives. The same children who use English pronouns in these examples use Arrernte pronouns elsewhere.

So far, the preliminary interrogations of the picture book data set indicate that although English elements are evident in children's speech (e.g. 5.2 – 5.14 and 5.16 – 5.17), this cannot be read as a shift to a variety of English. The possibility of shift to a mixed language, which has some less immediately visible characteristics, also needs to be eliminated.

One set of defining characteristics of the V-N mixed languages in Australia is that ERG marking has become more optional; that young speakers have increasingly been settling on Kriol/English word order as the means for signaling agents of transitive clauses; and that the function of the ergative marker has been shifting to accord discourse prominence to the agentivity of subjects of transitive verbs. These features have emerged as a consequence of the competition between the source languages' different means for argument disambiguation, i.e. nominal case marking in Gurindji and Warlpiri, and word order in Kriol/English (Meakins, 2009; Meakins & O'Shannessy, 2010, 2012; O'Shannessy, 2011). Consequently, in my preliminary examination of the picture book data I also checked for production of ERG and its relationship to word order in Arrernte children's speech, however found that children produce the ERG suffix where expected (e.g. 5.10); favour the predominant Arrernte AOV order in transitive clauses (e.g. 5.9); and vary constituent order (e.g. 5.5).

Secondly, since in the mixed languages in Australia, case-marking and other nominal morphology come from the Pama-Nyungan language while tense, aspect and mood auxiliaries are derived from Kriol/Aboriginal English (Meakins & O'Shannessy, 2012), I surveyed the verbs in the picture book narratives for signs of these features. However, I found that in addition to Arrernte case-marking and other nominal morphology, children are producing verbs with Arrernte tense and aspect marking, even in the English-laden examples which are being highlighted in this section of this chapter. For example the data set includes children's use of number marking (e.g. dIS/A agreement suffix on the verb in 5.2); a range of tense markers (e.g. recent past in 5.2, past continuous in 5.3, past completive in 5.4 – 5.6, GenEvt in 5.16 – 5.17); verb derivation (e.g. INCH in 5.3 and 5.17, and CAUS in 5.18); PURP-marked subordinate

clauses (e.g. 5.7). Many more examples will be obvious in the data still to be presented in Chapters 5-6.

Finally, the children's picture book narrative data includes occasional use of the word *bin* – a past tense marker common in the grammar of Kriol varieties, the mixed language Gurindji Kriol, and the English varieties spoken by Aboriginal people in Central Australia (Harkins, 1994; Koch, 1985, 1991). *Bin* is used rarely and unsystematically in the children's narrative data. However, readers searching for evidence of language shift or a mixed language could wrongly be distracted by *bin* in some of the examples to be presented throughout Chapters 5-6.

Bin is not produced at all by the adults, nor by ten of the 17 children in any of their narratives. Seven children produce it. Six of them (C06, C09, C10, C13, C15, C16) each produce it once, twice or three times in total across their four stories. The seventh child, C12, is a more frequent user.

The seven children use *bin* in two constructions:¹⁷

- English pronoun *bin* (X) verb-PAST, as in 5.18
- NP *bin* (X) verb-PAST, as in 5.19.

5.18 **They bin** artwe anyente kenhe mwetekeye **bump-em-ile-ke**.

3pl ?PAST man one POSS car(ACC) bump-tr-CAUS-PAST

They bumped another man's car.

[C12_7;6_horse & cow, p8]

5.19 **Tree bin** akertne-ke mwetekeye ikwere **atnye-ke**.

tree(NOM) ?PAST high-DAT car 3sgDAT fall-PAST

A tree fell on top of the car.

[C12_7;6_horse & cow, p8]

Production of *bin* is triggered by the English subject (*they* in 5.8 and *tree* in 5.9), rather than being strongly tied to the verb. Arrernte material such as case-marked arguments and object NPs separate *bin* from the verb. In both of the constructions (illustrated in 5.18 and 5.19), children adhere to Arrernte verb final word order (AOV and S-DAT-V respectively in these

¹⁷ (X) indicates intervening material.

examples). In all instances of *bin* in the data, tense is marked on the Arrernte verb (usually past complete, sometimes past continuous or recent past). It is not clear that *bin* is marking past tense. Further, the same children who produce nominal or pronominal subjects in English in fact typically produce them in Arrernte across their four stories.

While *bin* is common in children's English speech at Ltyentye Apurte, it is not common in their Arrernte speech. In the children's narratives, it is used in 35 of the 1243 clauses (2.8%). No child uses *bin* systematically (not even C12). The seven children who produce *bin* are far more likely to produce past tense clauses without *bin* (including C12). No child produces *bin* in the sand story data (Chapter 7). Children do use *bin* in their spoken English in the classroom data (Chapter 8). When asked for specific examples of their concerns about children's Arrernte (Table 5-3), none of the Arrernte educators identified *bin*. C12, although the most frequent producer of *bin*, is also assessed as a strong Arrernte speaker by the three experienced educators (discussed in the final part of the analysis at the end of Chapter 6).

In sum, although these various preliminary interrogations of the picture book data found that children's Arrernte includes English elements, most are also found in adult speech. They can be labelled as older and newer borrowings, codeswitching, and signs of children accessing the languages in their repertoire. They are not used systematically, and do not meet the criteria of a contact code. Since these initial checks have established that the children are essentially speaking Arrernte, the study is now in a position to examine more complex aspects of Arrernte grammar, in the light of adults' concerns about strong Arrernte in this young generation. The morphosyntax in the children's narratives is Arrernte at heart, as the examples in the remainder of this chapter, and in the following chapter, will continue to demonstrate. However, examining more complex aspects of Arrernte will reveal considerable variation in the children's grammatical competence.

5.4. Analysis

Analysis of children's production of more complex aspects of Arrernte is modelled on procedures in the studies of children's Arrernte discussed in Chapter 2 (Wilkins, 1997b, 2004, 2008a). The first step involves foundational work on the adult discourse to produce an adult story grammar for each narrative, i.e. consistencies in the details and structures evoked by the plots and images in the adult recordings, illustrated in Figure 5-4 and Figure 5-5. This is

different from the term *story grammar* referring to canonical units such as those cited in Hickman (2004, pp. 282-283).

To determine the adult story grammar for the *Sick Woman*, *Guitar*, *Monster* and *Horse & cow* stories, I manually produced a spreadsheet itemising key structures produced by adults for each page of each story. Table 5-4 is an example inventory deployed by adults for one of the stories.

Figure 5-5 is an example of another manually produced output. For each page of each story, I summarised nominal and verbal patterns, noting whether they were common to one, two or all three adult narrations. I also noted details of clauses and clause dependency relations. Based on all of this information, I wrote a *minimal telling* for each page, such as the sentences at the bottom of Figure 5-5, i.e. a basic version which represents structures most commonly used by most adults on each page.

1	Monster	Page 1	Page 2	Page 3	Page 4	Page 5	Page 6	Page 7	Page 8	Page 9	Page 10
2	NPs definitised with 3sgS/A [N (X) re]		A03	A03	A03 A04	A02	A02	A04	A04	A03 A04	A02 A03 A04
3	NPs definitised with 3sgO [N (X) renhe]				A03	A03 A04		A02 A03 A04	A02 A04	A02 A04	
4											
5	SAME SUBJ in the switch reference system (-me-le)	A03		A03 A04		A02 A03 A04		A03 A04	A02	A03	
6	NARRATIVE PRES (-me.le)										
7	MANNER (-me.le)										A02
8	SERIAL (-me.le)										
9	DIFFERENT SUBJ in the switch reference system (-rlenge)		A03	A02 A03	A02		A04	A04	A03	A03 A04	A02 A03
10	PERCEPTION COMPLEMENT (-rlenge)		A02 A04				A02				
11											
12	PRES tense (-me)									A02	A02 A03
13	PAST tense complete/continuous (-ke, -tyame)	A02 A03	A02 A03 A04	A02 A04	A02 A03 A04	A02 A03	A02 A03 A04	A02 A03	A02 A03 A04	A03 A04	A03 A04
14	dl/pl subject agreement marking on verb						A03 A04				A03 A04
15	CONT (-rlane)	A03		A02 A03 A04						A03	
16	IMP (Ø-aye)						A03				
17	INCH (-irre-)	A03	A02						A03		
18	CAUS (-ile-)			A03							
19	verb-PURP (-tyeke)			A03				A03			
20	verb-NEG (-tye.akenhe)		A02		A04						
21	ASSOCIATED MOTION non-concurrent				A02 A03 A04	A03	A03			A02 A03 A04	
22	ASSOCIATED MOTION concurrent					A03					
23	NP PROPrietary (akerte)	A02 A04					A02	A02			
24	NP-ABL (-nge) (committative function)	A03	A03 A04								A02
25	NP-ERG (-le)				A02		A02			A02 A04	
26	NP-LOC (-le)	A03							A04		A02 A03 A04
27	NP-ALL (-werne, -werne.atheke)		A03								
28	NP-DAT (-ke)		A02	A02	A02	A02			A02 A04	A03	
29	BUT (kenhe)	A03	A03	A02 A03				A04	A03	A03	A02 A03
30	3sgPOSS (ikwerenhe)			A02 A03 A04			A02 A04				A02 A03 A04
31	3sgS/A independent pronoun (re)		A02 A03 A04	A02 A03 A04					A02 A04		
32	3sgACC independent pronoun (renhe)										
33	NPs definitised with 3sgDAT [N (X) ikwere]		A03		A04		A04	A03			

Table 5-4. Key structures deployed by adults in *Monster* story

Adult grammar, *Monster story*, page 8**Narration**

A02: re yard akwekeke akngwelye akweke renhe atheneke
re imarte ankwe anteme intemele.

A03: kele ingwele anteme irreke
arrentye ankwe inteke
akngwelye akweke ankwe inteke
atnyentye ante kwerralye urrpetye kenhe anerleng
ingwele anteme itne ankwe inteke.

A04: kele ingwele anteme re intertneke
arrentye re ankwe inteke
ante akngwelye akweke renhe kenhe yard akwekeke arrerneke.

Common patterns**Nominals and pronominals**

- A02, A04: 3sg independent subject pronoun
- A02, A04: definitised NPs: arrentye re (the monster), akngwelye akweke renhe (the little dog)
- A02, A04: spatial/temporal location: yard akweke-ke (in the little yard), ingwe-le (at night).

Verbs

- A02, A03, A04: -ke (past completive) verb tense
- A02, A03, A04: ankwe inte-ke / ankwe inte-me-le (monster and dog slept/sleeping)
- A02, A04: yard akwekeke atheneke / arrerneke (monster laid/put dog in yard).

Clauses

- A02: two clauses linked with same subject verb marking: monster put dog in yard; slept.
- A03: five clauses, three of them independent: night came, monster slept, they slept. Two clauses linked with different subject verb marking: dog slept while moon and stars there.
- A04: three main clauses, two of them linked with a conjunction: at night he lay flat out; the monster slept and he had put the dog in the yard.

Minimal telling

Arrentye re akngwelye akweke renhe arrerneke yard-ke. Arrentye ante akngwelye ankwe inteke.

Figure 5-5. The main shared linguistic selections made by adults for *Monster story* page 8

This foundational work built up a page-by-page empirical record of the grammatical resources of Arrernte deployed by the adults in the telling of each of the stories. It informed the selection of the structures for analysis in Chapters 5-6, and enabled examination of ways in which children's deployment of the structures resembled and differed from that of adults. Rows 2 and 3 in Table 5-4 are the basis of the analysis in this chapter. Rows 5 and 9 are the basis of the analysis in Chapter 6. Rows 6, 7, 8, and 10 are related structures which become necessary inclusions in the Chapter 6 discussion.

Adult narratives are a point of comparison, though children are not expected to be as competent as adults in their L1 production. Compared with the other data sets in this thesis, the narrative data enables investigation of these linguistic structures, recognised by adults as more complex Arrernte. It is also important to note that the investigation is in the context of a more complex discourse type, i.e. one that is known to be late acquired. Narrative abilities in speakers' L1 begin to mature towards the end of primary school years (around age 9-10), and many of the skills involved in storytelling have a long developmental pathway to mastery that continues into teenage years and adulthood (e.g. Berman, 2009, pp. 371-374; Berman & Slobin, 1994, pp. 593-595; Clark, 2009, pp. 331-335).

The elicitation task largely results in monologic narratives. However, it was more demanding for younger and more shy children, requiring occasional intervention by the adult, e.g. encouragement, prompting to continue after a long pause. In other studies, recordings with adult intervention are excluded and several additional recordings are made, in order to get a usable set (e.g. Berman & Slobin 1994, p59). I have not done this, given the recognised challenges in collecting children's speech in remote, small, endangered language communities (Kelly, Forshaw, et al., 2015; Kelly & Nordlinger, 2014). In the analysis, I exclude from token counts the few utterances in which a child simply repeats an adult prompt. However, I keep those recordings in the analysis, as the majority of clauses are produced independently.

The structures selected for investigation are: the definitising function of third person pronouns (discussed in this chapter), and same subject and different subject marking in the switch reference system (discussed in the next chapter). The rationale for this selection is four-fold:

1. They are found in the analyses of the adult tellings of the four stories.
2. They are distinctive features of Arrernte, relative to other languages in Central Australia.
3. Together the structures encompass example nominal and verbal Arrernte constructions, supporting a rounded view of children's grammatical competencies.
4. Each of the structures contributes to the construction of cohesive and interesting narratives, with respect to referent tracking and/or event packaging (Table 5-5).

Structures investigated	Word class	Narrative functions	Thesis chapter
NPs definitised with 3sg S/A and 3sgACC	nominal	tracking previously mentioned referents across clauses; and reintroducing them later in discourse.	5
Same subject and different subject marking in the switch reference system	verbal	tracking previously mentioned referents across clauses; and event foregrounding and backgrounding.	6

Table 5-5. The structures selected for investigation, and their narrative functions

5.5. Definitised NPs

The picture book plots require narrators to track recurring animate entities. Most are 3sg, and are narrated in a mixture of NOM, ERG and ACC NPs at different points in each story (Table 5-6).

	<i>Sick woman</i>	<i>Guitar</i>	<i>Monster</i>	<i>Horse & cow</i>
Tracked animate entities, predominantly in NOM and/or ERG and/or ACC NPs	woman girl-boy pair	boy girl	girl dog monster family group mother	man woman child cow horse man who crashed his car

Table 5-6. The animate entities to be tracked in the narratives

The plots also involve some inanimate 3sg entities: the bush medicine in *Sick woman* story is in O role, as the boy-girl pair gather it and bring it home; the guitar and drum in *Guitar* story

are in O role, as they are passed between the boy and girl; the fence in *Horse & cow* story is in S role as it falls, and the barbed wire is in A role as it cuts the horse's leg.

Grammatically, tracking previously mentioned entities requires definitised NPs in simple clauses for argument realisation, and in interclause links for anaphora and text cohesion. In addition to basic pronominal use, an extended function of 3sg, 3dl and 3pl pronouns in all cases is to definitise NPs. In final position, these pronouns bear the case for the whole NP (Wilkins, 1989, pp. 103, 129; 2006, pp. 26-27). See also §2.2.2.

In the example in Table 5-7, 3plACC definitises the NP and literally translates as 'the these few/three big kangaroos'. In definitising function, third person pronouns are similar to definite articles in English. However, unlike English, they can co-occur with demonstratives in Arrernte, as in Table 5-7 (Wilkins, 2006, p. 26). The demonstrative indicates the referent (that particular group of kangaroos) while the 3plACC pronoun indicates that these kangaroos have been mentioned before. The demonstrative expresses locational specificity while the 3plACC pronoun expresses discourse-referential anaphora.

[Generic noun Specific noun] _{head}	Adj.P	Quant.P	Demonstrative	3rd person Def-CASE
1	2	3	4	5-6
<i>kere aherre</i>	<i>akngerre</i>	<i>urpetye</i>	<i>nhenhe</i>	<i>itne-nhe</i>
game/meat red.kangaroo	big	few/three	this	3pl-ACC
(hunted and killed) these three big red kangaroos				

Table 5-7. Example fully expanded simple NP, definitised with a third person pronoun

In definitised NPs, the final element marking case for the whole NP is a third person pronominal form. In non-definitised NPs, the final element marking marks case for the whole NP is a nominal (Figure 5-6). The core case of all zero-marked non-definitised and definitised nominal and pronominal NPs will be indicated as (NOM), (ERG), or (ACC) in the interlinear gloss line in all examples in Chapters 5 and 6 (as in 5.1 – 5.19 above).

	Non-Definite NP	Definite NP
Ergative (A)	artwe kngerre-le man big-ERG(A) <i>a big man (saw it)</i>	artwe kngerre re-Ø man big 3sg-ERG(A) <i>the big man (saw it)</i>
Nominative(S)	artwe kngerre-Ø man big-NOM(S) <i>a big man (fell down)</i>	artwe kngerre re-Ø man big 3sg-NOM(S) <i>the big man (fell down)</i>
Accusative(O)	artwe kngerre-Ø man big-ACC(O) <i>(I saw)a big man</i>	artwe kngerre re-nhe man big 3sg-ACC(O) <i>(I saw)the big man</i>

Figure 5-6. Case marking on expanded non-definite and definite NPs (Wilkins 1989, p165)

Use of non-definitised and definitised NPs for new and known third person entities is one aspect of word order and topic continuity described in the only available description of patterns in adult Arrernte narrative discourse (Wilkins, 1989, pp. 439-450). This description is based on a text with a main and a secondary protagonist, a girl and a joey:

As new information, both participants are introduced by an indefinite NP which contains a noun head, an adjective and quantifier, as well as case marking. ... After their introduction, these participants are taken as presupposed information and all further references to them are by definite NPs, pronouns, or zero anaphors. ... the second and third mentions of the girl [the main protagonist] ... are conveyed by pronouns without going through the stage of the definite NP.

As soon as both participants [the girl and joey] are presupposed and so definite, there is a reference tracking problem since the third person singular pronouns and anaphors do not distinguish sex or animacy. That is to say, because both participants are persistent in the text, it would be difficult to know which participant was filling which role if all mentions were carried by pronouns or zero anaphora. This accounts for the high rate of definite NPs. (Wilkins, 1989, pp. 446-447).

Figure 5-7 presents a general expected adult pattern for initial and subsequent reference to entities in discourse such as the narratives in the data for this chapter. Speaker selections are determined by story-specific conditions and tracking considerations, e.g. number of characters, change of actor, character changes to a different role, incorporation of secondary characters, characters returning to the storyline after intervening events.

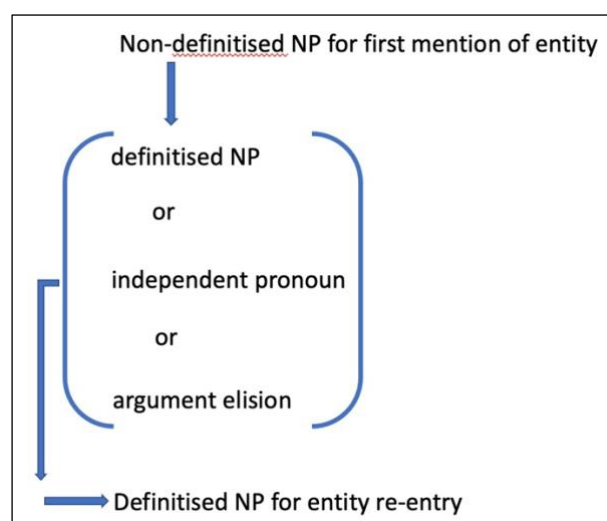


Figure 5-7. Adult narrator schema for entity tracking

Simple non-definitised NPs in post-verbal position are usual for initial mention of a referent, i.e. NPs that are either simply a noun head, or a noun head followed by an adjective or quantifier. That referent can then be resumed in a subsequent utterance, and if reintroduced later in the discourse, with a definitised NP. As a recurring entity becomes more salient, it can be reduced and elided. Definitised NPs signal recently mentioned and readily retrievable entities, while non-definitised NPs do not code this complex function. (Wilkins, 1989, p. 443).

In the data for this chapter, adults exhibit but also diverge from the idealised schema in Figure 5-7. Examples of variation from the schema will be highlighted in § 5.5.1, 5.5.4, and § 5.5.5, with respect to particular stories. However, the analysis will show that adults typically use definitised NPs to refer to recently mentioned and readily retrievable entities. Meanwhile the data reveal various non-definitised NPs that children use for such entities at points in the discourse where definitised NPs are more expected.

5.5.1. Definitised NPs in the adult data

Any third person pronoun in any number and any case can be used in the definitising construction. In the textless picture book data, 3sg NOM, ERG and ACC NPs are the ones most often required by the plots and that occur frequently in the adult and child data.

Table 5-8 – Table 5-11 summarise adult use of NPs definitised with 3sgNOM/ERG [N (X) *re*] and NPs definitised with 3sgACC [N (X) *renhe*] across the four stories. *Renhe* and *renhenhe*

are variants of 3sgACC. Pages on which these definitising constructions are deployed by all adults are indicated in bold and are illustrated in examples 5.20 – 5.24 below.

Sick woman	p1	p2	p3	p4	p5	p6	p7
Definitised NOM/ERG entity [N (X) <i>re</i>]							A01 A04
Definitised ACC entity [N (X) <i>renhe</i>]				A01 A04	A01 A03	A01 A04 A03	

Table 5-8. Adult production of 3sg definitised NPs in *Sick woman*

Guitar	p1	p2	p3	p4	p5	p6	p7	p8	p9	p10	p11
Definitised NOM/ERG entity [N (X) <i>re</i>]			A01 A04	A01	A01 A04	A01 A04	A01	A01 A04 A03	A01 A03	A01 A04 A03	A03
Definitised ACC entity [N (X) <i>renhe</i>]		A03	A01	A01	A04	A01				A01	

Table 5-9. Adult production of 3sg definitised NPs in *Guitar*

Monster	p1	p2	p3	p4	p5	p6	p7	p8	p9	p10
Definitised NOM/ERG entity [N (X) <i>re</i>]		A03	A03	A03 A04	A02	A02	A04	A04	A03 A04	A02 A03 A04
Definitised ACC entity [N (X) <i>renhe</i>]				A03	A03 A04		A02 A03 A04	A02 A04	A02 A04	

Table 5-10. Adult production of 3sg definitised NPs in *Monster*

Horse & cow	p1	p2	p3	p4	p5	p6	p7	p8	p9	p10
Definitised NOM/ERG entity [N (X) <i>re</i>]		A02 A03	A02 A03 A04	A02 A04	A03	A02 A03 A04		A04		A02
Definitised ACC entity [N (X) <i>renhe</i>]		A02			A02 A03 A04	A04	A03		A02 A03 A04	A02 A03 A04

Table 5-11. Adult production of 3sg definitised NPs in *Horse & cow*

In *Sick woman* story, the main tracked 3sg entities are the woman and bush medicine. Early in the story adults use simple non-definitised NPs to establish the woman in NOM case (lying in bed) and the medicine in ACC case (the girl and boy go to get bush medicine for her). After this, both the woman and medicine are acted upon by the girl-boy pair, and are definitised in the [N (X) *renhe*] construction, as in 5.20.

5.20 Pwetye medicine *renhe* ite-me-le

bush medicine 3sgACC cook-PRES-SS

Having cooked **the bush medicine**

imarte ratherre akeme-lhile-me-le **arelhe ampwe renhenhe**.

then 3dl(ERG) get/wake.up-CAUS-PRES-SS **woman old 3sgACC**

those two then woke up **the old woman**.

[A01_50;5_sick woman, p6]

Guitar story has just two characters. They act independently on all but that last page when they play their musical instruments together. Throughout the story each is narrated in NOM, ERG and ACC NPs. As in the *Girl and Joey* story analysis (Wilkins, 1989, pp. 439-450), once both participants are established pronouns are not always useful as a tracking device since Arrernte 3sg does not distinguish sex. To mark the persistent 3sg participants as the *Guitar* story plot progresses, adults use [N (X) *re*], e.g. to be clear about which is the NOM/ERG subject, as in 5.21.

5.21 Kele **urreye akweke re** akangke-me-le ine-ke.

ok **boy little 3sg(NOM)** happy-PRES-SS get-PAST

the little boy happily took (the drum).

Re anteme atwe-tyame

3sg(ERG) now hit-PAST CONT

Now he was beating (it)

marle akweke re kenhe are-me-le, tne-me-le are-rlane-rleke.

girl little 3sg(ERG) BUT see-PRES-SS stand-PRES-SS see-CONT-DS

while **the little girl** was watching, standing watching (him).

[A03_59;8_guitar, p10]

Musical instruments are also 3sg entities that need to be introduced and tracked in *Guitar* story. The drum first appears on page 9, where A03 introduced it with the non-definitised NP *teram akweke-arle* (a little drum). It is then tracked as the elided ACC argument in 5.21, as it is possible for second and third mentions to be conveyed with pronouns without going through the stage of the definite NP (Wilkins, 1989, pp. 446-447).

On several pages of *Monster* story, a 3sg entity acts or is acted upon, e.g. the girl pushes her brother on a swing, the dog watches them, the dog sees the monster, the monster carries the dog away, the monster is chased by the family, the monster lays the dog in a yard, the mother rescues the dog, the dog is happy with the family by the fire. All adults use [N (X) *renhe*] to track the monster on page 7 (as in 5.22) and [N (X) *re*] to track the dog on page 10 (as in 5.23).

5.22 Re-atherre alwerne-ke **arrentye renhe** akngwelye akweke-akerte.

3dl(ERG) chase-PAST **monster 3sgACC** dog little-PROP

Those two chased **the monster** with the little dog.

[A02_60;2_monster, p7]

5.23 **Akngwelye akweke re** ure itere-le akange-me-le ane-me.

dog little 3sg(NOM) fire side-LOC(NOM comp) happy-PRES-SS sit/be-PRES

The little dog is sitting happily next to the fire.

[A02_60;2_monster, p10]

Horse & cow story requires numerous definitised NPs for 3sg inanimate and animate entities in NOM, ERG or ACC case, e.g. the man shoots a bullock, the bullock falls on the fence, the fence then crushes the horse, the barbed-wire cuts the horse's leg, the woman nurses the injured horse's head in her lap, the boy drives the car. Page 3 is among the five pages on which all adults use [N (X) *re*] or [N (X) *renhe*]. Having established the bullock in a non-definitised NP on pages 1 or 2 (i.e. the family saw a bullock/cow, or the man shot a bullock/cow), adults narrate the situation with [N (X) *re*], as in 5.24.

5.24 **Cow re** imarte ilwe-ke-arle inte-rtne-me-le

cow 3sg(NOM) then die-PAST-FOC lie.down-flat.out-PRES-SS

Then **the cow** was lying flat out dead

yarde akertne-ke-arleke atnye-ke

fence on.top-DAT-CONNECT fall-PAST

having fallen on a fence

yard re kenhe nanthe akertne-ke-arleke atnye-ke.

yard 3sg(NOM) BUT horse on.top-DAT-CONNECT fall-PAST

and **the fence** fell on top of a horse.

[A04_57;9_horse & cow, p3]

Table 5-12 shows the number of 3sg NOM, ERG and ACC definitised NPs produced by adults across the four stories. A03 and A04 were recorded telling all four stories. A01 and A02 were each recorded narrating two stories only (see also Table 5-8 – Table 5-11), so their tokens are combined in one row.

Adult and age at fieldtrip 2	[N (X) <i>re</i>] NPs	[N (X) <i>renhe</i>] NPs
A01 (50;11) + A02 (60;2)	17 (9 + 8)	14 (7 + 7)
A03 (59;8)	13	10
A04 (57;9)	15	11
	45	35

Table 5-12. Adult production of definitised NPs in NOM, ERG and ACC case

5.5.2. Definitised NPs in the child data

This section examines: Do children bring 3sg NOM, ERG and ACC definitised NPs into their narratives? If yes, do they do so grammatically, appropriately, and in adult-like ways?

Firstly, no child makes any error in their grammatical formation of these NPs in any of their stories. All 17 children consistently produce [N (X) *re*] and 16/17 produce [N (X) *renhe*] according to the expected order of slots in Arrernte NPs (Table 5-7). They do so minimally with slot six and any of the other slots (e.g. 5.25, 5.27) or by filling more slots (e.g. 5.26, 5.28).

5.25 Kele **akngwelye re** anteme ikwere-ketye atere-irre-ke.
 ok **dog 3sg(NOM)** now 3sgDAT-AVERS frightened-INCH-PAST
 Now **the dog** got scared of it (the monster).
 [C15_9;1_monster,p4]

5.26 Kele **mwetekeye bluwan akweke re** mwerre akwete ane-ke.
 ok **car blue.one little 3sg(NOM)** good still be-PAST
 The little blue car was still ok.

[C15_9;1_horse,p9]

5.27 Ante re **guitar renhe** ine-rle.lhe-ke.

and **3sg(ERG) guitar 3sgACC** get-DO&GO-PAST

And she took **the guitar** and left.

[C02_5;9_guitar,p8]

5.28 Marle ante urreye-le um **arelhe ampwe rikerte renhe** uyarne akeme-ile-ke.

girl and boy-ERG um **woman old sick 3sgACC** in.vain wake/get.up-CAUS-PAST

The girl and boy couldn't get **the sick old woman** up.

[C14_8;6_sick woman,p2]

Children's production of [N (X) *re*] and [N (X) *renhe*] across the four stories is presented in Table 5-13.

They are arranged in age order, from youngest to oldest.

Child	Age at field trip 2	[N (X) <i>re</i>] used correctly for a 3sg entity in S/A role	[N (X) <i>re</i>] used incorrectly for a 3sg entity in O role	[N (X) <i>re</i>] all	[N (X) <i>renhe</i>] used correctly for a 3sg entity in O role	[N (X) <i>renhe</i>] used incorrectly for a 3sg entity in S/A role	[N (X) <i>renhe</i>] all
C02	6;3	9	3	12	6		6
C01	6;10	15	1	16	10	3	13
C07	7;4	4		4	10	1	11
C06	7;9	2		2	9	7	16
C11	8;0	8	2	10	5		5
C12	8;0	12		12	6		6
C05	8;1	16		16	9		9
C09	8;1	2		2	2	5	7
C10	8;4	5	1	6	3	5	8
C14	9;0	16	1	17	8		8
C15	9;1	24	2	26	3		3
C13	9;8	15		15	3		3
C16	9;8	3	2	5	4		4
C17	9;9	22	9	31			
C19	10;1	23	5	28	1		1
C18	10;3	6		6	6		6
C20	10;10	13		13	2		2
		195	26	221	87	21	108

Table 5-13. Child production of 3sg NOM, ERG and ACC definitised NPs

Table 5-13 shows:

- Most tokens are grammatically well-formed and appropriate for the role:
 - 195/221 (88%) of [N (X) *re*] NPs produced by 17/17 children (between two and 24 times) correctly express a previously mentioned 3sgNOM/ERG entity.
 - 87/108 (81%) of [N (X) *re*] NPs produced by 16/17 children (between one and ten times) correctly express a previously mentioned 3sgACC entity. One child (C17) fails to produce a single token of [N (X) *renhe*].
- Only one type of error is in the data (to be illustrated in examples 5.29 and 5.30 below). The problem relates to matching the constructions to the case role (a problem no child has with 3sg NOM/ERG and ACC as independent pronouns in any of their four stories):
 - [N (X) *re*] is used for 3sgACC entities by 9/17 children, accounting for 26/221 (12%) of all productions.
 - [N (X) *renhe*] is used for 3sgNOM/ERG entities by 5/17 children, accounting for 21/108 (19%) of all productions.
- Children 9 years and older do not produce [N (X) *renhe*] errors, while children younger than 9 years do. Apart from this, age-related developmental patterns are not clear in the data, i.e.:
 - Children 9 years and older (C16, C17, C18) as well children younger than 9 years (C01, C02, C10, C11) produce [N (X) *re*] errors.
 - 5/17 children make no errors with either of the NP definitising constructions – two are in the younger half of the cohort (under 9 years, i.e. C05, C12) and three are in the older half of the cohort (9 years and older, i.e. C13, C18, C20).

5.5.3. Non-adult-like definitised NP production

Without exception all errors entail using the 3sgNOM/ERG pronoun where 3sgACC would have been expected and vice versa (Table 5-13). All children who produce [N (X) *re*] incorrectly for a previously mentioned 3sgACC entity also produce error-free tokens (Table 5-13) even within the same narrative, as in 5.29. C17 over-generalises 3sgNOM/ERG.

- 5.29 Kele **artwe inentye re**-arle anteme **akngwelye re*** ine-ke.
 ok **male kurdaitcha 3sg(ERG)-FOC** now **dog 3sg(NOM/ERG)*** get-PAST
 And now **the monster** got **the dog**.

Akngwelye re anteme artne-ke marle akweke nhenge-ke.

dog 3sg(NOM) now cry-PAST girl little REMEM-DAT

Now **the dog** cried for that little girl.

Artwe inentye re-arle akngwelye re* aknge-ke bush-werne.

male kurdaitcha 3sg(ERG)-FOC dog 3sg(NOM/ERG)* take/carry-PAST bush-ALL

The monster took **the dog** to the bush.

[C17_9;9_monster_p4,5]

All children who produce [N (X) *renhe*] incorrectly for a previously mentioned 3sgNOM/ERG entity also produce error-free tokens (Table 5-13) even within the same narrative, as in 5.30. The monster switches to from O to S, however C10 uses 3sgACC to definitise both NPs.

5.30 Itne-areye alwerne-ke **artwe inentye renhe**.

3pl-grp(ERG) chase-PAST **male kurdaitcha 3sgACC**

They [the family] chased **the monster**.

Artwe inentye renhe* rest-irre-tyenhenge alhe-ke.

male kurdaitcha 3sgACC* rest INCH-SBSQT go-PAST

The monster went so he can rest / to rest.

[C10_8;4_monster_p7]

At phrase level, the definite construction is always correctly formed as [N (X) *re*] or [N (X) *renhe*] by all children. Errors (where they occur) are at clause level, in expressing constituent roles. Throughout the data, no child has the same confusion when using the pronouns independently as they do when using them in the definitised NP constructions. Thus, the problem lies in controlling both functions of the definitising construction, i.e. it must track entities in discourse and mark the role of the NP in the clause. Children's errors indicate that they are identifying the tracking function, but not the role function of 3sgNOM/ERG in [N (X) *re*] and 3sgACC in [N (X) *renhe*], and need to re-establish the distinction they know from the independent pronouns.

5.5.4. Discourse level use of definitised NPs

The analysis will now address whether children use the definitised NP constructions in an adult-like way at discourse level. The term *adult-like* is used to mean definitised NPs in children's narratives that are grammatically well-formed at phrase level, appropriately matched to the role of the entity at clause level, and well-positioned in the discourse, i.e. after the entity has been first mentioned in a non-definitised NP.

This section begins by comparing five children's *Monster* narratives to the three adult tellings to illustrate page-to-page use of definitised NPs. For this illustration, the dog is selected as the tracked entity, as it is the most frequently recurring and depicted 3sg entity in the story; and it both acts and is acted upon. As well as examining children's use of [N (X) *re*] and [N (X) *renhe*] NPs at discourse level, the analysis reveals non-adult-like use of non-definitised NPs in children's discourse. After describing them qualitatively in the context of the five children's *Monster* narratives, I quantify them across the four stories for all children. The analysis in Chapter 6 will also follow up on three of these five children.

Table 5-14 is an overview of how A02, A03, A04, C01, C06, C12, C15 and C20 track the dog through the *Monster* story. The head of all NPs in the table, whether definitised or not, is of course dog (*akngweleye*). An asterisk marks the errors discussed above in § 5.5.3. Definitised NPs are bolded. Non-definitised NPs are not bolded. S indicates the dog is a NOM argument, the subject of an intransitive verb. A indicates the dog is an ERG argument, the subject of a transitive verb. O indicates the dog is an ACC argument, the object of a transitive verb. Ø indicates the dog is an elided argument. Cells in the table that state there is no mention of the dog are different from elision. On those story pages, the narrator attends to entities and events other than the dog.

In Table 5-14, different types of brackets indicate the context of the mention of the dog: square brackets are used for a main clause, e.g. [*akngweleye ikwerenhe-nge*]; curly brackets for a dependent clause, e.g. {*akngweleye akweke anyente/O*}; double angle brackets for direct speech, when the family group calls out to the monster on page 6 to "Bring back our dog", e.g. <<*akngweleye akweke anwernekenhe-aye*>>. However direct speech creates a new context and therefore behaves outside the referent tracking system. A reminder that *renhe* and *renhenhe* are variants of the 3sgACC pronoun.

Pg	A02	A03	A04	C01	C06	C12	C15	C20
1	[akngwelye-akerte]	{akngwelye akweke-nge}	no mention	no mention	no mention	[akngwelye ikwerenhe-nge]	no mention	no mention
2	no mention	[akngwelye akweke ikwere-nge] {akngwelye akweke ikwere-werne.atheke}	[akngwelye akweke ikwerenhe-nge]	{akngwelye akweke anyente/O}	[akngwelye akweke-ke]	no mention	[akngwelye/S] [akngwelye renhe]	[akngwelye ikwerenhe] [akngwelye akweke-werne]
3	{akngwelye akweke/S}	{akngwelye akweke re/A}	[akngwelye akweke/S] {Ø/A}	[akngwelye akweke re/A]	[akngwelye akweke renhe*]	[akngwelye]	[akngwelye nhenge/S]	[akngwelye akweke re/S]
4	[akngwelye akweke/O]	[akngwelye akweke renhe/O]	[akngwelye akweke ikwere]	[renhenhe]	[akngwelye akweke renhe/O]	[akngwelye akweke ikwerenhe]	{akngwelye nhenge/O} [akngwelye re /S]	{Ø/O}
5	[akngwelye akweke/O]	{Ø/O} [akngwelye akweke renhe/O]	{akngwelye akweke renhe/O} {Ø/O}	[akngwelye akweke renhe/O] {akngwelye akweke renhe*}	[akngwelye akweke renhe/O]	[Ø/O]	[Ø/O] [akngwelye re /S]	[Ø/O]
6	{Ø/O}	<<akngwelye akweke anwernekenhe-aye>>	[akngwelye akweke ikwere]	<<akngwelye akweke yanhe>>	<<akngwelye akweke yanhe>>	[akngwelye akweke ikwere]	[Ø/O] [akngwelye nhenge-ke]	no mention
7	[akngwelye akweke-akerte]	{akngwelye akweke renhe/O}	{akngwelye akweke renhenhe/O}	[akngwelye akweke re/S]	no mention	[akngwelye akweke ikwere]	{akngwelye re-nhenhe}	[akngwelye akweke/O]
8	[akngwelye akweke renhe/O]	[akngwelye akweke/S]	[akngwelye akweke renhe/O]	[akngwelye akweke re/S]	[akngwelye akweke renhe*]	[akngwelye akweke re/S]	[akngwelye nhenge/S] [akngwelye nhenge/S]	[akngwelye akweke re/S]
9	[akngwelye renhe/O]	[Ø/O] [Ø/O {Ø/O}]	[akngwelye akweke renhenhe/O]	[akngwelye akweke renhe/O]	[akngwelye akweke renhe/O]	{akngwelye akweke renhenhe/O}	[akngwelye nhenge/S]	[akngwelye ikwerenhe/O]
10	[akngwelye akweke re/S]	[akngwelye akweke re/S]	[akngwelye akweke re/S]	[akngwelye akweke re/S]	Not directly mentioned	Not directly mentioned	[akngwelye-akerte]	Not directly mentioned

Table 5-14. Mentions of the dog tracked through the *Monster* story by three adults and five children

Of the three adults, A03 adheres closely to the pattern in Figure 5-7. Her first mention of the dog is in a non-definitised NP: *akngwelye akweke-nge* (dog little-PROP) '(a little girl is playing) with a little dog' on page 1 (the title page) of the story. Subsequent mentions are in the 3sgNOM/ERG and 3sgACC definitised NP constructions on pages 2, 3, 4, 5, 7 and 10. On page 3, the definitising is in the 3sgDAT form [N (X) *ikwere*]. That is, *akngwelye akweke ikwere-nge* (dog little 3sgDAT-ABL) '(she was playing) with the little dog' and *akngwelye akweke ikwere-werne.atheke* (dog little 3sgDAT-ALL) '(the monster came) towards the little dog'. The dog is elided on page 5 as would be expected in a dependent clause. Here the monster is in ERG case and the dog is being acted upon: Having got (it), the monster took the dog back to his camp. The dog is also elided on page 9 as it becomes more continuing and salient. The non-definitised NP on page 8 does not strictly conform to the expected pattern. On this page A03 says *akngwelye akweke ankwe inte-ke* (dog little asleep lie.down-PAST) 'little dog slept' not producing a definitised NP here for unknown reason/s.

A04 uses two non-definitised NPs – *akngwelye akweke-nge* (dog little-ABL) '(girl playing) with a little dog' on page 2 and *akngwelye akweke* (dog little) 'a little dog' on page 3 – and then begins to definitise mentions of the dog. The dog is also elided as would be expected in a conjoined clause on pages 3 and 5. For example on page 3: a little dog was sitting and (it) was watching. All subsequent mentions of the dog, on pages 4-10, are in the 3sgNOM/ERG and 3sgACC definitised constructions [N (X) *re*] and [N (X) *renhe*] respectively, and also in the 3sgDAT form [N (X) *ikwere*].

A02 begins to definitise mentions of the dog later than A03 and A04. After introducing the dog on page 1 (the title page) in a non-definitised NP – *akngwelye-akerte* (dog-PROP) '(a little girl) has a dog' – A02 produces multiple follow-up non-definitised NPs on pages 3, 4, 5 and 7, before producing definitised NPs for the dog on pages 8-10. The elision on page 6 is expected, i.e. in a dependent clause. A02's narrative aligns with A03's and A04's narratives, in that the dog is expressed definitised NPs as it becomes more centrally topical, i.e. trapped in a yard by the monster on page 8, rescued by the mother character on page 9, and happy to be safely back with the family group on page 10.

Table 5-14 shows that the five children's narratives begin in an adult-like way in that their first mention of the dog is in a non-definitised NP. Three of them (C01, C12, C15) also refer to the dog with both the 3sgNOM/ERG and 3sgACC definitised NP constructions in an adult-like way. This table also shows:

- C01 makes one error in matching the pronoun form to the dog's role (on page 5 of the story), however overall she controls the tracking and the role function of the definitising construction (as is also evident in Table 5-13).
- C06 uses [N (X) *renhe*] for all definitising, regardless of whether the dog was a NOM/ERG or ACC argument. She applies this construction when definitising other 3sg entities in the story too. Thus, she attends to the tracking but not the role marking function of the definitising constructions. Each of her productions of [N (X) *renhe*] only happens to be correct if the dog (or other 3sg entity) happens to be ACC in that particular clause.
- C20 uses [N (X) *re*] in an adult-like way. He does not use [N (X) *renhe*] in the *Monster* story, though does use this construction twice in other stories, see Table 5-13.
- C15 uses both [N (X) *re*] and [N (X) *renhe*] in an adult-like way. However, he also (and more often) produces NPs with *nhenge* (REMEM). Production of this non-definitised NP construction in non-adult-like ways is also found in other children's narratives. It will be illustrated with examples and discussed below.
- C12 uses several non-definitised NPs at the beginning of her narrative and then uses definitised NPs from page 6 onwards. She definitises using the correct 3sg pronoun form when tracking the dog in DAT as well as NOM, ERG and ACC NPs.

Overall, C12's discourse pattern is most like A02, with definitising (in bold in Table 5-14) occurring later in the story. The other four children pattern more like A03 and A04 in that they definitise soon after their first introduction of the dog.

On the final page of the story all adults include a sentence about the dog sitting (happily with the family) near the fire using [N (X) *re*], as does C01. The other children narrate the same scene but by grouping the story characters and using a 3pl form, i.e. in an adult-like way, though different from A02, A03 and A04 as it happens.

5.5.5. Non-adult-like use of non-definitised NPs for entity tracking

The NPs with *nhenge* (REMEM) in C15's tracking of the dog on pages 3, 4, 6, 8 and 9 of the *Monster* story (in Table 5-14) exemplify his and other children's use of non-definitised NPs across the four picture book narratives to refer to previously mentioned entities:

- NPs with *nhenge* (REMEM)
- NPs with the demonstratives *nhenhe* (this) and *yanhe* (that)
- ERG marked NPs
- POSS NPs
- Simple non-definitised NPs, which are expected for first mention of an entity, i.e. either a bare noun, or a noun followed by an adjective or quantifier.

That is, the child narrative data include NPs with a nominal as the final element (i.e. non-definitised NPs) at points in the story where NPs with a third person pronoun as the final element would mark NOM, ERG or ACC case for the whole NP and track recently mentioned and readily retrievable entities (i.e. definitised NPs) (Figure 5-6). I describe and illustrate these non-definitised NPs below, and then quantify use of them by C01 – C20 in Table 5-15.

NPs with *nhenge* (REMEM)

Nhenge (REMEM) fills the same position as demonstratives in the Arrernte NP (slot 4 in Table 5-7) and may also stand on its own anaphorically for a previously mentioned NP. Compared with definitised NPs which track recently mentioned referents, REMEM tracks referents mentioned much earlier, brought back into the discourse after some time (Wilkins, 1989, pp. 121-122).

C16 is another child who uses NPs with REMEM, as in 5.31. She even uses this construction for initial mention of the woman/girl on page 2 of the story. (C16 refers to this same character as a woman in the first clause and as a girl in the third clause). In an adult-like pattern, the NOM argument in the first clause would be *arelhe* (a woman) and the ERG argument in the third clause would be a definite NP *marle akweke re* (the little girl). The definitised NP in the fourth clause is adult-like, referring to the dog introduced in the first clause in a non-definitised NP (a possessive NP). However, the NPs with REMEM in the fifth and sixth clauses are non-adult-like given the recent mention of the dog and the consecutive REMEM uses. In an adult-like pattern, the dog would be tracked in a definitised NP, pronoun or zero anaphora in these positions in the discourse (as in Table 5-14).

- 5.31 **Arelhe nhenge** akngwelye ikwerenhe-nge arrkene-irre-ke.
 woman REMEM(NOM) dog 3sgPOSS-ABL play-INCH-PAST
 That woman played with her dog.

Artwe inentye anteme apetye-ke.

man kurdaitcha now come-PAST

Now a monster came.

Marle akweke nhenge-le anteme kake akweke ikwerenhe push-em-ile-ke swing-nge

girl little REMEM-ERG now brother little 3sgPOSS push-tr-CAUS swing-ABL

Now **that little girl** pushed her little brother on the swing

akngwelye akweke re anteme happy.

dog little 3sg(NOM) now happy

and the little dog was happy.

Artwe inentye-le anteme **akngwelye akweke nhenge** ine-ke.

male kurdaitcha-ERG now **dog little REMEM(ACC)** get-PAST

Now the monster took **that little dog**.

Akngwelye akweke nhenge kele arrangke-ke.

dog little REMEM(NOM) ok cry-PAST

Then **that little dog** cried.

[C16_9;8_monster, p2-5]

All of the NPs with REMEM example 5.31 are grammatically well-formed at phrase level, consistent with the order of elements in Arrernte NPs in Table 5-7. This is also true of all other productions of these NPs in the child data set. At clause level C16's production of the NPs with REMEM are consistent with Arrernte word order: AOV in the first clause, SV in the second clause, AOV followed by peripheral/non-core case marked NP in the third clause, a verbless clause in the fourth line, AOV in the fifth clause and SV in the sixth clause. Clause level constituent ordering is similarly unproblematic across the child data set. The problem instead lies in adult-like selection of NPs for tracking previously mentioned entities.

NPs with spatially deictic demonstratives

Although non-definitised NP most commonly used by adults for first mentions of entities, there are a few examples of NPs with demonstratives in the adult data for first mentions: one each by A01 in *Sick woman* story; A03 in *Horse & cow* story, A04 in *Monster* and *Guitar* stories, and none by A02. Wilkins

(1989, p. 120) finds that NPs with demonstratives can refer anaphorically to ‘a major protagonist or to an immediately preceding definitised NP acting as the present focus of discourse.’

However in this study, some children use demonstratives more often than expected. For example, even late in the *Guitar* story, when the girl and boy are well established characters, C01 refers to them in NPs with *yanhe* (that), rather than definitised NPs as expected for each re-entry of each character, see 5.32. By contrast, adult use of use [N (X) *re*] to refer to the girl and boy at this point in the discourse for this story is described in example 5.21 above.

- 5.32 Marle akweke yanhe-le anteme ikwere anteme, um, drum anteme aknge-tye-ke
 girl little that(mid)-ERG now 3sgDAT now um drum(ACC) now carry-PAST
 That little girl brought a drum to him now
- ante **urreye akweke yanhe** happy-irre-me.
 and **boy little that(mid)(NOM)** happy-INCH-PRES
 and **that little boy** became happy.
- [C01_6;4_guitar, p9-10]

As for the NPs with REMEM, the NPs with demonstratives in the children’s narratives are all well-formed at the phrase level and correctly used in forming clauses. However, again the issue lies in children not producing definitised NPs for tracking the entities referred to, as adults do.

ERG marked NPs

As discussed in § 5.2.1. with respect to the elicitation tool, while O’Shannessy designed the picture books to elicit overt transitive subject nominals in Warlpiri, Arrernte adults favour the simultaneous definitising and case marking function of *re* (3sg) over the case marking function only of *-le* (ERG). Children’s formation of these NPs is grammatical and appropriately marked for role at clause level. However, at discourse level children use them for previously mentioned entities where adults prefer [N (X) *re*] and referring expressions in the continuum in Figure 5-7.

For example, in 5.31 above, C16’s first mention of the monster (in the second clause) is an adult-like non-definitised NP. However, her next mention of the monster (in the fifth clause) is marked for role but is not definitised.

In 5.33 C20's production is adult-like in the non-definitised NP in the first clause to refer to the monster on page 1 (the title page) using the common formulaic phrase for starting a story in Arrernte (-PROP), and again in the third clause for the first mention of the monster in the story proper. However, in the sixth clause he uses another non-definitised NP, thus failing to track the monster as previously mentioned. And in the seventh clause C20 uses an ERG-marked NP rather than the more expected discourse-appropriate [N (X) *re*], bare pronoun or elision.

5.33 Arrentye-akerte ayeye.

monster-PROP story

Story about a monster.

Marle akweke arrkene-irre-ke akngwelye ikwerenhe-nge.

girl little(NOM) play-INCH-PAST dog 3sgPOSS-ABL

A little girl played with her dog.

Arrentye akngwelye akweke-werne apetye-rne.

monster(NOM) dog little-ALL come-RECENT PAST

A monster came towards little dog.

Marle akweke-le push-eme-ile-ke kake akweke ikwerenhe.

girl little-ERG push-tr-CAUS-PAST brother little 3sgPOSS(ACC)

Little girl pushed her little brother [on the swing].

Akngwelye akweke re ane-rlane-ke.

dog little 3sg(NOM) sit-CONT-PAST

The little dog was sitting.

Arrentye apetye-ke ine-tyeke.

monster(NOM) come-PAST get-PURP

Monster came to get (the dog).

Arrentye-le pwerlepe-ke utyerne-ke.

monster-ERG shoulder-DAT put/lift.sthing.up.high-PAST

Monster put (the dog) on its shoulder.

[C20_10;10_monster, p1-5]

In 5.34 C07 introduces the monster in an adult-like way with a non-definitised NP in the first clause but then also uses non-definitised (ERG marked) NPs in the fifth and seventh clauses.

5.34 **Arrentye** apetye-ke

monster(NOM) come-PAST

A monster came

akngwelye renhe ine-tyeke.

dog 3sgACC get-PURP

to get the dog.

Itne-areye anteme arrkene-irre-ke.

3pl-grp(NOM) now play-INCH-PAST

Now they played.¹⁸

Akngwelye-le anteme are-rle ane-ke.

dog-ERG now see-GenEvt be-PAST

Dog was watching now.

Artwe inentye-le anteme ine-ke akngwelye renhenhe.

male kurdaitcha-ERG now get-PAST dog 3sgACC

Now **monster** got the dog.

Akngwelye re anteme arrangke-ke.

dog 3sg(NOM) now cry-PAST

Now the dog cried.

Artwe inentye-le aknge-ke.

male kurdaitcha-ERG take/carry-PAST

Monster took (the dog).

[C07_7;4_monster,p2-5]

Another non-adult-like selection in 5.34 is the definitised NP for first mention of the dog in the second clause. As discussed above with respect to Table 5-7, Arrernte NPs definitised with 3sg pronouns are

¹⁸ The pronoun itne-areye (3plS[=NOM]-grp) refers to the girl and dog, where an adult would use re-atherre (3dIS).

only similar to definite articles in English. In Arrernte the anaphoric function of the pronouns is stronger. The ERG in the fourth clause in 5.34 is also non-adult-like. The definitised NPs for the dog in the fifth clause and in its change of role in the sixth clause are more adult-like, as is the elision in the seventh clause in 5.34.

In sum, children who produce non-adult-like NPs with ERG are marking the A role of the entity, rather than marking the role and the continuing referent with the [N (X) *re*] construction which does both. Thus, they attend to the role of the entity in the clause, but not to the role of the entity as one that is continuing from the first mention. Children use ERG where adults use the 3sg pronoun in these NPs.

POSS NPs

Possessive NPs are most commonly used in the *Guitar* story. C09 is a frequent user, as in 5.35 where he uses POSS NPs not only for the first but also for the next two mentions of the guitar. Adults use POSS NPs but only after introducing the guitar in a non-definitised NP (A01, A03, A04), followed by a definitised NP (A01, A03). A04 uses a POSS NP earlier than A01 and A03.

5.35 **Guitar ikwerenhe** tne-rlane-me wall(e)-nge

guitar 3sgPOSS stand-CONT-PRES wall-ABL

Her guitar was leaning against the wall

ante re inte-rlane-me.

and 3sg(NOM) lie.down-CONT-PRES

and she was lying down.

Artwe anyente alhe-ke **guitar ikwerenhe** ine-tyeke.

man one(NOM) go-PAST **guitar 3sgPOSS** get-PURP

One man came to get **her guitar**.

Re kenhe ankwe ane-ke

3sg(NOM) BUT asleep be-PAST

She was asleep then.

Guitar ikwerenhe aknge-ke artwe nhenge-le

guitar 3sgPOSS(ACC) take-PAST man REMEM-ERG

That man took **her guitar**

ante re ankwe akwete ane-ke.
and 3sg(NOM) asleep still be-PAST
and she was still asleep.
[C09_7;7_guitar,p2-4]

POSS NPs are also in a few children's *Monster* story. For example, C20 refers to the dog in an adult-like definitised NP in the first clause in 5.36 but follows this with a mention in a POSS NP rather than the adult-like selection of definitised NPs on the later pages of the story, as illustrated in Table 5-14.

5.36 Akngwelye akweke re yard(e) kwene-le ane-ke.
dog little 3sg(NOM) yard inside-LOC be-PAST
The little dog was inside the yard.

Arrentye re ankwe-irre-ke.
monster 3sg(NOM) asleep-INCH-PAST
The monster fell asleep.

Marle akweke re-arle **akngwelye ikwerenhe** ine-ke.
girl little 3sg(ERG)-FOC **dog 3sgPOSS** get-PAST
The little girl got **her dog**.
[C20_10;10_monster,p8-9]

Simple non-definitised NPs

Adults use non-definitised NPs (typically in-definite NPs) for first mentions of entities, as in Figure 5-7. However, children also use them for previously mentioned entities. C05's first mention of the dog in the sixth clause in 5.37 is in a simple non-definitised NP even after two recent mentions.¹⁹ She also refers to the dog in the fifth clause in another non-definitised NP. In 5.38 both the first and second mention of the fence is in a simple non-definitised NP. This contrasts adult production of the definitised NP construction, described in 5.24 above.

5.37 Ayeye nhenhe arrentye-akerte.

¹⁹ While adults generally pattern according to Figure 5-7, there are unexpected non-definitised NPs as discussed above with respect to Table 5-14 and A03's mention of the dog on page 8 of the *Monster* story.

story this/here(NOM) monster-PROP

This story (is) about a monster.

Arrentye apetye-ke

monster(NOM) come-PAST

a monster came

akngwelye akweke ine-tyeke.

dog little(ACC) get-PURP

to get **a little dog**.

Kake ikwerenhe anteme swing-irre-tyame,

brother 3sgPOSS(NOM) now swing-INCH-PAST CONT

Now her brother was swinging,

akngwelye akweke-le are-tyame.

dog little-ERG see/look.at-PAST CONT

a little dog was watching.

Artwe inentye-le anteme **akngwelye akweke** ine-ke.

male kurdaitcha-ERG now **dog little(ACC)** get-PAST

Now the monster took **a little dog**.

[C05_8;1_monster,p1-4]

5.38 Itne-areye-arle anteme, itne-areye are-me **fence** anteme pick-em-up-ile-ke.²⁰

3pl-grp(ERG)-FOC now 3pl(ERG) see-PRES **fence(ACC)** now pick-tr-up-CAUS-PAST

They saw **a fence** now and picked (it) up.

Arelhe nhenge ane-tyame help-eme-ile-me-le.

woman REMEM(NOM) sit/be-PAST CONT help-tr-CAUS-PRES-SS

That woman was sitting down while helping.

Kele ampe nhenge ante artwe nhenge-le **fence** ngkerne-ke.

ok child REMEM and man REMEM-ERG **fence(ACC)** stand.up-PAST

And that child and man stood **a fence** up.

²⁰ Adults would use re-atherre (3dIA) for the pronoun in this clause.

[C15_9;1_horse,p5]

Table 5-15 summarises use of the various non-definitised NP constructions used by children to refer to previously mentioned 3sg NOM, ERG and ACC entities across the four narratives. Children are arranged in age order, from youngest to oldest.

Child (age order)	Age at field trip 2	NPs with REMEM	NPs with demonstratives	ERG marked NPs	POSS NPs	Simple non- definitised NPs
C02	6;3		3	5	1	2
C01	6;10		5	2	1	
C07	7;4	1	2	5		2
C06	7;9	6	1		2	2
C11	8;0	1			1	2
C12	8;0			1	2	
C05	8;1		1	3		5
C09	8;1	4	1	1	4	3
C10	8;4	1		1	1	7
C14	9;0			2	2	1
C15	9;1	14		2	2	1
C13	9;8	1			2	2
C16	9;8	20	1	2		1
C17	9;9	2		2		1
C19	10;1	1	2	3	1	5
C18	10;3	2		2	2	3
C20	10;10	1		2	1	13
		54	16	33	22	50

Table 5-15. Children's use of non-definitised NPs for previously mentioned 3sg entities

Table 5-15 shows:

- children in the older as well as the younger half of the cohort use these various non-definitised NPs, rather than the dominant adult pattern (illustrated in Figure 5-7 and Table 5-14) of NPs definitised to refer to previously mentioned entities with 3sg NOM/ERG and ACC, i.e. in the [N (X) *re*] and [N (X) *renhe*] constructions respectively.

- some children favour a particular type of non-definitised NP, most noticeably NPs with REMEM or demonstratives²¹ (which occupy the same slot in the Arrernte NP structure) in the narratives of C15, C16; and simple non-definitised NPs in the narratives of C10, C20.
- Age related developmental patterns are not clear in the data. That is, two children do not use NPs with REMEM or demonstratives in non-adult-like positions in the discourse, one in the younger half of the cohort (C12) and one in the older half of the cohort (C14). Two children do not use ERG marked NPs, one in the younger half of the cohort (C11) and one in the older half of the cohort (C13). Four children do not use POSS NPs, two in the younger and two in the older half of the cohort (C05, C07, C16, C17). All older children produce at least one non-definitised NP in an unexpected position in the discourse, while two younger children do not (C01, C12).

In sum, these various non-definitised NPs are sprinkled throughout the four narratives in the child data (Table 5-15 and examples 5.31 – 5.38). All are grammatical at phrase and clause level, but are in non-adult-like positions in the discourse. Adults favour definitised NPs for previously mentioned entities.

Where children use non-definitised NPs that give specified information about an entity (with REMEM, demonstratives, POSS) they are specifying but not definitising. They may be re-interpreting slot 4 in the Arrernte NP (Table 5-7), using it not only for specificity but also definitising; or they may be using NPs with REMEM and demonstratives to mean continuing topic.

5.5.6. Summary and direction

Preliminary analysis of the children's narrative data found English/English derived elements but no evidence of shift to a systematic contact code, paving the way for analysis of two of the more complex aspects of Arrernte morphosyntax in the children's speech.

For the first of these, the definitised NP system, the analysis has found that children always form [N (X) *re*] and [N (X) *renhe*] NPs grammatically and that they have no problem when using the pronouns

²¹ First mentions of entities in NPs with demonstratives are excluded from the token count in this table, as there are instances of adults using them for first mentions. Children use NPs with demonstratives for pairs of characters too, e.g. the girl-boy pair in the Sick woman story and the man-child pair lifting the fence in the Horse & cow story. As these are not 3sg, they are not included in this table either.

independently. However, errors arise in using the right construction for the right role at clause level. Further, at discourse level children make non-adult-like selections for previously mentioned entities, i.e. they use various non-definitised NPs (with REMEM, demonstratives, ERG, POSS and simple non-definitised NPs) where adults would use definitised forms to track previously (recently) mentioned entities.

Neither the errors in matching the [N (X) *re*] and [N (X) *renhe*] NPs to the correct role, nor the use of non-definitised NPs have clear age-related developmental patterns. The variation in the data is such that they are found in the narratives of children younger than 9 years and the narratives of children aged 9 years and older.

The next chapter investigates children's production of another complex feature of Arrernte, the switch reference system. This system requires control of verb morphemes for marking same and different protagonists across clauses, and for foregrounding and backgrounding events. Chapter 6 also adds understandings from ethnographic data on differences in strength of Arrernte amongst the children.

Chapter 6 Textless picture book narratives: Part 2

6.1. Switch reference

This part of the analysis of the picture book narratives examines referent tracking and event packaging through verb marking in the Arrernte switch reference (SR) system. It begins with an overview of the SR system, and how adults use it in the data for this chapter. It then examines: Do children use the SR system in their narratives? If yes, is it with adult-like grammaticality? If not, which structures do they use? The last part of the analysis discusses individual differences amongst the 17 children.

In the Arrernte SR system, suffixes on the verb in a dependent clause indicate whether it has the same subject as, or a different subject from, the main (finite) clause. The overview here presents only essential points about the system required for the analysis in this chapter. For full details, see Wilkins (1989, pp. 458-465).

As introduced in Chapter 2, Arrernte verbs have a complex structure consisting of seven slots, as in Table 6-1 (Wilkins, 1989, pp. 225-226; 1991, p. 210; 2006, p. 28). The only obligatory elements are the root and verb-final suffixes. In main clauses, the final inflection will be a tense or mood suffix. In dependent clauses, suffixes in the SR system (either SS or DS morphemes) are among the several possible final inflections.

1	2	3	4	5	6	7
Verb root	Derivational suffixes	Category of associated motion	Continuous aspect	Number agreement with subject	Reduplication (aspect)	Verb-final main and dependent verb suffixes

Table 6-1. Arrernte verb structure

The morpheme *-le* indicates that the S/A of two (or more) clauses have shared identity, that they are the same subject (SS). The morpheme *-rlenge* (and its variant *-rleke*) indicates that the S/A of two (or more) clauses do not have shared identity, that they are different subjects (DS). The SS form (*-le*) is the same on both affirmative and negative verbs. However, the DS form is *-nge* (rather than *-rlenge* or *-rleke*) on negative verbs – though see also Broad (2013, pp. 49-50) for examples of speaker use of *-nge* to mark DS in dependent clauses not only with negative but also with affirmative verbs.

Main and dependent clauses together express macro-events (or states of affairs), e.g. the two actions in: *While the monster was sleeping, the woman took the dog.* A dependent clause may precede or

follow a main one. Main verbs signal foregrounded actions while SS and DS marked verbs signal backgrounded actions in a macro-event.

The SR system morphemes typically attach to tense forms, turning them to relative tense. For SS marked verbs, by far the most frequently occurring sequence is *-me-le*, where the PRES form *-me* now signifies that the dependent clause is essentially simultaneous with the main (finite verb) clause. In the standard system, SR marked clauses (whether SS or DS) depend on finite clauses. In multiclausal utterances, SS and DS marked verbs can be dependent on each other, and in turn dependent on a clause with a finite verb. Through such clause packaging, narrators convey temporal and/or causal relationships between simultaneously (or near simultaneously) occurring actions. It is common for speakers to omit one of the coreferential S/A arguments when SS is marked, though this is not obligatory. Speakers can also overtly realise the S/A in each clause.

While this chapter begins by discussing the SR system in the adults' and then the children's narratives, I foreshadow here that the latter part of the analysis also involves discussion of the SR system forms *-mele* and *-rlenge* used outside the SR system. That is, the forms are polysemous and can be used for other complex clause building: *-mele* (NARRATIVE PRESENT) and *-rlenge* (PERCEPTION COMPLEMENT).

6.1.1. The switch reference system in the adult data

Pertinent to the textless picture book task, SR marking may be used in narrating single pages or in discourse that links pages in a story, in multiclausal constructions. In 6.1 the monster is the subject of both the main and dependent clause, i.e. the monster both placed the dog in the yard and slept. The SS marking disambiguates 3sg in the second clause, indicating that it is the monster (not the dog) that is sleeping. The finite verb indicates the foregrounded action. The backgrounded action is SS marked.

6.1 Re yard akweke-ke akngwelye akweke renhe athene-**ke**.

3sg(ERG) yard little-DAT dog little 3sgACC lay-**PAST**

He (the monster) laid the little dog in the little yard.

Re imarte ankwe anteme inte-**me-le**.

3sg(NOM) then asleep now lie.down-**PRES-SS**

He (the monster) was sleeping now.

[A02_60;2_monster, p8]

In 6.2 the girl is the subject of the main (past continuous) clause, and the monster is the subject of the DS-marked dependent clause. In 6.3 the monster is the subject of the main (past tense) clause and the girl is the subject of the dependent clause. The DS marking disambiguates 3sg in the second clause of 6.3, indicating that it is the girl (not the monster) who wasn't watching.

- 6.2 Re arrken-irre-**tyame** akngwelye akweke ikwere-nge
 3sg(NOM) play-INCH-**PAST CONT** dog little 3sgDAT-ABL
 She was playing with the little dog

kele arrentye re kenhe apetyepetye-**rlenge** itwe anteme.
 ok monster 3sg(NOM) BUT approach-**DS** now
 as the monster was coming closer and closer.
 [A03_59;8_monster, p2]

- 6.3 Arrentye-le akngwelye akweke ine-rle.lhe-**ke**
 monster-ERG dog little get-DO&GO-**PAST**
 The monster got the little dog and went

re are-tye.akenhe-**nge**.
 3sg(ERG) see-NEG-**DS**
 while she wasn't watching.²²
 [A02_60;2_monster, p4]

²² Broad (2013) found speaker use of the *-nge* form for DS marking not only on negative verbs but also on affirmative verbs, especially where there is a BECAUSE relation between the main and dependent clauses; the form also may occur suffixed to absolute tenses, e.g.

Alkngenthe ware marte-ke, payem-ile-**tyakenhe-nge**.

light ONLY shut-PC buy-CAUS-**VNEG-DS**

They just cut the electricity off, because the bill hadn't been paid. (Broad, 2013, p. 11)

Kwatye tyampite yanhe-ke thel-Ø-aye, ayenge angkethakwe anthurre-arle awe-lhe-**me-nge**

water tin that(MID)-DAT pour-IMP-EMPH 1sg:NOM thirsty INTENS-FOC feel-REFL-**NPP-DS**.

Pour some water into that tin over there, because I'm feeling really thirsty. (Broad, 2013, p. 43)

In 6.4 the monster sleeping is conveyed in a DS marked clause that sets the temporal background to the main action of the owner rescuing her dog from the yard. In the final line of 6.4, the dog's owner is the subject of both verbs. Her action of getting the dog is the dependent one.

6.4 Kenhe akngwelye akweke yanhe-ke-artweye kenhe ingwe re apetye-ke re ingwe-le.
 BUT dog little that(MED)-DAT-custodian BUT night 3sg(NOM) come-PAST 3sg night-LOC
 That little dog's owner came in the night.

Ine-rle.alpe-**ke**
 get-DO&GO BACK-**PAST**
 (She) got (the dog) and went back

arrentye re kenhe ankwe akwete untyeme inte-rlane-**rlenge**.
 monster 3sg(NOM) BUT asleep still facing.away lie.down-CONT-**DS**
 while the monster was asleep facing away.

Akng-irtne-**ke** ine-rle.lhe-**me-le**.
 take/carry-REVERS-**PAST** get-DO&GO-PRES-**SS**
 Having got (the dog) and gone, (she) took it back.
 [A03_59;8_monster, p9]

Stylistic chaining of SS marked clauses

In adult speech, switch reference marked clauses are common and may form long clause chains (Henderson, 2013, p. 14). SS can be used in chaining of clauses, a rhetorical device in adult narrative discourse. This is a less described use of SS. In this use, *speakers reiterate a verb to set it as background for the introduction of a new action* which can be summarised as:

S/A V1-past
S/A V1-SS, V2-past
S/A V2-SS, V3-past
 (Wilkins, pers. comm., January 2019).

For example, in 6.5 the finite verb *akeke* (gathered) is reiterated as *akemele* (having gathered), which in turn is the background for *akngirtneke* (take back).

6.5 Pwetye medicine renhenhe anteme re-atherre ake-**ke**.
 bush medicine 3sgACC now 3dl(ERG) cut/pick-**PAST**
 Those two **gathered** the bush medicine.

Ake-**me-le** re-atherre aknge-irtne-ke.
 cut/pick-**PRES-SS** 3dl(ERG) take/carry-REVERS-PAST
 Having **gathered** it, those two **took** it **back**.
 [A01_50;5_sick woman, p4-5]

Similarly, in 6.4 the finite verb *ine-rle.alpe-ke* (got (the dog) and went) is reiterated as *ine-rle.lhe-me-le* (having got (the dog) and gone), and the new action *aknge-irtne-ke* (took (the dog) back) is introduced.

Adult use of the switch reference system across the four stories

Table 6-2 – Table 6-5 summarise adult use of the switch reference system (SR) in the data. Pages on which all three adult speakers used SR (indicated in bold) provide points of comparison for analysis of child production. Each story has at least one page that provokes SS SR (same subject marking in the switch reference system) from all adults. It is only in *Horse & Cow* that the same page provokes use of DS SR (different subject marking in the switch reference system). However, all adults deploy it on various pages across three of the stories. The minimal use of DS in *Sick Woman* story can be explained by the fact that most pages depict a pair of children as the primary tracked active protagonists, who act in unison (rather than as individuals performing different actions from each other).

Sick woman	p1	p2	p3	p4	p5	p6	p7
- <i>me-le</i> SS SR system		A01			A01 A03 A04	A01 A03 A04	A03 A04
- <i>rlenge</i> DS SR system					A01		

Table 6-2. Adult use of the SR system in *Sick woman*

Guitar	p1	p2	p3	p4	p5	p6	p7	p8	p9	p10	p11
- <i>me-le</i> SS SR system			A03	A01 A04	A01 A03 A04	A01 A03		A01	A03 A04	A01	A01 A03
- <i>rlenge</i> DS SR system		A04	A01 A03	A01 A03		A03 A04		A01	A04		

Table 6-3. Adult use of the SR system in *Guitar*

Monster	p1	p2	p3	p4	p5	p6	p7	p8	p9	p10
- <i>me-le</i> SS SR system	A03		A03 A04		A02 A03 A04		A03 A04	A02	A03	
- <i>rlenge</i> DS SR system		A03	A02 A03	A02		A04	A04	A03	A03 A04	A02 A03

Table 6-4. Adult use of the SR system in *Monster*

Horse & cow	p1	p2	p3	p4	p5	p6	p7	p8	p9	p10
- <i>me-le</i> SS SR system	A02	A04	A04	A04			A02	A02 A04	A02 A04	A02 A03 A04
- <i>rlenge</i> DS SR system		A02	A02 A03		A02 A03 A04					A02

Table 6-5. Adult use of the SR system in *Horse & cow*

Table 6-6 shows the number of SS SR and DS SR tokens produced by adults across the four stories. A03 and A04 were recorded telling all four stories. A01 and A02 were each recorded narrating two stories only (see Table 6-2 – Table 6-5), so their tokens are combined in one row. Table 6-6 provides a point of comparison for frequency of SS SR and DS SR use by children (Table 6-7).

Adult and age at fieldtrip 2	SS SR	DS SR
A01 (50;11) + A02 (60;2)	16 (9 + 7)	11 (4 + 7)
A03 (59;8)	14	10
A04 (57;9)	15	7
	45	28

Table 6-6. Adult production of SS SR and DS SR in the four stories

6.1.2. The switch reference system in the child data

Table 6-7 is an overview of children's use of the SR system across the four picture books. The participants are listed in age order, from youngest to oldest. Grammatical and ungrammatical productions of *-me-le* (SS SR) and *-rlenge* (DS SR) are in separate columns.

Child (age order)	Age at field trip 2	Grammatical use of SS SR	Ungrammatical use of SS SR	All SS SR	Grammatical use of DS SR	Ungrammatical use of DS SR	All DS SR
C02	6;3	2		2			
C01	6;10	2		2	3		3
C07	7;4				1		1
C06	7;9				1		1
C11	8;0	1	1	2	4		4
C12	8;0	4	1	5	3		3
C05	8;1						
C09	8;1	1		1	1		1
C10	8;4				2	2	4
C14	9;0	2		2	2		2
C15	9;1	2		2	1		1
C13	9;8	4		4	1		1
C16	9;8	1		1	2		2
C17	9;9	1		1	1	1	2
C19	10;1				3		3
C18	10;3	1		1	1		1
C20	10;10						
		21	2	23	26	3	29

Table 6-7. Child production of SS SR and DS SR across the four stories

Table 6-7 shows:

- ten of the 17 children produce at least one SS and at least one DS somewhere across the stories (C01, C09, C11, C12, C13, C14, C15, C16, C17, C18). Ungrammatical productions are negligible.
- seven of the 17 children do not show evidence of the system, i.e. two who do not evidence the system at all (C05, C20), and five who use only one or the other of the SR markers across their stories but not both (C02, C06, C07, C10, C19).
- age-related developmental patterns are not obvious. Some children in the younger half of the cohort (under 9 years) deploy both components of the SR system (e.g. C01, C11, C12) while some older children (9 years and older) do not (e.g. C19, C20).

While all adults show substantively more uses of SS SR than DS SR (Table 6-6), this asymmetry of use is not also apparent in the children's narratives. Rather, total DS SR production is similar to total SS SR production in the children's narratives (Table 6-7). Also, more children produce DS SR (13 children) than SS SR (12 children).

As a cohort, the children produce less SS SR and DS SR, i.e. less than adults produce SS SR and DS SR (compare Table 6-6 and Table 6-7) and significantly less than they themselves produce 3sg definitised NPs (compare Table 6-7 above and Table 5-14). Moreover, two children show no evidence of the SR system at all, and seven children fail to show evidence of both SS and DS. By comparison, only one child failed to produce a NP definitised with 3sgACC. That is, 16/17 children produced both NOM/ERG and ACC definitised NPs.

Ungrammatical SR system attempts in the child data

Of the 53 SR system tokens in the child data, only five were deemed ungrammatical (Table 6-7). All three of the three non-adult-like DS SR productions by children are ungrammatical because they are not associated with a finite verb in a main clause, as in 6.6.

- 6.6 Nanthe akwele ngkwerne barb wire-le ake-**rlenge**,, alhwe unte-**rlenge**.
 horse FACT shin/lower.leg(ACC) barb wire-ERG cut-DS blood run-DS
 The barb wire cut the horse's leg,, it's bleeding.
 [C10_8;4_horse & cow, p4]

The pause between clauses suggests C10 is struggling to formulate his thoughts. A solution would be to have the second clause dependent on the first, i.e. *Barb wire-le nanthe ngkwerne ake-ke, alhwe unte-rlenge* (barbed-wire-ERG horse shin/lower.leg cut-PAST blood run-DS) The barb wire cut the horse's leg, so it bled.

Example 6.7 illustrates one of the two ungrammatical SS tokens. It provoked an intervention from the adult. The problem lies with *mwerr-ile-me-le* (healing, making well). To be grammatical, this clause needs to depend on a main clause with a finite verb.

6.7 C11: ante ante re ankwe inte-me

C11: and and 3sg(NOM) asleep lie.down-PRES

C11: and she is lying asleep

C11: utylene ikwerenhe mwerr-ile-**me-le***, feelings ikwere

C11: sore/inflammation 3sgPOSS healthy-CAUS-**PRES-SS**, feelings 3sgPOSS

Note: the meaning of this line is unclear to A01, and leads to her intervention.

A01: aperne-ke eye? aperne-ke eye pwetye medicine-le?

A01: rub.on-PAST eh rub.on-PAST eh bush medicine-INSTR

A01: did (those two) rub it on? rub (her) with the bush medicine?

A01: or antywe-tyeke anthe-ke ye?

A01: or drink-PURP give-PAST yeah

A01: or gave (her) to drink?

C11: aperne-ke

C11: rub.on-PAST

C11: (those two) rubbed

[C11_7;6_sick woman, p6]

The adult is suggesting *aperne-ke* (rubbed) and *antywe-tyeke anthe-ke* (gave to drink), i.e. *aperne-ke mwerre-ile-me-le*, meaning the boy and girl rubbed the medicine in, healing the old woman; or *antywe-tyeke anthe-ke mwerre-ile-me-le*, meaning the boy and girl gave her the medicine to drink, healing the old woman.

6.1.3. Structures children use when not the SR system

Two main findings are reported in this section, i.e. where children do not use the SR system, they instead produce:

- sequences of independent clauses (coordinated by conjunction or juxtaposition)
- morphemes that are related to the SR system but distinct from it: narrative present (NARR PRES) and perception complement (PERC COMP), discussed below.

A qualitative analysis will illustrate these findings, using the five selected story pages that are highlighted in five cells in Table 6-8 – Table 6-11. Two of these pages are amongst the pages on which all adults use the SR system. And three have been selected from amongst the pages on which a cluster of children use the NARR PRES and PERC COMP structures that are not preferred by adults.

Table 6-8 – Table 6-11 present again the information about the adult narratives in Table 6-2 – Table 6-5, together with new information about child production. This enables a direct comparison of adult and child use of the SR system on particular pages in each story. Table 6-8 – Table 6-11 also include information found in the child data about the two constructions that are morphologically related to the SR system. That is, constructions that are identical in form but have different functions.

Sick woman		p1	p2	p3	p4	p5	p6	p7
<i>-me-le</i> SS SR system	Adult n=3		A01			A01 A03 A04	A01 A03 A04	A03 A04
	Child n=17						C11*	
<i>-rlenge</i> DS SR system	Adult n=3					A01		
	Child n=17		C11			C06		C11
<i>-me.le</i> (NARR PRES)	Adult n=3		A04	A01	A01 A04			A03?
	Child n=17					C11 C13 C14	C05 C13	C13
<i>-rlenge</i> (PERC COMP)	Adult n=3		A03 A04					A01
	Child n=17							

Table 6-8. Child compared with adult use of the SR system and related morphology in *Sick woman*

Guitar		p1	p2	p3	p4	p5	p6	p7	p8	p9	p10	p11
<i>-me-le</i> SS SR system	Adult n=3			A03	A01 A04	A01 A03 A04	A01 A03		A01	A03 A04	A01	A01 A03
	Child n=17		C18	C13	C01	C01 C14 C16 C17						C15
<i>-rlenge</i> DS SR system	Adult n=3		A04	A01 A03	A01 A03		A03 A04		A01	A04		
	Child n=17		C17*	C11 C12 C17	C13 C15 C19	C12	C14	C16				
<i>-me.le</i> (NARR PRES)	Adult n=3					A03	A03			A03	A03	
	Child n=17							C12	C17	C12	C06 C12	C12 C14
<i>-rlenge</i> (PERC COMP)	Adult n=3					A03	A03				A03	
	Child n=17		C19			C01 C14 C16 C17 C20	C16 C17* C17 C19 C20				C19	

Table 6-9. Child compared with adult use of the SR system and related morphology in *Guitar*

Monster		p1	p2	p3	p4	p5	p6	p7	p8	p9	p10
<i>-me-le</i> SS SR system	Adult n=3	A03		A03 A04		A02 A03 A04		A03 A04	A02	A03	
	Child n=17					C14			C02	C11	
<i>-rlenge</i> DS SR system	Adult n=3		A03	A02 A03	A02		A04	A04	A03	A03 A04	A02 A03
	Child n=17			C18		C01 C10 C14	C09 C10	C01	C11 C12 C16		C07 C10
<i>-me.le</i> (NARR PRES)	Adult n=3										
	Child n=17				C12	C11 C12			C12		C11
<i>-rlenge</i> (PERC COMP)	Adult n=3		A02 A04				A02				
	Child n=17		C14	C11			C14				

Table 6-10. Child compared with adult use of the SR system and related morphology in *Monster*

Horse & cow		p1	p2	p3	p4	p5	p6	p7	p8	p9	p10
<i>-me-le</i> SS SR system	Adult n=3	A02	A04	A04	A04			A02	A02 A04	A02 A04	A02 A03 A04
	Child n=17		C12	C12* C13		C02 C09 C15	C12	C12	C13	C13	C12
<i>-rlenge</i> DS SR system	Adult n=3		A02	A02 A03		A02 A03 A04					A02
	Child n=17		C01		C10*					C19	C19
<i>-me.le</i> (NARR PRES)	Adult n=3					A04			A03 A04	A04	
	Child n=17				C05				C01		C11
<i>-rlenge</i> (PERC COMP)	Adult n=3						A03		A02 A04		
	Child n=17			C01 C05 C07 C15 C18 C20		C01			C10* C19		

Table 6-11. Child compared with adult use of the SR system and related morphology in *Horse & cow*

Child production of independent clauses in place of SS SR

All adults deploy SS SR on page 5 of *Monster* story (Table 6-4 and Table 6-10) to narrate more than one action performed by the monster using the verbs *arrerne-* (put), *aknge-* (take/carry), *ine-* (get), *utyene-* (pick/lift up) and *alhe-* (go). Their attention is on the monster (Figure 6-1).



Figure 6-1. *Monster* story page 5

For example, in 6.8 the monster is the subject of the verb in the main clause and the verbs in the dependent clauses. It is realised once, in the NP in the main clause, which precedes the dependent clauses.

6.8 Arrentye re apele kwene-irre-tye.lhe-**ke** akngwelye akweke ikwere
 monster 3sg(ERG) FACT bend.over-INCH-GO&DO-**PAST** dog little 3sgDAT
 The monster went and bent over for the little dog (to get it)

akngwelye akweke renhe imarte ine-**me-le** aknge-**me-le**
 dog little 3sgACC then get-**PRES-SS** take/carry-**PRES-SS**
 then getting and taking the little dog

amulte-ke utyene-**me-le**.
 arms-DAT put.sthing.up-**PRES-SS**
 picking it up in (his) arms.
 [A04_57;9_monster, p4-5]

C14 is the only child who produces SS SR (Table 6-10) on this page, though her narrative attention is on the dog rather than the monster, see 6.9. Note, she also uses DS SR in a complex chain of clauses.

Another two children (C01, C10) also use DS SR, attending to the monster's action in the main clause and the crying dog in the dependent clause, as in 6.10.

- 6.9 Re ingkerne are-**me-le** arrangke-**ke** akngwelye akweke re
 3sg(ERG) behind see-**PRES-SS** cry-**PAST** dog little 3sgS
 While looking back the little dog cried
- artwe re-arle re kenhe somewhere ikwere-werne alhe-**rlenge**.
 man 3sg(NOM)-FOC BUT somewhere 3sgDAT-ALL go-**DS**
 while the man went somewhere else.
 [C14_9;0_monster, p5]

- 6.10 Artw.arrentye²³ anteme akngwelye renhe aknge-**ke**
 monster[ERG] now dog 3sgACC take/carry-**PAST**
 The monster now took the dog
- kele re arrangke-**rlenge**.
 ok 3sgS/A cry-**DS**
 and all the while it cried.
 [C10_8;4_monster, p5]

The remaining 14 children use simple independent clauses as in 6.11, or sequences of independent clauses (coordinated through conjunction or juxtaposition), as in 6.12. Two children produce a PURP-marked subordinate clause, as in 6.13.

- 6.11 Arrentye-le pwerlepe-ke utyerne-ke.
 monster-ERG shoulder-DAT put/lift.sthing.up.high-PAST
 The monster put (the dog) on its shoulder.
 [C20_10;10_monster, p5]
- 6.12 ante aknge-irtne-ke akngwelye akweke renhe.
 and take/carry-REVERS-PAST dog little 3sgACC
 and (he) carried the little dog back (to his camp).
- Arrangke-ke akngwelye akweke re.

²³ ERG suffix would be expected here.

cry-PAST dog little 3sg(NOM)

The little dog cried.

[C05_8;1_monster, p5]

- 6.13 Yanhe anteme aknge-irtne-me artwe inentye-le yard-atheke
there(MED) now take/carry-REVERS-PRES male kurdaitcha-ERG yard-wards
There the monster is now taking (it) back to the yard

ante akngwelye akweke yard kwene-ke arrerne-tyeke.

and dog little(ACC) yard inside-DAT put-PURP

to put little dog in the yard.

Kele arrangke-me anteme akngwelye akweke re.

ok cry-PRES now dog little 3sg(NOM)

The little dog is now crying.

[C02_6;3_monster, p5]

In sum, in place of SS SR clauses, most children (14 of 17) produce independent clause/s or a main and PURP-marked dependent clause. Three children produce grammatical DS SR. Also, 15 children include narration of the monster's action/s, which is also the focus of adults' attention on this page, and select from the same range of Arrernte verbs as adults.

Child production of independent clauses in place of DS SR

All adults deploy DS SR to narrate the interrelated actions on page 5 of *Horse & cow* (Table 6-5 and Table 6-11). The man-child pair lifting the fence off the horse and the woman looking after the horse comprise the macro-event (Figure 6-2).



Figure 6-2. *Horse & cow* story page 5

Two adults foreground the lifting of the fence, as in 6.14, and one foregrounds the woman comforting the horse.

- 6.14 Artwe-le ante ampe urreye akweke-le, parrike renhe akertne-ile-**ke**
 man-ERG and child boy little-ERG fence 3sgACC up.high-CAUS-**PAST**
 The man and boy lifted the fence up (off the horse)

kele meye-le akenhe nanthe-arle atnyene-**rlenge** anartwe-le, akaperte theyte.
 ok mother-ERG BUT horse-FOC hold-**DS** lap-LOC head end(ACC)
 while the mother nursed the head part/end of the horse in her lap.
 [A02_60;2_horse & cow, p5]

No child produces DS SR on this page (Table 6-11). As with SS SR, children instead produce independent clauses. Of the 17 children, seven narrate the lifting of the fence only, as in 6.15, and five narrate the woman comforting the horse only, as in 6.16. Five children demonstrate adult-like narrative attention in that they attend to both actions, however they do so with independent clauses, as in 6.17.

- 6.15 Itne-areye anteme lift-em-up-ile-ke iron renhe
 3pl(ERG)-grp now lift-tr-up-CAUS-PAST fence 3sgACC
 They (those two) lifted the fence up (off the horse)

ante help-em-ile-ke.
 and help-tr-CAUS-PAST
 and helped (it).
 [C16_9;8_horse & cow, p5]

- 6.16 Mummy-wan-le anteme arntarnt.are-ke, nanthe renhenhe, ankwe.
 mummy-one-ERG now look.after/watch.over-PAST horse 3sgACC asleep
 Then the mum looked after the horse, (it was) asleep.
 [C07_7;4_horse & cow, p5]

- 6.17 Kele mummy wan²⁴ anteme are-rlane-ke nanthe renhe
 ok mummy one[ERG] now look/see-CONT horse 3sgACC
 The mum was looking at the horse
- kele, artwe anyente-le kele akertne-ile-ke tjitepayene renhe.
 ok man one-ERG ok high-CAUS-PAST sheet.of.iron 3sgACC
 and one man lifted the fence.
 [C05_8;1_horse & cow, p5]

Of the children who narrate only one action or the other, two use the SR system (C02, C09) but SS SR rather than adult-like DS SR (Table 6-11). They narrate either the lifting of the fence or the comforting of the horse, as in 6.18. Of the children who narrate both actions, one uses SS SR for the actions of the woman, C15 in 6.19. This child also uses three additional main clauses for the man-child pair actions, using *are-me* (see), *pick-em-up-ile-ke* (picked up) and *ngkerne-ke* (stood something up).

- 6.18 Kele re anteme arrangke-**ke** anteme nanthe ikwere
 ok 3sg(NOM) now cry-**PAST** now horse 3sgDAT
 She cried for the horse
- ante akaperte arrerne-**me-le** anteme lap(e)-le.
 and head(ACC) put-**PRES-SS** now lap-LOC
 while putting (its) head on (her) lap.
 [C02_6;3_horse & cow, p5]
- 6.19 Itne-areye-arle anteme, itne-areye are-me fence anteme pick-em-up-ile-ke.
 3pl(ERG)-grp-FOC now 3pl(ERG) see-PRES fence(ACC) now pick-tr-up-CAUS-PAST
 They see the fence and picked (it) up.
- Arelhe nhenge ane-**tyame** help-eme-ile-**me-le**
 woman REMEM(NOM) sit-**PAST CONT** help-tr-CAUS-**PRES-SS**
 That woman was sitting down while helping

²⁴ ERG suffix would be expected here.

kele ampe nhenge ante artwe nhenge-le fence ngkerne-ke.
 ok child REMEM and man REMEM-ERG fence(ACC) stand.up-PAST
 and that child and man stood the fence up.
 [C15_9;1_horse & cow, p5]

In sum, in place of adult-like DS SR clause constructions to narrate the two main actions on *Horse & cow* story page 5, most children (14 of 17) produce independent clauses or sequences of independent clauses (coordinated through conjunction or juxtaposition). Those who use the SR system (3 of 17) do so grammatically, though they use SS SR rather than the adult-like DS SR.

6.1.4. Child use of constructions morphologically related to the SR system

In addition to use of independent clauses as illustrated in 6.15 – 6.19, children produce narrative present (NARR PRES) and perception complement (PERC COMP) constructions which are related to, but distinct from, the morphemic complexes in the SR system (SS and DS respectively). To illustrate this finding, story pages which elicit NARR PRES and PERC COMP from children will be used:

- page 5-6 of *Sick woman*, where a cluster of children use NARR PRES but adults instead use SS SR (highlighted in Table 6-8).
- page 3 of *Horse & cow*, where a cluster of children use PERC COMP but adults instead use DS SR (highlighted in Table 6-11).

Narrative present

NARR PRES is one of three constructions that are morphologically related to SS SR. It is largely undescribed. The other two are well-documented in the Arrernte grammar – SERIATION and MANNER. Using Role and Reference Grammar (RRG), Wilkins (1989, pp. 469-476) demonstrates how SS marking in the SR system differs from SERIATION and MANNER. The main points are summarised here, and illustrated with examples from the textless picture book data.

The SR system operates at the level of clause linkage of full clauses, as described in examples 6.1 – 6.5. Each clause has its own verb and arguments (whether realised or not). The dependent clause conveys temporal and/or causal meanings. It may precede or follow the main clause. Only at this level are both SS and DS in the SR system possible.

SERIATION operates at the level of VP linkage. It involves a linking of reduced clauses. These are complex VPs. The S/A argument is inevitably shared by two or more linked VPs, and it is only realised once. The VPs are ordered consecutively, with the dependent obligatorily preceding the main VP, as in 6.20.

- 6.20 Nanthe re akeme-irre-**me.le** alhe-**ke**.
 horse 3sg(NOM) get.up-INCH-**SERIAL** go-**PAST**
 The horse got up and went.
 [A02_60;2_horse & cow, p6]

MANNER operates at the level of verb linkage. These are complex verbs, with an inevitably shared subject, only realised once. The verbs are ordered consecutively, with the dependent verb obligatorily preceding the main verb. For example in 6.21, where the boy reacts to the girl giving him a drum, the subject argument is inextricably shared by both verbs.

- 6.21 Kele urreye akweke re akangke-**me.le** ine-**ke**.
 ok boy little 3sg(ERG) feel.happy-**MANNER** get-**PAST**
 The little boy happily received (the drum).
 [A03_59;8_guitar, p10]

Thus, the morphemic complex *-me-le*, which in the SR system marks the simultaneous occurrence of actions (through the morpheme *-me*) and the sameness of the S/A (through the morpheme *-le*), is also found outside the SR system – for SERIATION and MANNER. To distinguish SR from the other two uses, Wilkins (1989, pp. 469-476) glosses for function: *-me-le* (within the SR system) and *-me.le* (outside the SR system). This convention is also used in this chapter, as in 6.20 and 6.21.

As part of the background work for the analysis in this chapter, the few MANNER and SERIAL constructions in the data were identified, separated out and put aside. They are not included in Table 6-2 – Table 6-11. They are excluded from the analysis, in order to focus on the SR system. However, NARR PRES – the (largely undescribed) construction which is morphologically related to SS SR and which is also outside the SR system – has been included. This is because it is more prevalent in the data (than MANNER and SERIAL) and is useful for drawing attention to the complexities of acquisition of the Arrernte SR system.

Generally, verbs with SR marking cannot occur independently as main independent predicates (Wilkins, 1989, p. 461). It is ungrammatical for a *-rlenge* (DS SR) marked verb to act as the sole main predicate on its own, as in 6.6. However *-me.le* marked verbs acting as main (finite-like) predicates are not unheard of in adult Arrernte narrative discourse, as in the following example from Wilkins (2008a, p. 156):

Kele imarte itne antywe kwene-ke thiye akweke-Ø anteme are-**me.le**.

ok then 3pLS[=ERG] nest inside-DAT bird small-ACC now see-**narr.pres**

So, after that, they see a baby bird inside a nest.

Similarly, as foreshadowed in Table 6-8 – Table 6-11, and as the following section of the analysis will show, NARR PRES as a main verb is not unattested in the adult picture book narratives in this study, though the oldest adult (A02) does not use it at all. Following the convention established for SERIAL and MANNER (Wilkins, 1989, pp. 469-470), narrative present examples will be glossed as *-me.le* (NARR PRES) to distinguish them from *-me-le* (PRES-SS) in the SR system.

Pages 5-6 of *Sick woman* story (Figure 6-3) illustrate children's use of *-me.le* (NARR PRES). These pages are connected because both pertain to actions involved in preparing and applying the bush medicine. While these pages (among others) draw use of NARR PRES from children, by contrast adults use SS SR (Table 6-8). Adults narrate more than one action by the same protagonist/s, e.g. the girl boiling, heating, pouring, cooking the medicine on page 5; and the girl-boy pair waking, rubbing, healing the woman on page 6. No child uses SS SR on these pages, C11's ungrammatical attempt notwithstanding, discussed above with respect to example 6.7.



Figure 6-3. *Sick woman* story pages 5-6

On page 5 three children use *-me.le* (NARR PRES) as a main verb, as in 6.22. The NARR PRES marked verb is the only verb in the only clause used on that page, so dependency relations are irrelevant. Thirteen (of the 17) children use independent clauses (coordinated with conjunctions or by juxtaposition) and one child additionally produces a PURP-marked subordinate clause, see 6.23.

6.22 Marle re-arle, marle awenke re-arle anteme ite-**me.le**.

girl 3sg(ERG)-FOC young.woman 3sg(ERG)-FOC now cook-**NARR PRES**

The girl, the young woman, is now cooking (it).

[C14_8;6_sick woman, p5]

6.23 Ante arelhe akweke re-arle apele boil-eme-ile-ke kwatye re*

and woman little 3sg(ERG)-FOC FACT boil-tr-CAUS-PAST water 3sg(NOM/ERG)*

And the little woman boiled the water

then hotten-irre-tyeke

then heat-INCH-PURP

then to make it hot

then he bin warm-irre-tyeke impe-rle kele.

then 3sg ?PAST warm-INCH-PURP leave-GenEvt ok

then she left (it) to get warm.

[C15_8;7_sick woman, p5]

C05 and C13 also use NARR PRES on page 6 of *Sick woman* story (Figure 6-3). C05 produces complex clauses with more than one NARR PRES marked verb, see 6.24. This is similar to 6.22, in that the NARR PRES marked verbs are not dependent on a finite verb in a main clause. The other 15 children use one or more finite verbs, as in 6.25. C14 additionally produces a PURP-marked dependent clause, see 6.26.

6.24 Wake-em-ile-**me.le**

wake/get.up-tr-CAUS-**NARR PRES**

(those two) are waking (her)

aperne-**me.le** imarte kwatye anthe-**me.le**.

rub.on-**NARR PRES** then water(ACC) give-**NARR PRES**

rubbing (her with the medicine) then giving (her) water.

[C05_8;1_sick woman, p6]

- 6.25 Kele itne-areye-arle anteme akeme-ile-ke
 ok 3pl(ERG)-grp-FOC now get.up-CAUS-PAST
 And now they got (her) up

 bush medicine-le aperne-me.
 bush medicine-INSTR rub.on-PRES
 (and) are rubbing (her) with bush medicine.
 [C16_9;2_sick woman, p6]
- 6.26 Renhe aperne-ke bush medicine ikwere-le
 3sgACC rub.on-PAST bush medicine 3sgDAT-INSTR
 (those two) rubbed her with the bush medicine

 ante renhe anthe-ke antywe-tyeke.
 and 3sgACC give-PAST drink-PURP
 and gave her (some of it) to drink OR and gave it (to her) to drink.
 [C14_8;6_sick woman, p6]

In sum, all NARR PRES examples in Table 6-8 – Table 6-11 do not obviously form dependent verbs, and there is no candidate finite tensed main clause verb, leaving them to act as main verbs on their own. Thus, NARR PRES is being treated as a grammaticalised new tense, i.e. in addition to the six basic absolutive tenses in Arrernte – past progressive, past completive, remote habitual past, immediate past, non-past progressive and non-past completive (Wilkins, 1989, pp. 225-227).

Perception complement

PERCEPTION COMPLEMENT *-rlenge* has the same form as, and is morphologically related to, but distinct from, DS SR *-rlenge*. This relationship is well described in the Arrernte grammar (Wilkins, 1989, pp. 451-453, 482-487). Compare 6.27 and 6.28, which are glossed for the two uses of *-rlenge*. The complements of perception verbs are embedded clauses, treated as arguments, perceived by the senses of the subject of the perception verb, as in 6.27. This contrasts with switch reference DS marked clauses which are dependent, but not embedded, and convey temporal and/or causal meanings, as in 6.28.

- 6.27 Itne **are-ke** nanthe inte-rlane-**rlenge** utylene-akerte.
 3pl(ERG) **see-PAST** horse(ACC) lie.down-CONT-**PERC COMP** sore-PROP
 They saw a horse lying down with a sore.
 [C18_10;3_horse & cow, p3]

- 6.28 Itne-areye mape anteme tow-eme-ile-**ke**
 3pl(ERG)-grp mob now tow-tr-CAUS-**PAST**
 They towed (the car)
- kele artwe re ingkerne-nge ane-rlane-**rlenge**.
 ok man 3sg(NOM) behind-ABL sit-CONT-**DS**
 while the [injured] man was sitting in the back.
 [C19_10;1_horse & cow, p10]

As example 6.27 illustrates, subjects of perception verbs (in this case, *they*) and subjects of their complements (in this case, *a horse*) are not usually identical. Thus, perception complements often look like DS SR uses. However, a key difference between these two uses of *-rlenge* becomes most obvious in cases of self-perception, i.e. where the syntactic subject of a perception verb and the syntactic subject of a PERC COMP clause are the same, especially with the verb *awelheme* (feel) (Wilkins, 1989, pp. 453, 482-486). In 6.29 the subject of both verbs is 1sgS, yet the complement is marked with *-rlenge*. It would be ungrammatical if marked as same subject.

- 6.29 [Ayenge] akenge-irre-ntye-**rlenge** awelhe-me
 [1sg(NOM)] sick-INCH-NMZR-**DS** feel-PRES
 I feel like I'm getting sick.
 (Henderson & Dobson, 1994, p. 62).

Perception complements are attested in the adult narratives collected for this study (and in other documentation of Arrernte adult discourse). Although the *-rlenge* (PERC COMP) is outside the SR system, it is included in the analysis, because it is in the child data (Table 6-9, Table 6-10, Table 6-11), and is useful for drawing attention to the complexities of acquisition of the Arrernte SR system. Children who use PERC COMP do so grammatically, often with the verb *areke* (saw), as in 6.27.

Page 3 of *Horse & cow* story is another page selected for this discussion because six children (C01, C05, C07, C15, C18, C20) align with each other in their use of PERC COMP (Table 6-11). By comparison, two of the three adults favour DS SR on this page (Figure 6-4).



Figure 6-4. *Horse & cow* story page 3

The children attend to the human protagonists perceiving (seeing) the horse-cow-fence event, as in 6.30. Adults instead attend to actions other than perception, and therefore produce DS SR. In 6.31 for example, A02 attends to the chain of events which lead to the human protagonists acting to remedy the situation. The two DS-marked verbs are dependent on *atnyeke* (fell).

6.30 Itne **are-ke** nanthe parrike-le **ulthe-rlenge**.
 3pl(ERG) **see-PAST** horse(ACC) fence-ERG **press.down.on-DS**
 They saw the fence squashing the horse.
 [C20_10;10_horse & cow, p3]

6.31 Pweleke re kenhe atnye-**ke** parrike-ke-arleke-arle
 bullock 3sg(NOM) BUT fall-**PAST** fence-DAT-CONNECT-FOC
 The bullock fell onto the fence

 parrike re kenhe-aye ulthe-**rlenge** nanthe-inpe-arlike
 fence 3sg(ERG) BUT EMPH press.on-**DS** horse(ACC)-too-TOO
 then the fence squashed the horse

 kele itne kenhe "ayekeye!"-irre-rlte.lhe-**rlenge**.
 ok 3pl(NOM) BUT hey/oh gosh/wow INCH-DO&GO(pl)-**DS**
 and so they "wow!"-ed (called out "wow!") and went off into action.
 [A02_60;2_horse & cow, p3]

Information in Tables 8-11 is reconfigured in Table 6-12 and Table 6-13. Table 6-12 shows the frequency of *-me-le* (SS SR), *-me.le* (NARR PRES), *-rlenge* (DS SR) and *-rlenge* (PERC COMP) in the adult data. A03 and A04 were recorded telling all four stories. A01 and A02 were each recorded narrating two stories only (Table 6-2 – Table 6-5), so their tokens are combined in one row.

Adult and age at fieldtrip 2	<i>-me-le</i> SS SR system	<i>-me.le</i> (NARR PRES)	<i>-rlenge</i> DS SR system	<i>-rlenge</i> (PERC COMP)
A01 (50;11) + A02 (60;2)	16 (9 + 7)	2 (2 + 0)	11 (4 + 7)	4 (1 + 3)
A03 (59;8)	14	6	10	5
A04 (57;9)	15	5	7	3
	45	13	28	12

Table 6-12. Adult production of SS SR and DS SR, NARR PRES and PERC COMP across the four stories

Table 6-13 shows the frequency of *-me-le* (SS SR), *-me.le* (NARR PRES), *-rlenge* (DS SR) and *-rlenge* (PERC COMP) in the child data.

Child (age order)	Age at field trip 2	<i>-me-le</i> SS SR system	<i>-me.le</i> (NARR PRES)	<i>-rlenge</i> DS SR system	<i>-rlenge</i> (PERC COMP)
C02	6;3	2			
C01	6;10	2	1	3	3
C07	7;4			1	1
C06	7;9		1	1	
C11	8;0	2*	4	4	1
C12	8;0	5*	7	3	
C05	8;1		2		1
C09	8;1	1		1	
C10	8;4			4*	1*
C14	9;0	2	2	2	3
C15	9;1	2		1	1
C13	9;8	4	3	1	
C16	9;8	1		2	2
C17	9;9	1	1	2*	3*
C19	10;1			3	4
C18	10;3	1		1	1
C20	10;10				3
		23	21	29	24

Table 6-13. Child production of SS SR and DS SR, NARR PRES and PERC COMP across the four stories

* each of these six cells in Table 6-13 includes one production which is ungrammatical.

Table 6-12 and Table 6-13 show:

- 6/17 children produce both SS SR and NARR PRES (C01, C11, C12, C13, C14, C17).
- 10/17 children produce both DS SR and PERC COMP (C01, C07, C10*, C11, C14, C15, C16, C17, C18, C19).
- of the two children who show no examples of SS SR or DS SR (Table 6-7), C05 uses both NARR PRES and PERC COMP, and C20 uses PERC COMP.
- adults use more SS SR than NARR PRES, to narrate these four stories. By contrast, NARR PRES is as common as SS SR in the children's narratives.

Although use of *-me.le* (NARR PRES) as a main verb is not ungrammatical, and is attested in the adult narratives, the more common use of it by children – and no use by the oldest of the adults (A02) – may indicate further grammaticalisation of this structure in this younger generation.

6.1.5. Summary

This study finds weak evidence of SR system in the child data (Table 6-7). Two children do not produce SS SR nor DS SR at all. Another five children do not produce one member of the system, i.e. they either do not produce SS or do not produce DS. Thus, seven children do not show evidence of the systemic contrast. Only ten children show at least one use of SS and at least one use of DS, the most minimal evidence for the contrast. According to this study, switch reference is not as entrenched as definitisation of NPs in children's production.

A qualitative analysis of story pages for which all adults use SS SR and DS SR revealed the different structures children produce to narrate the same events. Children may use several clauses to narrate events on any given story page. However these are main clauses coordinated with conjunctions or by juxtaposition, or main clauses with PURP-marked dependent clauses, rather than complex clauses using the SR system.

Children use two constructions that are morphologically related to, but distinct from, the SR system, i.e. NARR PRES and PERC COMP. Establishing whether each of these is an 'in' into the SR system, or a hindrance to its acquisition, would need further investigation. However, distinguishing *-me.le* (NARR PRES) from *-me-le* (SS SR) constructions, and *-rlenge* (PERC COMP) from *-rlenge* (DS SR) can be said to be among the complexities children work through in the process of acquiring Arrernte.

6.2. Variation in strength of children's Arrernte

The analyses in Chapters 5-6 found patterns in the children's non-adult-like productions of the systems.

In definitised NPs these are:

- use of [N (X) *re*] incorrectly for 3sgACC participants.
- use of [N (X) *renhe*] incorrectly for 3sgNOM/ACC participants.
- use of *nhenge* (REMEM) and the demonstratives *nhenhe* (this/here) and *yanhe* (that/there) in the definitising slot of the Arrernte NP.

In the SR system, these patterns are:

- use of independent and/or PURP clauses in complex clause constructions instead of dependency relations available in the SR system.
- use of *me.le* (NARR PRES) alongside *-me-le* (SS SR), and *-rlenge* (PERC COMP) alongside *-rlenge* (DS SR).

On the other hand, many children do provide at least minimal evidence of adult-like production of definitised NPs and the SR system (16/17 children for the former and 10/17 children for the latter). Considerable variation was found in children's adult-like production, and it has not been possible to attribute this to age. For both grammatical features, the analyses cannot account for why some younger children produce them in adult-like ways, while some older children do not.

This motivated me to collect and describe more systematically Arrernte educators' observations that arose in our many general conversations about children's language and their perceptions of what constitutes strong Arrernte in primary school aged speakers. They are aware of a distribution of stronger and weaker Arrernte across the cohort, and have insider views on social explanations for the distribution. I gathered the following qualitative data from the school's Arrernte program teacher (A01), and two experienced assistant teachers (A03 and A05).

6.2.1. Ethnographic data

Firstly, profiles of the children were progressively compiled during all field trips through my discussions with the children themselves, their family members, Arrernte educators and non-Indigenous teachers. Further, I discussed each profile with A05, who checked it for accuracy and added details. The profiles were first presented in Chapter 4, as a component of the language landscape description. They now also become promising for better understanding individual differences in children's Arrernte competencies.

Secondly, I asked A01 and A03 to arrange photos of the children in the study, according to the strength of each child's Arrernte. Their assessments are based on their experience as educators, and their general impressions from speaking with children each day in the school and community, over the years that they have known them (not based on analysis of the picture book data). These conversations with A01 and A03 were conducted separately.

The three educators all raised the importance of grandparents in children's Arrernte development. Also, I had come to know several grandmothers in the community and observed the high level of primary care they provide for their grandchildren. So, thirdly, I interviewed one of the Arrernte adults (A01) in more depth on this topic.

Quotes from the various discussions will be presented as indented italicised text (SP is me), e.g.:

SP: Do you think all the kids at Ltytenye Apurte, their Arrernte is the same or different?

A03: Different. Some got stronger Arrernte.

6.2.2. Educators' general assessment of children's Arrernte

Table 6-14 presents the terms A01 and A03 used when discussing the photos. Some are general terms in English commonly used in the school setting by all staff. Others are Arrernte terms that A01 and A03 used in our discussions.

General terms	A01's Arrernte terms	A03's Arrernte terms
A, high	<i>akaltye</i> (knowledgeable)	<i>arrekwerle</i> (in front)
B, mid	<i>mwerre</i> (good, ok)	<i>mpwepeke</i> (in the middle)
C, low	<i>apertepe</i> (weak)	<i>artepeke</i> (in the back)

Table 6-14. Terms used by A01 and A03 to rate the children's Arrernte

A01 placed the children on more of a continuum, rather than into discrete categories (Figure 6-5). A03 was more clear-cut about her rating of each child (Figure 6-6).²⁵ In both A01's and A03's assessment the largest number of children are in the lowest group, level C. A01 describes this level as *not talking the right way, not speaking it strongly, and putting Arrernte in their own way*.



Figure 6-5. A01's assessment of the strength of children's Arrernte

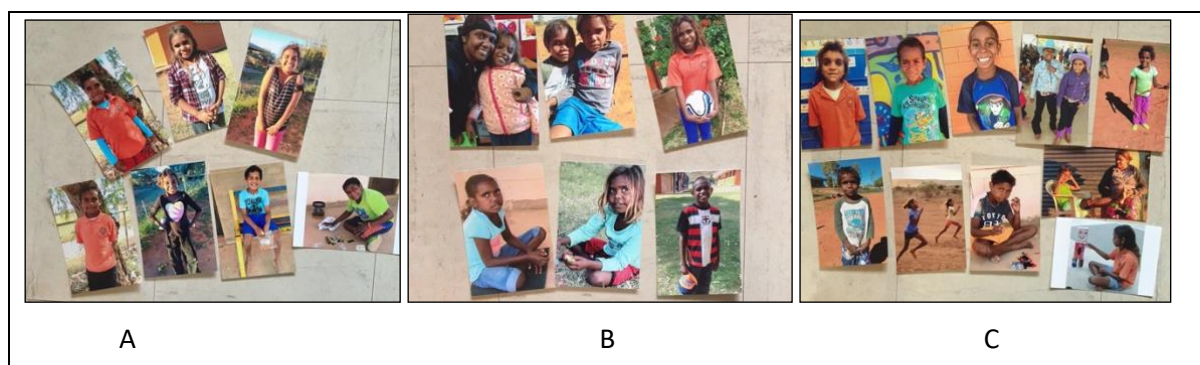


Figure 6-6. A03's assessment of the strength of children's Arrernte

²⁵ Photos of 23 children appear in Figure 6-5 and Figure 6-6. However, as explained at the beginning of Chapter 5, only the 17 children recorded telling all four of the picture books were ultimately included in the analyses in Chapters 5-6.

There is a range of views amongst Arrernte educators. A01 holds the greatest concern that Ltyentye Apurte children's Arrernte *is not strong*. A05 considers the Arrernte language skills of children in the community to be generally *ok* and observes: *They say things in a simple way*. However, she is also surprised when she hears young children (even before starting school) talking in English sometimes, which makes her think: *English is taking over*. Such differences in speakers' beliefs about degree of endangerment of their language are not unusual. For example in the Philippines, while some speakers of Chabacano express concerns about its fate in relation to Tagalog, others did not consider their language to be endangered, given the large speaker population overall if not in all town/cities (Thomason, 2001b, p. 23).

6.2.3. Four factors influencing strength of children's Arrernte

In the process of compiling the language profiles and sorting the photos A01, A03 and A05 referred to four factors influencing the strength of children's Arrernte: parents/primary carers and grandparents; connections and travel to other communities; the school program; and peers who children *walk around with*. These are plausible sources of the variation found in the discourse data, which would be promising to track in a comprehensive sociolinguistic investigation. For now, I simply report the range of social factors raised by the educators, and highlight how the factors vary in the lives of the children in this study.

Parents/primary carers and grandparents

Some children grow up in households with Arrernte-speaking parents/primary carers, while others have a parent/primary carer with a different language background. A01 refers to these as: *inter-marriages ... like Arrernte marries Luritja, Arrernte marries Warlpiri*. She describes children in these families as *listening both ways*.

A01, A03 and A05 distinguished heritage language from language of communication. For example, they all noted that C16's father is Alyawarr but that circumstances prevented him from acquiring his traditional language. He has been at Ltyentye Apurte for several years, but when A01 and A03 speak with him they use 'English' as this is his dominant language. They see this, alongside C16's Arrernte-speaking mother and mother's mother, as influencing C16's Arrernte.

A01 and A03 also believe some parents have stronger Arrernte than others, and this also impacts on children's Arrernte acquisition and use.

A03: And even some parents I can hear them saying not proper Arrernte too, some young ones. Young parents for the kids, you know.

A01, A03 and A05 agree that grandparent generation Arrernte is on-the-whole stronger than parent generation Arrernte. A01 described Arrernte as spoken by the grandparent generation at Ltyentye Apurte as *akaltye* (knowledgeable, A-level); the parent generation as *mwerre* (ok, good, B-level); and the majority of children in the community – and even some of the parents – as *apertepe* (weak, C-level). A01 believes that grandparents know older Arrernte words, and that not all children are regularly in the company of people in her generation:

Yeah plus iteleraye (you know) some, their grandmothers and grandfathers have passed away too, and they [those families] don't get that word [those older Arrernte words] now.

Children's contact with grandparent generation Arrernte speakers varies. To take some examples from the language profiles (Chapter 4):

- for C02 and C05 (who are siblings) both parents are Arrernte and they often visit their Arrernte-speaking maternal grandmother in Alice Springs.
- C15's Arrernte-speaking maternal grandparents have both lived at Ltyentye Apurte all their lives; and C15 and his mother live in the same household with them.
- C11 has several Arrernte-speaking people in the grandparent generation around her each day – her maternal grandmother, her maternal grandmothers' two sisters (one of whom is A05), and her maternal grandmother's brother.
- C17's father grew up at Ltyentye Apurte, with Arrernte as the main language he speaks. C17's Arrernte-speaking paternal grandmother passed away. C17's Arrernte-speaking paternal grandfather lives in Alice Springs. The family visit him there. C17's mother is from Halls Creek WA and identifies as Jaru, though she is not a Jaru speaker. She speaks 'English' with her children.

Grandmothers at Ltyentye Apurte have a primary carer role, when parents are staying in Alice Springs for a while, or are away for a period of time for employment opportunities, e.g. C25's mother was

working as a community-police liaison officer in the NT Top End, C10's and C19's father had Department of Main Roads contract work.

On the subject of grandmothers and their role in providing primary care and linguistic input and cultural knowledge, A01 reflected:

Grandmothers do take good care of grandchildren – bathe them, feed them, put them to sleep, cradle them. They know where the love is; [it] come[s] from the grandmother. Sometimes some of the parents just go off and, you know, do their own thing. Some do go warrke-ke (away for work), and some young parents, you know, don't know how to deal with baby kids. So the grandmother is always there. And the children know if they got any problem, grandmother deals with it. And as I can see it myself, I'm in the centre with all my grandchildren. ...

And I do speak Arrernte strongly and they ask me, 'What is this? Why are you talking like that?' [And I reply] 'You need to learn your Arrernte.' ... And I do speak strong Arrernte for them. And they ask me, 'What's this?' alakenhe. ...

I take them out, show them things ... Like I took them out to look for [different species of] tree and I told them ... what purpose we use them. Is it a bush medicine or merne (food), and the name of the tree, because they just point at it and just say, 'That's a tree over there'. [And I reply] 'No, it's just not a tree. It's got a name, that was given by the old people. And even today we need to use that name.' That's very important.

Mainly the grandmothers are important. Akweke ware for grandfathers (It's a little bit true to say this of the grandfathers too).

A03 also noted the role of grandmothers, e.g.:

Grandmothers got a good skill to show their grandchildren you know about everything [Country and culture] ... and their language as well. Grandmother speaks really strong Arrernte to them ... stronger than the parents, yeah.

Connections and travel to other communities

In the children's profiles (Chapter 4) long-term stability of residence is typical, with the strong sense of Ltyentye Apurte as home. However, families also spend time in other places for various reasons, e.g. ceremonies, funerals, cultural gatherings, sports events, holidays and visiting family, medical appointments, hospital stays, employment opportunities. These geographical connections and travel purposes stretch sometimes thousands of kilometres (depicted in Map 4.1), determining the languages that children are exposed to and influencing their Arrernte acquisition and use. The amount of time, the distances and the languages varies greatly from family to family. For example:

- C09's father is Luritja from Titjikala and is an Arrernte L2 learner/speaker. C09's family mostly stays at Ltyentye Apurte but sometimes visit family at Titjikala. They listen to their grandparents talking Luritja then.
- C13's mother grew up in Kununurra WA and speaks 'English'. She also speaks some Arrernte because her father was Arrernte from Ltyentye Apurte, who worked as a stockman in the Kununurra region and met his wife there. Over the years they brought their children (including C13's mother when she was a child) from Kununurra to Alice Springs and Ltyentye Apurte to visit their father's family. C13's parents met at Ltyentye Apurte. C13 goes to Kununurra with his parents and siblings for holidays sometimes.
- C15's Arrernte-speaking mother grew up at Ltyentye Apurte. C15's family mostly stays in the community, except when they go to Alice Springs for shopping, or away for short trips. C15's father is Yolngu from Maningrida. C15 has been there once to see him but he doesn't have much contact with him at the moment.

The school program

Educators and families value the school's language and culture program, and the following several ways in which it contributes to Arrernte maintenance.

Since the teacher and assistant teacher in the Arrernte classroom (A01 and A03) are in the grandparent generation, this ensures the input the children receive is a more conservative form of the language.

A01: At school I talk to them in strong Arrernte, so they can listen to me.

A03 is also conscious of the model she provides for the learners, just by talking with them about the topics they are learning at school.

A03: I used to work in the canteen ... and for the yellow shirt mob [i.e. employed as a school attendance officer] ... And after that I started to come to A01's classroom a lot while she's teaching Arrernte ... and I see a lot of children ... saying, you know, not proper Arrernte ... not pronouncing the words properly in Language. And I help A01 too, by talking to the kids.

Regarding the children rated highly (Figure 6-6), A03 attributed their strong Arrernte in part to the school program:

SP: We've got C13 C17 C12 C15 C14 C09 C19, so why do you reckon those kids are all arrekwerle (in the front)?

A03: I reckon they're learning to speak real Arrernte now. ... They listening to me and A01, to both of us [in the Arrernte classroom]. They ask questions. ... I reckon it's about since A01 got this job for language. That's how they getting better and better.

For children whose parents don't speak strong Arrernte, or who do not have living grandparents, or who are growing up with two Aboriginal languages, the lessons at school each week are a means for increasing the Arrernte input they receive.

A01: Well, as a teacher I know that language and culture has to be strong. And it has to be kept alive ... keeping it strong for our children and their children, the next generation. I am worried about it because nowadays you can see some of the [old] words are dying and kids are not even using them a lot, arrangkwe (not at all). ... The way that I see it, it's very important for me to teach them Arrernte.

A01 and A03 are recognised in the community as having strong knowledge of culture, Country and traditional stories. A01 is literate in Arrernte, a skill that not all grandparents nor parents have.

A01 refers not only to children's spoken language but to cultural knowledge she believes they should already know at their age, that not all children are not learning at home. A01 listed kinship terms,

compass/direction terms, birds as areas that she and A03 need to explicitly cover in the school program as a consequence:

A01: Some words are new to them, like they come across, ayerrere antekerre ikngerre alturle (north south east west). They don't use that, they just say, 'Nhakwaye!' (Over there!). ... You know, they don't use the directions. These (words) are new to them. Even the trees. They just call it as a tree, but they don't know the names of the tree, arrangkwe (not at all). ... That's why it's very important for me to see how they can, you know, respond back in language, and keeping the sounds strong. And the main important thing for us is to teach them the skin names.

SP: Do they know those (skin names)?

A01: Some do, but some don't arrangkwe (not at all).

A01 and A03 commented on the importance of children behaving well in class, paying attention, *not making any fuss about it*, listening and asking questions about the meaning of words and how to say things well. A01 noted a child who has one Arrernte-speaking parent and no living Arrernte-speaking grandparents, but he is attentive in school and his own effort strengthens his Arrernte skills:

A01: He's (C13) really good in listening and writing it, and he can respond back to me.

Walking around with

It was A05 who most explicitly raised the factor of who the children *walk around with* as important to consider. This accords with researchers who have noted the significance of peers for language acquisition in remote communities, given how much time children typically spend together, independent of adults (e.g. Loakes, Moses, Wigglesworth, Simpson, & Billington, 2013). M.K. Turner, a leader in the Children's Ground early childhood education program in Alice Springs, refers to these peer affiliations as *ampe-areye* (child-group).

Within these peer groups children who speak strong Arrernte may be models for kids who receive less Arrernte input at home. On the other hand, A01 believes *kids mix up languages* and that it is in peer-to-peer talk that children *carry it [the language] the wrong way*. She believes some of their lexical

choices are influenced by other languages, e.g. words they hear in pop songs in other Central Australian languages, or words used by children who have a carer who speaks another language.

6.2.4. Potential sources of variation

Finally, this section of the chapter points to examples of promising correlations between the educators' general assessment of the children's Arrernte, the social factors they view as influential on the strength of children's Arrernte, and some of the findings in the children's picture book discourse.

C01 is the second youngest child in the study, yet she produces convincing evidence of definitised NPs, correctly producing [N (X) re] for 3sg participant in S/A role and [N (X) renhe] for 3sg participant in O role (Table 5-13) and more evidence of SS SR and DS SR than several older children (Table 6-7). A01 rated C01 as between level A *akaltye* (knowledgeable) and level B *mwerre* (good, ok). A03 rated C01 as level A *arrekwerle* (in front). As introduced in C01's profile (in Chapter 4), her family mostly stays in the community, except when they go to Alice Springs for shopping, or away for short trips. C01's parents are both Arrernte from Ltyentye Apurte, and she spends time with her great grandmother (father's mother's mother) who speaks strong Arrernte. A03 in this study, who also speaks strong Arrernte, is a grandmother figure to C01 too. C01 *walks around with* A03's granddaughter C14 who is 2 years 2 months her senior (Figure 4-8). C14 also produced evidence of the two systems investigated (Table 5-13 and Table 6-7). These various social factors would be promising avenues to explore in a systematic search for explanations for C01's linguistic maturity relative to her age-mates in the sample.

C20 is of interest since he is the oldest child in the study and, while he does correctly produce [N (X) re] for 3sg participant in S/A role and [N (X) renhe] for 3sg participant in O role (Table 5-13), he is one of only two children who do not produce either SS SR or DS SR at all (Table 6-7). Neither A01 nor A03 assessed C20's Arrernte as level A. A01 rated him as *apertepe* (weak) and A03 rated him as level B *mpwepeke* (in the middle). As introduced in C20's profile (in Chapter 4), his mother is Arrernte from Ltyentye Apurte. His mother's mother is Arrernte from Ltyentye Apurte but she's often away, *always on the move*. His mother's father, also Arrernte from Ltyentye Apurte, passed away some years ago. C20's father is Pitjantjatjara from Aputula (Finke), and C20 and his older brother often travel there with their father. C20 is one of approximately 15 children in the school who has been assessed as hearing impaired and wears a hearing aid (during school hours only).

C12 is a very interesting case. From an outsider's point of view, she seems to be of concern because she uses adapted English verbs, and (as discussed at the beginning of Chapter 5) she produces *bin* unsystematically though more frequently than other children, in a task that was set up to expect production of strong Arrernte, as in 6.32.

- 6.32 Marle akweke nhenhe akngwelye ikwerenhe-nge arrkene-irre-ke, ante artwe apetye-ke. **He bin** kake akweke ikwerenhe swing-ke arrerne-ke, akngwelye atherre. Artwe inentye-le imarte akngwelye akweke ikwerenhe ine-me.le. Imarte aknge-irtne-me.le. Itne kenhe **they bin** arlke-ke thing akngwelye akweke ikwere but artwe inentye kwenhe apele akwete-arle aknge-irtne-ke. Marle ratherre **bin** alwerne-ke akngwelye akweke ikwere, uyarne akwete **bin stop-em-ile-ke**. Artwe re **bin keep-going-irre-ke**. Re ankwe-inte-rlenge, akngwelye akweke re arrangke-ke. Arrangke-me.le arrangke-me.le irre-ke, artwe re ankwe-inte-rlenge. Marle re-atherre anteme apetye-ke, akngwelye akweke renhe ine-tyeke. Imarte itne alpe-me.le. Kele itne thing apmere anteme. (C12 *Monster* story)

However, the insider view is that C12 is a strong Arrernte speaker. Both A01 and A03 rate C12 in the A level group, *akaltie* (knowledgeable) or *arrekwerle* (in front). They also cite C12's cultural knowledge as a reason for their high rating of her language skills. Here A03 places a premium on knowing the classificatory kin (and skin) system, whereby a much older person may be considered the classificatory 'child' of a much younger person:

A03: I hear her [C12]. She's got real strong Arrernte, that one. And she calls me beyebeye, cos I'm her baby. She's my mum. Yeah. And she knows every culture, which family she's connected to, and how to call everyone.

A01, A03 and A05 attribute C12's strong Arrernte to listening well in Arrernte classes at school and living with several older Arrernte speakers. As laid out in C12's profile in Chapter 4, she is the only child in a household with her mother's mother and two of her mother's mother's sisters (all three of whom grew up at Ltyentye Apurte, have teaching qualifications and Arrernte literacy skills and work at the school), and her mother's mother mother. They only go into town for shopping, and don't spend much time in other communities.

The insider view of C12's Arrernte language skills is supported by discourse data findings. Although she is in the younger half of the cohort, she provides robust evidence of competence with NPs definitised not only with 3sgS/A and O (Table 5-13) but also produces a definitised DAT NP, [N (X)

ikwere] and correctly uses 3dl for definitising ‘Marle re-atherre’ (the two girls), see 6.33. Further, C12 is not only one of the most competent users of SS SR and DS SR (Table 6-7), C12 deploys the system with stylistic clause-chaining, see 6.34.

6.33 Marle ratherre bin alwerne-ke akngwelye akweke ikwere

girl 3dl(ERG) ?PAST chase-PAST dog little 3sgDAT

the two girls chased (the monster) **for the little dog**

uyarne akwete bin stop-em-ile-ke.

in.vain still ?PAST stop-tr-CAUS-PAST

unable to stop him.

[C12_8;0_monster, p7]

6.34 Re ankwe **inte-rlenge** akngwelye akweke re arrangke-ke.

3sg(NOM) asleep **lie.down-DS** dog little 3sg(NOM) cry-PAST

While he (the monster) was lying asleep the little dog cried.

Arrangke-me-le arrangke-me-le irre-ke, artwe re ankwe **inte-rlenge**.

cry-PRES-SS cry-PRES-SS INCH-PAST man 3sg(NOM) asleep **lie.down-DS**

(the little dog) cried and cried, while he (the monster) was lying asleep.

[C12_8;0_monster, p8]

The observations in this section have attempted to connect information in discourse and ethnographic data on variation in the strength of children’s Arrernte. They suggest possible sources of individual differences amongst the children, in a community which is relatively linguistically homogenous overall.

6.3. Conclusion and direction

Chapters 5-6 examined two of the more complex aspects of Arrernte grammar, and in a discourse type that is known to be late acquired. Further, recordings of adults in the grandparent generation were used as the basis for investigating the child recordings. So the bar was high. The analysis found stronger evidence for children’s use of 3sgS/A and O definitised NPs (for tracking known referents) than the switch reference system (for referent tracking and event packaging) in their narratives. When children are not producing these structures, they use different Arrernte grammatical resources (rather than a mixed language, creole/Kriol or English variety) to linguistically encode the depicted story

events. Age-determined developmental patterns were not obvious in the data. Instead, variations in the social circumstances of particular children, as observed by Arrernte educators, point to promising explanatory factors.

As outlined in Chapter 3 Methodology, the limited set of four textless picture books has several advantages as an elicitation tool. It enables a focus on the points where structural patterns tend to agree across adults' narratives. It increases the comparability within the child data set and between it and the adult data set. And it facilitates comparability with children's language maintenance in other remote Aboriginal communities where researchers have used the same elicitation tool. On the other hand, there are disadvantages to limiting the analysis to these particular stories. By not considering a broader range of adult-produced narratives (such as those in the Living Archive of Aboriginal Languages produced for school programs, and other publicly available texts), the analysis is based on an incomplete picture of 'adult-like' patterns in the features investigated in Chapters 5-6. Restricting the description to the chosen picture book set leaves open the question of how representative the adult sample is of adult language use more generally, and therefore how adult-like the child data is. This is a limitation on the significance of the findings of this research.

The next chapter describes children's Arrernte skills in a very different context, highlighting their multimodal communication abilities to spontaneously recount personal experiences not only in speech but also through drawing in the sand and using a stylus. Four of the children who narrated the textless picture books also participated in this next recording context (C01, C06, C12, C14) and a new child joins the study (C23).

Chapter 7 Spontaneous first-person stories in the sand

7.1. Introduction

This chapter describes the communicative skills of five Arrernte children aged 7;4–9;6 in their spontaneous telling and drawing of *scary stories* in the sand. Four of them participated in the textless picture book task (C01, C06, C11, C14) and one of them joined the study for this task only (C23).

The analysis requires reference to literature in addition to that discussed in Chapter 2, to foreground the three interrelated aspects of day-to-day life at Ltyentye Apurte that are embedded in the data, summarised in Figure 7-1. The richly-oral social environment in the community includes multi-age multi-participant informal conversations, *ayeye angkerreme*, which people also refer to as *talking story*. Community members spend hours together, sharing information and experiences, recounting events and telling stories. They often *talk story* outdoors and may elaborate their talk with drawings in the soft, dry, sandy soil. As this chapter will show, monsters are one example of a topic for discussion in this context. Monster-related conversations are a memorable part of my getting to know the children and their families. They advised me about such beings in the community. Through their first-hand accounts of encounters with monsters (and similar beings), in this chapter the children demonstrate their skills for coordinating semiotic resources in speech and drawing in the sand, and their growing understanding of the physical and social geography of their community.

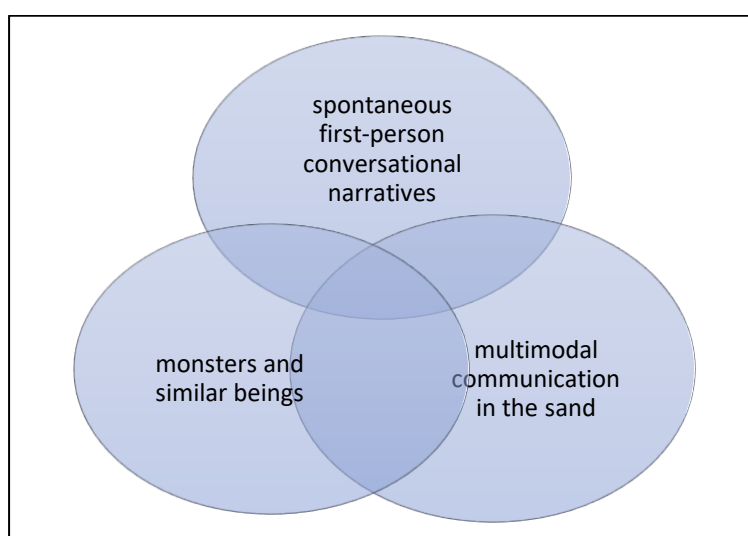


Figure 7-1. Inter-related qualities of the discourse analysed in this chapter

7.2. Language socialisation lens

To systematically frame children's deployment of their linguistic repertoire and sociocultural aspects of their communicative skills in the three distinct discourse data situations, I use the six dimensional Ochs et al. (2005) model:

Activity. This chapter describes children using speech and drawing in the sand to spontaneously tell personal narratives. This kind of sand talk exemplifies a communicative practice found in Arrernte and other Central Australian language groups, especially among women and girls. The Eastern and Central Arrernte dictionary (Henderson & Dobson, 1994, pp. 105, 369, 573) includes these entries about this activity:

***altyerre ileme** tell a story (in a particular way), especially when young girls tell a story while drawing it in the sand. The stories might be about anything, not just from the Dreaming.*

***impatye** n. ... 2a. a mark or design on something. Arelhe tyerrtyele impatye ahelheke mpwaremele ayeye ileme ampe akweke yanhe areyeke arrentye akngerre-apenhe anthurre rarle akwele ularre-atheke apetyeme akerte. That person is making marks on the ground and telling stories to the little children about a big monster that suppose to be coming this way.*

***tyepetye** n. ... 2. patterns drawn on the ground by women while telling stories.*

Participation frameworks. The recordings are made in three different participant frameworks. In one video, two girls collaboratively tell a story. In a further three separate recordings, girls each tell their own story. And in one recording, an adult teaches three girls about her life as a child.

Habitat. The participants sit on the ground to tell their stories. It was easy to find places suitable for making the recordings. The dry, soft, sandy soil offers a medium to complement speech as a mode of communication.

Artefacts. In addition to the sand itself, the narrators use a stylus (a stick, a bone, or a piece of wire), as well as their fingers and hands, to create images and swipe in between story scenes. Each stylus was simply found and picked up from the ground at the time of recording.

Semiotic repertoires. The children complement their speech with visuo-spatial communicative resources to tell their stories. They draw in aerial view using a set of conventional Arrernte icons and graphic schema, and use the stylus for pointing to places they refer to. They also draw some ‘Western’ style images.

Ideologies. Several language ideologies come together in the data for this chapter. Firstly, recording children’s sand stories was suggested by C11’s mother. She drew my attention to this activity because she knew I was interested in children’s language, and considered it to be an emblematically Arrernte way of communicating; an example of *feelings of linguistic and cultural uniqueness* associated with speech activities where *linguistic signs themselves gain special salience* and where *language is stretched out and put on display* (Epps et al., forthcoming). Secondly, C11’s mother encouraged the girls in the first recording to tell a *scary story*, and we then used this as the theme for the subsequent recordings. This turned out to be another fruitful suggestion because it revealed the importance of monsters, known to community members of all ages. Thirdly, travel/journey themed stories are highly valued – not only in traditional narratives but also in anecdotes, personal histories, stories created for school programs (Wilkins, 1991, p. 216). The narrators in this chapter use travel/journey notions and encode community-valued location and direction information in speech, drawing and gesture.

7.3. Literature review

The literature for this chapter covers spontaneous first-person narratives, monsters and multimodal communication in the sand (Figure 7-1).

7.3.1. Spontaneous first-person conversational narratives

Children acquire narrative practices that are unique to their speech communities. Personal narratives are culturally organised, and act as mechanisms for socialisation. An early study in this area is Heath’s (1982, 1983, 1986) well-known description of discourse patterns in white/Anglo middle- and working-class families and African American working-class families in the Piedmont region of Carolina in The US. Although all speakers of the same language (English), each social group has distinct ideologies

regarding child rearing, adult-child interactions, and ways of telling stories and recounting events. For example, truth, plain explanations and self-denigration are valued in personal narratives in working class white families, while embellishment, imaginative additions and self-aggrandisement are encouraged in personal narratives in working class African American families.

Personal experience stories embedded in routine conversation are a means for social construction of self and a site of socialisation for the *culture-acquiring child* (Miller et al., 2012; Miller & Moore, 1989; Miller et al., 1990). Using recorded conversations in families in multicultural areas of Baltimore and Chicago, Miller et al. (1990, p. 296) differentiate tendencies in conversational narrative practices of various linguistic and social groups, including German, Polish, Irish, Italian, Chinese, African-American, Appalachian. Children from these different backgrounds come to understand and express themselves, through caregivers telling personal narratives about them in their presence, caregivers intervening in children's storytelling, and children appropriating other people's stories as their own. For example, parental interventions in children's narratives in a Mandarin speaking family are more strongly characterised by explicit reference to moral rules and transgressions, and expectations on children to reflect on normative behaviour relevant to the personal stories they tell. Thus, personal narratives are *situated socializing contexts* through which patterned messages are communicated (Miller & Moore, 1989, p. 431; Miller et al., 1990, p. 294). They are one aspect of the *culturally constituted* environment children grow up in (Miller & Moore, 1989, pp. 438, 444).

The structure and function of narratives are culturally specific, deal with core issues of value and concern to a speech community, and are a means for transmitting knowledge and behaviour codes to younger generations. In contrast with Anglo-Western storytelling practices, Pitjantjatjara-Yankuntjatjara oral narratives are structured in ways that engage children in notions of journey and knowledge of Country (including attention to physical setting, spatial and directional details), and emphasise collectivity, mutual responsibilities and ties amongst family members and the totemic world, and risks and consequences of not acting in a right or *straight* way (Klapproth, 2004, pp. 219-307, 323-327, 337-338, 353-354). Some of these themes and concerns are broadly shared in other Aboriginal language groups.

In urban and regional Western Australia, conversational and narrative discourse of Aboriginal children form a corpus analysed in a set of studies by Malcolm and Rochecouste (2001), Malcolm and Sharifian (2002, 2005), Sharifian (2001), Sharifian, Rochecouste, and Malcolm (2004). The analysis is informed by schema theory, to identify culturally valued themes. The five schema listed below dominate the

data, two of which (travel, scary things) also characterise the narratives analysed in this chapter. The authors highlight strengths in the communicative competence of the children, who primarily speak a variety of Aboriginal English. Their personal narratives represent their social experiences and continuity of culture, despite shift from their traditional languages.

Travel schema: the representation of the experience of known participants, organized in terms of alternating travelling (or moving) and non-travelling (or stopping) segments ...

Hunting schema: the representation of experience of known participants, organized with respect to the observation, pursuit and capture of prey, usually entailing killing and sometimes eating it. ...

Observing schema: the representation of experience, usually shared experience, in terms of observed details, whether of natural or social phenomena.

Scary things schema: The representation of experience, either first-hand or vicarious, of strange powers or persons affecting normal life within the community and manifest in the expression of appearance and disappearance or seeing or not seeing/finding evidence of the phenomenon in question.

Family schema: The representation of experience in relation to an extended family network. (Malcolm & Sharifian, 2002, p. 174).

Ochs and Capps (2001, pp. 61-62) identify five areas of research to date on everyday conversational narratives, each associated with a gap in the literature: (1) children's ability to produce narratives as monologues rather than as narrators who also have input and feedback from interlocutors; (2) narratives of noteworthy rather than daily events; (3) narratives that are self-contained rather than embedded in surrounding discourse; (4) narratives that depict events transpiring in a single temporal and causal path rather than less linear narratives that may be fragmented by interruptions or emergent narrator thoughts in progress; (5) narratives with a constant moral stance taken by the narrator rather than ones in which he/she is reflecting on events and still forming opinions. They also note that most developmental studies in this area still tend to be based on white, middle-class, English-speaking populations.

In response to these imbalances, Ochs and Capps (2001, p. 62) argue for more research on ordinary accounts of life events over polished narrative performances; and on how children from a wider variety of linguistic and cultural backgrounds gain skills for talking about events. Regarding dimension (1) above, Ochs and Capps (2001, p. 24) emphasise the need to investigate the range of communicative resources that narrators use to *bring events to life*, e.g. talk, print, visual representation, gesture, body orientation, movement, facial expressions. This chapter makes a contribution to these calls by describing children's competencies in a less-researched language, and in which narrators use semiotic resources and modes in addition to speech.

7.3.2. Monsters and similar beings

Since *scary story* is the theme of the recordings analysed in this chapter, literature on monsters (and similar beings) in Central Australian Aboriginal communities is an important component of the sociocultural context and interpretation of the data (Figure 7-1). Anthropological studies provide accounts of the ever-present *truth value* and *reality status* (Eickelkamp, 2014, pp. 61-62) and *sheer facticity* of monsters in people's lives (Morton, 2014, p. 79). These beings have various forms, and travel through landscapes and communities. Their presence and movement are an important part of communities' understandings of ways the world is organised.

In Warlpiri worldviews, deeply feared *Kurdaitcha* adapt to neo-colonial times, as they have moved from the desert to settlements, they stay in hotels, drive Toyotas, and speak their own whistling language as well as Warlpiri and English (Musharbash, 2014a, 2014b, 2014c). Such adaptations in their location and behaviour are linked to people's ways of understanding the ongoing consequences of forced sedentisation, and disparities between Indigenous and non-Indigenous people's health and longevity. That is, *Warlpiri people clearly see a connection between settled life, Kurdaitcha following them to their towns, and the traumatic experience of many more deaths than ever before* (Musharbash, 2014c, p. 53). For Pitjantjatjara/Yankuntjatjara people, malignant *mamu* creatures are monstrous because they lack restraint and are characterised by self-gratification. They are also instructional because they provide a counter example to valued ways of being (Eickelkamp, 2014). Similarly, Arrernte people are vulnerable to attack by *arrentye* – evil, misshapen creatures, that are the antithesis of behaviour expected amongst community members. Stories of people who slay *Pangkelangke* – a gigantic, cave-dwelling, gorilla-like humanoid which roams the Palm Valley area – define an ideal self, aligned with moral qualities associated with kinship. (Morton, 2014, p. 76).

Arrernte people have made stories about monsters widely available, such as the ones told by Kathleen Kemarre Wallace, who grew up on her homelands, and later at Arltunga and Ltyentye Apurte (in Wallace & Lovell, 2009). Of particular relevance to this chapter is the story of Aleperentye, *a woman assassin with spirit properties* (Wallace & Lovell, 2009, p. 22). She takes children, and substitutes her own *magical* children for them in the families. If anyone harms her *replacement* children, she seeks vengeance. At night she makes a humming noise, and parents hold their children close when they hear her (Wallace & Lovell, 2009, p. 73). Such stories are told verbally and/or in the sand (Wallace & Lovell, 2009, pp. 19, 40). There are also new ways of telling them, using technology. An animation of the *Aleperentye* story became available online at the time of my May 2015 fieldtrip (Wilkins, 2015; Wills, Williams, Pardo, & Solaris, 2012). Although it was scary, it was popular viewing in the Arrernte room of the school (Figure 7-2).



Figure 7-2. Screenshot of Aleperentye story on YouTube, told and illustrated by Kathleen Wallace

Community members recognise the role of monsters in socialising children and keeping them safe. Pertame (Southern) Arrernte speaker Christobel Swan explains how the presence of *Pangkelangke*

leads parents to warn children not to stray far: *the Pangkelangke would take the children playing in the creeks or sandhills at night. The man would wait for the kids and then grab them and run off. Mum and Dad were always careful with us* (in Morton, 2014, p. 79). In the Arandic children's story *Angkwereye, angkwereye* (Elder Sister, elder sister), the main protagonists are two sisters and a much-feared *kurdaitcha* who is known for inflicting punishment. The story *reinforces the dangers of being alone and the unpredictable incarnations of malevolent characters* (Green & Turpin, 2013, p. 358). In communities in the Ngaanyatjarra lands, *Mamu tjuma* (stories about monsters or scary spirits) are told by carers as a means of disciplining children and steering them away from places they shouldn't go (Kral, 2012, p. 52; Kral & Ellis, 2008, p. 157).

Compared with these studies, the scary stories in this chapter are instead produced by children themselves. The young storytellers recount events about monsters (and similar beings) at Ltyentye Apurte, and that adults talk about amongst themselves and with children. The children have their own experiences and knowledge of these beings, and their stories can be characterised as non-fiction.

7.3.3. Multimodal communication in the sand

The stories in this chapter are all told multimodally, combining speech, drawing and use of stylus. This is the third feature of the data and underpins the analysis (Figure 7-1). In Central Australian communities, people's habit of sitting on the ground and the availability of dry, sandy soil facilitate drawing as a common accompaniment to speech (e.g. Green, 2014, p. 2; 2016, p. 312; Munn, 1973, p. 58; Nash, 1998, pp. 1-2; Watson, 2003, pp. 74-76; Wilkins, 1997a, p. 2). Gesture and conventionalised hand signs are often used too, creating richly multimodal discourse. As the literature reviewed here will indicate, sand talk is not a singular communicative practice. A variety of genres also differ according to the number of people involved (solo, pair, small or large group), the participation style (performance, collaboration, competition) and which visuo-spatial communicative resources are used (drawing and/or gesture-sign).

Most investigations of multimodal communication in the sand have centred on its most elaborate genre, namely well-known narratives told by accomplished female adult narrators, a verbal art form (Green, 2014, 2016; Green & Turpin, 2013; Kral et al., 2019; McRae, 1991; Munn, 1973; Watson, 1997, 2003; Wilkins, 1997a). In Arandic language research, the sand story topics span *everyday sociality* and *ancestral reality*, from recent hunting trips to traditional narratives that detail creation of the landscape (Green, 2014, pp. 51-52). Similarly, Warlpiri women tell of events ascribed to ancestral

times, and stories of hunting, gathering, routine and ethical behaviour which are at once accounts of ancestral and present ways of life (Munn, 1973, pp. 78, 88). Kutjungka (referring collectively to Djaru, Ngarti, Warlpiri, Kukatja, Walmajarri, Wankajunga and Pintupi) women at Balgo in WA use sand talk for a wide range of topics and purposes, e.g. stories of spirit beings, the doings of family members in earlier times, imparting life skills to youth (Watson, 1997; 2003, pp. 64, 82-83).

Speech is interwoven with drawing, gesture and sign in the three-dimensional area around the speaker, as in Figure 7-3 (Green, 2014, p. 19). Narrators use the sandy ground in front of them to make and erase marks and conventional symbols with parts of the hand or implements such as sticks (in zone A), and the space around them for gestures and conventional hand signs (in zone B). And in *leaf stories*, props may be moved around to represent story characters on a theatrical stage, e.g. seed pods, sticks, leaves (Green, 2014, pp. 44-46, 87; 2016). These communicative resources are combined to build up layers in story scenes. At the end of each scene, the narrator swipes the ground clear using her hand (or a stick or story wire) before continuing to develop the story further in each new scene.

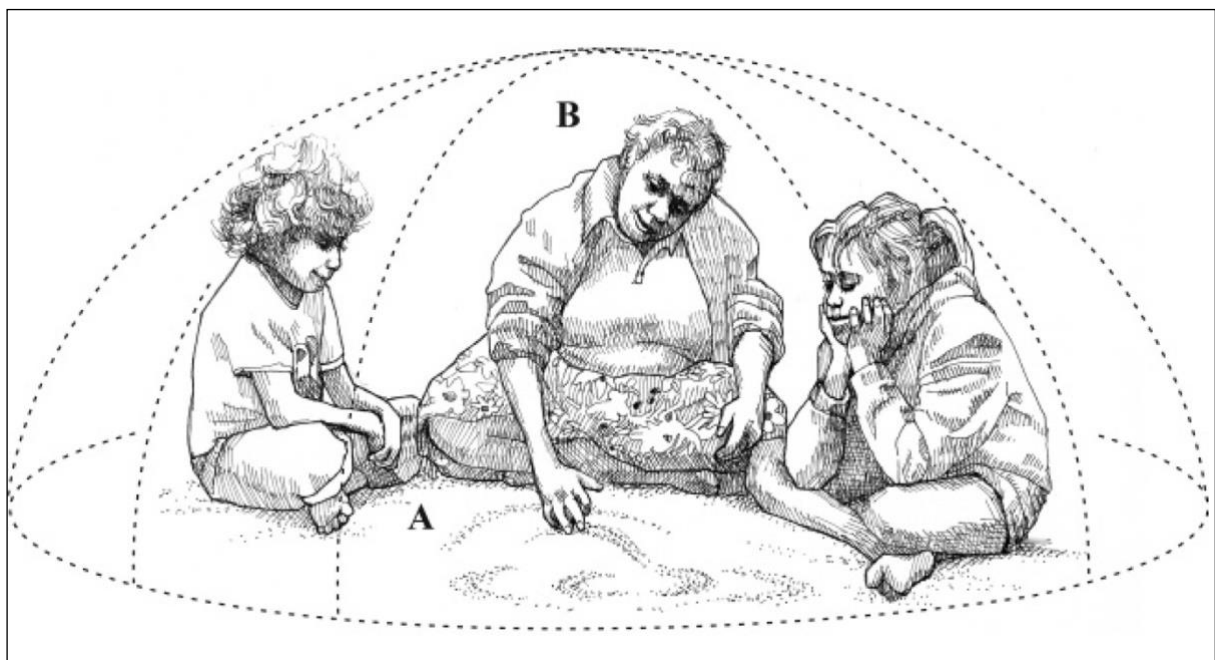


Figure 7-3. Sand stories' interlocking spatial frames. Illustration: Jenny Taylor (Green 2014, p.19)

Wilkins (1997a, pp. 6-15) establishes six spatial principles in the sign language and sand drawing of in narratives told by women to young children. These operate together as a system:

1. *Only visible features drawn (no marks of the invisible)*
2. *Things that move necessarily leave a trail of tracks*
3. *The longer a mobile entity is statically located, the deeper its “track”*
4. *The perspective on objects and events is from above, sand drawings present an aerial view of events (‘thinking for drawing’)*
5. *Things in a story representation should be oriented as they would have been in the real world. Things are represented in their absolute spatial orientation.*
6. *Episodes that unfold in a single place-time location are “tracked” into a single frame; erasure of the space signals a change of place-time location.*

Aerial perspective and absolute orientation in drawings and gesture (as in points 4 and 5) are a significant feature, and are common to other kinds of sand talk. For example, they are prominent in Warlpiri men’s preserving fixed bearings of places discussed while drawing ephemeral sketch maps on the ground, expressing their knowledge of Country (Nash, 1998). This practice often involves several active participants, using one or more semiotic systems, e.g. snatches of song or dance movement, gesture, hand sign, speech and drawing. Any given map has themes related to a particular location, such as the sites in an area, the Dreaming tracks crossing it, the creeks, floodouts, swamps and hills; the roads, tracks, fences and bores. In drawing and gesture (and also in speech) absolute terms, such as north, are preferred to relative or body-centred terms such as front/back, left/right. This study exemplifies the findings in the literature on Aboriginal languages speakers’ frames of reference and use of cardinal directions in their speech, gestures, hand signs and drawing (Green, 2014; Green & Wilkins, 2014; Haviland, 1993, 1998; McGregor, 2006; Schultze-Berndt, 2006; Wilkins, 2003, 2006).

Younger generations’ knowledge and expression of absolute spatial terms in traditional and new Indigenous languages have also been the subject of systematic research using specific elicitation tools (Dunn, Meakins, & Algy, 2021; Edmonds-Wathen, 2014, 2018; Meakins, 2011; Meakins & Algy, 2016). Children’s use of absolute frame of reference is not in focus in this chapter. Cardinal directions were not noted at the time of recording. The multimodal discourse of the children does provide evidence of their growing skills for binding their stories to actual places. There is no evidence – though also no counter-evidence – for absolute orientation in their drawings.

In most sand talk studies to date, children are over-hearers or audience members (e.g. McRae, 1991, p. 47). The stories are noted as a part of their early perceptual experience, and a skill that is developed over time, through observation, especially by girls (e.g. Munn, 1973, pp. 63-64). However, children's comprehension, production or collaboration in sand talk is less researched, apart from the following four exceptional investigations.

Eickelkamp's ethnography of Pitjantjatjara sand storytelling at Ernabella observes girls and women telling stories, with verbal, pictorial, musical and rhythmic components, usually with their own personal story wires (Eickelkamp, 2005, 2008a, 2008b, 2008c, 2011a, 2013a). Using theories of culture and psychoanalysis, Eickelkamp analyses sand talk as facilitating individual psychological development through play, and at the same time as a social process. Through playfulness and sand talk, girls make manifest their personal perspectives and experiences, and act out inner dialogue in exchange with others. Narrators have both autonomy and relatedness, a mind of their own in the company of others. Their sand talk includes domestic themes with drawings of houses, floor plans, furniture and family members. Sand story skills contribute to their uniquely Pitjantjatjara identity, continuing a long tradition, while also incorporating material from other experiences, such as stories they have been learned at school (Eickelkamp, 2008a, pp. 68, 71, 78).

Sand storytelling is among the communicative practices that comprise the language-rich environment in which children in the Ngaanyatjarra lands are raised (Kral & Ellis, 2008, pp. 158, 164). Girls acquire it during childhood, and through it understand and express social relationships. Younger generations extend this knowledge and their communicative skills to other surfaces and tools, including digital technology. In addition to Ngaanyatjarra icons, they incorporate numbers and letters into their drawing (Kral, 2012, pp. 44-47, 250-251). In the Western Desert Speech Styles and Verbal Arts Project, girls and young women adeptly transferred their ground-based *tjinytjatjunku tjuma* (tell stories while drawing in the sand) practices to the iPad context in stories about e.g. hunting trips, a community disco night (Ellis, Kral, Green, & Simpson, 2018; Kral et al., 2020).

Speech, gesture and graphic schema are combined in the Ngaatjatjarra/Ngaanyatjarra guessing game *Mama mama ngunytju ngunytju* (father father mother mother), played by women and girls sitting in dyadic and polyadic configurations (Ellis et al., 2017; Green & Kral, 2020, p. 11). Participants decode the interplay of speech and graphic clues in the sand to guess the identity of the person the game leader has in mind. Extensive sociospatial knowledge and skills are required to play well, e.g. using kin terms; representing relationships between people in drawn icons; using cardinal directions; producing

spatially-accurate aerial representations of buildings in various communities. Players employ both Ngaatjatjarra/Ngaanyatjarra and 'Western' communicative resources. While using traditional language, icons and patterns in story wire use, and swiping for scene clearing, speakers also draw school-learned alphabet symbols and codeswitch e.g. using English loan words for non-Ngaatjatjarra/Ngaanyatjarra items and concepts.

Wilkins (1997a) uses the six spatial characteristics of adult sand stories (listed above), as a basis for analysing Arrernte children's production and comprehension of drawings on paper. Children's own artwork and their interpretation of drawings produced by other people show how they use both 'Western' and traditional image conventions to represent and interpret two-dimensional images of three-dimensional objects. In drawings about a bush trip, a vehicle is drawn side-on (using 'Western' drawing conventions), while the passengers are drawn in aerial view as U-shapes (using Arrernte conventions). Aerial view graphics encode additional information, e.g. infants in mothers' laps, which way passengers and driver are facing (on bench seats in a *troopie*) (Wilkins, 1997a, pp. 17-27).

Together these four research projects describe children participating in a variety of sand talk genre. The study in this chapter adds a new genre: children's production of personal experience recounts. It also offers details of their integration of verbal and non/co-verbal communicative resources, on the basis of transcribed video data.

Research questions

Of the research questions set for this thesis, the ones that feature in this chapter are emphasised in bold here:

1. **What are the language repertoires of the children in this study?**
2. **How do they deploy their linguistic repertoire and communicative skills in three sample contexts:**
 - telling narratives, prompted by four textless picture books
 - **giving spontaneous first-person recounts, told in the sand**
 - learning mainstream curriculum content, in a classroom setting.
3. Given concerns about language shift, what are some morphosyntactic properties of the children's Arrernte?
4. **What are some sociocultural dimensions of the discourse and interactions in the data?**

7.4. Analysis

The analysis in this chapter is informed by Jenny Green's multimodal framework (2014, 2016), which was designed for describing interplay amongst the kind of semiotic systems typically found in sand stories in Central Australia. It was developed through work with a group of highly accomplished female adult narrators, speakers of Arrernte, Kaytetye and Anmatyerr, each telling stories as monologues (Green, 2014, pp. 6, 247). It supports investigation of how these stories work as multimodal practice, i.e. speakers' dynamic weaving together of spoken, signed and graphic elements *in the moment-to-moment unfolding of a narrative event* (Green, 2014, p. 93).

In Green's approach, speech is segmented according to intonation units, while visual frames are segmented according to units of visible body action (Green, 2014, pp. 32-33, 75-79). Visual frames are determined by erasure of the drawing space by the narrator. Within any given visual frame, a narrator may draw, gesture or sign, then continue to draw again. (Green, 2014, p. 78; 2016, p. 312).

Speakers use a common set of basic graphic elements such as lines, dots, circles, ovals, arcs (e.g. see inventories in Green, 2014, pp. 106-111, 119, 121; McRae, 1991, p. 95; Munn, 1973, pp. 64-67; Watson, 2003, pp. 88-108, 303-335; Wilkins, 1997a, pp. 5-13). This set can be expanded in a number of ways: graphics have more than one meaning (e.g. a circle may represent a waterhole or a tree in aerial view); elements drawn in various sizes in relation to others in a scene; lines of different lengths signify people's age, size or social status; items pluralised through multiple marks. The same range of icons is also used in other contexts, e.g. ceremonial body painting and dance, contemporary artworks.

Kinesic actions in sand stories range from idiosyncratic gesticulation through to the conventionalised co-speech manual signs used in communities on daily basis; and fully elaborated in communication by women observing a speech taboo (Green & Wilkins, 2014; Wilkins, 2003, p. 180). Gesture (including pointing) and hand signs are not completely distinct; they are better considered as on a continuum from non-formalised to fully formalised.

Categorising actions in sand stories is not straightforward, e.g. drawing marks in the sand can be the result of gesture or sign actions (Green, 2014, pp. 16, 75). Similarly, some speech can be song-like and some song can be speech-like (Green, 2014, pp. 196-197). Due to such overlaps and complexities, Green collapses gesture-sign and drawing into the broader kinesic/visual modality, and speech and other uses of voice into the broader vocal/auditory modality (Table 7-1).

Modality	Vocal/Auditory modality	Kinesic/visual modality
Semiotic 'system'	Spoken language Song language Spoken language registers such as 'avoidance' or respect language	Sign language Gesture Graphic schema Manipulation of story artefacts or props

Table 7-1. Modalities and semiotic systems used in sand stories (Green, 2014, p.11)

Thus, the communicative signals are paired according to how each is encoded by the producer and perceived by the interlocutor. Semiotic resources available in the vocal/auditory modality are song, rhyme, poem, chant and speech, including special registers such as avoidance or respect language. Semiotic resources available in the kinesic/visual modality are sign, gesture, graphic schema, manipulation of props, such as leaves and sticks, to represent story characters.

Speech and drawing are the dominant resources produced by the children in the data in this chapter. In the vocal/auditory modality, they do not use song or chant. However, these semiotic resources are more associated with traditional narratives, so their absence is not unexpected in the first-person accounts in this study. In the kinesic/visual modality, there is no use of conventional manual signs. However, the data does include some use of gesture, e.g. using the stylus to point to relevant places. These are discussed in each relevant example in findings § 7.5. below.

7.4.1. Data

My initial research plans did not include recording in a sand context, but the opportunity arose serendipitously. Each recording was made with just one camera on a tripod, angled to capture at once the two viewpoints identified by Green (2014, pp. 72-73).²⁶

²⁶ Green (2014, p. 74) developed a sophisticated approach in which two cameras are used to fully capture both viewpoints in the three-dimensional spatial field. One camera points vertically down, suspended above the speaker, attached to a piece of wood on a garden ladder or lighting stand. This records her use of the drawing space from directly above. The other is on a tripod on the ground in front of her, to record gestures and hand signs.



Figure 7-4. Video recording screen shot: C23 (left) and C11 (right).

The recording in Figure 7-4 was made during fieldtrip 2, May 2014. The full recording is 12mins, 4secs. The scary story component is 4 mins. The camera was well-positioned, the frame fully capturing each girl's drawing area. C11 (aged 8;0) and C23 (aged 8;0) are absorbed in their story world, while C11's mother and I are off camera.

Throughout the recording C11 and C23 sit cross-legged facing each other. C11 uses a sturdy piece of wire and C23 uses a bone as stylus, both picked up from the house yard. They each draw in their own space independently. Although their story involves overlapping talk and floor management, the girls echo and extend each other's ideas, synchronise the content of their story, and construct the plot collaboratively. C11 and C23 each rest their stylus at times. In this way they concentrate on their speech only, or spend time listening and watching the other.

This is the longest of the recordings. The girls cover topics related to school, home and after-school activities, e.g. classroom floor plan and arrangements, children's desks and sitting places, listing names of classmates and teacher, routines such as lining up, kids fighting, playing games on the oval, cubby house, floor plan of rooms and furniture at home, who sleeps where, listing family members, kids outside looking for caterpillars, climbing trees. In an intervention in the recording, C11's mother asks:

7.1 Scary story ɪlartaye? Any scary story, or arrangkwe?

How about telling a scary story? Can you tell a scary story, or not?

This stimulates a new direction for the girls' speech and drawings. Both make a full swipe, and a jointly created narrative begins. Their scary story is a discrete text within the whole recording. It is the focus of the analysis in this chapter, and inspired me to request a scary story from C01, C06 and C14.



Figure 7-5. Video recording screen shots: C01 (left), C06 (middle), C14 (right)

The recordings in Figure 7-5 were made in a single session during fieldtrip 3 in November 2014. Three girls each told one story independently. All used the same stylus, a stick found on the ground nearby. C01 (aged 7;4) told a story about a mysterious light (1min 33secs). C06 (aged 8;3) told a story about an unseen being (1min). C14 (aged 9;6) told a story about a monster (3mins 14secs).

The screen shots in Figure 7-5 show the extent of the drawing area captured in the video for each girl. There is no problem with the camera position for the C06 recording. All of her drawing space is visible, and she did not draw beyond the area in the frame. The most significant problem with my recordings is that I did not position the camera well for C14, and to a lesser extent for C01. The drawing area on C01's and C14's left is fully visible in each case. However, the drawing area to their right was off-camera (especially for C14). C01's and C14's head, torso, limbs, hands and stylus are visible at all times. So interpolation of some of their off-camera drawings is possible. These are reported transparently in the findings – off-camera areas are marked in the Figures illustrating each girls' drawing. Drawings further to C14's right, that cannot be seen or interpolated, are excluded from the description.



Figure 7-6. Video recording screen shot: A04, C01, C06 and C14

The recording in Figure 7-6 was made in the same session as the three individual stories in Figure 7-5. A04 chose to give a first-person narrative about her childhood (5mins 11secs). C01, C06, C14 were her audience. At times the girls ask questions and make comments. I was behind the camera. I use this recording as a point of comparison for the child data, which is kept as the focus of the chapter.

This recording can be characterised as a teaching episode. A04 talked about which part of the community she lived in, what people wore, how old people took children walking a long way. She mentions collecting *yalke* (bush onions) and *alangkwe* (bush bananas), and walking on *lyeke* (prickles). However, most of her narrative is devoted to explaining how they would catch and cook *atywenpe* (perentie), *thipe* (birds) and *kelyawe* (dragon lizards). Sand talk for the purpose of teaching and transmitting knowledge has also been observed at Balgo, where women use graphic symbols and gestures (e.g. demonstrating hollowing out the ground, placing a seed damper inside and wood on top to cook it) alongside speech and other vocalisations (e.g. chanting, animal noise mimicry) (Watson, 1997; 2003, pp. 64, 82-83).

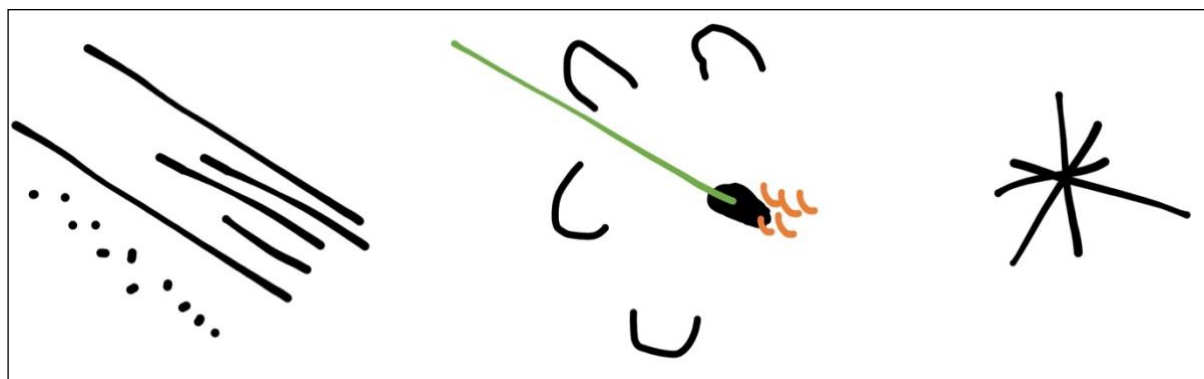


Figure 7-7. Example graphic schema in A04's sand talk

Figure 7-7 illustrates three of the schema A04 drew in the sand. While talking about walking along the creek, she defined each creek bank with the tip of the stick, then the path lines of the people walking along it, and taps/dots for the prickles that they avoided as they weren't wearing shoes. Later, while talking about catching *atywenpe* (perentie), she used the tip of the stick to mark the hole. She then used the tip of the stick to talk about digging the sand out of the hole (represented in orange in Figure 7-7). Then she drew U-shapes – a well-known icon for a stationary person – for the four people waiting around the hole, ready to catch the perentie. Finally, she drew the line (represented in green here) for the path of the perentie as it exits the hole. While talking about cooking the meat, she drew another well-known icon for fire (on the right-hand side of in Figure 7-7).

A noticeable feature of the A04 recording is how infrequently she draws, compared with the stories told by women in Green (2014, 2016). Instead, she strongly favours using the stick as a prop using it to demonstrate steps in the hunting, gathering and cooking processes. These are performed in the space in front of her and above the ground. Thus, the range of semiotic resources outlined earlier in Table 7-1 may be incorporated into some sand talk genre but not others.

I gathered ethnographic data for this chapter through conversations about monsters (and similar beings) with children and adults while we were walking or driving around the community. I also recorded two of these conversations: with four children (12 mins); with C01, C06 and C01's mother (8 mins). My ELAN file notes also store details I learned from adults during the transcribing process. All of this data uncovered for me the insider knowledge that the stories rest on, i.e. community-known monsters, sites of monster activity (Figure 7-8), local social and spatial information that the girls have incorporated into their narratives.

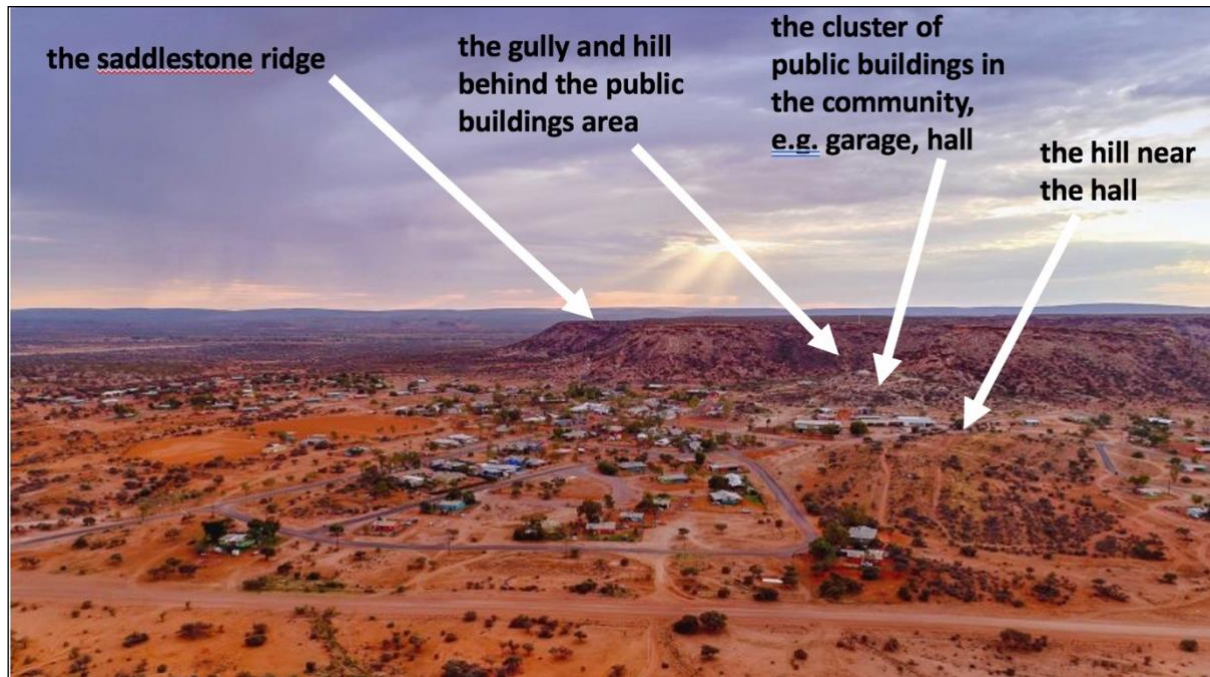


Figure 7-8. Commonly known monster active areas in/near the community. Photo: ABC News.²⁷

As set out in the methodology Chapter 3, the five tiers in each ELAN file are: Arrernte transcription, interlinear gloss, English translation, kinesic/visual resources, and notes. The kinesic/visual resources tier describes items drawn into each scene, swipes between scenes, and other uses of the stylus, e.g. as a deictic tool. The notes tier has comments and observations from Arrernte speakers who transcribed with me. I also reproduced every scene drawn by each girl, using the drawing tool in MSPowerPoint, see Findings Figure 7-9 – Figure 7-14, Figure 7-16 – Figure 7-18, Figure 7-20 – Figure 7-25, Figure 7-26 – Figure 7-39.

7.5. Findings

This description is organised according to three main categories the children use to layout their stories:

- **entities:** the protagonists (scary beings, people, dogs) and landmarks (buildings and places) where events occur
- **path lines:** the journeys of protagonists
- **swipes:** the narrators' means for navigating through the series of events in their stories, organising sequences of utterances into larger discourse units.

²⁷ <https://www.abc.net.au/news/2019-02-27/santa-teresa-community-wins-housing-class-action-against-govt/10853674>

Further, these categories illuminate **perspective taking** and **orientation** in the narratives, i.e. frontal and aerial view drawings; and how real-life locations are preserved in the narratives. Representative examples are described below, each with reference to speakers' integration of semiotic resources in the kinesic/visual and vocal/auditory modality. To begin, two examples of complete drawings are presented in Figure 7-9 and Figure 7-10. They are the most straightforward to present because they are the shortest stories in the set, and all of the drawing occurred within one frame in each case.

Figure 7-9 shows C01's drawing, the sequence in which she drew the components and associated events in the spoken narrative. It also shows the area of her drawing that was off-camera (for which observation of her torso, limbs and the visible end of the stick enable interpolation of her inscriptions in that area). In the accompanying speech C01 explains how she and others moved between a nearby hill, home and a pick-up point (also the school), all the while keeping an eye on a mysterious light. Arrows indicate the directions in which she drew the lines.

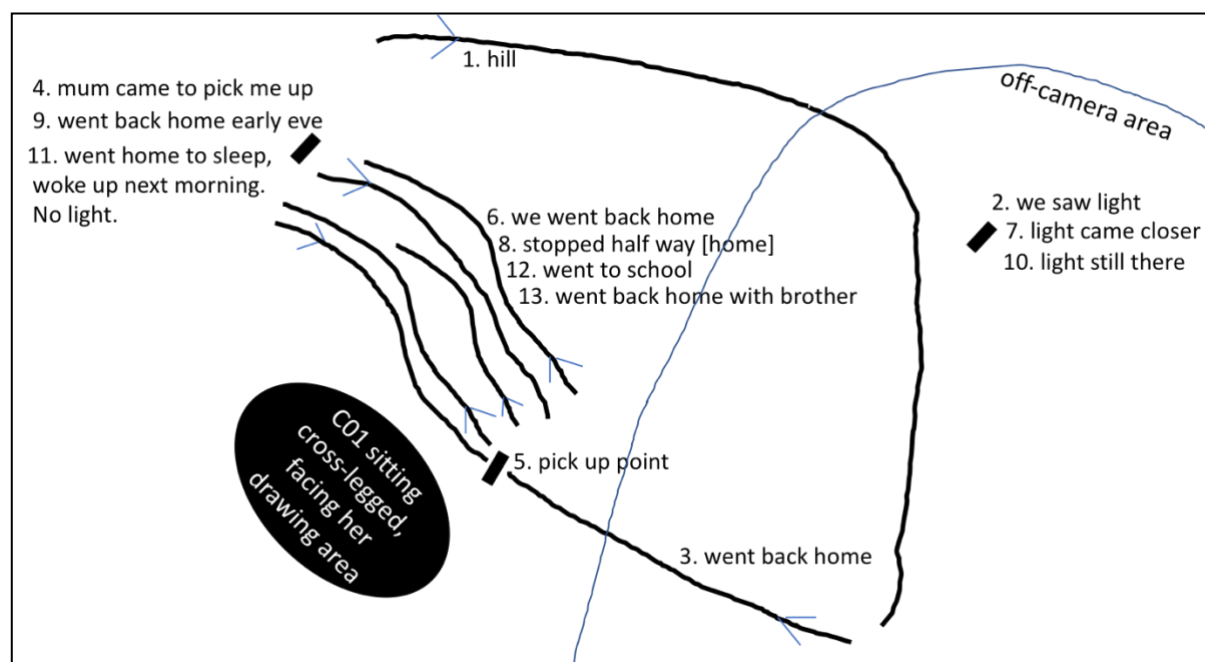


Figure 7-9. C01's drawing, numbered as each element was drawn

Figure 7-10 shows C06's drawing, the sequence in which she drew the components and associated events in the spoken narrative. All of C06's drawing was visible in the camera frame. The drawing shows the journey made by herself, her aunt and mother, the 'suburbs' they went through, the buildings they passed. These are the places she and her companions become aware of a scary being. Arrows indicate the directions in which she drew the lines.

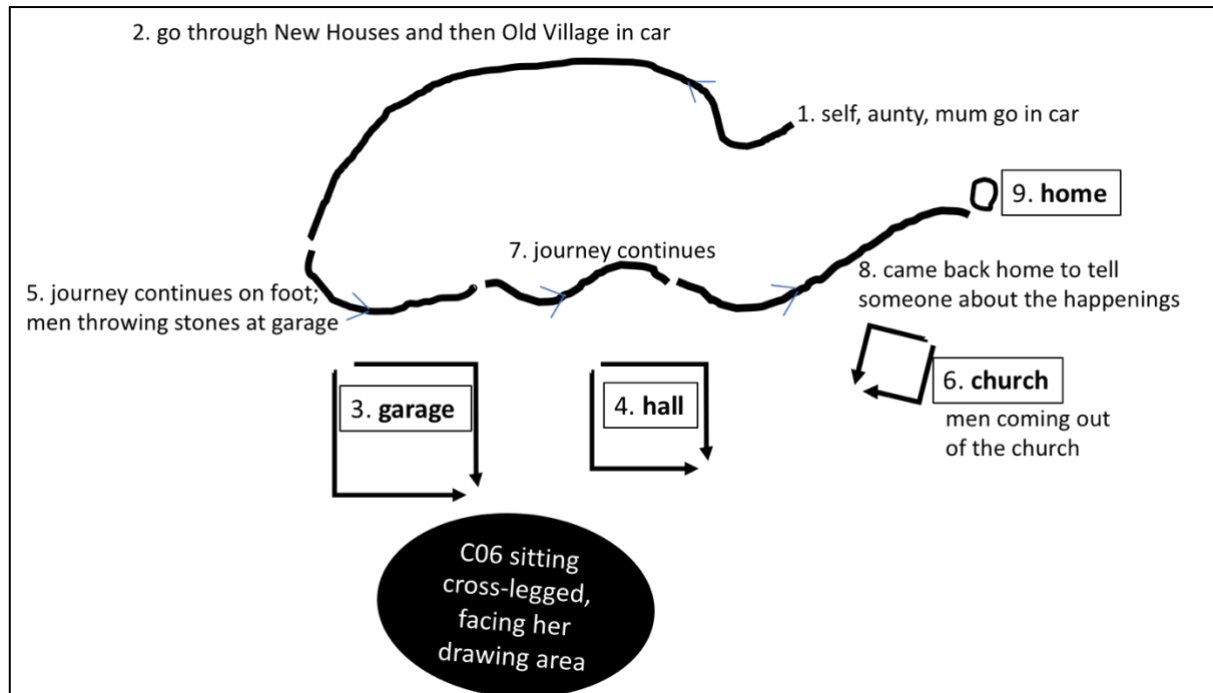


Figure 7-10. C06's drawing, numbered as each element was drawn

7.5.1. Protagonists

Scary beings, people and domestic dogs all appear in speech and drawing. The stories include these protagonists in stasis (discussed in this section) and in action (discussed in landmarks § 7.5.2. and path lines § 7.5.3. below). They provide information about three aspects of the narratives. Firstly, by incorporating people and beings that are familiar to their listeners, narrators localise their stories, and build their plots on shared knowledge of the protagonists' usual locations and typical behaviours. Secondly, statically located protagonists show narrators' preference for producing graphic symbols in Arrernte style aerial view, and also their use of 'Western' style frontal view. Thirdly, the examples show how protagonists are integrated into composite speech-drawing utterances.

Scary beings

Scary beings are a particular kind of protagonist in the stories for this chapter, sometimes drawn, sometimes not. The narrators talk about beings that are more local to Ltyentye Apurte rather than ones that are widely known in recorded and published Arandic monster stories, such as those in the literature review above.

In the opening utterance of her story, C01 draws a strange and mysterious light, noticed by many people in the community around the time this recording was made:

7.2 Anwerne arle areke pwerte akertnele light irrintye-rleuge.

We saw on top of the hill a light becoming this way. (0:05-0:13)

She draws it with the tip of the stick, marking it in the sand with a tapping motion (Figure 7-9, point #2). Later, she returns the tip of the stick to the same spot first marked in the sand twice (Figure 7-9 point #7, #10), as she narrates:

7.3 Anwerne anteme alpeke, light rarle akwele itwele irrintye-rleuge.

We went back (home), as the light was becoming closer. (0:23-0:27)

7.4 Light rarle kele tnerlane-rleuge.

The light was (still) there. (0:37-0:40)

In C01's fourth and final mention of the light (Figure 7-9 point #11), by which time it has disappeared, she does not return the stick to the spot marked in the first three mentions. Instead, she rests it on the ground near her, as she narrates:

7.5 Anwerne anteme areke, kele light ikwere arrangkwe.

Then we saw, there was no light (anymore). (0:48-0:55)

In C06's story (Figure 7-10) the unseen being is neither named verbally nor drawn. Instead, she talks of strange happenings and draws buildings, e.g. she and her companions observe a group of men throwing stones at the garage. The monster itself, however, must be pragmatically inferred. That is, some details of the plot (people's reaction to the monster) are explicitly encoded in speech and

drawing while others (the monster's presence) can confidently be left to narrator-listener shared knowledge of the garage and nearby buildings as a monster-charged zone.

The monster in C14's story is well-known. A04 described it for me as *a stumpy little old white man*, who uses a walking stick, speaks Arrernte, and lives on top of the saddlestone ridge near the community. He's been here for many years, and never dies. Not everyone is able to see him. In her story, C14 refers to him as *artwe mpwelkere akweke* (little white man), or *artwe* (man) or *re* (he). She doesn't draw him, only the journeys he makes (discussed in path lines § 7.5.3. below), and uses the tip of her stick to make a mark in the sand and localise him at the top of the tree he sits in (Figure 7-11). She also uses the tip of the stick to make marks in the sand in an arc around the tree base for the dogs who are snapping/barking up at him, as she narrates:

7.6 Kele akngwelye mapele itne akweke tree renhe anyente surroundemile-mele, uthnerlte.neke.

Then while surrounding that tree all the dogs, continuously snapped (up at him). (0:40-0:45)

C14's reference to the monster has a mysterious quality. While the people watch for the monster, it is the dogs that sense him and reveal his location (Figure 7-11).

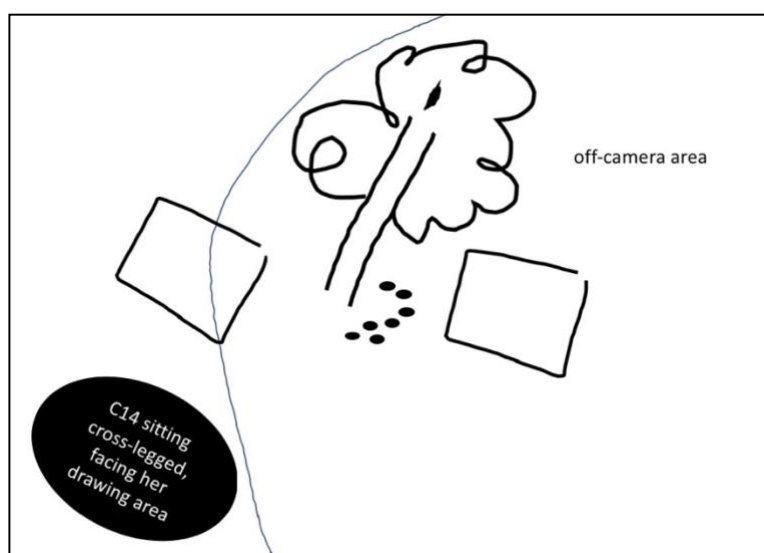


Figure 7-11. Dogs surrounding base of tree where monster sits in C14's story

In the C11-C23 story too, people and/or dogs sense the monster and react to it, e.g. see its shadow, hear it scream, run from it, snap/bark at it. Throughout their story they refer to it variously as *artwe inentye* (monster), or *arelhe ampwe artwe inentye* (the old lady monster), or *inentye re* (the monster),

or *artwe re* (the person) or *re* (he/she/it). At the start of the story, C11 describes the monster's presence as a shadow:

7.7 Anwerne scary, hall other side alheke, urreye mape anwerne, kele anwerne akwele shadow ware anteme areke nhenhe.

We were scared, went to the other side of the hall, we saw the boys, and then we saw apparently only a shadow here. (8:27-8:41)

C23 describes its presence as a noise:

7.8 Hall-nge.ntyele anwerne alpeke, anwerne anteme aweke arrangke-rlenge something re.

As we came back from the hall, we heard something crying. (8:31-8:36)

The monster is mostly narrated as unseen (and therefore not drawn), or in motion (e.g. going from place to place, discussed in path lines § 7.5.3. below), or in action (e.g. chasing people in a building, discussed in landmarks § 7.5.2. below). However, C23 does draw the monster once in stasis using the traditional U-shape icon, sitting in a chair, as part of an aerial-view scene (Figure 7-12). At this point in the story, it seems to have human form and is lurking near a teacher's house, as C23 narrates:

7.9 Apmerenge anteme lounge chair akethenge anemele nhakwenge artwe anetyame.

At (Jane's) house that man was sitting over there on a lounge chair outside. (9:43-9:51)

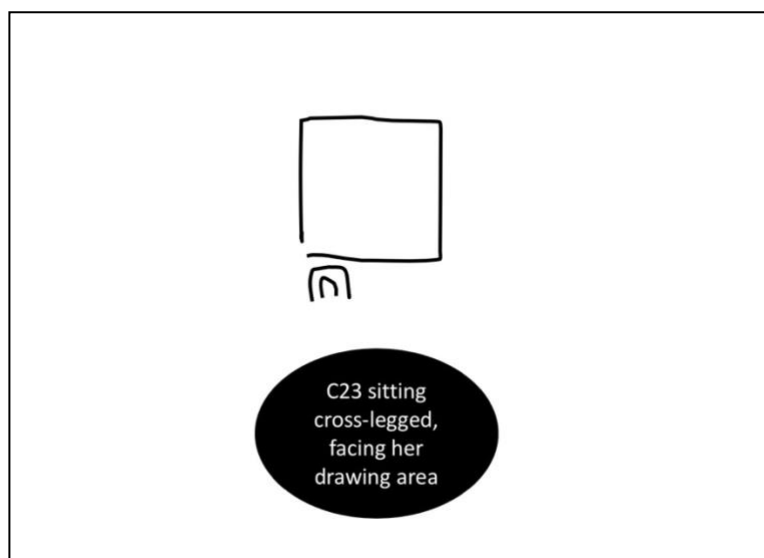


Figure 7-12. C23's drawing of the monster at Jane's house

People

For stationary people, the narrators draw the human figure predominantly according to the conventions of their home culture (U-shape, stroke symbols), but also incorporate conventions from the dominant culture (stick figures). The use of both is consistent with Wilkins's (1997a, pp. 19-25) observation 25 years ago, that Arrernte children are able to merge two traditions due to contact with Anglo-Australian culture.

Stationary people appear in C14's, C11's and C23's speech and drawing (discussed in this section). The people in C01's and C06's stories are not stationary (Figure 7-9 and Figure 7-10), and so are not drawn as U-shape or stroke symbols. They are instead named in speech, and represented visually in drawings of their journeys and/or particular places where they are involved in events (discussed in path lines § 7.5.3. and landmarks § 7.5.2. below).

C14 drew stationary people in her story in two ways – using conventionalised symbols for people lying asleep and for listing people (in Figure 7-13 and Figure 7-14). She establishes houses near a tree, and then uses the tip of the stick to add strokes for lying-sleeping people (Figure 7-13), as she names each family member sleeping at the end of one evening of keeping watch for the monster:

7.10 Anwerne mape ankwe aneke. Nana ayenge nana anwerne ankwirreke, Mummy ante daddy atyenhe ante mamame akweke atyenhe.

We all slept. Nana and I we went to sleep, my mum and dad and my little uncle (slept too). (0:45-0:52)²⁸

²⁸ A04 noted adults would use the dual *ilerne* (1dIS/A) rather than plural *anwerne* (1pIS/A) here.

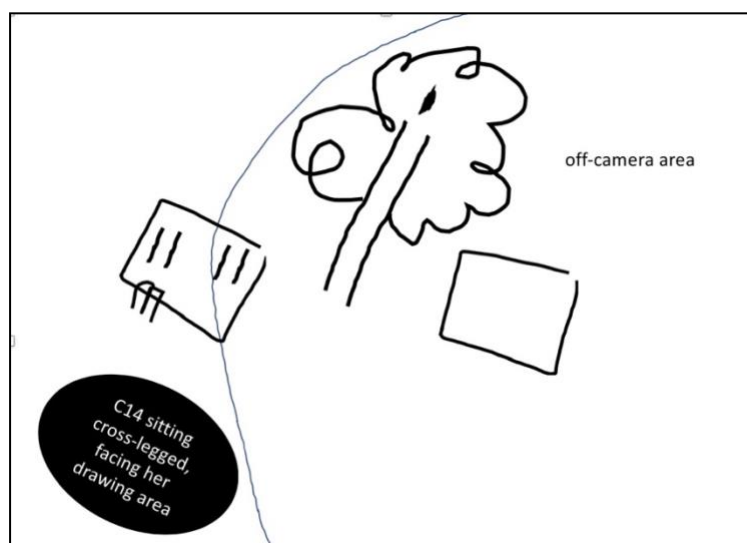


Figure 7-13. Lying-sleeping people strokes in C14's story

Later in her story C14 again draws strokes (Figure 7-14), this time to list each person who is *talking* story near the trampoline in her family's house yard:

7.11 Nana atyenhe, Jonsey, mummy ante nana Mia anwerne mape aneke. Ante mamame atyenhe Anya, anwerne mape 'round anerlte.neke.

My nana, Jonsey, mummy and nana Mia us mob were there. And my uncle Anya, we were all sitting around. (1:30-1:39)

These are the people who C14's aunty Jodie comes to talk to about Baxter's overnight observations of the monster. The symbol for lying-sleeping people has the same stroke form but different meaning from the listing people icon. C14 uses it to express both meanings in her story (Figure 7-13 and Figure 7-14).

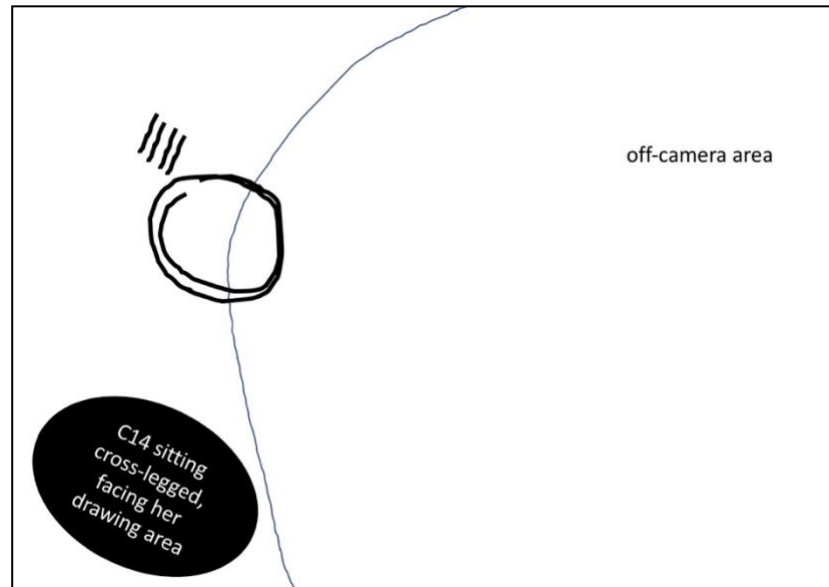


Figure 7-14. Tally strokes for listing people (near trampoline) in C14's drawing

Neither C11 nor C23 draw people as stationary figures in their scary story. However, earlier in the recording, before the scary story begins, when C11 and C23 are talking and drawing about school, both girls produce Arrernte U-shapes and 'Western' stick figures in various scenes, e.g., for groups of children in a lesson or lining up outside a classroom.

7.5.2. Landmarks

All landmarks in the narratives are in/near the community. They are either natural features (hills, ridge, tree) or in the built environment (buildings, trampoline). Narrators inscribe them in the sand or use the stylus to point to them (in the real world or in the story world scene). Landmarks in speech and/or drawing provide information about three aspects of the narratives.

Firstly, by setting scenes in places familiar to their listeners, narrators localise their stories (Figure 7-8). Shared knowledge of the places fulfills a pragmatic role, important for interpreting events in the stories. Secondly, landmarks indicate narrators' perspective taking and orientation. As with protagonists, landmarks are drawn mostly in aerial (and sometimes in frontal) view, i.e. using both Arrernte and 'Western' conventions. When drawn in aerial view, landmarks show narrators' knowledge of the layout of the community and surrounds. Thirdly, landmarks inform an understanding of how drawing and speech are integrated. They are sites of action, locations for key events in the plots. Narrators' speech about events is hinged onto the drawn locations. In this way landmarks

function as **event-sites**. Drawn landmarks enable speakers to package events in spoken narrative with their inscriptions in the sand.

In C01's narrative, neither her home (Figure 7-9, point #4, #9, #11) nor the pick-up point (Figure 7-9, point #5) are drawn as buildings in either aerial or frontal view. However, they are consistent points in her story. For example, 'home' is where her mother comes from to pick her up, and where they then return to together. For this part of the story C01 places the tip of her stick in the 'home' spot, and draws path lines to and from it, as she narrates:

7.12 Anwerne anteme apetyalpeke apmerewerne. Mummy atyenhe anteme apetyeke, ayenge pickemupile-tyeke. Anwerne anteme alpeke.

We all came back home. Then my mum came (from home), to pick me up. And we went back (home again together). (0:15-0:24)

Later in her story (Figure 7-9, point #11) C01 uses the tip of the stick to toss up sand in the 'home' location, as she narrates:

7.13 Anwerne anteme earlyke anwerne anteme alpeke apmerewerne, intetyeke. Anwerne anteme early akemirreke. Anwerne anteme areke, kele light ikwere arrangkwe.

We went back home early, to sleep. And we woke up early (the next day). Then we saw, there was no light (anymore). (0:43-0:55)

Both her stick and gaze are on the 'home' point in her drawing. The landmark functions as an **event-site**. Each modality carries different information: C01 coordinates the stick to convey the site, and speech to convey the protagonists and their actions at the site (sleeping overnight, waking the next morning, looking for the light).

The landmarks in C06's story are two 'suburbs' in the community (New Houses and Old Village), the garage (the Shire Council's vehicle storage and repair workshop), hall, church and home (Figure 7-10, point #2, #3, #4, #6, #9). She mentions the suburbs verbally but does not draw them. The protagonists pass through them, but no events occur there. She does draw the buildings though, in aerial view, and verbally narrates actions of people there:

- 7.14 We bin walk, artwe mape pwertele werlenge, garage.
As we walked, a group of men were hitting the garage with stones (0:23-0:27).
- 7.15 Ante artwe arrpenhe mape arle kele church-nge.ntyele churchnge. Something irrerne.
And another group of men were coming out of the church. Something just happened (there).
(0:28-0:35)
- 7.16 Kenhe anwerne mape apmere-werne apetyalpeke. We bin go iletyeke anteme. 'Someone mape imarte tnetyame, nhakwe we-mele, garage'.
But we came back towards home. We went to tell someone (about the strange happenings). (We said) 'Then a mob of people were standing over there chucking (stones) at the garage'. (0:35-0:48)

In this way the landmarks in C06's story are **event-sites**. She coordinates her drawing and speech; each modality carries different information. She doesn't draw the people or the events (throwing stones, exiting the church, telling people at home about the strange happenings). Instead, the drawn landmarks act as focal points when packaging the event details in speech.

In C14's story, the landmarks are a saddlestone ridge, tree and trampoline. The ridge is significant because it is where the monster is from (Figure 7-8). It is located on the edge of the community, walking distance and easily seen from the place where the recording was made. C14 uses the stick to point up to it, over her left shoulder, as she narrates:

- 7.17 Akertnenge nhakwarenye um, saddlestone nhakwarenye artwe akweke mpwelkere akweke.
The little white man from up over there um, from the saddlestone ridge. (0:27-0:33)

Figure 7-15 shows the pointing that accompanied this utterance in in her story. Arrernte speakers expect manual points to be absolutely oriented, conveying accurate cardinal information about bearings and location (Wilkins, 2003, pp. 188, 211). C14's point correctly indicates the location of the monster, and connects the story space to the community. However, it isn't evidence of absolute spatial orientation because in this case the referent is clearly visible.



Figure 7-15. C14: stick at rest, pointing to the saddlestone ridge behind her, at rest again

C14 draws two of her family's (neighbouring) houses in aerial view using the tip of the stick (Figure 7-16). The first one is drawn as she narrates:

7.18 Tree anyente nhenhe anwernekenhe apmere aneke.

There was one tree here near our house. (0:15-0:18)

It is from this house that her mother's brother is watching the tree, looking out for the monster. He is not the only one doing so. Another uncle looks at the same tree from the neighbouring house, drawn by C14 as she narrates:

7.19 Re atyernerlaneke apmere arrpenhe-nge.ntyele.

He (my uncle) was peering from another house. (0:33-0:36)

C14 also draws into this scene, the tree that her uncles are watching, and in which the monster is sitting. As she draws it, she narrates:

7.20 Arne re kenhe arne re kenhe alakenhe aneke like, fluffy wan akweke alakenhe. Tree akertnge re areke.

The tree was like this, it was a little fluffy one like this. He (the monster) looked down from the tree. (0:18-0:26)

She creates a 'Western' style drawing, with multiple circular-type motions for the foliage, and straight lines for the trunk. She uses the word 'fluffy' as she draws, suggesting a lot of foliage. She uses the tip of the stick to indicate the monster is sitting in the top of the tree (Figure 7-16).

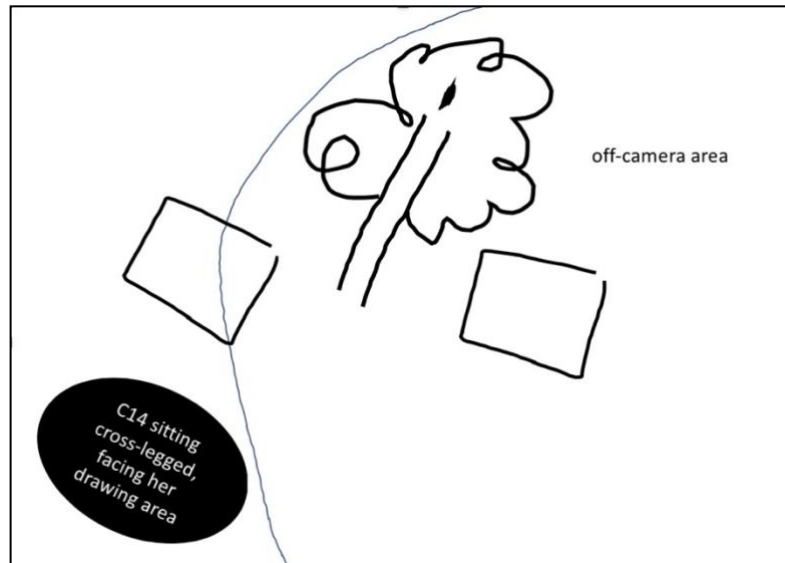


Figure 7-16. Houses and tree landmarks in C14's story

C14 refers to the same tree again, in a different scene later in her story. Now it is her Nan who has been awake during the night, keeping an eye on the tree that the monster comes and goes from. C14 draws the tree next to one of the houses, both in aerial view, as she narrates:

7.21 Kele next day anteme anwerne mape akemirreke treewerne, Nan-le tree renhe akwete arerlaneke.

And the next day we all woke up to the tree, Nan was still watching it. (2:41-2:48)

As she talks, C14 traces over the house and tree several times.

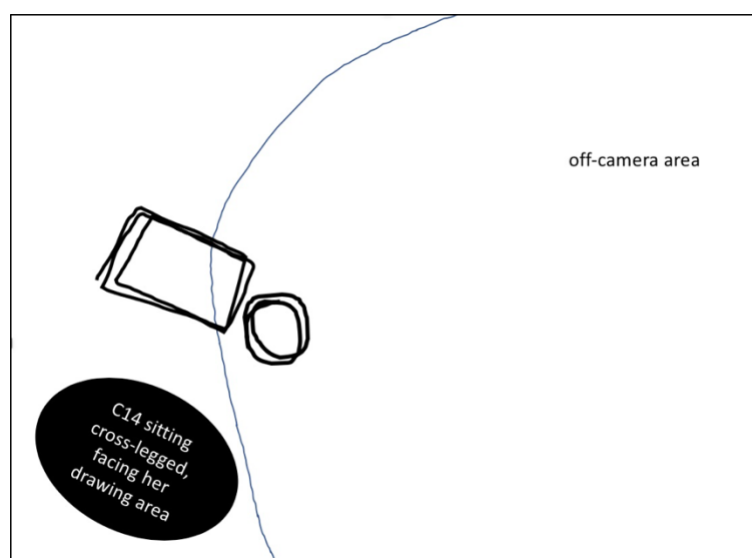


Figure 7-17. House and tree in aerial view in C14's story

The different ways C14 draws the same tree in her story exemplifies the perspective options available, and the meanings conveyed by each. C14's first tree drawing clarifies and expands her verbal description of its appearance. She achieves this with a frontal perspective drawing (Figure 7-16). Her second drawing locates the tree in relation to a house, thus showing where her Nan was watching the tree from. She achieves this with an aerial perspective drawing (Figure 7-17).

The trampoline in C14's family's house yard is another an important landmark. It is where she and other family members are sitting together when her aunt Jodie comes to tell them about Baxter's observations of the monster the previous night. C14 draws the trampoline as a circle in aerial view, tracing it around twice, as she narrates:

- 7.22 Anwerne mape trampolinenge aneke.
 We were all near the trampoline. (1:28-1:29)

After drawing the trampoline, she names the people who were all sitting there (as discussed for Figure 7-14). This is followed by a swipe and then C14 draws the trampoline again (Figure 7-18). This time she traces over it with several circular motions, and modifies her voice for direct speech to convey Jodie's telling everyone near the trampoline what had been happening:

- 7.23 Re story ileke, 'Ah kake Baxterle akwele arerlaneke. Yekwe saddlestone-arenye akweke akwele.
 Apmere-werne apetyeke'.
 She (Jodie) told us the story, 'Ah brother Baxter was still watching (the monster). They say he (the monster) was from the saddlestone ridge you know. He (the monster) came to the house'. (1:38-1:47)

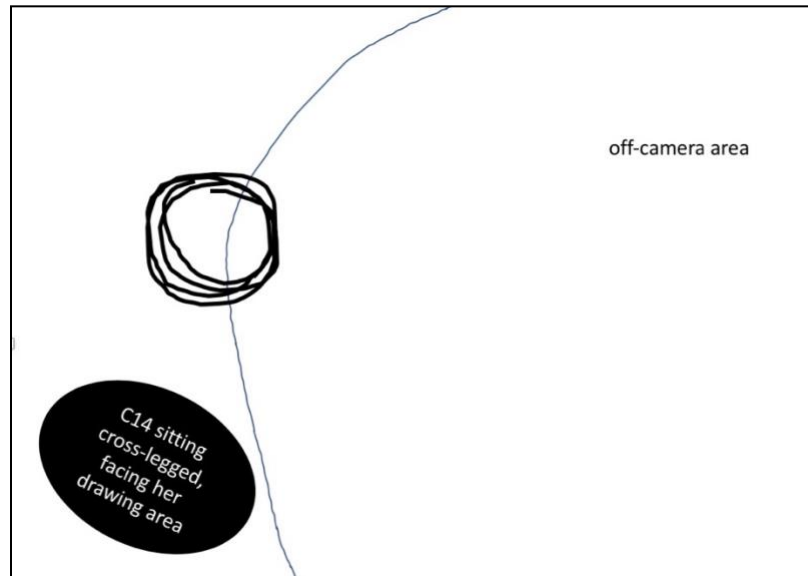


Figure 7-18. Trampoline landmark as event-site in C14's story

Next, a different person in the group told another part of the story. C14 retells this part too, which is about a chase. The monster (*emu akweke arteke gallop anthurre irreke* (ran like a little emu)) when chasing uncle Anya, but then became to one who was chased, as all the men started to pursue the monster. C14 stops drawing as she narrates this complex, action-packed scene. She does not draw any new elements into the scene in Figure 7-18. The trampoline continues to be the point of reference, while C14's speech conveys details of stories told by other people.

To summarise, the landmarks in C14's narrative, the saddlestone ridge is the known home of a known monster, while the houses, tree and trampoline all function as **event-sites**. These three locations are drawn, while speech conveys the happenings at each of them, i.e. her uncles and Nan watching the tree from the houses, and family members 'talking story' together while sitting near the trampoline. The resources in the vocal/auditory and the kinesic/visual modalities carry complementary information.

The landmarks in the C11-C23 story are a particular hill which is another known monster-active area, and the nearby community hall and teacher housing. They are in a concentrated area, as shown in Figure 7-19 (and Figure 7-8). Although each narrator contributes new ideas to the plot, they align them with already established places, keeping the same locality tightly in focus.

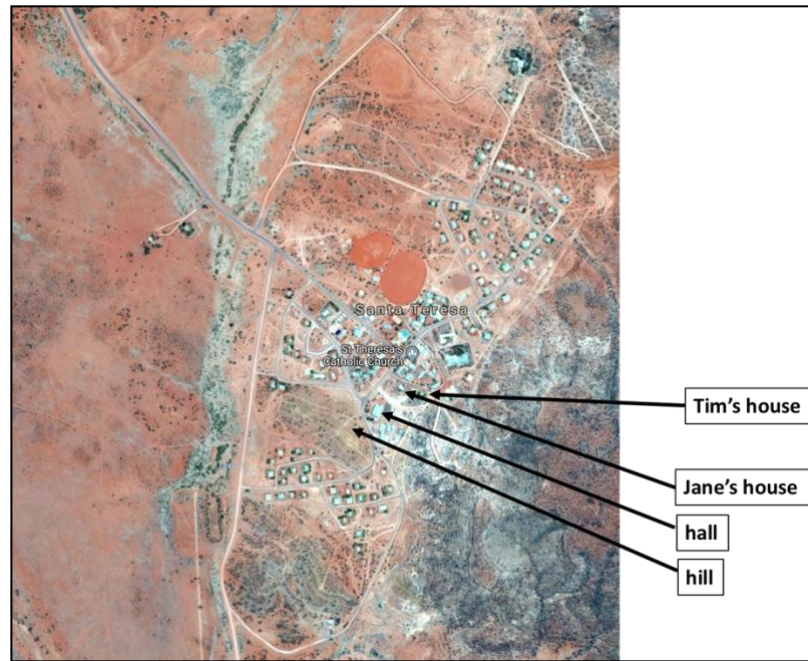


Figure 7-19. Landmarks in the C11-C23 story, in the context of the whole community

C11 draws the hall and a doorway, then uses the tip of her story wire to point to one side of it (Figure 7-20), as she announces the title of the story and narrates:

7.24 Scary Story. Anwerne scary, hall other side alheke, urreye mape anwerne, kele anwerne akwele shadow ware anteme areke nhenhe.

Scary story. We were scared, went to the other side of the hall, then we saw the boys but apparently only a shadow (of the monster). (8:27-8:41)

The conventional symbol for a doorway in C11's drawing has been observed in other sand talk research, e.g. in a floor plan drawn by a 20-year old woman in Eickelkamp (2013a, p. 108).

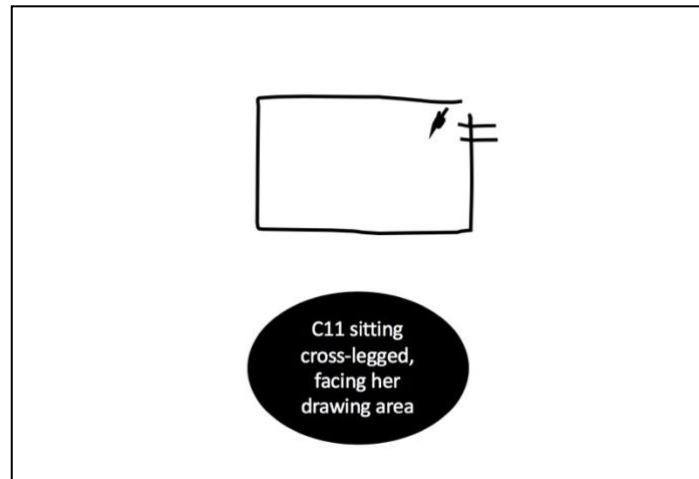


Figure 7-20. C11's community hall with doorway

While this drawing is in aerial view, C11 also produces frontal views of buildings. For example, when talking about escaping from the monster to the safety of home, C11 produced Figure 7-21. This coincided with the narration:

7.25 Kele anwerne anteme nhenhe alheke, apmere-werne anteme anwerne alheke, alheke, anwerne apmere werne, apmere, apmere-werne anwerne alheke.

Then we went, then we went home, we (went) towards home, home, we went back home. (10:20-10:26)

Within this time frame she erases the house and redraws it in the same style.

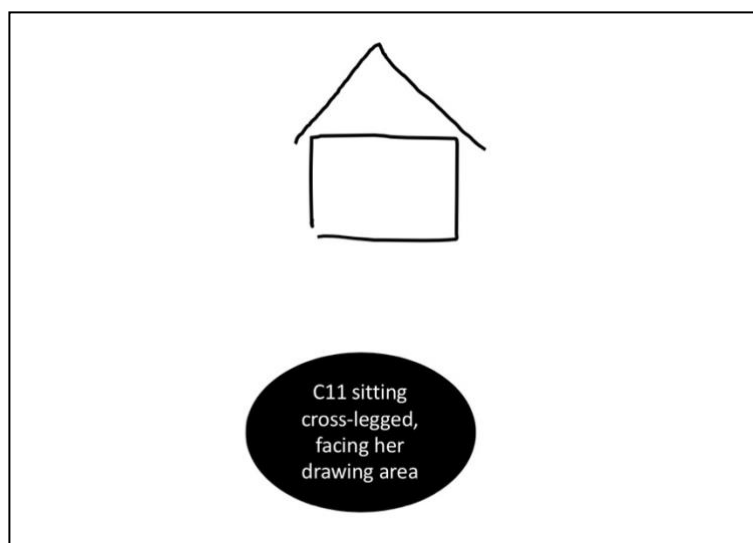


Figure 7-21. C11's frontal view house

C11 draws Tim's house as a site of monster activity in the story (Figure 7-22). She first scratches, taps, pokes the ground with the tip of her story wire, possibly to soften the ground, as she narrates:

- 7.26 Other side the hall, kele intwarre sidenge.ntyele, kele arlke-rlenge Timkenhe apmere sidenge.
On the other side of the hall, from the other side, (the monster? we?) screamed from near Tim's house. (9:23-9:32)

She then draws the house and pokes in one corner of it, as she narrates the events that occur there:

- 7.27 Tim anteme akngwelye mape stoneme anthurre ileke, stoneme anthurre ileke.
Tim started stoning all his dogs, kept on stoning (them) (9:32-9:40).

The poking could represent Tim's dogs or Tim throwing stones, or it could be more softening of the ground. In any case, Tim is a clever choice of protagonist because he owns 17 dogs, whose barking evokes for story listeners the possibility of a monster presence.

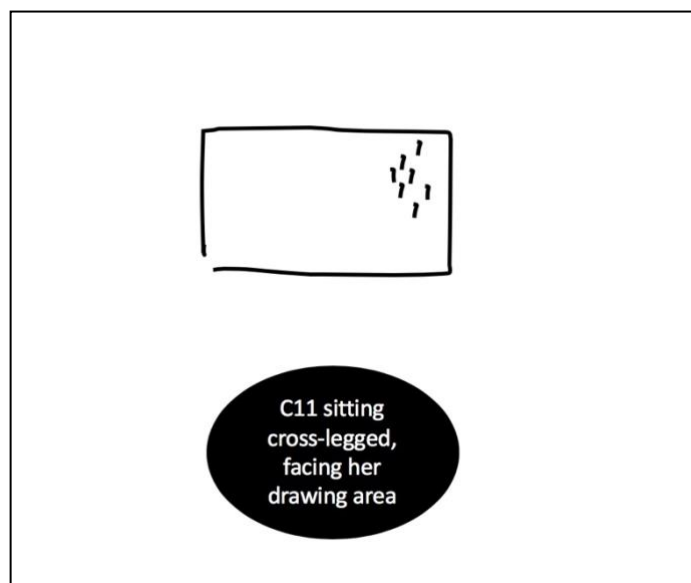


Figure 7-22. C11's drawing of Tim's house where dogs are barking and being stoned

C23 takes up C11's idea of the dogs snapping/barking at the monster, and propels the plot across the road to Jane's house, which becomes the next site of activity in the plot (Figure 7-23). She draws and traces over the house as she narrates:

- 7.28 Anwerne anteme areke. Ye akngwelye mapele anteme utnhetyame. Thing- Jane- Jane-kenhe apmerenge akwele.
Now we saw (it). Yeah all the dogs were snapping at (it). Um near Jane's house supposedly. (9:27-9:40)

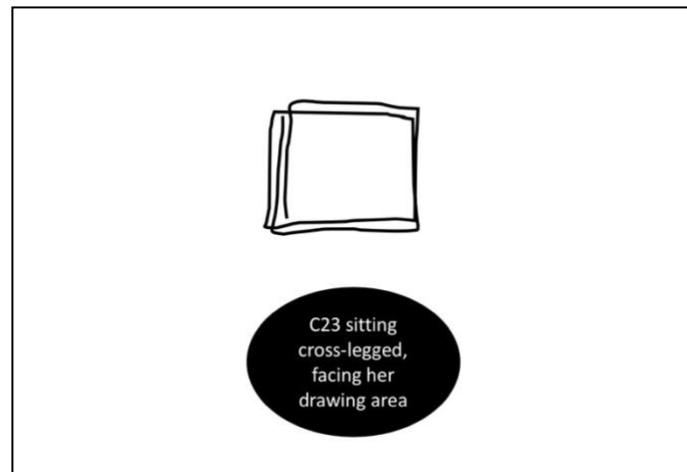


Figure 7-23. C23's drawing of Jane's house

C11 draws the hall again later in the story (Figure 7-24). It remains a dangerous place in the plot, as she narrates:

- 7.29 Nhenhe kele artwe. Artwe nhenge hall-werne akwele alheke.
This/Here is a monster. That monster went to the hall supposedly. (9:54-9:58)

C11 then uses her story wire to point and poke at the drawn hall, as she narrates what happens next:

- 7.30 Ampe mape nh- inetyeke nh- nhenhe. Ampe mape re ampe re itnareye-arle, ah thing ?irete-rlenge?, unte-rltiwe-rlenge. Hallnge finishirreke. Artwe re kenhe kwenirrerle.lheke.
To get all the kids here (in the hall). All the kids they um thing happened, they ran. The hall closed. The monster went inside the hall and left. (9:59-10:20).

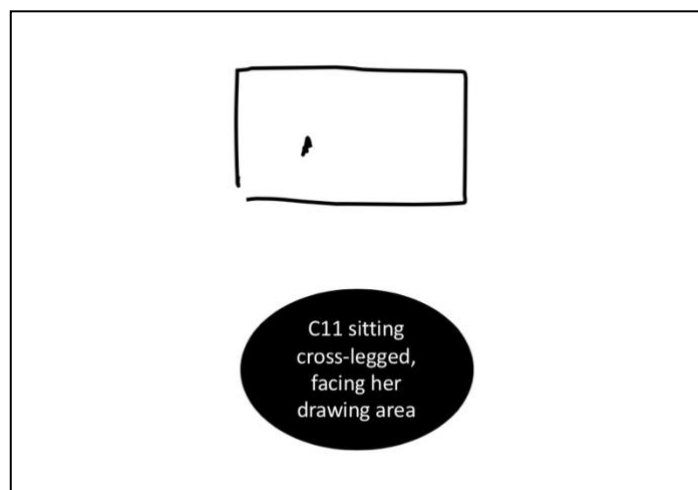


Figure 7-24. The hall at closing time in C11's drawing

As in the other recordings, buildings in the C11-C23 narrative function as **event-sites**. Locations are drawn. Dramatic action is verbally narrated but not drawn. Narrators use the kinesic/visual modality to focus on places, and the spoken/auditory modality to convey plot details.

7.5.3. Path lines

All narrators use the tip of the stylus to mark routes taken by protagonists. These lines can be thought of as **protagonist-paths**. Drawing conveys the journey and destinations, while speech conveys who is making the journey and how they are moving. The drawing-speech integration enables hearers to infer the connection between the lines and the characters. In this section we see landmarks functioning as **path-anchoring points** (rather than event-sites). Both **protagonist-paths** and **event-sites** are ways for speakers to package events in their stories. However, the kinds of verbs in speech for protagonist-paths are different from the ones in event-sites.

As illustrated in landmarks § 7.5.2. above, **event-sites** are associated with action verbs, e.g.:

- *pwertele werlengen, garage* (hitting the garage with stones)
- *atyernerlaneke* (were peering (out from the house))
- *arerlaneke* (were watching (the tree))
- *anwerne mape trampolinenge aneke* (we were all sitting near the trampoline)
- *stoneme anthurre ileke* ((Tim) stoned (the dogs) hard)
- *utnhetyame* ((dogs) snapping/barking)
- *lounge chair akethenge anemele* (sitting outside on the lounge chair)

- *door knockemileke* (knocked on the door).

As will be illustrated in this section, **protagonist-paths** are associated with motion verbs, e.g.:

- *alheke* (went)
- *apetyeke* (came)
- *apetyeke mwetekeyenge* ((we) came by car)
- *apetyalpeke* (came back)
- *unteke* (hurried, ran)
- *unthetyeke* (to go around looking for)
- *gallopirreke* (galloped, travelled quickly)
- *atnarnpemele* (climbed down (from the tree)).

In C01's story (Figure 7-9), various combinations of the protagonists (herself, her mother and older brother) walk between the hill, school and home, as they keep an eye on the light above the hill. C01 used motion verbs to narrate a lot of to-and-fro between these points, and drew each of the journeys by dragging the tip of the stick through the sand.

In C06's story (Figure 7-10 or Figure 7-25), the group of protagonists' journey through two 'suburbs', past three buildings, and then home – at first travelling by car and then on foot. They all move together as a unit, represented together in one drawn line. Their trail is interrupted three times – shown in the breaks in the path line – when C06 draws the buildings. After each of these pauses in the journey, she places the tip of the stick back at the point she had last dragged it to. Their route finishes in the safety of home.

Two perspectives are embedded in the path lines in C06's story, evident above and below the horizontal line through the middle Figure 7-25. Both perspectives are aerial view, however the scale is different. The first part of the journey is on a larger scale, from a higher perspective, covering a greater distance through two 'suburbs' in the community. The protagonists are in a car, for elements 1–2. The rest of the journey zooms in on the public buildings area in the community, and C06 can then draw the garage, hall, and church to scale. The protagonists are on foot for elements 3–9.

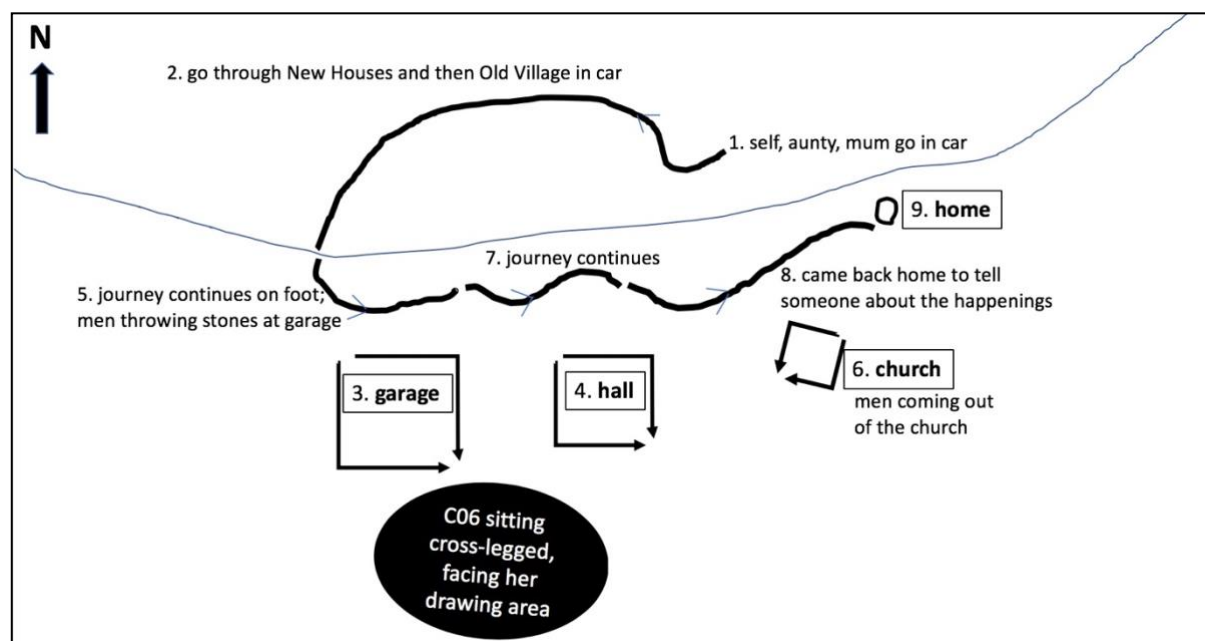


Figure 7-25. Two different aerial perspectives in C06's drawing

In C14's story it is the monster who journeys. In Figure 7-26 she draws two components of his path, from the top to the bottom of the tree in the house yard, then moving along the fence, as she narrates:

7.31 Re apele atnarnpemele. Gatenge.ntyele gallop-irre- gallop-. Gatenge.ntyele akwele perape kwenhatheke akwele gallop anthurre irrerleke akwele.

He climbed down (from the tree). From the fence he started to gallop-. While from the fence he supposedly really galloped down. [And the journey out through the gate is drawn in Figure 7-26 but not spoken in this example]. (0:59-1:07)

This journey begins with a frontal perspective as the monster climbs down from the tree in the first part of her utterance, then shifts to aerial perspective as he travels along the fence near the house and out through the gate in the second part of her utterance.

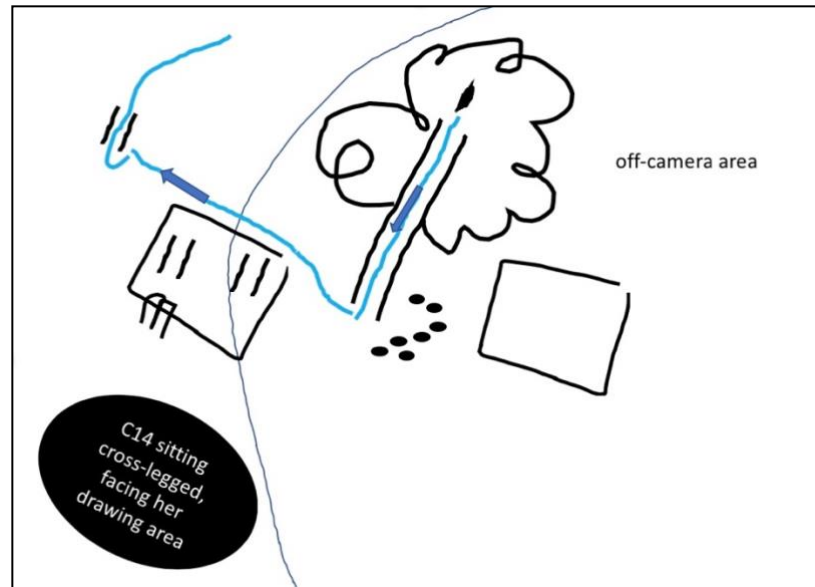


Figure 7-26. C14 monster journey, down from the tree and along the fence

C14 draws the monster's path again in aerial view in Figure 7-27 when he travels from the saddlestone ridge, through the whole community, and back to the ridge. She draws this loop track as she narrates:

7.32 Round akwete akwele rarle alheke alakenhe. Imarte re akwele saddlestone-werne apetyalpeke akwele.

He kept going around like this. Then he returned to the saddlestone ridge. (1:11-1:16)

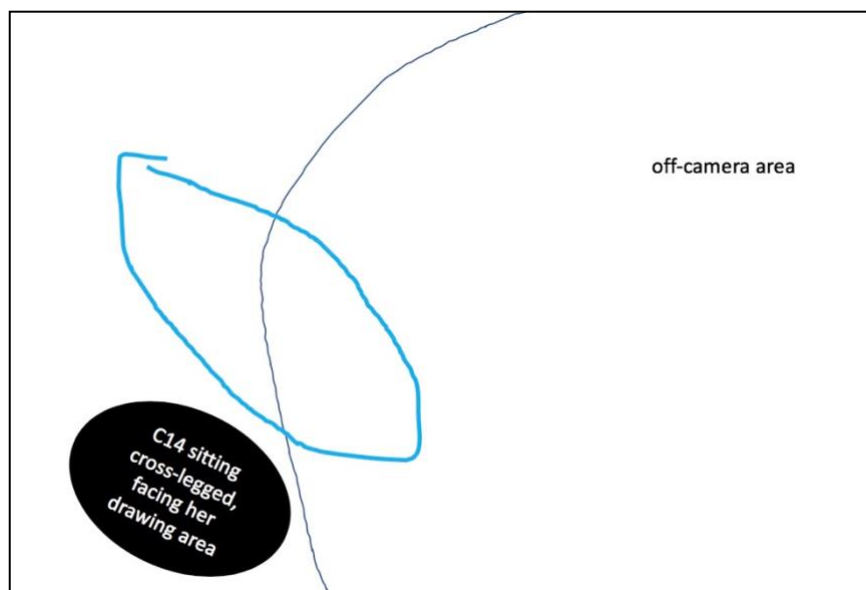


Figure 7-27. C14 monster journey through the community

There are several path lines in various scenes in the C11-C23 narrative. Early in the story, the hall is established as a scary place and C23 produces Figure 7-28, as she narrates:

- 7.33 Anwerne anwerne hallnge hallnge.ntyele alpirneke. Hallnge.ntyele anwerne alpeke. Anwerne anteme aweke arrangke-rlenge something re.
We, we went back from the hall. From the hall we went back. Then we heard something crying.
(8:25-8:36)

C23 makes good use of her stylus (a bone) for this drawing, using the sharp edge to define each side of the road and the flat edge to draw the protagonist-path.

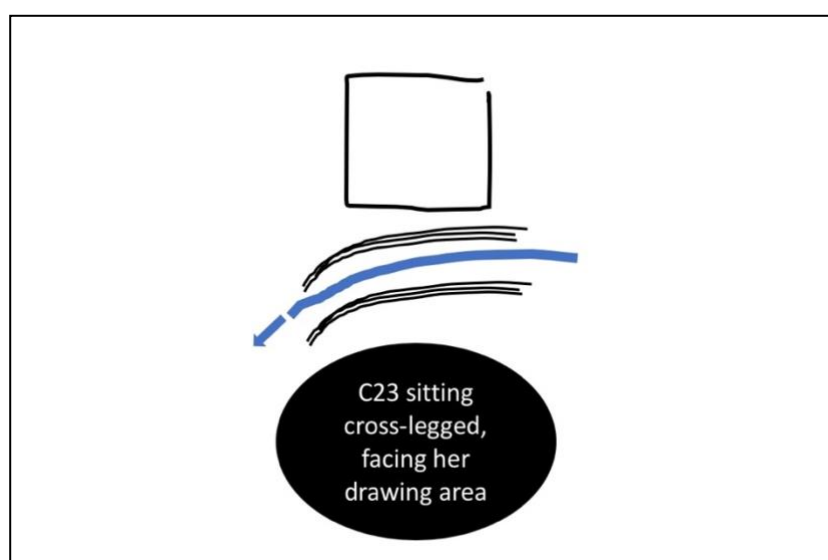


Figure 7-28. C23's drawing of the hall and children leaving that area

C11 narrates an approach by the monster towards the kids. She draws the hill in aerial view, then the monster's path down from the hill, and its multidirectional paths at the bottom of the hill as it goes around looking for them. She draws Figure 7-29, as she narrates:

- 7.34 Nhenhe akwele inentye anyente akwele. Pwerte, pwerte-akertne-nge.ntyele apetyeke, east side pwerte-nge.ntyele inentye. Inentye re anteme kwene-atheke unthetyeke inetyeke.
Here is apparently one monster. Hill, (he) came down from the stony hill, that monster from east side hill. Now the monster came downwards to go around looking to get (all the kids). (9:07-9:23)²⁹

²⁹ A05 commented on C11's use of *-tyeke* (PURP) on both verbs in this example, and suggested: if *unthe-tyeke* (go around looking for-PURP) was instead suffixed with *-mele* (PRES-SS), this would be a better way to say that the monster went around looking for the kids, to get them.

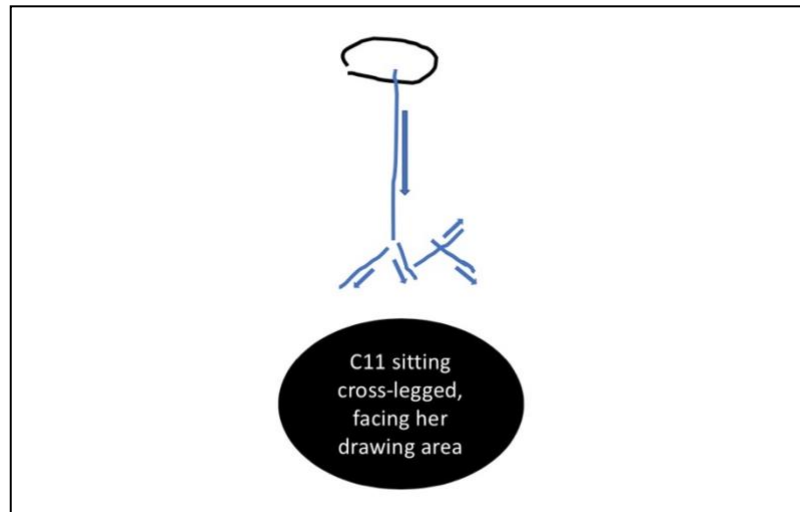


Figure 7-29. C11's drawing of monster coming down from the hill

C23 draws path lines from the hall (a scary place) to home (a safe place) twice. Both are in aerial view. The first one is discussed in Figure 7-28. Further into the story, C23 again draws path lines for the kids running from the monster (Figure 7-30). At this point in the narrative, it is back in the hall after roaming around Tim's and Jane's houses and the nearby hill.

Figure 7-30 is comprised of several components. First, C23 establishes the hall, a doorway and a diagonal **protagonist-path** within it, as she narrates:

7.35 Hailey mape anwerne unteke, ante apmerenge anteme anwerne alheke, ankwinteki anteme anwerne.

Hailey us mob ran, and we went back home, and then we slept.

She draws a **protagonist-path** from the hall towards herself, and draws home, as she narrates:

7.36 Ante ampere, anteme Hailey mape anwerne hall-nge.ntyale apetyalpeke ampere-werne.

Now Hailey mob us mob came back home from the hall.

Next C23 marks the midpoint between the two buildings where someone whistled, as she narrates:

7.37 Anteme half way yanhenge whistle-irreke.

Then half way home (someone) whistled.

The whistler could be the monster or one of the kids. Either way it adds tension to the plot. Finally, C23 retraces the kids' journey from the hall to home, as she narrates:

7.38 Untirtneke ante untirtneke.

We ran and ran back (in fear).

At the end of this scene, as she swipes, C23 narrates:

7.39 Kele imarte ingkernenge-arle ane-mele.

And then (the monster) stayed behind.

For Figure 7-30 she makes good use of her stylus again, this time using the flat edge for the path within the hall and the tip of the sharp edge to indicate the half-way point.

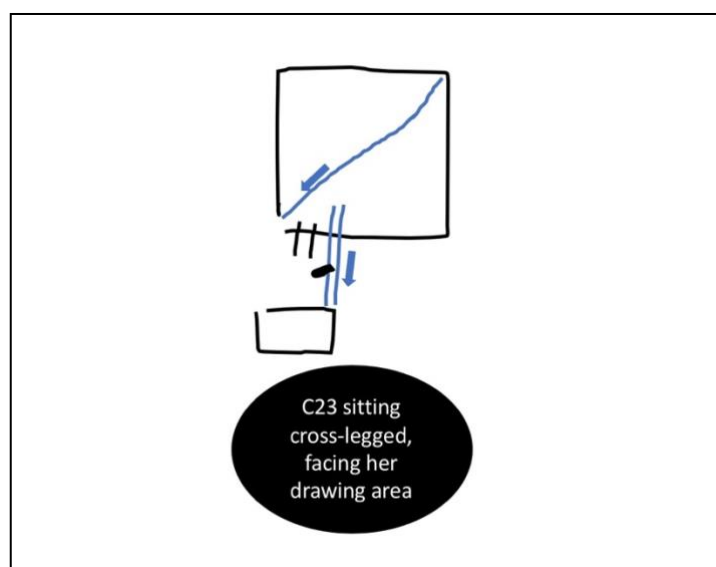


Figure 7-30. C23 drawing kids escaping monster in hall, running home

To summarise, **path lines** inherently convey an aerial view. They are in all of the narratives and represent people or monsters in motion, travelling long or short distances. They function as **protagonist-paths**, i.e. they synthesise speech and drawing to communicate the travellers (usually parties rather than individuals), how they are moving (e.g. walking, driving, hurrying), from landmark to landmark (functioning as **path-anchoring points**), and the qualities of the journey (e.g. direction, interruption, continuation, destination). The drawing-speech integration enables hearers to infer the connection between the lines and moving protagonists.

7.5.4. Swipes

Swipes in the data for this chapter are consistent with previous research findings in adult data (e.g. Green, 2014, p. 2; Wilkins, 1997a, p. 15). That is, the young narrators use their stylus or hand to periodically clear the drawing space in front of them. They swipe to signal the start of their story (preparing the space, leading into the opening scene), to signal the end of their story, and to transition from one scene to another, thus organising utterances into larger discourse units.

Three of the narrators (C11, C14, C23) tell longer stories with multiple scenes, while the younger two (C01, C06) tell shorter stories in a single drawn scene, though layered with several events (Figure 7-9 and Figure 7-10). The events in C01's story occur over two days. At the end she announces, '*Kele* (finished)'. The events in C06's story occur on one day. At the end she announces, 'That's it, the end' and moves the long edge of the stick from side to side, wiping away her sand drawing.

This section discusses the swipes in the C14 and C11-C23 narratives. The analysis now moves to a higher level of discourse organisation to describe how the narrators use swipes to distinguish scenes and signal transitions as a story develops.³⁰ Figures that were previously discussed as isolated scenes are reproduced and renumbered in this section to illustrate connections between them.

C14's narrative has multiple scenes, with swipes after each of the following:

1. Two uncles were watching a tree in the house yard, looking out for the monster sitting up in it. The monster is the one from the saddlestone ridge. Dogs surrounded the base of the tree, barking/snapping up at it. C14, her Nan, mum, dad and one uncle went to sleep, while one uncle kept watching the tree. The monster climbed down from the tree, ran along the fence line, and through the gate.
2. The monster went around, from the saddlestone ridge, through the community and back to the ridge.
3. The next day several family members were sitting near the trampoline in the house yard. C14's aunty came to re-tell them the story of what had been happening overnight, according to the uncle who had observed events.

³⁰ C11 and C23 also use stylus (or hand) to rub out items in scenes (like using an eraser on a paper drawing), and then immediately redraw them and continue the narrative.

4. People continued 'talking story' near the trampoline, about more events, in which men in the family chase after the monster.
5. Three women had gone to the boundary gate to investigate where the monster had been. A torch light approached them (possibly held by the monster). The women called out names (possibly trying to get rid of the monster). Kids warned the women to be careful. People were calling out to each other in the dark. An uncle was keeping watch.³¹
6. The monster had been galloping around during the night while people slept. C14's Nan stayed awake though, keeping watch on the tree that the monster is known to come and go from.
7. People hadn't been able to sleep well because the dogs had been making noise during the night.

Figure 7-31 – Figure 7-33 form a sequence in C14's story. The swipe in Figure 7-32 indicates the transition from scene #1 and #2 in the list above.³² This transition signals a change in events and also a change in relative scale of the drawings before and after the swipe. In Figure 7-31 the monster moves from the top to the bottom of the tree, and then along a fence near the house. In Figure 7-32, while swiping with the stick, C14's narration anticipates the next scene:

7.40 Imarte 'round akwele ilemele.

 Then (the monster) was supposedly going around. (1:11-1:13)

In Figure 7-33 the monster journeys again, this time from the ridge, through the community, past her family home (drawn in the previous scene and marked with X in Figure 7-33), and back to the ridge.

There is a change in relative scale of the drawings before and after the swipe. The drawing before the swipe is a closer perspective, and the one after the swipe has a wider view of the community and surrounds. C14's swipe enables her to shift to a greater height, and draw the longer journey. C14 also swipes before Figure 7-31 and after Figure 7-33.

³¹ This scene is not discussed in detail because although C14's speech is clearly audible, her drawing was too far to her right, and not captured by the camera.

³² See the description of Figure 7-26 and Figure 7-27 for the spoken language associated with these scenes.

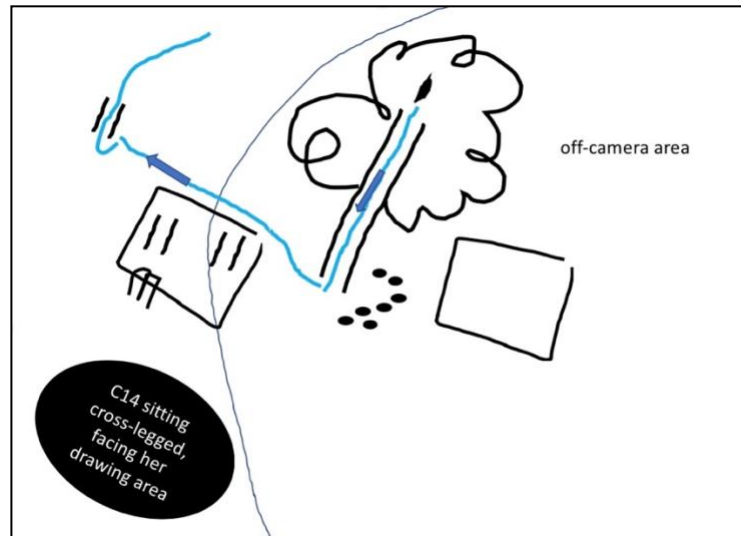


Figure 7-31. C14 monster journey, down from the tree and along the fence (2)

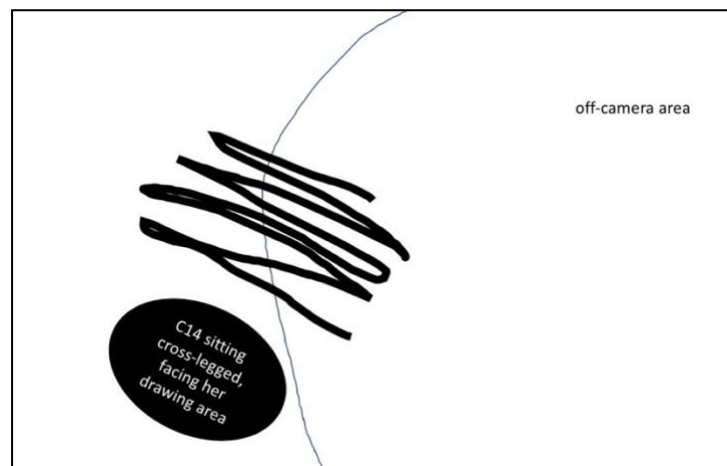


Figure 7-32. C14 inter-scene swipe

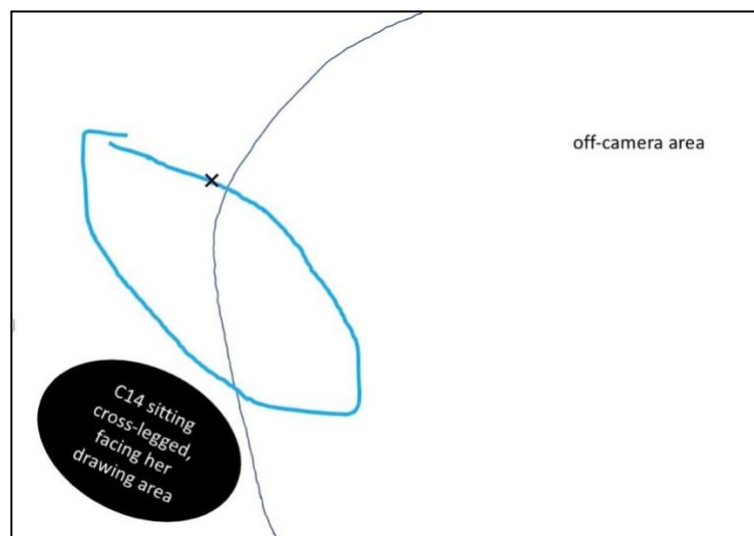


Figure 7-33. C14 monster journey through the community (2)

The scenes in the C11-C23 story are summarised in the following list. Throughout the recording there is overlap in the speech-drawing production of the narrators. The order presented here is according to the onset of each contribution. The list of scenes aims to provide a sense of the narrative as a whole and the speakers' collaborative approach to it. The list also provides transition points in the plot, as swipes were made after each of these scenes:

1. C11 we (a group of kids) went to the other side of the community recreation hall. We saw a group of boys there, and we saw the monster but only as a shadow. We were scared.
2. C23 as we (a group of kids) went back from the hall, we heard something crying out [suggestive of the monster].
3. C23 we saw the monster coming down from the hill near the hall.
4. C11 the monster came down from the hill, and went around looking for the kids, to get us.
5. C11 there was a scream from the other side of the hall, from near Tim's house. Tim then started stoning his dogs, who were snapping/barking at the monster. He kept on stoning them.
6. C23 we (kids) saw the monster. The dogs were now snapping/barking at it near Jane's house.
7. C23 we (kids) saw the monster sitting on lounge chair at Jane's house. We approached the house and knocked on door.
8. C11 at closing time, the monster went into the hall to get the kids. We ran from it. It came out of the hall too.
9. C23 we (kids) started to go from the hall back home, and planned to sleep. Half-way home someone (or the monster) whistled, frightening everyone. We all ran in fear. The monster stayed behind.
10. C11 we (kids) went, went home, towards home, back home, home.

Figure 7-34 – Figure 7-36 form a sequence in C11's contributions to the narrative. The swipe in Figure 7-35 indicates the transition from scene #1 to #4 in the list above.³³ This transition signals a change in events and also a change in relative scale of the drawings before and after the swipe.

³³ See the description of Figure 7-20 and Figure 7-29 for the spoken language associated with these scenes.

In Figure 7-34 C11 establishes that the monster is in the hall. In Figure 7-35 while swiping with the tip of her story wire, she narrates the end of the scene at the hall:

7.41 Kele anwerne akwele shadow ware anteme areke nhenhe, nhenhe.

Then we only saw a shadow (of the monster) apparently here, here. (8:36-8:41)

In Figure 7-36, the monster comes down from the hill (an idea that built on C23's suggestion in scene #3) to go around looking for the kids to catch them.

Both drawings are in aerial view, however the one before the swipe is a closer perspective, and the one after the swipe has a wider view of the community and surrounds. C11 also swipes before Figure 7-34 and after Figure 7-36.

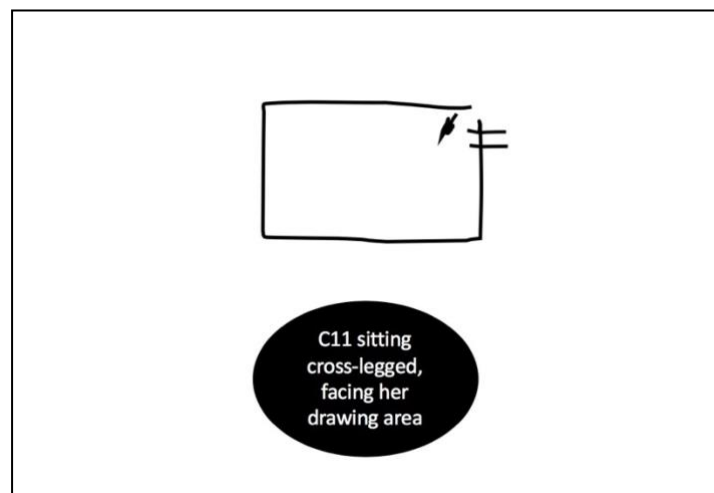


Figure 7-34. C11's community hall with doorway (2)

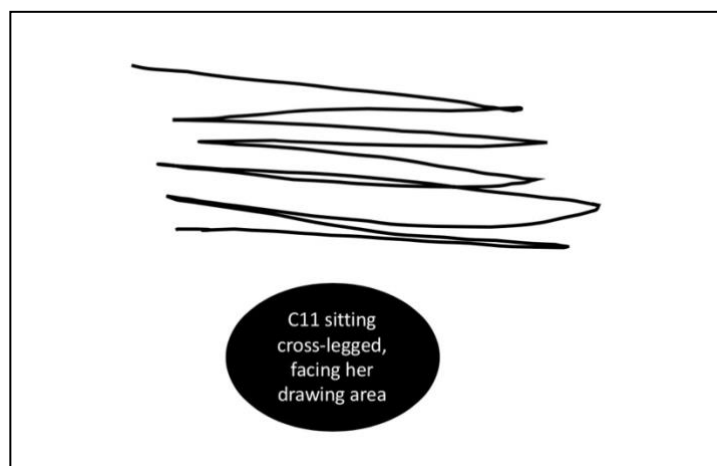


Figure 7-35. C11 inter-scene swipe

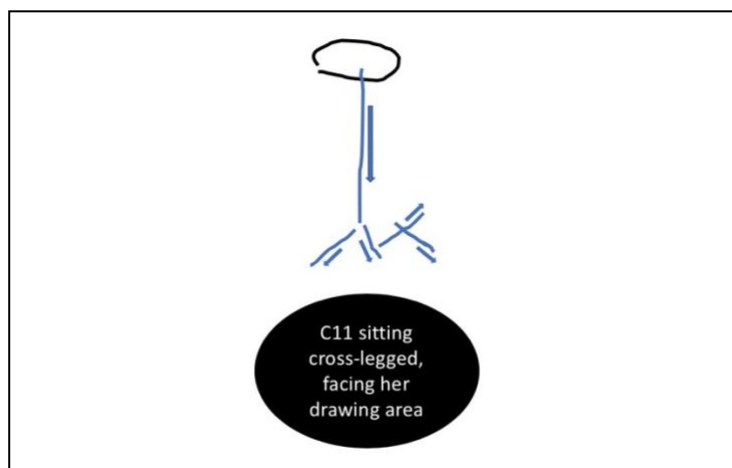


Figure 7-36. C11's drawing of monster coming down from the hill (2)

Figure 7-31 – Figure 7-36 show that when C11 and C14 change from one perspective to another, they manage levels of zoom in their drawings, and use the appropriate scale for each. When there is a perspective change, they displace the previous scene with a swipe and create the new one in the new scale. C06 (who is younger than C11 and C14) switches from a higher to a lower perspective in her drawing too, but does not swipe to signal the transition. Instead, she manages the two perspectives by drawing them in two zones in a single frame (discussed with respect to Figure 7-25).

Figure 7-37 – Figure 7-39 form a sequence in C23's contributions to the collaborative story. The swipe in Figure 7-38 indicates the transition from scene #6 to #7 in the above list.³⁴ The scale of the drawing and the location for each scene remains the same before and after the swipe. However, the events in each scene are different.

In Figure 7-37 the kids see the dogs barking/snapping which is a sign that the monster has moved from Tim's to Jane's house. In Figure 7-38, while swiping with the flat edge of her stylus, C23 anticipates the next scene as she narrates:

- 7.42 Artwe re kenhe um thing um.
 That man was um what's it um. (9:43-9:46)

³⁴ See the description of Figure 7-12 and Figure 7-23 for the spoken language associated with these scenes.

The swipe prepares the way for communicating a new event at the same place. In Figure 7-39 the kids see the monster sitting on a lounge chair outside Jane's house. They bravely approach the house and knock on the door. C23 also swipes before Figure 7-37 and after Figure 7-39.

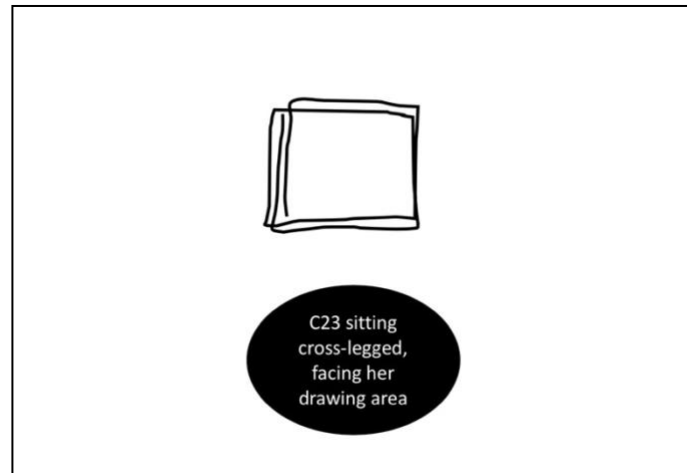


Figure 7-37. C23's drawing of Jane's house (2)



Figure 7-38. C23 inter-scene swipe

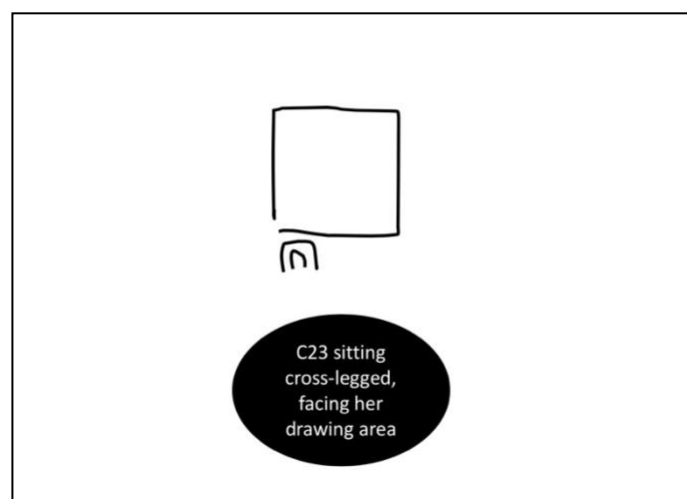


Figure 7-39. C23's drawing of the monster at Jane's house (2)

Regarding integration of speech and drawing for **swipes**, these signal the inception or end of a narrative, and organise sequences of utterances into larger discourse units. In inter-scene swipes, the speech may relate to the end of the previous scene (Figure 7-35, example 7.41) or anticipate the next scene (Figure 7-32, example 7.40); and Figure 7-38, example 7.42), or may involve silence.

7.6. Discussion

In this section I review what the findings reveal about the narrators' knowledge of the subject and locations of their stories; and spatial principles and developmental patterns evident in their multimodal skills for communicating the plots.

7.6.1. Subject and location of the narratives

The children's stories evidence their knowledge of the physical and social geography of their community and surrounds. In many different kinds of small, close-knit communities with dense social networks, narratives are often enlivened by interlocutors' shared knowledge (Stirling & Green, 2016, pp. 173-174; Strahan & Stirling, 2016). In the data in this chapter, such culturally and situationally shared features are apparent in the choice of protagonists and places.

Scary beings are part of the life-world of people of all ages in the community, and a regular topic of conversation. The girls were easily able to think of experiences to narrate on this subject. Dogs in the C11-C23 and the C14 stories show the narrators' awareness of their role in sensing and alerting people to scary beings. Particular locations also feature in the plots. The C06 and C11-C23 stories are set in

the same vicinity in the community. This is not coincidental. Both refer to buildings and nearby hills that monsters inhabit. Trees in particular house yards are also known as monster places, such as the one in C14's story. Similarly, the saddlestone ridge is commonly known as the home of the particular monster in C14's story. In these ways, the narratives attend to the relationship between the story space and the real space.

While stories of other times are common in previous research on adult sand talk, with performer-narrator verbal artists, in this chapter the children's story worlds are about the here and now. They have the immediate external world in mind as they tell their stories.

7.6.2. Multimodal storytelling

All narrators made use of the expressive potentials in drawing and speech, and integrated semiotic resources in the kinesic/visual modality and vocal/auditory modalities.

Sand drawing: spatial principles

The elements drawn by the narrators work together in an iconic system. The following six spatial principles of Arrernte sand drawing, outlined in Wilkins (1997a, pp. 6-15), provide a framework for describing the girls' competencies with respect to the system as a whole.

1. Only visible features drawn (no marks of the invisible)

Invisible and intangible entities may be referred to in speech but not instantiated in the sand, e.g. noises, odours, cartoon-like speech bubbles, smoke from fire, shade and shadows (Wilkins, 1997a, p. 6). In the data in this chapter, drawn entities are typically tangible, e.g. protagonists (when stationary), landmarks (geographical and built environment features).

However, an interesting case is that of the scary phenomena. Are they or aren't they real and visible? Each narrator negotiates the tangibility of the phenomenon in the drawing of her story. C01 treats the mysterious light as visible; it is named in her speech and is a mark in her drawing. This is consistent with information from her mother, that several people in the community observed that light. C06 neither names nor draws the being in her story. Instead, it is suggested in the location and strange happenings that she narrates. In the opening scene of the C11-C23 story, the protagonists see a

shadow and hear a noise, however neither narrator draws the monster. C23 only once draws the monster, with the U-shape icon, when it was sitting in a lounge chair outside a house and had taken human form. C14 and C11 do not draw the monster in their stories; instead dogs sense and respond to it, even when people do not see it.

2. Things that move necessarily leave a trail of tracks

All narrators produced path lines. A single line is the only form used, made with the tip of the stylus, to convey both individuals and groups of travelers, and all kinds of motion. This compares with a wider variety of path line types for individuals and parties of people and other creatures drawn in other studies (e.g. Green, 2014, pp. 118-121; McRae, 1991, p. 95; Munn, 1962, pp. 974, 977, 979; 1973, p. 65). In these studies, path lines may be comprised of continuous lines, dots and broken lines, footprints made with fingertips, palm and side of hand, motion around an object, spiral paths, meandering paths, multiple lines made with several fingers at the same time to pluralise the number of travelers in the party, animal tracks.

3. The longer a mobile entity is statically located, the deeper its 'track'

Three of the narrators use the stylus in ways that suggest time passing. C01 keeps the stick active (using the tip to gently toss sand) while narrating an overnight period during which she and her family members were sleeping. C14 traces and retraces the trampoline as the landmark where she and her family members were 'talking story' together and taking turns to narrate recent events. C23 draws and traces over a house which dogs were snapping/barking at.

4. The perspective on objects and events is from above, sand drawings present an aerial view of events

This principle is associated with the skill of 'thinking for drawing' (Wilkins, 1997a, pp. 10-11, 25, 33). That is, aerial perspective images (which are strikingly different from frontal images common in English narratives and other texts) do not represent the perspective from which Arrernte people experience entities or events. Yet it is the customary way to depict them.

All narrators predominantly use 'traditional' graphic symbols (U-shapes, lines, strokes, circles). Aerial views are evident not only in drawings of individual entities (people, landmarks) but also in the

representation of spatial relations between them and in motion events (path lines). Three of the narrators incorporate more than one level of aerial view, i.e. both close-up (zoomed in) and wide angle (zoomed out). C06, C11 and C14 draw not just aerial view buildings but also aerial views that incorporate more of their community and nearby geographical features from a higher perspective.

Less commonly, the narrators use 'Western' conventions (C01 for a hill, C14 for a 'fluffy' tree, C11 for human stick figures and a house, C23 for a cubbyhouse) which are inherently frontal in perspective. They co-opt these graphics for the purpose of narrating in an Arrernte way. Arrernte children have been combining the two traditions for over two decades (Wilkins, 1997a, pp. 19-25). My data suggests this has remained a stable feature of drawing through to the young generation in this chapter. Similar observations have been made for girls' in Pitjantjatjarra (Eickelkamp, 2008a, 2013a) and Ngaanyatjarra (Ellis et al., 2017; Kral et al., 2020), e.g. they mix aerial with frontal view images, incorporate alphabet letters, numbers, heart shapes, stories heard in books at school and disco dance scenes into their stand talk practices.

5. Things in a story representation should be oriented as they would have been in the real world.

Things are represented in their absolute spatial orientation

All of the stories in this chapter are geographically anchored in the local community, and have rich socially-shared references – in speech, drawing and use of stylus. However, a geo-centred cardinal direction frame of reference has not been established over a body-centred relative one. There is no evidence, but also no counter-evidence, that the narrators draw into their spaces with an absolute spatial orientation.

6. Episodes that unfold in a single place-time location are tracked into a single frame; erasure of the space signals a change of place-time location

C11, C23 and C14 all use swipes in between scenes in their stories, to change from one place, time or perspective to another. C01 and C06 do not construct their stories into a series of scenes with swipes between each one. Rather, they narrate all events into one drawing. However, in both of their stories, the drawings are consistent with the observation that: *a 'complete' picture is not a static snapshot inside an episode, it is the culmination of a dynamic, chronologically ordered set of representations of actions and events in sand*, in contrast with conventions in English comics for example where events are spread across frames (Wilkins, 1997a, pp. 28-29).

Sand drawing: developmental patterns

Wilkins (1997a, pp. 16-17) suggests the following likely developmental timetable for acquisition of sand drawing conventions, assuming children experience significant and continuing exposure to this practice (Wilkins, 1997a, p. 16).

- *By 18 months – children mimic sand drawing behaviour and ‘scribble’ in sand in a fashion that caretakers respond to as drawing.*
- *By 3 years – children produce some of the basic iconic signs (including the U-shaped seated person sign), and recognise more signs than they produce.*
- *By 5 years – children produce all of the basic iconic signs and start producing more complex scenarios, they also start combining drawings and utterance in a form of proto-narration.*
- *By 10 years – children, especially girls, are actively telling stories using sand drawings, however they commonly fail to use absolute orientation, they often do not use total erasure to break up episodes, and they are not integrating hand signs into their narrative.*
- *By 12 years – boys (now on the verge of initiation) no longer engage in what is seen as a woman’s activity, although they will still use marks in the sand to annotate their discussions; girls continue to elaborate their sand drawing and narrative skills.*
- *By late teens (to early twenties) – usually after a woman has had her first child, young women are finally showing the most elaborated use of sand drawing with all the features previously described (including integration with hand signs).*

All of the girls in my study are between the *by 5 years* and *by 10 years* age brackets. Despite changes that have occurred in people’s lives at Ltyentye Apurte in the intervening decades since Wilkins suggested this timetable, the girls in this study still use sand in ways that broadly conform to the skill level anticipated for their age group. They produce some of the expected icons and place them in complex scenes with several elements. They combine drawings and utterances. They actively tell stories which incorporate sand drawing. They may or may not use absolute orientation. C11, C23 and C14 use erasure to separate story episodes. None of them integrated hand signs (discussed further below) into the narratives for this chapter.

Table 7-2 summarises age-related patterns in the findings on the categories which frame the analysis in this chapter: the topic of the discourse (scary story), path lines (protagonists’ journeys), landmarks (hills, ridge, tree, buildings, trampoline), protagonists (people, scary beings, dogs) and swipes.

	C01 (7;4) Year 1	C06 (8;3) Year 2	C14 (9;6) Year 4	C11 (8;0) Year 3	C23 (8;0) Year 3
1. Story world – real world connections	✓	✓	✓	✓	✓
2. Path lines	✓	✓	✓	✓	✓
3. Landmarks: two-dimensional aerial perspective	X	✓	✓	✓	✓
4. Protagonists: static, aerial perspective	X	X	✓	✓	✓
5. Inter-scene swipes	X	X	✓	✓	✓

Table 7-2. Developmental patterns in the drawn data

Table 7-2 row 1 shows that all narrators successfully deal with the pre-determined, researcher requested topic of *scary story* in similar ways. That is, their story worlds are bound to the real world through the non-fiction nature of the accounts; use of first-person (self as one of the protagonists); spoken, drawn and point references to local people, monsters, places and incidents. They demonstrate understanding of the physical and social geography of their community. In row 2 we see that all narrators represent journeys of protagonists in their narratives. Some are micro-journeys, e.g. from one side of the hall to the other. Some are longer, e.g. through the whole community.

Rows 3 and 4 start to show differences between the youngest and oldest narrator. C01's story has no presentation of aerial view landmarks. The places in her story (home and school) appear as points, rather than drawn as aerial view buildings (Figure 7-9). Neither C01's nor C06's stories have presentation of statically located protagonists, e.g. using U-shape or stroke symbols. In row 5, we see that, although C01 and C06 do build up a scene with several drawn components, they do not present multiple scenes with swipes in between. C01 does not swipe at all. C06 swipes at the end of her story only. C14, 11 and C23 have developed extra skills. Their stories are longer with more scenes.

Developmentally, (a) choice of topic and (b) drawing of path lines seem to be acquired earlier than (c) drawing of aerial perspective entities and (d) inter-scene swipes. C14 has the most advanced set of techniques. With increasing age, just as spoken language skills become more complex, so does the visual complexity of the story.

Additional skills C14 presented in the kinesic/visual modality are:

- pointing to a place in the real world while talking about it (i.e. the saddlestone ridge), thus binding her speech and this gesture to the events in the sand.
- tracing over graphic symbols (i.e. the trampoline), to show the passing of time during the overnight period of watching out for the monster by her Nan, and also the time when several family members are sitting together talking story.
- using graphic symbols to indicate plurals (i.e. line strokes for groups of people and dogs).
- bouncing the stick rhythmically while not using it for drawing, and instead planning and narrating complex scenes. A04 also used this technique during her recording.

Gesture and sign

Relative to multimodal communication research in Central Australian communities (Carew, Green, Foley, & Community language teams, 2011-current; Ellis et al., 2017; Green, 2014, 2016; Green, Kelly, & Schembri, 2014; Green & Turpin, 2013; Green & Wilkins, 2014; Wilkins, 1997a) gesture and sign are notably under-represented in the data in this chapter.

In Green's data, within any given scene or visual frame (between erasures), narrators may cease drawing on the ground, use gesture or hand sign, and then return to drawing, i.e. narrators use a combination of 'grounded' and 'air' V-units (Green, 2014, p. 78). However, in the child data for this chapter 'grounded' is by far the dominant type of V-unit, i.e. drawings in the sand do not typically move to gestures or signs in the narrators' spatial field above the ground. Two possible explanations for under-representation of gesture and sign in the data in this chapter lie in the age of the participants and the genre of the discourse recorded.

Firstly, the narrators are in early stages of acquiring the skills discussed with respect to the developmental timetable above. Late teens to early twenties is the age group identified as the one which integrates hand signs with sand drawing (Wilkins, 1997a, pp. 16-17). Munn (1973, pp. 63-64) observes Warlpiri girls at Yuendumu aged 8-9 years become increasingly fluent in use of sand in communicating narratives, but do so largely without gesture or sign. And McRae (1991, p. 48) observes that older Warlpiri women at Lajamanu are more likely than younger storytellers (even young adult

women) to integrate gesture into their speech and drawing. So it is possible that the data in this chapter similarly illustrates that these aspects of narrating in sand contexts are later acquired.

Secondly, the unrehearsed first-person narratives discussed in this chapter are characterised by a high degree of spontaneity. They contrast with traditional narratives that may be told and heard over and over again, providing older narrators with accumulated opportunities to rehearse and coordinate not only speech and drawing but also gesture and sign.

Related to this, sand talk is not a singular practice. Gesture and sign may be incorporated into some genre (such as the verbal art performances by the women in Green (2014, 2016)), but not others. The adult recording in this chapter provides evidence for this possibility (see Figure 7-6). A04 (who is approximately the same age as the women in Green's studies) chose to use sand and stylus for teaching and informing C01, C06 and C14. She produces only a small number of drawings and does not use any conventionalised hand signs. Instead, she makes extensive use of informal gestures and uses the stick as a prop to teach hunting and cooking skills, e.g. both hands on stick demonstrating digging for perentie; stick as prop showing how to pluck feathers from a bird; using hand (not stick) to demonstrate pulling a dragon lizard out of hole by its tail; using stick as a prop for a sharp instrument for making a hole in the torso, then using fingers to demonstrate removing the innards; using long edge of the stick to demonstrate how to move hot sand and coals aside to place the meat, then push the excavated hot sand and coals on top of the meat to cook it.

Sign languages are highly endangered and knowledge of sign is diminishing (Green, 2014, p. 13). However, the absence of hand signs in this chapter cannot be assumed to indicate loss or reduced use of these semiotic resources in the younger generation. This study has not investigated children's use of Arandic hand signs in any sand talk genre, nor in any other interactional or conversational context. This could be a subject for future research.

7.7. Conclusion and direction

This chapter has described integration of speech, sand drawing and use of a stylus in unrehearsed first-person scary stories told by girls aged 7;4 – 9;6. The study adds a new genre and a new age group to the literature on sand story production. The participants' narratives are the kind that are incorporated in the broader practice of *talking story*.

The narrators lay out their stories in the sand with **entities** (landmarks, people, scary beings), **path lines** (protagonists' journeys) and **swipes** (transitions between scenes). Their drawings combine static and dynamic elements, including at least a subset of conventional graphic symbols typically found in adult sand talk genres. They depict protagonists (in stasis, in motion, in action) and landmarks in ways that favour 'traditional' Arrernte style aerial view graphic schema and systems, and also draw 'Western' style frontal view images. They distribute information in the narrative content stream within and across the communication modes. That is, they package events in **protagonist-paths** (journey lines drawn while narrating details of the motion of people or monsters from one landmark/anchor point to another in speech) and **event-sites** (places drawn or pointed to, while narrating details of the actions of people or monsters in speech). They include **perspectives** and **orientations** that demonstrate growing understanding of the physical and social geography of their community, Arrernte understandings of how the world is organised, and Arrernte ways of storytelling.

Green (2014, pp. 41-42, 48-50, 54) cites well-known senior Arrernte women, MK Turner and Veronica Dobson, who have fond childhood memories of girls and women of various ages telling *tyepetye* (stories told on the ground) and leaf stories, sometimes all through the night, for each other, separately and together, learning from experienced narrators. Margaret Heffernan and Veronica Dobson also recall story wires as commonly carried possessions when the mission was located at Arltunga, before it moved to Ltyentye Apurte.

These practices may be less prevalent now compared with earlier generations at Ltyentye Apurte. However, the data in this chapter provides evidence that they are certainly a part of the linguistic repertoire of the girls in the study. They are acquiring and maintaining, as well as adapting and extending these Arrernte ways of communicating. Just as their speech includes English loan words, their drawing incorporates 'Western' style graphics. However, these are harnessed for culturally salient, socially valued Arrernte purposes. That is, the girls produce them in analogous slots in an essentially Arrernte communicative practice.

The next chapter will capture the range of communicative skills children access when interacting in a classroom setting. Two of the children who narrated the textless picture books in Chapters 5-6, and told sand stories in this chapter, also participate in this next recording context (C01, C06).

Chapter 8 Classroom discourse

8.1. Introduction and background

This chapter centres on two children (C01, C06) in a Mathematics lesson in their Year 1-2 class. This is the classroom I spent the most time in, and had many collegial conversations with the teacher and assistant teacher on a wide range of issues, including children's language and learning, team teaching, lesson planning, classroom resources and materials, curriculum, assessment, report writing, teacher and assistant teacher education pathways. They were willing for me to film in their classroom; and the lesson featured in this chapter is especially valuable because it involves a lot of talking.

From a language documentation perspective, this data provides an opportunity to examine how the children are incorporating English into their linguistic repertoire. From a language socialisation perspective, this data is of interest as it reveals their developing language and behavioural skills for this institutional setting (Baquedano-López & Kattan, 2008; Burdelski & Howard, 2020; Duff, 2020; Howard, 2017; Mangual-Figueroa & Baquedano-López, 2017).

The analysis examines the codes the children access, and how they work them to converse and learn with their peers and teacher. It finds they produce (a) Arrernte-only (b) English-only and (c) Admixture turns/clauses, i.e., combining Arrernte and English. Each turn/clause also indicates whether they are (a) on-task (b) off-task or (c) organising themselves or materials.

Maths, Science, History, Geography, Health & Physical Education, the Arts, and even English, are taught according to the standard curriculum developed for all Australian students. The analysis of the Maths lesson in this chapter provides evidence for Arrernte as essential to the children's educational attainment, and a need for greater support for their L2 English status.³⁵

The term EAL/D (English as an Additional Language or Dialect) is currently favoured in materials and directives to teachers (e.g. ACARA, 2014). A range of different terms have been used in the past, still have currency, and appear in publications referenced in this chapter, e.g. ESL (English as a Second Language), EFL (English as a Foreign Language), TESOL (Teaching English to Speakers of Other Languages), Language Background Other Than English (LBOTE).

³⁵ A version of this chapter was published as (Poetsch, 2018).

8.1.1. Language socialisation lens

To systematically frame children's deployment of their linguistic repertoire and sociocultural aspects of their communicative skills in the three distinct discourse data situations, I use the six dimensional Ochs et al. (2005) model:

Activities. The aims of the lesson are determined by two of the learning outcomes in the Statistics and Probability Strand of the standard Mathematics curriculum for Year 1 and 2 students (ACARA 2012):

- Year 1: *Identify outcomes of familiar events involving chance and describe them using everyday language such as 'will happen', 'won't happen' or 'might happen'.*
- Year 2: *Identify practical activities and everyday events that involve chance. Describe outcomes as 'likely' or 'unlikely', 'certain' or 'impossible'.*

The teacher-designed lesson involves the steps summarised in Table 8-1. In step three student pairs cut out and categorise twelve pictures on worksheet 1: *snow, lunch box, dinosaur, rain, rainbow, night, dog, a teacher, fishing, football training, pool, shop*. They are instructed to talk with their partner to categorise the twelve things/events according to the likelihood of each occurring in their community: *will happen/certain, might happen, won't happen/impossible*. After discussing the pictures, they glue them onto worksheet 2, which has a column for each of these three categories (see also Figure 8-2 later in this chapter).

step	minutes	activities
1	4	warm up: settling in, stretching exercises and a game of Simon Says.
2	8	lesson introduction: teacher-led input to whole class, introduction of materials and modeling of task; teacher assigning pairs of learners to work together.
3	16	pair work: including two occasions of teacher time with the C01-C06 pair. As each pair finished, they moved around the room and talked with others who were still completing.
4	5	lesson conclusion: teacher-led review with whole class.
5	3	warm down: class song as transition to next lesson.
	36	

Table 8-1. Lesson steps

Participation frameworks. Interactions in the lesson are a mixture of teacher-led whole-class discussions (steps 1-2 and 4-5) and task-time during which the teacher and assistant teacher spending time talking with student pairs (step 3). The teacher is in expert role and the children in novice role,

both for the Maths concepts and the English language through which the lesson content is taught. The focus children – C01 aged 7;4 and C06 aged 8;3 – interact with each other, their teacher (T), other children in the class (O), and me, the researcher (R) (Figure 8-1).

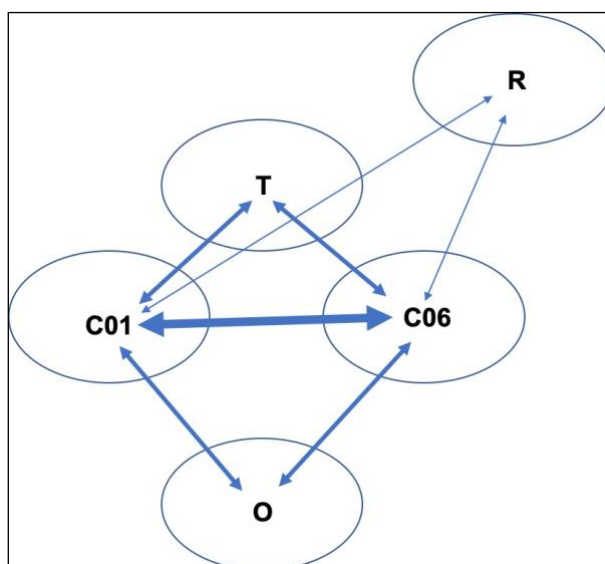


Figure 8-1. C01-C06 micro social network

I set up the equipment and re-positioned it to focus on C01 and C06 at different stages of the lesson. At those times they spoke briefly to me (mostly about the equipment). Otherwise, I was in another part of the room working with other pairs.

Habitat. The recording was made in the children's usual classroom. This is C01's second year and C06's third year at school. They were surrounded by furnishings and resources typical of a school classroom. The children's parents and grandparents were educated in this school.

Artefacts. The children use scissors, glue and teacher-made worksheets. Such items necessarily involve incorporation of borrowed words into the discourse, which cannot be interpreted as a sign of language shift. The teacher maximises student learning by demonstrating manipulation of the materials to the whole class at the start of the lesson (step two in Table 8-1).

Semiotic repertoires. The task requires the students to interpret images and sort them into three columns in a table (discussed below with respect to Figure 8-2). The teacher maximises student engagement and understanding by using images of local items and events (lesson step two). The children participate in a physical game at the start of the lesson (lesson step one), and a song at the end of it (lesson step five). Childhood games, chants, songs are among the examples of semiotic

repertoires in Ochs et al. (2005). By this stage in their education, the children in this study are becoming familiar with several of those used in classroom contexts.

Ideologies. As discussed at length in Chapter 4, schooling is a significant site of ideological contestation about the status and role of English and Arrernte. Relative to other remote communities, the school system and the school in this study, have been more inclusive of children's L1 and teacher education for local community members. One or two assistant teachers who share the children's linguistic repertoire work alongside the non-Indigenous teacher in each classroom. They guide and apprentice children in the school context. Amongst the ideologies that came up often in my conversations with Arrernte parents/carers and educators was the notion of *a good education*. While they are vocal about and committed to Arrernte language and culture in the children's schooling, they also want English language and 'Western' knowledge systems for them. The children in the classroom in this study – and their teacher and assistant teacher – are at the receiving end of the extent to which these views are prioritised and resourced by Education systems and sectors, pre-service teacher education providers, in-service teacher professional learning providers, curriculum developers.

8.1.2. Research questions

Of the research questions set for this thesis, the ones that feature in this chapter are emphasised in bold here:

1. **What are the language repertoires of the children in this study?**
2. **How do they deploy their linguistic repertoire and communicative skills in three** sample contexts:
 - telling narratives, prompted by four textless picture books
 - giving spontaneous first-person recounts, told in the sand
 - **learning mainstream curriculum content, in a classroom setting.**
3. Given concerns about language shift, what are some morphosyntactic properties of the children's Arrernte?
4. **What are some sociocultural dimensions of the discourse data?**

8.2. Data and analysis

The classroom recording was made in a single take with a video camera on a tripod. An external microphone on the floor near the focus children, and a lapel microphone on C01 picked up both girl's voices during the pair activity, and their interactions with other peers. As outlined in Chapter 3, in addition to the Arrernte transcription, interlinear gloss and English translation tiers, the ELAN file includes a notes tier to capture information associated with each utterance, e.g. materials being used, speakers' physical actions and interlocutors.

The unit of analysis is conversational turns/clauses. For turns with more than one verb, each clause is analysed separately. These are of interest since borrowed verbs characterise the formally mixed languages discussed in Chapters 2 and 5. Some turns in the data here are verbless and consist of single words or short phrases in response to previous interlocutor turns, e.g. *Certain!* and *Um, in the cities*.

8.2.1. Languages

C01 and C06 produced turns/clauses in Arrernte, English and an admixture of Arrernte and English.

Arrernte

Arrernte-only turns/clauses in the data are well formed, as in 8.1. Some include **loans** that could reasonably be expected, as in 8.2. Some borrowings are well established, included in the Arrernte grammar and/or dictionary, i.e. considered to be incorporated into Arrernte, as in 8.3. (Chapter 5 outlined similar examples).

8.1	C01 to C06:	kele nhenhe the arrerne-me ok this 1sgA put-PRES ok I'm putting this one (placing dinosaur picture with others to be sorted)
8.2	C06 to C01:	unte are-ø swimming pool kwenhe lyete 2sg see-IMP swimming pool ASSERT today you see the swimming pool definitely (is open) today

- 8.3 C01 to C06: nhenhe-yaye Susan-**thayete** are-ø-aye
 here-draw.attention Susan-side look-IMP-EMPH
 look here on Susan's side (telling C06 to sit near where I had set up the video camera)

Thus, the definition of an Arrernte-only turn/clause is broad. It recognises that Arrernte spoken by all generations naturally includes some material derived from English or an English contact variety.

English

English-only turns/clauses in the data have standard and non-standard features, and include informal usage by the children and teacher too, as in 8.4 and 8.5. Also, since participants referred to items and events that both speaker and hearer could see or had mentioned previously, many turns in the data are not 'complete sentences' but can still be considered standard English, as in C06's response in 8.5.

- 8.4 C06 to T: it's **gonna** be open today (referring to the swimming pool)
- 8.5 T: ok certain, well so where are you **gonna** put that (picture of a shop)?
 C06: first one (in the first column, in the 'will happen' column).

Non-standard forms may reflect learner progress towards acquisition of more standard English forms, as in C01's turn in 8.6. The non-standard forms in 8.7 could be attributed to C01's L2 learning trajectory, or consistent with the way English is generally spoken in the community.

- 8.6 C01 to T: and and swimming pool it **be** open
 C06 to T: it's gonna be open today
- 8.7 C01 to T: yeah Chloe Chloe (getting T's attention). Me, Maria, Lisa and Ruby **was** jumping on/an' um/em trampoline. But I **bin** come back with Ruth to um [placename]. And I **seen** one rainbow over there, little. And one big rainbow over that side.

Thus, the definition of English-only turns/clauses is broad. It recognises that they can be short responses, and that the children in this study are exposed to both standard and non-standard/contact varieties in the process of acquiring English.

Admixture

Admixture turns/clauses are neither extensive nor insignificant in the data, accounting for 12% of the total produced by each focus child. Of the three kinds of turns/clauses, they are comprised of the most diverse range of constructions. They combine elements of Arrernte and standard English as in 8.8, or Arrernte and **non-standard (learner or contact variety) English** as in 8.9.

Some of these turns contain forms likely to be adopted early in language contact situations, e.g. 8.10. There are also tokens of tensed English subject pronouns as in 8.11, and negatives as in 8.12. (Chapter 5 outlined similar examples).

8.8	C01 to C06:	wemeye nhenhe can be in the middle some.one/thing this can be in the middle these ones can be in the middle
8.9	C06 to C01:	no, iltye ngkwinhe move-eme-ø no hand 2sgPOSS move-tr-IMP no, move your hand away
8.10	C01 to C06:	cos arrpenhe mape kwenhe mpwepe-nge ane-tyenhe because other pl ASSERT middle-ABL be-FUT cos the other ones will be in the middle
8.11	C06 to C01:	alakenhe-antaye, we'll alakenhe ake-rle like.this-too we'll like.this cut-GenEvt like this too, we'll cut it like this
8.12	C01 to O:	don't nhakwe are-rle don't there(dist) look -GenEvt don't look over there (at the camera)

All Admixture utterances involve some kind of switch. However in the classroom data, as in the textless picture book data, they are unpredictable in their structure (in contrast to systematic contact codes, as discussed in Chapter 5).

Other

Some turns are analysed as *other*, e.g.:

- non-verbal responses, e.g. nod
- non-word turns, e.g. squeal; *shshsh* (C06 to O who was interrupting C06's conversation with T); *uh-uh-uh-uh* (C06 rhythmically bouncing body while sitting); *ba-be-ba-be-be* (C01 blowing into microphone)
- *um*, *mhm* as stand-alone turns, where it wasn't possible to determine whether they were Arrernte or English
- sing-song/chant turns, e.g. *eleye-bele-be-were* (C01 singing into microphone); class-chorus countdown to complete activity, i.e. *10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0!*
- spelling aloud to write name on worksheet, e.g. M-A-R-I-A.

All turns

C01 and C06 most frequently produce English, followed by Arrernte and Admixture turns/clauses (Table 8-2). The high frequency of English can be attributed to the English-medium mainstream curriculum lesson, and to two interactions between C01, C06 and their English-speaking teacher in step 3 of the lesson which comprises a significant portion of the transcript (Table 8-1). C01, C06 and other children in the class do produce English-only turns amongst themselves. However, when their teacher is not addressed, nor an over-hearer of their conversation, they can also use Arrernte and Admixture.

	English	Arrernte	Admixture	Other	Total
C01	85 (44%)	54 (28%)	23 (12%)	30 (16%)	192
C06	94 (51%)	38 (21%)	23 (12%)	29 (16%)	184

Table 8-2. Number of turns/clauses produced in each code

8.2.2. Communicative purposes

Three main communicative purposes arose from a review of all turns/clauses in the recording: organising, on-task and off-task, illustrated in 8.13 – 8.21. Each of the purposes could be mapped to the same range of possible speech act types, e.g. organising, on-task and off-task turns could all be imperative in form.

Organising turns

Organising turns are for arranging materials and directing people, as in 8.13 – 8.15. They include utterances for clarifying and following teacher instructions, deciding where to sit, who's doing what.

8.13 C01 to C06: I'll nhenhe ake-rle
 I'll this cut-GenEvt
 I'll cut it

8.14 C06 to C01: unte glue-eme-ile-me
 2sg glue-tr-CAUS-PRES
 you're gluing

8.15 C01 to C06: no you got help (you have to help me).

On-task turns

On-task turns are for being involved in the lesson and completing the task, as in 8.16 – 8.18. They include utterances for discussing pictures, giving or changing an opinion, agreeing, disagreeing.

8.16 C06 to T: because we know it's everytime Wednesday, Thursday, Friday
 (explaining the pool opening days/times; therefore this picture
 belongs in the will happen column).

8.17 C06 to T: because we got no dinosaur in here this community (explaining why
 this picture belongs in the won't happen column)

8.18 C01 to C06: eh arrangkwe-ewe nhenhe-nge ware ane-tyenhe

eh no/not-EMPH+ here-ABL just/only be-FUT
 eh no (the rain) is only gonna be here
 (disagreeing and explaining why the rain picture belongs in the
will happen column).

Off-task turns

Off-task turns are for talking about matters peripheral to the task, as in 8.19 – 8.21. They include social talk, as in 8.19. They also include attempts to get other children to go away or not copy, as in 8.20 and 8.21. These are not organising turns as they are not related to the task.

8.19 C01 to C06: but ayenge kwenhe after school kwenhe ayenge town-werne alhe-me
 but 1sg(NOM) ASSERT after school ASSERT 1sgS town-ALL go-PRES
 but I'm going to town after school.

8.20 C01 to O: don't nhenhe are-rle
 don't here look/see-GenEvt
 don't look here [at our worksheet]

8.21 C06 to T: they wanna just copy us mob.

All turns

Table 3 shows the proportions of turns produced for the three main purposes. C01 and C06 are clearly more involved than not involved in the lesson, since both organising and on-task turns are related to the lesson. The former are for task logistics; the latter more closely related to task content.

	organising	on-task	off-task	other	total
C01	46 (24%)	69 (36%)	47 (24%)	30 (16%)	192
C06	43 (23%)	80 (44%)	32 (17%)	29 (16%)	184

Table 8-3. Number of turns/clauses produced for each communicative purpose

The children do not exhibit a strong association of particular codes with particular purposes. They move fluidly between Arrernte, English and Admixture for the three purposes, as evident in 8.13 – 8.21, and as excerpts in the remainder of this chapter will illustrate.

The three communicative purposes found in this data partially correspond with those proposed by authors who have worked on functions and registers of classroom discourse (Cazden, 1988; F. Christie, 2002). Organising turns correspond to Christie's *regulative register* for overall directing and sequencing of classroom activity, while on-task turns correspond to Christie's *instructional register* through which lesson content is taught and learned (F. Christie, 2002, pp. 3, 10).

However, there are also notable differences in the analysis in this chapter. Firstly, it includes turns in which it is the children who (attempt to) regulate their own, their peers' and teacher's behaviour. Secondly, Christie (2002) and Cazden (1988, pp. 54, 150-153) do not analyse off-task talk, though both acknowledge the common occurrence of various kinds of student behaviours and talk that do not contribute to lesson goals. While Christie and Cazden focus on English-speaking students' language use, this investigation of the children's linguistic repertoire and the vitality of their L1, make off-task turns an important inclusion, alongside the other two types.

8.2.3. Understanding and talking about lesson concepts

Having described the ways C01 and C06 drew on their linguistic resources and used them for various communicative purposes, this section moves to examine connections between learning English and learning Maths concepts through English.

Figure 8-2 represents the pair's completed worksheet, after discussions with each other and their teacher. This finished product demonstrates their essential understanding of key lesson concepts. No picture could be considered incorrectly placed, though *rain* and *rainbow* might arguably better belong in the same category.

Probability		Name: _____
Will happen certain pool teacher Nick lunch rain night shop dog	Might happen football training rainbow	Won't happen impossible dinosaur snow fishing

Figure 8-2. Lesson worksheet 2. Categorisation of pictures by C01 and C06

While the children demonstrate understanding of key concepts, a separate question is how they expressed and explained their thinking and learning. The excerpts below illustrate ways their learning emerges through organising and on-task turns, in English with their teacher, and in English, Arrernte and Admixture turns with each other. (Off-task turns will be less relevant here).

Teacher-child interactions

The teacher played a key role in guiding the learning and providing the required English input. From the range of strategies she employs, she is evidently sensitive to communicative needs of L2 learners, e.g. acting out and drawing images to convey meaning; scaffolding and revising; recasting and extending learner utterances. Two main patterns are evident in teacher-child interactions: information jointly constructed by teacher and children (as in 8.22) and information constructed more independently by children (as in 8.23).

Excerpt in 8.22 exemplifies teacher-guided construction of knowledge, and simultaneous modelling of English. She presents the concept *might happen* through a series of connected ideas to form an explanation (lines 7, 9, 11): it's not football season, but our local team sometimes still practises on the oval, so it might happen. The children are not required to produce such clauses independently, only to confirm or deny them (lines 8, 10). This kind of co-construction of concepts and scaffolding of language is common in the recording. It occurs in teacher interactions with the whole class and with student pairs.

8.22 Excerpt

- 1 T: what about, oh here's an interesting one, football training. Is it certain or impossible, or-?
- 2 C01: certain
- 3 T: certain?
- 4 C01: no, might happen
- 5 C06: m-m-might happen
- 6 T: maybe, do you think, might?
- 7 T: is it football season at the moment?
- 8 class: no
- 9 T: it's not football season, but sometimes do our footy players practise?
- 10 class: yeah
- 11 T: sometimes we see them on the oval, so I think that's might happen.

Excerpt in 8.23 exemplifies a different pattern in teacher-child interaction. Here the teacher spends time with the C01-C06 pair, discussing their completed worksheet. She does not scaffold the language for them (as in 8.22) but instead asks open-ended questions that require them to formulate their responses more independently.

8.23 Excerpt

- 1 T: ok so tell me about these ones (pointing to the 4 pictures in the *won't happen* column: *dinosaur, rainbow, snow, fishing*)
- 2 C01: um it don't happen
- 3 C06: they don't any, too many these (pointing to the 4 pictures)
- 4 C01: this not in our community (pointing to the *dinosaur* picture)
- 5 T: what is it?
- 6 C01: it's in long way, this thing
- 7 T: what is it?
- 8 C06: it's a dinosaur
- 9 C01: dinosaur
- 10 T: ok, what else?
- 11 C06: it's a rainbow
- 12 C01: and this don't and this don't come to this house (pointing to the *snow* picture). It only just the rain comes.
- 13 C06: snow won't come for here
- 14 C01: and just the thing, and sun get out
- 15 C06: rain (providing C01 with the word she means by 'thing' in line 14)

16	T:	ok but we don't have snow
17	C01:	mhm
18	C06:	yeah
19	T:	ok what's this?
20	C01:	ah a water (referring to the river in the <i>fishing</i> picture)
21	C06:	we don't have ocean but we don't have fish, only them on the shop in the fridge
22	T:	oh so we can't go fishing around here
23	C06:	yeah
24	T:	ok
25	C01:	or we got just go long way to have a fishing.

C01 and C06 understand lesson concepts in excerpt 8.23. However, their responses to teacher questions (lines 1, 10, 19) are characterised by English language learner features (lines 2, 3, 6, 12, 13, 14, 20, 21, 25). These turns indicate many word and sentence patterns not yet mastered which would benefit from intentional EAL/D teaching, e.g.:

- lines 1-3: Both C01 and C06 understand the concept *won't happen/impossible* but their ability to communicate this could be enhanced through class practice of constructions, e.g. *I don't think they will happen. We think these ones are impossible.* C01 uses *it* for plural referents, while C06 correctly uses *they*. The form *it* for 'one' and *they* for 'more' could also be pre-taught.
- lines 12-18: both C01 and C06 know *snow* is impossible in their community. However, while C06 knows the word *snow*, C01 doesn't until peer-tutored. Teaching all vocabulary items for the pictures before the pair task, and practising some multi-clause constructions, would provide students with skills to express their learning through their L2, e.g. *We have rain and sun, but the temperature is too warm in our community, so snow is impossible here.*

These suggestions are not comprehensive, but illustrate how L2 teaching can be embedded in English-medium lessons, i.e. planning a target set of vocabulary items and constructions for learners to practice, hear and produce in a lesson tied to particular learning outcomes in the curriculum for a specific subject, in this case Maths.

EAL/D teaching is under-resourced for students who speak a traditional or new Indigenous language (e.g. Kriol, mixed languages). Teachers and assistant teachers in remote schools, including the one in this study, have prime responsibility for making the standard curriculum for all subjects accessible to their students. Yet they do not have specialist EAL/D training, and have limited access to specialist EAL/D advisors. This is despite many calls for stronger EAL/D support and resourcing for this teaching context (e.g. Angelo, 2013; Angelo & Hudson, 2018, 2020; Freeman & Staley, 2018; P. Lee, Fasoli, Ford, Stephenson, & McInerney, 2014; Silburn, Nutton, McKenzie, & Landrigan, 2011).

Child-child interactions

When the teacher is not a participant in the interaction C01 and C06 produce organising and on-task turns in Arrernte, English and Admixture. These child-child interactions involve peer support (as in 8.24) and frequent use of expressions and gestures reflecting the shared nature of the materials and task (as in 0).

Excerpt 8.24 occurs at the beginning of the pair task. In line 1 C01 shows she knows that cutting out the pictures is necessary. In line 2 C06 holds the scissors and starts the task. In lines 3-4 C01 tries to deduce what they had to do with their materials; and states what they did not have to do, i.e. not write their names on worksheet 1 (since that sheet of pictures would be cut up and would not be the final product of their learning). In line 5 C06 demonstrates the first step in the task for C01. C01 watches C06 cut out the first picture, and in line 6 asserts she herself knows what to do. However, that turn is unfinished, and omits any detail of what needs to be done with the three pictures. In lines 7-9 C06 produces a series of clauses, uninterrupted by C01, explaining the task requirements using the *pool* picture as an example. By the end of this excerpt, C06 has led C01 to a clearer understanding of both the logistics and concepts involved. Through demonstration she helps C01 understand what they need to do and the concept of *will happen/certain*.

8.24 Excerpt

- 1 C01: yanhe ake-ø-aye
 that(mid) cut-IMP-EMPH
 cut that
 (referring to worksheet 1)

- 2 C06: you wait, me first
 (starting to cut out the pictures on worksheet 1)
- 3 C01: oh we must be gotta do-
- 4 C01: not not name, not name
- 5 C06: alakenhe-antaye, we'll alakenhe ake-rle
 like.this-too we'll like.this cut-GenEvt
 like this too, we'll cut it like this
- 6 C01: I know, three-pele wemeye nhenhe mape-
 I know three some.one/thing this pl
 I know, these three things here-
 (pointing to the first column of three pictures that need to be cut out)
- 7 C06: hey nhenhe unte are-me? nhenhe unte are-me?
 hey here 2sg see-PRES here 2sg see-PRES
 hey you see here? you see here?
- 8 C06: you arrerne-rle nhenhe-ke, unte are- $\emptyset$ swimming pool kwenhe lyete
 you put-GenEvt here-DAT 2sg see-IMP swimming pool ASSERT today
 you put [it] here, you see swimming pool is definitely open today
 (pointing to the *will happen* column)
- 9 C06: you first wan
 you first one
 you first one
 (pointing to first column on worksheet 2, the *will happen* column).

Excerpt 0 illustrates how C01's and C06's turns rely on both participants' ability to see and manipulate the materials, e.g. they refer to the *snow* and *shop* pictures using *nhenhe* (this/here) and *yanhe* (that/there). In lines 1-2 C01 places the *snow* picture in the *will happen* column, without explanation. In line 3, C06 disagrees but also gives no explanation. In lines 4 and 6, C01 accepts that C06 is right. In lines 5 and 7, C06 gives her opinion about the *shop* picture simply by placing it in the *will happen* column, without overtly providing a reason.

- 8.25 Excerpt
- 1 C01: ok certain
(placing *snow* picture in *will happen/certain* column)
- 2 C01: or ah kwene-thayete-ke arrerne-me?
or ah under-side.of-DAT put-PRES
or put [it] under?
(moving *snow* picture from beside to under the word *certain*)
- 3 C06: no-o, shoulda put-
(telling C01 not to put *snow* picture in *will happen* column)
- 4 C01: no, nhenhe-yaye
no here-draw.attention
no, here
(moving *snow* picture to *won't happen* column)
- 5 C06: nhenhe eh
this/here eh
[it goes] here eh
(placing *shop* picture in *will happen* column)
- 6 C01: nhenhe-ke-yaye
this/here-DAT-draw.attention
for here
(touching *snow* picture in *won't happen* column)
- 7 C06: yanhe arrerne-tyeke
that(mid) put-PURP
put that one
(touching *shop* picture in *will happen* column)
- 8 C01: cos arrangkwe kwenhe
because no/nothing ASSERT
because there is none
(touching *snow* picture in *won't happen* column).

The C01-C06 discussion of *snow* and *shop* illustrates their tendency not to expect each other to state reasons for their opinions (though C01 does give a reason why *snow* should be in the *won't happen* column in line 8). By contrast the teacher engages them in more detailed explanations, as in 8.23, thus extending their L2 English production.

A significant property of this lesson recording is that the assistant teacher happened not to interact with the C01-C06 pair. Potentially, she could have extended their expression of their ideas in 0, thus extending their L1 production. That is, developing children's L1 and L2 skills alongside their learning of concepts is fundamental to their education.

However, extending children's L1 skills in some areas of the mainstream curriculum is not straightforward. The assistant teacher highlighted challenges she faces when translating subject matter that does not have established terms in Arrernte. She gave the example of *fraction* as being particularly difficult topic to talk about in Arrernte (Poetsch, 2020). During the bilingual education era (discussed in Chapter 4), there was some support for the kind of language planning and language engineering work required for such challenges. In the 1980s for example, workshops held as part of the Remote Area Teacher Education program brought together Central Australian Aboriginal educators from networks of communities with a shared L1 and a teacher-linguist to prepare agreed ways of translating and talking about concepts such as number, decimal, money, length, area, volume and mass. Currently, these kinds of collaborations and workshops are rare (P. Lee et al., 2014, pp. 47-72; though for an exception see Wilkinson & Bradbury, 2013).

8.2.4. Physical and social behaviours

Organising and on-task turns show the children's developing familiarity with classroom norms. They attend to teacher input and instructions, use the materials, sit and discuss concepts, collaborate and complete the set task, respond to teacher questions and directions, join in various participant frameworks. Their teacher and assistant teacher have many (verbal and material reward) strategies for encouraging desired behaviours, and discouraging actions that interrupt classroom learning.

Socialisation into the distinctive turn-taking, activities, roles and goals of institutional schooling does not necessarily always mean compliance. At any given point in any school day, students may be inattentive, misbehaving, expressing frustration from lack of understanding or progress. In excerpt 8.26 for example, the teacher is pairing children and handing out materials. C01 and C06 would prefer

to work with different partners. They use English and Arrernte to protest or attempt to over-ride the teacher's direction, but are unsuccessful. After this short interaction, both C01 and C06 willingly enter into the task together.

8.26 Excerpt

1	T:	I'm going to choose J and B. J you go get one pair of scissors and sit with B on the floor.
		I'm going to choose L and R. You two go together. One pair of scissors and sit on the floor. Find a place!
		I'm going to choose C06 and C01.
2	C06 to T:	No-o
3	T to C06:	Are you complaining?
4	C01 to T:	He (C06) wanted to sit with him (naming another child). Well (how about) me and Shaniqua?
6	T:	C06 name and C01 name. (Said insistently)
7	C06:	Atyenhe way. Ngke! 1sgS way give.me.a.break Oh, not my way. / This isn't the way I wanted it. (Said grumpily)
8	T:	Ah, who's the boss, who's the boss in here?
9	Class chorus:	Chloe, you Chloe!
9	T:	That's right!

8.3. Discussion

The children made full use of Arrernte and their early-stage English language proficiency throughout this recording. In fact, it is by moving fluidly between their languages that they are able to actively engage in the lesson. The conversations with their teacher and each other, and their completed worksheet, are evidence of successful learning. However, the analysis also indicates that the teaching team's capacity, and thus the students' abilities to discuss the lesson concepts in their L1 and L2, could be better supported.

The teaching team stated that they struggle to cover all of the required learning outcomes in the standard curriculum. This struggle can be attributed to the fact that the students need time to learn both the concepts and the English required for discussing the concepts.

This team also observed that, as children progress through their school, the gap between their L2 proficiency and the standard curriculum widens. Although children are likely to continue to use peer support strategies, in later school years there are further challenges: curriculum content in all subject areas becomes more removed from learners' immediate experience, and designing tasks based on concrete materials becomes more difficult. For example, in the Statistics and Probability strand of the current Mathematics curriculum (ACARA 2012), the content descriptions for Year 6 are:

- *describe probabilities using fractions, decimals and percentages*
- *conduct chance experiments with both small and large numbers of trials using appropriate digital technologies*
- *compare observed frequencies across experiments with expected frequencies*
- *interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables*
- *interpret secondary data presented in digital media and elsewhere.*

8.4. Conclusion and direction

Analysis of the sociocultural and linguistic dimensions of the data reveals: (a) how the children are beginning to take on the role of student, as they are apprenticed into English language and classroom ways of interacting and learning and (b) properties of the Arrernte and English produced by the children, how successful their learning is, and how it could be made more effective for them.

The classroom in this chapter illustrates affordances granted by the broader socio-educational environment, i.e. two staff members in one classroom, including an assistant teacher who shares the students' linguistic repertoire. However, it is also subject to structurally determined constraints, i.e. curriculum not specifically designed for the linguistic background of the children in this classroom, and insufficient support and direction for the teaching team for EAL/D and L1 language planning.

The next chapter reviews the overall linguistic properties of the children's discourse, and their broader communicative skills, and draws together the linguistic and ethnographic findings of the thesis as a whole.

Chapter 9 Discussion

9.1. Introduction

This chapter draws together the main findings from the discourse and ethnographic data. It reviews ways the children in this study differentially deploy their linguistic and broader communicative proficiencies across the sample situations (textless picture book narratives, sand stories, classroom learning). It connects these three micro-contexts to the linguistic input and to local community and wider society ideologies that facilitate or undermine children's Arrernte and standard English L2 learning in this particular language contact situation.

9.2. Communicative events

Language documentation approaches aim not only to describe the forms and rules of a language but also to detail the linguistic practices and traditions of a speech community (Himmelmann, 1998, 2006, 2012). This overlaps with language socialisation approaches, which seek to describe the organisation of regularly occurring communicative events (or discourse practices) that are unique to a speech community, and situate them within ways of behaving in the culture (Ochs & Schieffelin, 2008, 2012, 2017; Schieffelin & Ochs, 1986a, 1996). However, while speech communities have traditional communicative events with long histories, hybridity also characterises languages and cultures in contact in experts' and novices' lives (Ochs & Schieffelin, 2012, 2017).

Of the three discourse data sets described in this thesis, on the surface the textless picture book narratives least match the notion of a communicative event associated with Arrernte traditions. However, although a constructed task it is not unfamiliar at Ltyentye Apurte due to contact with introduced literacy practices. The picture book narratives provide rich information on children's grammatical competence, an important concern for minority language speech communities.

The sand story (*tyepetye*) data set most closely fits the notion of a traditional communicative event. It usually occurs seated on/near the ground, and can be embedded in *ayeye angkerreme* or *talking story*, when people gather informally, chat, tell personal anecdotes etc. Socialisation into and through personal storytelling is culturally differentiated. Narratives told to and by children have culturally-favoured characteristics in particular speech communities (e.g. Miller et al., 2012). This study presented telling personal stories in the sand as a special practice children acquire at Ltyentye Apurte.

The classroom lesson is a multifaceted communicative event experienced daily by children, with adult community members present as active guides and role models. It is filled with adopted practices, experienced through formal education since the community and school were established at Ltyentye Apurte in 1953. While each component of each lesson each day in a Year 1-2 classroom is different, there is a probable pool of activities, semiotic systems, interactions and tools for this context. What was of interest in this study was not to articulate the nature and organisation of classroom communicative events, but to describe ways that the children are being and becoming students and are incorporating a more standard variety of English into their linguistic repertoire early in their school years.

In this study the children's discourse provides evidence for fundamentally Arrernte identities that also encompass emerging bi-/multilingual bi-/multicultural ways of communicating. In this generation, the community's practice of sand storytelling both endures and adapts; and the introduced practices of picture book narratives and classroom teaching and learning are further embedded into the community's communicative repertoire.

9.2.1. Textless picture book narratives

Audio recordings of 8 boys and 9 girls (C01, C02, C05, C06, C07, C09, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20) each telling four picture book narratives have been the foundation for establishing whether the children are speaking Arrernte and how strong their Arrernte is. The analysis began by setting aside some of the English/English-derived elements in their discourse, starting with long-established loans also documented in adult speech, e.g. *ante* (from 'and'); loans for introduced objects/notions, e.g. drive a car; and adapted verb structures, e.g. *boil-em-ile-ke* (boiled). The past tense marker *bin*, a salient feature of creole/Kriol and English varieties spoken by Aboriginal people, was also set aside as it occurs rarely and unsystematically in the children's narratives (though not at all in the adults' narratives). No regular English/Kriol word order patterns were found in the children's Arrernte. In fact, Arrernte SV and AOV word order and variations are typical in the children's production.

The initial examination of the picture book narrative data did find some evidence for Arrernte educators' concern about weakening of the lexical resources of Arrernte as a result of contact with English. Compared with adults the children use more English verb roots, though consistently incorporated into Arrernte morphology, e.g. *rest-irre-tyenhenge* (rest INCH-SBSQT) 'to then rest'. And

children use Arrernte and/or English lexical items whereas adults use only the Arrernte, e.g. *akangkeme* (happy).

The data also confirmed widespread use of what Arrernte educators label *kid words*. The two most blatant to adults are: *itne-areye* (3plS/A-grp), which has a redundant morpheme (-grp) and which nine of the children used for dual entities, or they used the 3plS/A-grp and 3dIS/A forms interchangeably; and *alpe-irtne-me* (return-REVERS-PRES) ‘returning back’, which has a redundant morpheme (REVERS). Educators also identify weaknesses in children’s Arrernte lexical resources and associated cultural knowledge in specific domains that the school program works to reinforce, i.e. compass directions, kinship/skin group terms, bird and tree species.

However, the fundamental finding from the textless picture book data is that all of the children competently produce basic Arrernte morphosyntax. Having established that they are essentially speaking Arrernte, the study could go on to examine their use of two of the more complex features of Arrernte grammar.

For the first of these, the definitising function of 3sg pronouns in Arrernte NPs, 16/17 children produced evidence of the system. 17/17 correctly used [N (X) *re*] for 3sg NOM/ERG entities (between two and 24 times). 16/17 children correctly used [N (X) *renhe*] for 3sgACC entities (between one and ten times).

[N (X) *re*] was used incorrectly for 3sgACC entities by 9/17 children, accounting for 12% all productions. [N (X) *renhe*] was used incorrectly for 3sgNOM/ERG entities by 5/17 children, accounting for 19% all productions. 5/17 children made no errors with either of the NP constructions – two are in the younger half of the cohort (under 9 years), and three are in the older half of the cohort (9 years and over).

At the phrase level, the constructions are always a correctly formed as [N (X) *re*] or [N (X) *renhe*]. It is at the clause level, expressing constituent roles, that they are not controlled. Children correctly attempt to produce a form that marks a phrase as definite. The right form for the relevant role is the problem. No child fails to distinguish *re* (3sgS/A) and *renhe* (3sgACC) as independent pronouns at any point in any of the stories. Thus, the acquisition challenge lies with children understanding that the definitising construction both tracks participants in discourse and marks the case role of the NP in the clause.

Children were also found to use various non-definitised NPs (i.e. NPs with REMEM, demonstratives, ERG, POSS and simple non-definitised NPs) even when referring to previously mentioned entities. Although these NPs are grammatically well-formed and are used appropriately at clause level, they are intruding into the definitising system. That is, children use them where adults prefer definitised NPs.

For the second more complex feature of Arrernte investigated in the picture book data, the switch reference (SR) system, 10/17 children produced the most minimal evidence: at least one marker for same subject in the switch reference system (SS SR) and at least one marker for different subject in the switch reference system (DS SR) somewhere across the stories. Meanwhile 7/10 children did not provide evidence of the systemic contrast, i.e. two children did not produce SS SR nor DS SR at all, and another five children produced only one member of the system. Children do, however, display morphological knowledge of two structures (NARR PRES and PERC COMP) which have the same form as SS SR and DS SR respectively, and show the complexities of this learning space. Ungrammatical productions were negligible, at 2/23 SS SR (0.5%) and 3/29 (1%) DS SR. All were ungrammatical because there was no candidate finite verb on which they were dependent.

Where adults construct complex SR system clause chains to express same and different subjects in macro-events on and across story pages, children tend to produce tense inflected verbs in series of independent clauses (coordinated through conjunction and juxtaposition) and/or independent clauses with PURP-marked dependent clauses. These are grammatically accurate but different from adult-like selections for this narrative function.

Briefly, there is limited evidence of the SR system proper in the data, for most children. Definitisation of NPs is more established than switch reference in children's production. Although there is incomplete evidence for all children's extensive use of both of these systems, the adult-like production throughout the data set is noteworthy considering the analyses involve complex aspects of Arrernte, in a late-acquired discourse type, and compared children to much older speakers.

Variation

However, through the picture book data variation emerged as an issue. The variation was explored in three ways. Firstly, age was found to be a weak predictor of the differences between children's use of each of the two grammatical systems investigated. Some younger children produce both aspects of both (i.e. [N (X) *re*] and [N (X) *renhe*], SS SR and DS SR) in adult-like ways while some older children do

not. Also errors and non-adult-like productions are in the discourse of both younger (under 9 years) and older (9 years and above) participants. Thus, secondly, differences between the children became a topic of conversation with the Arrernte educators. They are aware of variation in the strength of children's Arrernte and grouped the children in the study according to whether their Arrernte production is strong, mid-level or weak. Thirdly, this led to further discussions with the educators about their observations on factors that influence these differences in the strength of children's Arrernte, discussed below with respect to language input and ideologies in § 9.3.

9.2.2. Sand stories

Video recordings of five girls (C01, C06, C11, C14, C23) spontaneously recounting personal experiences in the sand are evidence of their skills for integrating speech, drawing and use of stylus. Thus, they are accessing vocal/auditory and visual/kinesic resources found in such storytelling practices in Central Australian communities (Green, 2014, 2016, 2020; Green & Turpin, 2013; Wilkins, 1997a). The analysis in Chapter 7 offered ways for conceptualising how children lay out their stories and package events with entities, path lines, swipes in this genre.

Asked to tell a scary story, all participants do so in the first person. Their story worlds are anchored in the real world, based on their factual knowledge of monsters and similar beings widely known in the community. Through their sand stories the narrators construct their identity as (a) a speaker of Arrernte who can integrate co-/non-verbal modes and semiotic tools with speech and (b) a protagonist in their own story who is knowledgeable about the physical layout and social geography of their community.

The girls are inheriting and continuing this communicative practice, being Arrernte kids expressing Arrernte ideas in Arrernte ways. They are familiar with conventional icons (such as those in A04's discourse in Chapter 7), how to combine them to build meaning and integrate them with speech. At the same time, even as novices they make innovations, illustrating that socialisation into any given practice may be guided by experts and tradition, but is not necessarily permanently fixed (Ochs & Schieffelin, 2012, pp. 3-7). The girls adjust aspects of the practice, e.g. they narrate present-day events and monsters currently active in the community; as well as drawing inherited graphic schemas, they co-opt 'Western'-style icons into their home culture's way of storytelling. Such drawing innovations were observed in the 1980s by Wilkins (1997a). Similar adaptations of icons and tools are found in other Central Australian communities (e.g. Eickelkamp, 2011b, 2013a; Ellis et al., 2017; Kral, 2012).

9.2.3. Classroom discourse

In the Year 1-2 Maths lesson, the linguistic and physical behaviours of the focus children (C01, C06) were analysed as evidence of their in-progress socialisation into this institutional setting. They use Arrernte and beginner-level standard English, and work co-operatively to understand the requirements of the set task and learn the concepts. They produce English when the teacher is their interlocutor, and both Arrernte and English in peer-peer interactions. Their L1 use and codeswitching enables them to learn mainstream curriculum content in this linguistically and culturally L2 dominant environment. They also demonstrate familiarity with the behavioural norms, routines, artifacts and semiotic resources of this setting.

This classroom context was found to have factors facilitating students' language learning and concept learning. The teacher designed the lesson to accommodate students' stage of learning as well as their L2 English status. The assistant teacher supports student learning through her bilingual skills. However, the local classroom-school is also intensely impacted by system and sector wide structural factors (identified in Chapters 4 and 8). There is no curriculum pathway specifically designed to meet the needs of remote community students whose L1 is an Aboriginal language. The teaching team is responsible for making the standard curriculum accessible to their particular students, though they have received limited pre-service training, in-service professional learning, direction or resources for specialist EAL/D approaches or strategies for instrumentalising Arrernte for expressing culturally foreign concepts.

9.3. Language input and ideologies

In all three sample situations in this study the children are essentially using their traditional language. At the same time, Arrernte educators are aware of differences in the strength of children's Arrernte and this study found variation in use of the more complex morphosyntactic constructions for which age is only a weak predictor. Therefore, in what follows I will systematically explore the language input and ideologies in the learning environment that came up in the ethnographic data for this thesis (my participant observations and Arrernte parents'/carers' and educators' insights) that underpin language maintenance and also help to explain individual circumstances and differences between children in terms of their abilities.

9.3.1. Arrernte input

As described in Chapter 4, most people at Ltyentye Apurte are most comfortable speaking Eastern and Central Arrernte most of the time. Warlpiri, Pitjantjatjara/Yankunytjatjara, Luritja and Western Arrernte are also part of the language landscape of the community. However, these are spoken in few families and in-comers acquire and use Arrernte, though to varying degrees. L1 English speakers are also a minority group in the community. Significantly, Ltyentye Apurte is located on Arrernte Country, a factor supporting traditional language use that not all speech communities experience.

Connections to other Arrernte communities are part of the travel and social experiences of children in this study. This situation (of multiple communities where Arrernte is spoken) further supports children's Arrernte. It contrasts with other situations where a traditional language is only spoken in a single community, and perhaps by only a few older people there.

In conversations during fieldtrips 2013-2018, several adults expressed the view that Ltyentye Apurte is a good place for children to acquire Arrernte. They commented that when children spend lengthy periods of time with family in other locations where Arrernte is not the main language, they often need to strengthen their Arrernte again when they return to Ltyentye Apurte. One of the mothers told me she deliberately relocated her family from Alice Springs to Ltyentye Apurte to strengthen her children's Arrernte.

The advantage of a concentrated and majority Arrernte speaking population at Ltyentye Apurte is clearer in the light of calculations on the increasingly endangered status of Gaelic in Scotland (MacKinnon, 2006). In recent decades Gaelic has fast been approaching a tipping point, where speakers shift to speaking English as a result of migration patterns which *dilute* Gaelic communities. That is, the shift is accelerated as Gaelic speakers move away from their communities, and non-Gaelic speakers move in. Where the proportion of Gaelic speakers in any given village falls below 71%, the chance of one Gaelic speaker encountering another, and speaking in Gaelic together, diminishes significantly. The tipping point may be reached even in communities that have been considered to be strongly Gaelic (MacKinnon, 2006).

Arrernte people are not homogenous with regard to their language use; some have little proficiency in it due to current and historical hostile policies and attitudes (Henderson, 1998; 2013, pp. 1-2). Different subcommunities of a language and particular families may undergo impacts of English

contact at different rates, from those whose traditional language continues to be strong through to those who no longer speak it (Wilkins, 1993, pp. 7-8, 17). Although Arrernte is the main language for most families and the community as a whole, amongst the parents of the children in this study, a few speak it as L2 and with varying proficiencies (as illustrated in the children's profiles in Chapter 4), a language input factor that Arrernte educators identify as explaining differences in the strength of children's Arrernte.

As outlined in Chapter 3, it is usual for children at Ltyentye Apurte to be exposed to Arrernte within English-Arrernte codeswitching. The commonplaceness of codeswitching has been observed and/or formally documented since the 1980s (Harkins, 1994; Henderson, 1998; 2013, p. 1; Wilkins, 1989, pp. 30-33). Adults use English, not only with L1 English speakers but incorporated into Arrernte when speaking with other Arrernte speakers (at word, phrase, sentence and discourse levels) depending on domain, linguistic repertoire and ages of conversational partners, topic of conversation, pragmatic function, purpose, etc. Yet codeswitched input has not (or has not yet) resulted in shift to a contact code by the children in this study. A remarkable degree of stable bilingualism continues at Ltyentye Apurte. Children continue to distinguish Arrernte and English. Thus, codeswitched input may be a necessary condition but not a sufficient catalyst for shift. This is a case of children receiving sufficient exposure to unmixed input, i.e. neither codeswitching *per se*, nor lack of adherence to domain separation, automatically result in shift (McConvell, 2008a, pp. 240, 246).

9.3.2. Grandparents

The importance of grandparents, especially grandmothers, was identified as another key factor influencing the strength of individual children's Arrernte competencies (in Chapter 6). Grandparents' role is less prominent in child language research for more world-dominant languages, which instead tend to focus on mother-child dyadic interactions. By contrast, grandparents have received explicit attention in some endangered languages studies and initiatives. Notably, grandparents were at the core of the establishment of the *language nest* strategy for the revitalisation of Māori and Hawaiian (King, 2001; W. Wilson & Kamana, 2001).

Dorian (1978; 1981, pp. 76, 107-109) proposes a *grandmother effect* to explain younger generations' Scottish Gaelic competencies, in coastal villages in County East Sutherland. Interview and survey data, linguistic autobiographies and grammatical tests of speaker proficiency indicate that cross-generational ties that have been characteristic of these fishing communities, and conspicuous ties

between children and grandparents, have a positive impact on willingness and eagerness to speak the language, despite its lack of social prestige outside the community. However, exposure to a beloved Gaelic speaking grandparent increases the likelihood of improved proficiency, but does not necessarily guarantee it. Other factors are continued residence in the communities and personal determination to learn and use the language.

The progressive shift across successive generations from Alguerès Catalan (spoken in Alghero, a town in Sardinia) to Sardinian and standard Italian is attributed to the stigmatisation of their heritage language and its association with poverty (Argenter, 2013). Interview data shows the important role of grandparents for maintenance of the language and special oral genres, through close contact, empathetic involvement and frequent interaction with their grandchildren. This engenders positive feelings towards the language among younger generations and helps to overcome language discontinuity, but does not necessarily prevent language shift.

The influence of Elders in a Kaska speech community has unexpectedly been detrimental to the young generation's view of their own agency in language and culture maintenance (Meek, 2007). Due to the radical change from a bush lifestyle to a Euro-Canadian lifestyle over the past 50 years, and the community's loss of control of educational priorities, Elders' input into school programs is presented as *exotic* and *other*, marked as expert and specialised, rather than wide-ranging and quotidian. Children and youth come to consider Kaska as a language that only old people speak capably, and cultural practices as traditions that only old people perform competently, e.g. moose-hide tanning, snowshoe and drum making, storytelling.

Similarly, Northern Shoshoni Elders' linguistic authority constrains younger speakers' use of their traditional language in contemporary ways (Kroskrity, 2009). And tensions arise between Māori Elders who want successive generations to uphold linguistic tradition and respect ancestral heritage, and Māori youth who favour more dynamic linguistic repertoires inclusive of external influences and creative adaptations of the language (Albury & Carter, 2018).

Criticism of younger people's traditional language competence may inhibit them from speaking it. Judgements of *imperfect* Dyirbal, and error correction by older speakers, are among the explanations for language decline in the Jambun community, 100km from Cairns, the last location in which Dyirbal was spoken, from the vast territory and numerous community locations associated with it (Schmidt, 1983, pp. 26-27; 1985a; 1985b, pp. 18-19).

Compared with these various studies, the situation at Ltyentye Apurte has the following unique characteristics. Firstly, while older speakers regularly explicitly verbally urge children to maintain Arrernte, they do not criticise children's speech. They simply use Arrernte when interacting with children as a matter of course, and steadfastly support teaching Arrernte in the school.

The Arrernte educators involved in this study (A01, A03, A05) – grandmothers themselves – expressed the belief that they speak a more conservative version of Arrernte than the parent generation in the community as whole (though they also acknowledge that some members of the parent generation in some families do speak Arrernte well). They emphasise the effects of some children having living Arrernte-speaking grandparents, while others have passed away, and only a few children having Arrernte-speaking great grandparents.³⁶

Grandmothers commonly have a primary role in raising children, not only as a consequence of close family relationships and living arrangements, but also of pressures on parent generations associated with socio-economic disadvantage, limited employment and further education opportunities. Grandmothers provide children not only with housing and food, but also rich Arrernte linguistic input. A01 reported she consciously talks *strong* Arrernte to her grandchildren, and they ask her what she means when she uses *old* words. C12 was singled out in A01's and A03's assessment as having very strong Arrernte, which they attributed to the several older speakers in her household. This assessment is borne out in C12's use of the morphosyntactic constructions investigated, even though she is in the younger half of the cohort of study participants.

The grandmothers also highlighted their role in passing on cultural and ecological knowledge and practices. They spend time with children, using language in context and teaching skills in-situ on bush trips, e.g. collecting wood, building fires, finding witchetty grubs, digging for yams. Within the confines of the community there are also opportunities to teach skills. For example, A05 collects bush medicine nearby and prepares it in the house yard, for family members' ailments. A04 tells her grandchildren stories about star constellations, looking up at the night sky. A04 is a *ngangkere* (traditional healer)

³⁶ People in remote Aboriginal communities such as Ltyentye Apurte become parents and grandparents at younger ages and have a shorter life expectancy compared with the wider Australian public. Only 18 (3.6%) of the 500 people at Ltyentye Apurte are 65 years or older (Australian Bureau of Statistics, 2016b). By comparison, in the same census period 15.9% of the broader Australian population approximately is 65 years or older (80 per 500 people).

known to all children in the community. She visits households that request her assistance. Children regularly see her carrying out her work. Her granddaughter (C14) is especially interested in it.

9.3.3. The school program

The importance of the school's Arrernte language and culture program in maintaining Arrernte language is another factor raised by Arrernte educators and parents/carers in this study. Through the program children hear strong Arrernte from older speakers (the teacher A01 and assistant teacher A04) and learn valued aspects of Arrernte identity, culture and Country. The impact of the school program also lies in the way it bolsters input for children who receive less Arrernte in their family, e.g. C06's mother is a Luritja speaker and C20's father is a Pitjantjatjara speaker. The educators also commented on children's agency, i.e. that it is important for students to listen, pay attention, participate well and make an effort in their classes and on bush trips.

Table 9-1. is a summary of NT bilingual school programs, dates of operation, languages and publications (M. Christie, Bow, Devlin, & Simpson, 2014, pp. 18-19). Although the Ltyentye Apurte program is listed as currently still running, in fact as discussed in Chapter 4 it transitioned around 2013 to what is described as L1-as-subject program type.

Location	Approximate Dates	Main Language	Estimated No. of Books
Angurugu	1973 - 1979	Anindilyakwa	100
Areyonga	1973 - 2000s	Pitjantjatjara	150
Barunga	1976 - 1992	Kriol	350
Galiwin'ku	1974 - present	Djambarrpuyŋu	330
Gunbalanya (Oenpelli)	1974 - 1978	Kunwinjku	50
Ikuntji (Haasts Bluff)	1976 - 1992	Pintupi Luritja	
Kaltukatjara (Dockers River)	1979 - 1998	Pitjantjatjara	70
Lajamanu	1982 - 2000s	Warlpiri	100
Ltyentye Apurte	1989 - present	Arrernte (Eastern)	150
M'Bunghara Homeland	1981 - 1990	Pintupi Luritja	
Maningrida	1981 - 2000s	Burarra, Ndjébbana	400
Milingimbi	1973 - 2000s	Gupapuyŋu	250
Nguiu (Wurrumiyanga)	1974 - present	Tiwi	300
Ntaria (Hermannsburg)	1973 - 1975	Western Arrarnta	
Numbulwar	1976 - 1980, restarted 1990s	Wubuy (Nunggubuyu)	160
Nyirripi	1986 - 1998	Warlpiri	
Papunya	1984 - 1996	Pintupi Luritja	250
Pularumpi (Garden Point)	1975 - 1977	Tiwi	

Location	Approximate Dates	Main Language	Estimated No. of Books
Umbakumba	1977 - 1982	Anindilyakwa	20
Wadeye	1976 - 1980, 1996 - present	Murrinh-Patha	250
Waḷungurru (Kintore)	1983 - 1998	Pintupi Luritja	50
Waruwi	1973 - 1998	Maung	350
Watiyawanu (Mt Liebig)	1987 - 1989	Pintupi Luritja	
Willowra	1977 - 2000s	Warlpiri	100
Yayayai	1974 - 1976	Pintupi Luritja	
Yipirinya	1983 - present	Arrernte, Warlpiri, Luritja	250
Yirrkala	1974 - present	Gumatj, Dhuwaya	320
Yuendumu	1974 - present	Warlpiri	300

Table 9-1. Table of bilingual school programs, dates of operation, languages and publications

However, the enduring operation of the Arrernte program (in whichever form) is significant. Without it many children would have received less Arrernte input and experienced less of this countervailing force to the dominance of English. Children in schools in other communities in Arrernte country have not received such a consistent and sustained program. See McCormack (2019) for a recently developed program currently being delivered in Alice Springs for Middle and Secondary School Arrernte students.

The importance of the Ltyentye Apurte school program also becomes clearer when contrasted with locations where families and educators observe negative effects of lack of support for their school programs on language and culture maintenance in younger generations. Older community members at Jambun in the 1980s singled out the all-English curriculum, the absence of a Dyirbal school program, and the lack of educational value placed on the traditional language, as contributing significantly to language loss (Schmidt, 1983, pp. 28-29; 1985a, pp. 379-380; 1985b, pp. 19-20). Warlpiri, Pitjantjatjara and Ngaanyatjarra educators have made similar observations about the lack of attention to their languages in education systems and sectors (Hall et al., 2019; Kral & Ellis, 2019, pp. 120-122; Langlois, 2002; McConvell, 2008a, pp. 248-249; Minutjukur et al., 2019). The Ltyentye Apurte school program (though weakly supported at times) is unusual nationally. Many communities in Australia have had no program at all, a program of short duration (e.g. several of the programs in Table 9-1.), or a severely interrupted program.

9.3.4. The Church

In other places (both in Australia and around the world) missions have been identified as an agent of drastic language change/shift. At Ltyentye Apurte there is a mixed picture with a complex history and

relationship between the community and missionaries. As introduced in Chapter 1, the Catholic Church has a long history and ongoing close association with Eastern and Central Arrernte people (Bowden, 2019; Heffernan, 2018, pp. 57-62, 91-108; Pye, 1989; Wilkins, 1989, pp. 22, 27). Grandmothers who worked with me in this study identified a degree of diglossia in the mission days, when the community was moved to its current location at Ltyentye Apurte in 1953 and they were young students in the school. They would speak English with the mission staff and their teachers and Arrernte with their families and each other: *Just like the kids do today*, as one of them told me.

This was also the experience of a resident of Ltyentye Apurte in the same (now grandparent) generation interviewed by Harkins (1994, p. 18). Ltyentye Apurte mission school has also been described as less punitive and more welcoming of children's language and culture in the mid 1950s, especially compared with the Bungalow school in Alice Springs (Heffernan, 2018, pp. 76-77, 91-108). However, others who grew up at Ltyentye Apurte from the early 1950s (and/or at Arltunga, the previous site of the mission) have also remembered experiences in which, as children, they were forbidden to speak Arrernte; or they report mixed experiences which included acceptance or forbidding of language use at different times (Dobson, 1986; Dobson, in Hartman, 1995, p. 22; Wallace & Lovell, 2009, pp. 85-85, 97-99). Their parents also worried about loss of culture (Heffernan, 2018, pp. 105, 108, 114).

In the 1970s-1980s Sister Robyn Reynolds lived at Ltyentye Apurte. She considered the role of a missionary not only to give but also receive and learn from Aboriginal people (Reynolds, 1979). She was active in the bilingual program, creating teaching resources and facilitating training of Arrernte staff. She became a good speaker of Arrernte and also gained Linguistics qualifications to enable her to support people to establish their program (Reynolds, 1979, 1984, 1988, 1994).

Children at Ltyentye Apurte today are growing up at a time where their language and culture is more ordinarily entwined with Catholic faith for community members. Both English and Arrernte are used in church services and hymns. The interior walls of the church have ceiling to floor murals of Biblical and Arrernte Dreamtime and Country images painted by local artists (Nardoo, 2005). The influence is more bi-directional than it has been historically. Non-Indigenous Catholics are interested to learn from Arrernte people's spirituality (Bowden, 2019), as illustrated in the current Ltyentye Apurte parish Sister's reflection (Weimers, 2020):

I am often asked, "How do you fit the Arrernte culture and spirituality with your Christian/Catholic beliefs?" My response on each occasion is similar: As I have come to know and appreciate the 65,000-year-old spirituality of these people, I find a seamless interface with my own spirituality. In fact, my spirituality is richer and deeper because of my greater understanding of the Arrernte people. To be gifted with knowledge and understanding of this very ancient culture is a most sacred experience – one that I hold in wonder every day.

9.4. Language ideologies

This study sought to explore language ideologies as one means for understanding Arrernte language maintenance by members of all generations at Ltyentye Apurte in the context of the community's contact with English. To the extent that ideologies underpin practices and the framing of solutions to language maintenance challenges, they can provide insights into how, when, where and why adults in the community – and therefore the children – continue to speak Arrernte. Ideologies *infuse verbal input* and profoundly affect *the form and content of communication in the presence of language-acquiring children* (Ochs & Schieffelin, 2012, p. 10). *Continuation of local languages may be fueled through language socialization ideologies and practices that widely expose children to these codes and encourage their acquisition* (Ochs & Schieffelin, 2012, p. 16). Dominant society ideologies also play a significant role, especially in the case of the loss and maintenance of Indigenous languages (Philips, 1998).

A key finding from the exploration of ideologies in this thesis is an *identity* view of Arrernte that sits alongside an *instrumental* view of English. Chapter 4 identified the lasting importance of Arrernte language as fundamental to Arrernte identity, and the views and beliefs that revolve around the persistent ideology of *Arrernte rlterrke atnyene-tyeke* (keeping Arrernte strong), promoted and enacted by significant adults in the children's lives. These views and beliefs begin fundamentally with the knowledge that language comes from the land, and that this land-language connection is essential for knowing Arrernte culture and having an Arrernte identity. Young generations need to continue the language and culture into the future. Children need Arrernte for their personal wellbeing. Old ways and knowledge are important but are not locked in the past. Arrernte can be fused with life today. It is easily integrated into contemporary daily experience, and it isn't at odds with the future. In this set of ideologies, non-Indigenous individuals, organisations, society and structures are seen as having a role to play too. Education systems and sectors are considered important partners in supporting the

community's aspirations and work for the continuation of their language and culture. Non-Indigenous people learning Arrernte language and understanding Arrernte culture and knowledge is viewed as an important aspect of keeping Arrernte strong. English is useful and necessary for children's education, for garnering support, for daily communication but not at the expense of Arrernte.

Prominent Eastern and Central Arrernte adults have worked with non-Indigenous supporters in the fields of linguistics, education, media, the arts and community development to promote their history, culture, identity, language and knowledge of Country. As illustrated in Chapter 4, they have conceptualised and articulated their language ideologies in visual representations, published works, media interviews and video clips on social media for both local and wider public consumption. Ideologies explicated through this diverse range of channels and on a wide range of areas of knowledge demonstrate a foundational belief in the continued place of Arrernte language and culture in people's lives.

The significance of the Arrernte community language ideologies is clearer when compared with ideologies that have helped to explain language maintenance and shift in other endangered languages contexts. In some cases, ideologies of linguistic and cultural purism have supported diglossia and bilingualism, e.g. for Montana Salish (Thomason, 2001b) and Tewa in Arizona (Kroskrity, 1998). Explanations for shift have included community ideologies that associate the contact language (Tok Pisin in PNG) with reason and progress or opportunities for importing and connecting (Dobrin, 2014; Kulick, 1992). Meanwhile, the value and maintenance of Arrernte neither rests on purism nor precludes use of English. Attitudes towards using English do not entail a belief that abandoning Arrernte is necessary.

Children are regularly overtly urged to keep their language strong by parents, grandparents and school staff in Arrernte classes, on bush trips, at school assemblies. Significantly, the current and previous two non-Indigenous Principals (spanning the time I have known the school 2013-present) have also been vocal advocates for children's Arrernte, though also constrained by national education reforms such as those discussed in Chapter 4. While children are certainly in a social setting of consciousness-raising and active promotion of language maintenance, simply telling them to hold onto Arrernte doesn't ensure it and isn't the main reason for the continuation of Arrernte.

Adults at Ltyentye Apurte not only verbalise these expectations; they also enact them in numerous ways. Families and the community surround children with contexts of contemporary language use,

continuing and adapting Arrernte, e.g. through their work in the art centre, craft centre, traditional tools centre, reggae and country and western songs in Arrernte, the continuing relevance of bush foods and medicines and traditional healing practices for Arrernte and non-Indigenous people, and the use of Arrernte language not only in Arrernte class but also applied to mainstream curriculum subject areas.

In the school setting, Arrernte staff are all significant role models, who day-in day-out develop children's language and culture skills and knowledge through classroom learning and bush trips. For several decades they have taken on training and employment (as and when opportunities have arisen) that contribute to language maintenance in the school and community. Such actions reinforce the expectations that adults verbally state to the children. The community has demonstrated its belief in schooling, and the Education sector more broadly, as a necessary partner in language maintenance. This can be contrasted with examples of remote Australian Aboriginal communities who believe that their traditional language is best taught at home, and English-only should be the focus of school education (Gale, 1990; Pearson, 2007).

In a small-scale population, individuals – whether in community organisations or the school – have significant visibility. They embody the overt messages children hear and are the role models that the children see. Their actions emphasise the high value they place on Arrernte language and culture. Local advocates and actors are critical to planning and implementing programs and shaping community attitudes that support language maintenance (Baldauf, 2008; Hornberger, 2009; Liddicoat & Baldauf, 2008; Thomason, 2001b).

Arrernte is not seen as a language that must be sacrificed for future opportunities that English proficiency offers. This can be contrasted with situations in which teacher and family language ideologies, policies and practices favour use of a national language or prestigious variety and suppress use of the vernacular, even at home (Howard, 2017). For example in survey responses immigrant bilingual parents in Australia cite fears of delayed language development, low English proficiency, low academic performance and linguistic discrimination as reasons for not passing on their languages to their children (Diskin-Holdaway & Escudero, 2021; Escudero, Escobar, & Smit, 2021). In online parenting forums, immigrant bilingual parents express the importance of prioritising English and using it in their homes as a way of supporting their children's future success (Piller & Gerber, 2018).

Similarly, Kam Muang parents in northern Thailand believe it is important that they help their children achieve academic success and future prosperity by using the education system's medium-of-instruction (the national code, Thai Klang) rather than the local vernacular (Kam Muang) at home, especially in middle-class families (Howard, 2012). Although Shipibo-Konibo youth living in Lima, Peru have positive attitudes toward their traditional language, they also suffer discrimination related to their Indigenous identity, and increasingly see benefits of speaking the majority language, leading to a shift to Spanish (Sánchez, Mayer, Camacho, & Alzza, 2018). In contrast to these studies, this thesis found Arrernte is consistently reinforced as crucial to the identity, wellbeing and future of people of all ages at Ltyentye Apurte, alongside English.

Ideologies prevalent in mainstream society broadly, among local non-Indigenous residents and in education sectors, all contribute to the positioning of Arrernte in relation to English. In all the decades of contact with non-Indigenous peoples, there has been a diverse range of responses, from denying Arrernte people's right to speak their language, through to neglect of the responsibility to support language maintenance, through to valuing the language and culture. As outlined in Chapter 4, in recent years there has been increased visibility and wider public recognition and use of Arrernte by non-Indigenous visitors and residents in Alice Springs. And at Ltyentye Apurte there have been church and school efforts to increase visitor and staff understanding of Arrernte language and culture. However, for most of the past 160 years (and to a large extent still today) Arrernte people have constantly worked against the undermining of their language and culture, and the low status it has been afforded. It remains a vulnerable language in an English-dominant nation state.

9.5. Conclusion and direction

The preliminary study of the textless picture book discourse established that the children are competent speakers of Arrernte. A more detailed look at that data set showed non-adult-like aspects of children's Arrernte in critical areas of the grammar, and raises the question of whether this is language loss/shift or development. The sand story discourse shows continuity of a multimodal communication, not just a speech practice. The classroom discourse provides the only insight into active bilingual usage, showing conditions in which children move across the codes in their repertoire: Arrernte and English (their emerging more standard English and their use of the variety of English spoken by Aboriginal people locally). The ethnographic data shows community ideologies of Arrernte as an *identity* language and English as an *instrumental* language, and adds an understanding of possible

sources of the range of variation in the children's Arrernte. The next and final chapter discusses the significance of the study, its limitations and potential areas for future research.

Chapter 10 Arrernte at heart

The children in this study are members of a small speaker community of a vulnerable language. Their community, Ltyentye Apurte, is located on Eastern Arrernte Country and is one of five communities in the region which has a concentration of Eastern and Central Arrernte people. Their language is one of the few Indigenous languages in Australia categorised as *strong* in national surveys.

The community is in an isolated location but also close to the main regional town. On a regular basis, families go back and forth between home and the English-dominant urban centre of Alice Springs. Their community school is one of the few in Australia that has a history of a bilingual education program and, more recently, simply a traditional language maintenance program. The school is also subject to the broader socio-educational national policy and curriculum context which emphasises standard English. The community is predominantly Catholic, and its history with the church dates back to the 1920s. This particular combination of factors marks this contact situation and the language and lives of primary school aged children at Ltyentye Apurte a valuable case study.

The two main impetuses for this thesis were to contribute to academic investigations of Aboriginal children's language and to respond to community concerns that Arrernte is at risk of loss. Theoretically and methodologically the study has drawn on language documentation/description and language socialisation approaches to establish some details of the Arrernte grammatical competence and communicative skills of the children in the study, and the social conditions that impact on their Arrernte and standard English learning and use. This thesis builds on three previous studies of morphosyntactic features of children's Arrernte in the 1990s. It also enables comparison with recent research on children's speech in typologically related languages in similar sociohistorical sociopolitical contact conditions in Australia.

10.1. Contribution

This thesis offers a rich description of formal properties and sociocultural aspects of the 5-11-year-old participants' language production, by responding to four key questions.

What are the language repertoires of the children in this study?

The fundamental finding of this research project is that, as a cohort the children are emerging Arrernte-dominant bilingual speakers, who are subsequent learners of standard English. They produce English with learner and/or features of the local community variety of English. Child Arrernte is closer to adult Arrernte than might have been expected, given other recent child language research on Aboriginal languages in Australia, educators' concerns for the future of Arrernte, proximity to Alice Springs and the vulnerable status of the language. There are English/English-derived elements in children's Arrernte production but most are in adult Arrernte as well. And, in contrast to recognised contact codes, these are best characterised as English-Arrernte codeswitching, and incorporating English older and newer loans into Arrernte morphosyntax. While all of the children are acquiring Arrernte, four of the 18 participants are also acquiring another Aboriginal language.

How do they deploy their linguistic repertoire and communicative skills in three sample contexts?

The children's communication is sensitive to the requirements of each situation. They differentially deploy their linguistic and co-/non-verbal communicative resources. When telling narratives prompted by picture books, they perform in Arrernte for the expert who is recording them. They access grammatical resources of their traditional language and apply them to the visual literacy task at hand. When giving spontaneous first-person recounts in the sand, the children in the recordings integrate spoken language with drawing systems. When learning mainstream curriculum content, the children activate their early proficiencies in standard English alongside Arrernte and their understandings of images, objects and interactions that characterise the classroom setting.

Given concerns about language shift, what are some morphosyntactic properties of the children's Arrernte?

This thesis finds variation in the discourse data that accords with Arrernte educators' observations that there are differences in the strength of children's Arrernte. All of the children competently produce basic Arrernte morphosyntax. However, there is considerable variation amongst them for the more complex structures investigated, i.e. definitised NPs and switch reference. Consistent with Arrernte educators' observations, this thesis found evidence for the need to continue to be vigilant and supportive of children's Arrernte. However, there is not a sense in the data of an imminent tipping point to loss of Arrernte or shift to English.

What are some sociocultural dimensions of the discourse data?

In each discourse context, children not only produce Arrernte but also do so in Arrernte ways and using Arrernte discourse strategies. The sand stories are the most obvious example, as the children engage the modes, linguistic, cultural and aesthetic properties of Arrernte, and their community's knowledge and views of how the world operates. Less obviously, a sociocultural aspect that emerges in the textless picture book data is that, like their parents and grandparents, the children are adept at re-purposing Arrernte for this and the many introduced literacy practices in their repertoire. English elements in their speech mirror word formation patterns that have been established in previous research in adult Arrernte. In the classroom children's codeswitching reflects a community-wide practice of using English as and when needed, in this case for engaging with their teacher and the lesson content. The children also exhibit expected physical behaviours for the cultural practices of this setting, almost always obliging, but in one instance less compliant.

The ethnographic data identifies local community and wider society ideologies that guide practice and thereby impact on the input children receive, the production expected of them, and the extent to which their Arrernte maintenance and English learning are supported. An exploration of the community's language ideologies highlighted an *identity* view of Arrernte that sits alongside an *instrumental* view of English. The ethnographic data also foregrounds community members' insights into differences in the children's family lives that contribute to the variation in the strength of their Arrernte. It contributes to the few available, mostly qualitative, studies on the importance of language input from grandparents in minority language contexts. And it draws attention to the role of the school program in strengthening all children's Arrernte.

In sum, this thesis contributes a case study of Aboriginal children's language use in a contact situation. It describes situations and practices that demand selection from among their own community's and the dominant society's languages and ways of interacting. It adds to the typological diversity in child language research, and foregrounds local community expertise and priorities for their language. It presents factors that have been mitigating against language shift, which predominantly come from the community's internal resources and commitment (though depleted through colonisation and marginalisation) and less from the dominant society's facilitation of bilingualism, non-Indigenous supporters notwithstanding. Their counterforces to English domination maximise language maintenance by the community, and hence by the children.

10.2. Limitations and possible future research directions

While this thesis offers a richly described case study, it leaves many questions unanswered. Its limitations suggest many possible avenues for future research. For a start, it gives information only about a particular group of children in a particular location. A larger-scale study, inclusive of more children in more communities, would give a fuller picture of the strength of Arrernte.

Essentially, this study is a cross-sectional snapshot of the children's language use in just three sample contexts. This amounts to a very small amount of language produced by children on any given day, and only a tiny fraction of their vast capabilities. Countless more aspects of their language use are missing from this study than have been captured by it. Notably, the data sets for this thesis contain very little peer-peer talk and no multiparty talk inclusive of interlocutors of several generations, such as *talking story* gatherings or bush trips, common in children's lives.

As in other research on minority languages in contact situations, it is difficult to separate shift from age of acquisition factors in this study. There are many possible explanations – in addition to the social factors highlighted – that could underpin children's non- or flawed production of the more complex aspects of Arrernte grammar, and could be further investigated. Are the structures much later acquired? Which other structures might be late acquired? Could different experimental-style tools elicit greater production of the structures? Are the structures falling into disuse in this younger generation? Could the variation in the data be a sign of nascent change/shift or simplification of the language?

While this study established some basic information about each child's unique familial and geographical connections for Arrernte input and use, there is much potential for drawing more extensively on language socialisation – and also on social network theory – tools and perspectives, for more deeply understanding and supporting Arrernte language maintenance at Ltyentye Apurte.

While the sand stories in this thesis showcase some of the children's multimodal skills, there is much more that could be explored in this practice. Which other stories and genre can they perform? Which other graphic schemas and non-verbal resources can they use?

There is much research and practical work that could be done to support children's Arrernte and standard English acquisition, and their learning of Arrernte and non-Indigenous knowledge systems. I

would like to maintain connections and assist with questions and needs community members may identify, and potentially co-develop a new project to build on this one.

The children who participated in this study have grown up in the years that this research project has been in progress. The older ones are already teenagers. Conceivably any of them may have questions and ideas, and may wish to engage in future research, as they themselves have children and develop their views on the future of their language and culture.

For 160 years so far, each new Arrernte generation has responded to the social and material conditions and realities of their contemporary lives in contact with English and the dominant society, valuing and continuing their language and culture and adapting them to new contexts. This thesis has provided snapshots of the responses of one group of children at Ltyentye Apurte currently forging their bilingual bicultural identities. Their families and Arrernte educators are providing a social and educational, linguistic and ideological environment that incorporates English but also nurtures their traditional language as crucial for children's Arrernte identity, future and wellbeing. It is not possible to second-guess language change and shift, but it is possible to support the aspirations that adult speakers and educators have for their language, culture and children's learning.

Kele

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