More than one way to catch a frog: A study of children’s discourse in an Australian contact language

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Declaration

This is to certify that:

a. this thesis comprises only my original work towards the PhD
b. due acknowledgement has been made in the text to all material used
c. the text is less than 100,000 words, exclusive of tables, figures, maps, examples, appendices and bibliography

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Abstract

Children everywhere learn to tell stories. One important aspect of story telling is the way characters are introduced and then moved through the story. Telling a story to a naïve listener places varied demands on a speaker. As the story plot develops, the speaker must set and re-set these parameters for referring to characters, as well as the temporal and spatial parameters of the story. To these cognitive and linguistic tasks is the added social and pragmatic task of monitoring the knowledge and attention states of their listener. The speaker must ensure that the listener can identify the characters, and so must anticipate their listener’s knowledge and on-going mental image of the story. How speakers do this depends on cultural conventions and on the resources of the language(s) they speak. For the child speaker the development narrative competence involves an integration, on-line, of a number of skills, some of which are not fully established until the later childhood years.

The study in this thesis investigates the development of reference tracking in a complex and dynamic language setting. It investigates the language and language development of Warumungu children. The Warumungu central are Indigenous Australians, whose traditional country is in northern Central Australia. Most Warumungu live today in the township of Tennant Creek. Younger people no longer develop full active proficiency in their heritage language, Warumungu, but speak a contact language, Wumpurrarni English as a first language. This contact variety is characterised by substantial variability. In addition to Warumungu and Wumpurrarni English, children learn Standard Australian English, as this is the sole language of instruction in school.
The study describes properties of Wumpurrarni English, in particular nominal expressions, used for tracking reference. These are contrasted with descriptions of the most documented and neighbouring creole variety, Roper River Kriol, and with Standard Australian English. It is demonstrated that in Wumpurrarni English, the marking of new versus given referents on the noun phrase is not obligatory. However a number of structures, such as left dislocation and emphatic subject chaining are used to mark discourse prominence. Repetition of topics, clauses and elements of clauses are stylistic features of a ‘good story’ in Wumpurrarni English.

The study investigates the ways that Warumungu children of different ages introduce, maintain and switch reference, and how, across stretches of their narrations, strategies for managing reference are used. These investigations reveal developmental differences across the age groups in the study, which resonate with studies of children’s narrative competence in other languages, illustrating general cognitive and linguistic development. In addition, some children chose to narrate in a speech style more English-like than they normally use. This set of narrations reveals interesting findings about differences between Wumpurrarni English and Standard English, children’s perceptions of these differences, and insights into the additional cognitive load that speaking in ‘English’ represents.
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LIST OF ABBREVIATIONS:

Abl ablative
All allative
Dat dative
Det determiner
Dem demonstrative
Dis discourse marker
Dual dual
Dur durative
Em emphatic
Fut future
Gen genitive
Imp imperfect
Loc locative
Mod modal
Neg negation
NF non-future
Nom nominaliser
Obj object
Pauc paucal
Pl plural
Perf perfect
Poss possessive
Prep preposition
Prog progressive
Prop proprietive (having)
Priv privative (without)
Pst past
Qt question tag
Redup reduplication
Refl reflexive
Subj subject
S singular
Tr transitive
Temp temporal adverb
1 first person
2 second person
3 third person

CONVENTIONS FOR TRANSCRIBING AND GLOSSING:

Bold element for reader to pay attention to
- morpheme break
[/] pause, retrace
xx untranscribed element of utterance
CONVENTIONS TO INDICATE SOURCE OF DATA

(SD001:1-10:PP)  SD    001:    1-10    PP
              Researcher Tape/ lines in Speaker
                        transcription transcript
                       number

(FR01:8;9)  FR01     8;9
       Frog story recording       age of speaker

CONVENTIONS FOR CODING REFERRING EXPRESSIONS IN FROG STORY DATA

Protagonists

1- boy  4- boy&dog
2- dog  5- secondary character
3- frog

Discourse function

f  first mention
ss  same subject
ds  different subject
dso  different subject, same as object in preceding clause
do  different object
so  same object
dos  different object, same as subject in preceding clause

Form of referring expression

n  bare noun
npost  right dislocation
npro  left dislocation
nprozo  left dislocation, zero object
det  determiner
def  definite article
num  numeral
dem  demonstrative
indef  indefinite article
pro  pronoun
proz  zero subject pronoun
prozo  zero object pronoun
Map 1: Australia

Map 2: Distribution of Warumungu and other languages in Central Australia and the Barkly
Map 3: Northern Territory of Australia

Maps 1 & 3 Reproduced from Simpson and Wigglesworth (2008)
Map 2 Reproduced from Simpson
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Chapter 1

Introduction

1.1 Preamble

Children everywhere learn to tell stories. One important aspect of story telling is the way that characters are introduced and then moved through the story. How speakers do this depends on cultural conventions and on the resources of their language(s). Story telling is also a rich area for investigation in a setting in which the language of everyday use is changing due to contact between languages. This thesis documents insights obtained through a detailed analysis of Warumungu children's narratives. The Warumungu are Indigenous Australians. Most Warumungu live in the remote township of Tennant Creek, which is located on their traditional land, in northern Central Australia (see maps 1-3). Tennant Creek is an interesting site for the study of child language development because it is a dynamic contact setting and language input to Warumungu children is complex. The children have limited exposure to their heritage language, Warumungu, as their parents and other adults in this generation are no longer full speakers of the language. Like Indigenous and minority language speakers world-wide, Indigenous1 Australians, including the Warumungu, are struggling to keep their languages alive (Nettle & Romaine 2000, Vion & Colas 1999).

1 The term ‘Indigenous’ is used as an adjective in reference to the first nations peoples of mainland Australia and Torres Strait Islands. ‘Aboriginal’ is used as an adjective reference to first nations peoples of the mainland. In this thesis I use both of these terms.
In Australia, Indigenous peoples have undergone catastrophic language shift and loss since European colonisation and few traditional languages continue to be transmitted to children as a main language of communication (McConvell & Thieberger 2001, Schmidt 1990). This situation causes Warumungu people deep concern. The language used for most communication among Warumungu people today is an English-based creole, referred to here as ‘Wumpurrarni English’. Children learn this as their first language.

In many remote locations in Australian new linguistic varieties like Wumpurrarni English have emerged and are important codes for intra-group identity. These contact varieties include creole languages, such as Roper River Kriol, spoken in the Katherine Region of the Northern Territory (Harris 1986, Sandefur 1979) and Fitzroy Valley Kriol, spoken in the north west of Western Australia (Hudson 1983). In addition, new mixed languages have emerged, such as Light Warlpiri at Lajamanu in the Northern Territory (O'Shannessy 2006), and Gurindji Kriol, in neighbouring Kalkaringi (Meakins 2006) (see map 3). Wumpurrarni English, the language spoken in Tennant Creek, shares features with these contact languages, but is a distinct and local variety. A particularly important distinction is the presence of Warumungu features borrowed or inserted into Wumpurrarni English. The insertion of Warumungu features, generally nouns for everyday objects and some semantic case-marking morphology, is an important way that partial speakers actively maintain and transmit their heritage language (Morrison and Disbray 2007).

The term ‘Wumpurrarni English’ developed from consultations with its speakers in Tennant Creek. ‘Wumpurrarni’ means black in Warumungu and this has been expanded to mean ‘Aboriginal’ or ‘Indigenous’ and as a self-identifying term for Warumungu people. Its use in the term ‘Wumpurrarni English’ stresses this Warumungu identity.

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2 Initially the term Barkly Kriol was suggested for the code spoke, as this had some currency in linguistic description and also identifies the general location of this variety, as Tennant Creek is located on the edge of the Barkly Tablelands. However, speakers rejected the inclusion of ‘Creole’ in the term to refer to their language, as this is understood as a language
Like many creole languages, Wumpurrarni English is variable and can be characterised on a ‘continuum’, with styles ranging from ‘heavy’ or ‘basilectal’ at one end, closest to the substrate language (Warumungu) and ‘light’ or ‘acrolectal’ at the other, closest to the superstate language (English), and ‘mesolectal’ styles in between. I use the terms ‘light’ and ‘heavy’ to distinguish acrolect and basilectal styles, and these terms reflect the way that Wumpurrarni English speakers characterise speech styles. This variability adds a further dimension of complexity to the language setting and to the language input children receive. Styles at the ‘heavy’ end of this continuum may share many features with other Kriol varieties, while those at the ‘light’ end may share features with a variety widely and generally referred to as ‘Aboriginal English’ (Eagleson et al 1982, Harkins 1994, Kaldor & Malcolm 1991, Malcolm & Sharifian 2002). However, as the term ‘Aboriginal English’ is used for a broad range of codes, I avoid its use in relation to Wumpurrarni English and its various styles.

In addition to Warumungu and Wumpurrarni English, (Standard) Australian English plays a key role in daily life in Tennant Creek. Australian English is the language of interaction with non-Indigenous people. Of particular importance to children, it is the sole language of instruction in school and Warumungu children must learn this language in order to succeed academically. While some additional English language instruction is provided to Indigenous children in school, this is not based on a systematic English as a Second Language/Dialect Program. There is also limited professional development for teachers in understanding children’s language backgrounds, and developing their language use and teaching methods for speakers of new or traditional Indigenous languages (Moses & Wigglesworth 2008). While programs have been devised to both inform teachers and to integrate contrastive awareness of creole/Aboriginal English and Standard English into language teaching and learning practice (Berry & Hudson 1997, Department of Education 2000), these are not systematically adopted in the Northern Territory, or in Australia more widely (Malcolm 1992).

name for the widely-known language spoken in the Katherine (Roper River Kriol), and is associated with the people who live in that regions and speak Roper River Kriol.

3 These matters are discussed in Chapter 2, section 2.2.
The situation of creole/non-standard English speakers in Tennant Creek, and in Aboriginal Australia in general, shares many similarities with that of speakers of minority non-Standard and creole language speakers world-wide. Their languages are stigmatised, and often excluded from the education settings (de Kleine 2006, Nero 2006, Siegel 2006). De Kleine (2006: 209-210) lists a number of reasons, which contribute to commons pattern of academic underachievement among speakers of ‘world English varieties’ in Standard English classrooms. These resonate with the situation for children in Tennant Creek. The reasons include: limited access to instruction since children do not fully understand the language of instruction; poor preparation of teachers about the language setting; a wider gap between spoken and written language; differences between cultural discourse norms of non-standard varieties and the school-based variety; negative attitudes and accompanying low expectations; differing cultural bases of the dominant and minority populations; and interrupted education. Thus, while the current study is investigates narrative development in an Australian contact variety, it has relevance to, and draws on broader understandings of non-standard language settings.

Indeed the language setting in Tennant Creek is an integral part of the developmental study of children’s language in this thesis. The history of this setting, the ways that the languages in contact are used and the resultant variability all play a role. Both the language setting and Wumpurrarni English are little described. In the 1980’s some language survey work was carried out, of the Barkly region generally (Glasgow 1984, Graber 1988, Hoogenraad 1993), and specifically to assess the use of Creole varieties among children in the region (Rhydwen 1992). Rhydwen (1992) collected samples of language in use, but these were limited. Children’s language in Aboriginal English, Australian creole and mixed language speaking settings have been the focus of relatively few studies (Eagleson et al 1982, Harkins 1994, Malcolm 1996, O’Shannessy 2006, Rhydwen 1992), fewer have investigated children’s narrative in these settings (Malcolm & Sharifian 2002, Sharifian 2001). Only a handful of studies have investigated Aboriginal children’s language developmentally (Bavin 1992, Malcolm 1996, O’Shannessy 2006). Thus this study contributes to this emergent field of research in Australia.
The current study is a detailed examination of children’s narrative. It investigates reference tracking and the creation of cohesive and coherent discourse from a cognitive developmental perspective. The data at the centre of the study are a set of narratives. Narrative is a genre, which is privileged in literacy instruction and assessment in mainstream education settings. The exploration of narrative in the current study provides valuable insights regarding conventions and rhetorical styles that constitute a ‘good story’ in Wumpurrarni English. It will be shown that these conventions and styles and some linguistic features integral to narration and extended discourse contrast with the conventions of English stories and this insight has important implications for education planning and delivery.

The study further contributes to insights important to education practice as some children narrated in a style with a higher proportion of Standard English features than in the style they use in most contexts with family and peers. In these productions, Warumungu children chose to use the language of the wider community rather than their home language. In this subset of narrations, issues of variability, language contact, language attitudes, the development of narrative skill in first and in second language/dialect all come together.

We consider now the field of enquiry, the study of children’s narrative. A broad, but brief overview is given, before considering children’s development of reference tracking in narrative, the focus of this study.

1.2 Narrative

The term narrative is wide-ranging. It may be defined minimally as a stretch of monologic discourse, in which events are sequenced over time (Ilgaz & Asku-Koç 2005, Minami 2002). More broadly described, narrative covers spoken, written and performed events and texts; from the anecdotes exchanged in everyday conversations through to culturally prized epics in literature. The content may be an account of a real event or partially or completely fictional.

Narration is a speech event we take part in everyday, as we relate our recent and past experiences, and those passed on from others. In relaying narratives in conversations,
intra-personal ends are met as we air unresolved life events and achieve inter-personal ends (Ochs & Capps 2001). We share information, entertain, express opinions, give warnings and advice, lie, reminisce, grieve, create, maintain and negotiate relationships with others. In performing narratives we can express ways of presenting ourselves, as individuals and as members of communities (Heath 1983). In the content and form we choose in our narrations we can reproduce culture (Kulich 1992).

Narrations may take place in conversations, or less spontaneously in formal settings, for instance in speeches and sermons. In addition to the face-to-face narrative events we take part in, we follow the narratives found in the books, films, television programs and music we hear and see. This broad characterisation of narrative highlights the personal, inter-personal and cultural aspects of narrative.

An important approach to understanding the relationship between cultural experience and narrative content in cross-cultural enquiry is schema theory. This framework has been used in a set of studies of Aboriginal English speaking children’s narratives (Malcolm & Rochecouste 2000, Malcolm & Sharifian 2002, Sharifian 2001). In these studies, conversational narratives by children of various ages from urban and rural Western Australia were investigated to identify common cultural schemas or scripts. The analysis identified five schemas and some associated semantic features, which capture the majority of the narrations in the corpus: Travel, hunting, observing, scary things and family schema. These schemas underpin Aboriginal English speaker’s production and interpretation of stories (Malcolm & Sharifian 2002). Malcom and colleagues propose that greater understanding of these common, culturally-bound underlying schema may contribute to better cross-cultural communication. This work makes a significant contribution to understandings of Aboriginal-English children’s narrative and communicative repertoire. The study of narrative in this thesis, however, takes a different approach, though with a similar aim, that of contributing to our understandings of children’s language in contact settings, in Australia, and more widely.

The approach in this thesis takes a path within child language research, which focuses less on personal and cultural dimensions of narrative. Rather, it investigates the development of more general cognitive aspects language and discourse, as well as
language specific aspects (Berman & Slobin 1994a). The study of extended stretches of discourse, such as narrative, offers a number of windows through which the complex interactions of children’s linguistic, social and cognitive development may be viewed.

1.2.1 Approaches to the study of children’s narrative development

Children everywhere rapidly become proficient users of language. At around the age of three to four they have command of the grammatical principles and rules in their native language(s). They can understand much of the talk around them and engage in interactions and conversations (see Hickmann 2003: 102). They recount events they have experienced and those heard from others. But language development does not end at this point. For instance, the ability to create a stretch of discourse such as a narrative has been shown to develop throughout the childhood years, as children come to manipulate the structures learned early in an extended set of functions. Narration places demands on children’s linguistic competence, testing more than their lexical, morphological and syntactic knowledge at the level of the sentence. Skills crucial to becoming a competent speaker of a language, such as experience of events (Fivush et al 1987, Hudson & Shapiro 1991, Nelson & Fivush 2004), of discourse structure (Berman & Slobin 1994a, Peterson & McCabe 1982, Shiro 2003, Stein & Albro 1997, Trabasso & Rodkin 1994) and greater awareness of context and listener expectations (Hickmann et al 1995, Wong & Johnston 2004) come into play.

Studies of recounts of routine or familiar events, termed scripts, have considered the structure, content and context of children’s narrations (Eisenberg 1985, Fivush & Slackman 1986, Hudson & Nelson 1983, Hudson & Shapiro 1991, Nelson & Gruendel 1986). As discussed above, events such as travelling, hunting, observing, encountering scary things and being with and a part of family are common schema for Aboriginal English speaking children, while researchers of Anglo-European children have identified events such as going to a birthday party, to school, or to bed as common routines for Anglo-European children. Scripts emerge through experience of events, involving an interaction between memory and other socio-cultural aspects of language development (Malcolm & Sharifian 2002).
It has been argued that scripts provide a schema, which guides both the recall and verbalisation of complex but familiar events. As a result children’s productions of these are generally better than other types of event sequences. Scripts emerge early in children’s discourse development, at around two to three-years of age (Eisenberg 1985, Nelson 1986), though they tend to be initiated and maintained by adults (Nelson & Ross 1980). With age, the scripts children produce become linguistically more elaborate and less fragmentary (Sachs 1983).

Other studies have examined narrations of specific events or personal narratives (Champion et al 1995). Such studies among English-speaking children, (and African American English-speaking children, Champion, Seymour et al. 1995) have investigated the developing ability to structure personal accounts as well-formed stories and have drawn on the pioneering work of Labov and colleagues (Labov & Waletsky 1967). According to these accounts personal narratives comprise the minimum and basic components of a setting, a complication, a resolution, a coda or formalised closing, in addition to an evaluation, the speaker’s attitude to the events. Evidence from studies of children’s personal narratives has shown that children under age five tend to jump from one event to another, although they experienced the event as an integrated sequence (Hudson and Shapiro 1991: 61; Peterson and McCabe 1982). Around age six personal narrations featured most of the components found in the canonical pattern, though features such a resolution, coda and evaluation were less prevalent in children’s narrations of children under eight years of age.

Studies of scripts and personal narrative have shown children’s developing knowledge of macrostructures, underlying mental structures into which events are sequentially and conventionally organised (Mandler 1984, Shank 1977). Studies investigating the role of macrostructures have further specified the structural properties of stories, constructing story grammars. Story grammars proposed to characterise canonical fictional stories found in western traditions differ in some details (see Hickmann 2003: 88-89), but share an overall goal-based and hierarchical structure, involving a Setting, and a set of episodes, which may include the following: Initiating Event or Reaction or Response, Attempt and Consequence or Outcome (Stein & Policastro 1984). More elaborate and abstract goal-plans have also been proposed (Stein and
Albro 1997; Trabasso and Rodkin 1994). Less concerned with the context and semantic content of children’s narrations, this work has focused on structural elements of stories and evidence of children’s gradual internalisation and production of such structures. Experimental evidence has been claimed to show that story grammars are psychologically valid, guiding the processing, recall and production of stories in adults (Kintsch & Greene 1978, Mandler et al 1980) and, developmentally, in children (Bamberg & Marchman 1994).

The level of discourse organization, which captures the overarching structure narrative has been referred to as discourse coherence. A coherent stretch of discourse is one structured according to the conventions of a story schema, in which episodes build on one another to create a well-formed and complete story. Studies of children’s narratives have shown an awareness of story structure from as early as four years (Bamberg and Marchmann 1994; Stein and Albro 1997), but that the ability to create a coherent story develops over time (Appleby 1978; Kern 1997; Trabasso and Nichols 1992).

Coherence has been contrasted with the more local level of discourse organization, discourse cohesion (Berman and Slobin 1994a: 40; Hickmann 2003: 94). Cohesion relates to the linguistic devices, which create local relationships within a discourse, regulating information within and across utterances. Linguistic structures at this level are termed microstructures. For example, temporal expressions sequence, background and foreground events and contribute to discourse cohesion. Further, nominal expressions are crucial to the establishment of linguistic referents and the maintenance of cohesion through subsequent anaphoric relationships. Cohesion is typically defined on the intra-clausal and local level of adjacent clauses that are successively ordered in discourse. Thus, the distinction between coherence and cohesion has generally been phrased in terms of a contrast between hierarchical or global discourse vs. linear or local linear or local organization (e.g. Berman and Slobin 1994a). The current study is concerned with both local level organization, the use of nominal and pronominal expressions to track referents, and also how patterns of local level cohesion contribute to discourse level coherence.
1.3 Reference and children’s narrative

One particularly revealing window provided by the study of narrative is the way that children manage reference to different characters throughout a story. We can examine children’s use of linguistic forms in different discourse contexts in narrative and how these serve to meet the needs of a listener, in accordance with the pragmatic and communicative norms of the speech community. The patterns of use offer insight into the nature of children’s presuppositions about the listener’s knowledge, and the degree to which they are able to track changes in this knowledge and to manipulate linguistic forms as the story unfolds. These patterns also indicate the developing strategies the child has to structure a stretch of discourse as a coherent whole. The ability to manage local-level reference (within and across clauses) based on presupposition of the listeners knowledge, and to create a cohesive discourse has been shown in a number of studies to develop throughout the childhood years (Bamberg 1987, Vion & Colas 1999). Given the complexity of the task, a long developmental path is not surprising.

Children at first anchor speech in the immediate here-and-now, then learn to anchor speech in discourse as they begin to displace reference away from the speech situation (McCabe & Peterson 1991). In telling an unfamiliar story to a listener, a speaker must rely wholly on the linguistic context. As the story plot develops, they must set and re-set the referential, as well as the temporal and spatial parameters of the story. To these cognitive and linguistic tasks is the added social/pragmatic task of monitoring the knowledge and attention states of their listener (Wong and Johnston 2004). The speaker must ensure that the listener can identify the characters, and so must anticipate their listener’s knowledge and on-going mental image of the story.

Referents must be introduced for the first time. Generally a speaker must use expressions that do not presuppose a listener’s knowledge. Languages may mark a referent for newness locally, as in the use of indefinite articles in English, or globally by particular clause structures, as in Chinese, or by both means, as in presentational phrases, such as ‘there was a...’ in English.
Where a character persists reference may be maintained. The speaker may choose from a number of referring expressions, such as full lexical noun phrases, marked for givenness where the language demands, and anaphoric strategies, which avoid repetition and redundancy, such as pronouns or zero anaphora. The use of anaphoric reference requires that the speaker keep track of previous utterances to avoid ambiguity. For instance, in choosing a pronominal or zero pronominal form, the speaker must ensure that the link between the anaphoric reference and its antecedent is clear, particularly where more than one potential interpretation is possible. Where a second referent occurs, the speaker must signal changes in reference, choosing an expression, which is sufficiently full to avoid ambiguity. Finally, as a previously mentioned referent is re-introduced, the speaker must anticipate the listener’s attention to the known referent and mark it to allow recognition of the referent. Thus the speaker must keep track of the mental model created in the mind of the listener, while attending to their own production. The longer and more complex the story, the greater the demands of the task.

1.3.1 Collecting narratives

Due to the high potential for variability, few studies of cohesion in children’s developing discourse skill are based on spontaneous narrations (Ervin-Tripp & Küntay 1997a, Ervin-Tripp & Küntay 1997b). Most studies rely on productions elicited through prompts. Prompts may be ‘open’ or ‘structured’ (Shiro 2003). Open prompts may involve an interviewer asking the child to tell a story about a personal experience (Peterson & McCabe 1982), make up a fictional story using story stems (Stein and Albro 1997) or props such as toys to create and act out a made-up story (Benson 1993, Ilgaz & Asku-Koç 2005). Open prompts allow the child great freedom to choose the content and length of their narration. ‘Structured’ prompts, on the other hand, which include short films and videos, cartoon and picture sequences and picture books, generate greater uniformity in the production, allowing focussed comparison across ages and, in cross-linguistic studies, across languages.

For the study of narrative documented in this thesis, a structured prompt, the textless picture book ‘Frog, where are you?’ (Meyer 1967) was used to elicit a set of narratives from children and adults. The ‘frog story’ prompt depicts the story of a boy
and a dog searching for a lost frog. It provides a problem-resolution framework, in which the boy and the dog characters take part in a number of search attempts before the plot resolution (Trabasso and Rodkin 1994). Most episodes involve a number of secondary characters. Thus it is well-suited to the study of reference tracking.

The frog story picture book has been used widely in developmental studies of reference in narrative in one language, for instance German (Bamberg 1987)), French (Hickmann & Hendriks 1999, Jisa 2000); Italian (Orsolini et al 1996), Orsolini 1996; Australian English, Wigglesworth 1997) and cross-linguistically, examining a range of discourse functions in a wide range of languages (Berman & Slobin 1994a, Strömqvist & Verhoeven 2004). While the book is a north American production, it has been used successfully in diverse cultural settings, including two Indigenous Australian languages, Arrernte (Wilkins 2004) and Warlpiri (Bavin 2000).

1.4 Participants, Research Aims and Outline of this thesis

1.4.1 Overview of the data and participants

A set of forty-eight frog story productions by children aged six- to twelve-years of age and by adults are central to the analysis of reference in narrative in this thesis. Most of the stories are told in Wumpurrarni English, the speech style that most speakers use in interactions with family and community members. A small set of the stories are told in English, a language that all speakers in this community have in their linguistic repertoire and that some children chose to speak on this occasion.

In addition to the set of frog story narrations, conversational data and elicited adult-child data provide a basis for a description of language properties and variation in Wumpurrarni English. These data are from a corpus of texts gathered during a longitudinal study of language input to children in Tennant Creek, the Aboriginal Child Language Acquisition (ACLA) project (Disbray & Wigglesworth 2008, Morrison & Disbray 2007, Simpson & Wigglesworth 2008, Wigglesworth & Simpson 2008). Over a period of three and a half years, I was employed as a research assistant on this project, along with Indigenous researcher Betty Morrison Nakkamarra. The project involved video recording eight focus children, every six months, as the
children interacted with adults and older children. The focus children were aged 18 - 30 months at the commencement of the project and 4-5 years at the end. An extensive set of recordings and transcripts were generated over a total of seven months of fieldwork. Most of the children and all of the adults whose productions of the frog story make up the corpus for the study of reference in narrative participated in the ACLA project. This is important. Having worked extensively with the children and adults who participated in the frog story study I am familiar with the family’s language histories and the language repertoire of individual speakers.

1.4.2 Research Aims and Plan of this thesis

Three major issues are addressed in this thesis and each has a number of components. The first concerns properties of Wumpurrarni English, in particular those relevant to reference tracking in discourse, and the language situation in which children are socialised to language. As discussed in the Preamble, the language input to children is complex as it involves a number of languages and substantial variation. The following chapter (Chapter 2) introduces the language setting, its codes, and, on the basis of some conversational data, illustrates some of the variation in Wumpurrarni English speech styles. As children’s developing discourse ability is investigated, it is necessary to describe properties of Wumpurrarni English and the functions of nominal expressions in discourse. In Chapter 3 properties of the nominal system are detailed. This chapter examines how speakers introduce, maintain and switch reference. The description draws on similarities and contrasts to Roper River Kriol, the best described Australian Creole language, and also Standard Australian English. The description of the Wumpurrarni English nominal system explores the substantial variability, which is part and parcel of this language contact setting. In the final section of Chapter 3 (§3.4) an important feature of Wumpurrarni English narrative style, repetition, is described. A set of hypotheses for the study of reference in the frog story data are developed from the discussion of these language specific matters (nominal structures and narrative style) and set out in (§3.5.1). Appendix A provides a brief description of the orthography, verbal system, prepositions and semantic case-marking in Wumpurrarni English.
The second, though central issue is children’s developing discourse organisation. Chapter 4 provides a review of previous studies of children’s developing narrative competence and the current study is positioned within this field. Due the varying nature of elicitation modes and tools, and analysis methods, findings regarding children’s developing ability to introduce, maintain and switch reference in narrative have been mixed (Hickmann 2004). These matters are carefully considered to establish comparisons to the findings of the current study. As discussed in the §1.3 above, developing narrative skill is interlinked with more general cognitive development, and one way in which this has been revealed is in the vulnerability of children’s linguistic productions in response to the complexity of the elicitation task used in a study. This matter is explored in the current study through a detailed analysis of the ways that children manage reference in different segments of the frog story. This is achieved through the investigation of discourse strategies, the focus of the final section of Chapter 4 (§4.5). In this section studies of discourse strategy, a means of investigating both linguistic forms at a local level and broader patterns at a discourse-wide level, are detailed. A set of hypotheses for the study of reference in the frog story data are developed from the discussion of findings from previous studies and interwoven with the hypotheses for Wumpurrarni English nominal structures and narrative style (§4.6.1).

The method for collecting the data, details of the participants and the methods for coding and compiling data in the current study are laid out in Chapter 5. There are two categories of coding. The first is for code choice and the second is for coding referring expressions for linguistic form and discourse function. A quantitative method was devised profile the differences in code and style choice, as the use of Warumungu and Standard Australian English features in the narrations varies. A detailed coding system was also developed for the three discourse functions investigated; referent introduction, reference maintenance and switch. This system is set out in Chapter 5.

In Chapter 6 individual code and style choice in the frog story data are explored. A set of quantitative analyses are carried out to profile narrations for code choice. The examination of these narrations reveal a number of interesting points about how
children use and perceive the various languages in their speech community. The distribution of Warumungu features is detailed. As discussed in the preamble at the beginning of this chapter (§1.1), some children used (near) Standard English for their frog story productions, and these are identified through the analysis in Chapter 6. The set of English narrations provide a nexus, in which a number of factors meet, and this is the third issue in this dissertation, differences Wumpurrarni English and Standard English. In subsequent chapters these data, and the comparison of the English and Wumpurrarni English narrations provide rich insights into discourse development, generally and in contact settings.

In Chapter 7 and Chapter 8 results for the developmental of form-function pairings are presented. In Chapter 7 the results detail findings from the examination of referent introductions. Here developmental findings and comparisons between Wumpurrarni English and English are explored. Code choice is less central to Chapter 8, which provides results concerning reference maintenance and switch. In the final section of this chapter, the narrations are characterised on the basis of discourse strategy to identify developmental trends. In the final chapter, Chapter 9, a fine-grained analysis of discourse structure of individual narrations is carried out. The discussion in this chapter integrates the three threads; developmental, language specific and code choice, and final conclusions for the study are made.

We turn now to Tennant Creek and situate the current study in this language setting and language repertoires of its speakers.
Chapter 2

Tennant Creek: linguistic and historical setting

2.1 Introduction

Most studies of children’s narrative development are carried out in standard languages, with large numbers of speakers. A high degree of language standardisation and uniformity of language and speech styles can be assumed. The languages are well-described and researched. This is not so for the current study. It investigates child language in a very small and new speech community and in a little described contact language. The data set of frog story narrations, which are central to the study detailed in this thesis capture the wide range of variation in speech styles in the community. Thus the goal of this chapter is to provide the reader with insights into the history of Tennant Creek and its languages.

I begin with a brief description of the town, then relate the history of the region to the history of the language shift and the rise of Wumpurrarni English (section 2.2). In section 2.3 I establish some terminology used to talk about Wumpurrarni English speech styles, then present four extracts from conversational data to familiarise the reader with the languages and variation that characterises this language setting.

2.1.1 Tennant Creek

Tennant Creek is a remote township in the Northern Territory. It is located on Warumungu country. The population of the town is around 3,000. Roughly half of the
population is Indigenous, the other non-Indigenous. Around half of the Indigenous population is made up of Warumungu people, the other half are Indigenous people from neighbouring language groups\(^4\) and from more distant locations.

Tennant Creek, like many Australian outback and country towns, straddles a wide main street. It is lined with a supermarket, the town’s four petrol stations, take-away food stores, liquor outlets, two pubs and other businesses. The town has a primary school, a high school, a small hospital, a football oval and various government and

\(^4\) The census data gives only a partial picture of the linguistic setting of Tennant Creek. Of the 1,425 people in Tennant Creek who identified as Indigenous in the 2006 Census, only 638 reported speaking an Indigenous language in this self-reporting survey. The languages most highly represented were Warumungu (235) and a number of languages belonging to neighbouring country; Warlpiri (148), Wambaya (83), Alyawarr (71), Warlmanpa (48). No respondent identified their language as Aboriginal English. Only 6 respondents reported speaking a contact variety, which was Torres Strait Islander Creole (Australian Bureau of Statistics, Census data 2006).
Aboriginal organizations. The main street runs north-south and is part of the Stuart Highway, linking Darwin in the north to Adelaide in the south. The closest population centres are over 500km away, Alice Springs (population 25,000) to the south and Katherine (population 9,000) to the north. The town is a tourist stopping point and a service centre for the surrounding cattle stations, Aboriginal communities and remaining operational mines. The country beyond the township is arid, with rocky outcrops, hills, flood-outs and dry creek beds.

2.2 Language history

As a modern Indigenous township, Tennant Creek is relatively new. Warumungu country was first colonised by Europeans in the 1870’s. The township was founded later, in the 1930’s, soon after the discovery of gold and ensuing gold rush. However, in its early years, the town was off-limits to Indigenous people (Maurice 1988). Only in the 1970’s were Indigenous people able to move permanently to the town.

The century between first settlement of the region and Aboriginal people moving to Tennant Creek was one characterised by dramatic social and linguistic upheaval (Nash 1984). Of the history of contact between Warumungu and Europeans, Justice Maurice wrote in the Warumungu Land Claim Report (Maurice 1988):

The post contact history of the Warumungu people is an unvarnished tale of the subordination of an Aboriginal society and its welfare to European interests. […] European settlement meant forced dispossession. This was not a once and for all process, but continued with the Warumungu being shunted around, right up to the 1960’s, to accommodate various pastoral and mining interests.

The initial European colonisation of Warumungu country and the resultant language contact began on two fronts. In 1872 a telegraph repeater station was erected at a site in the centre of Warumungu country for the Overland Telegraph Line. The Telegraph Line spanned the country from north to south and created a communication link to the rest of the world. The repeater station is just north of the location of the modern township of Tennant Creek. During the drought years of the 1890’s many Warumungu, and gradually members of other language groups, settled at the

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5 I use the term country in the way that Indigenous people do, to refer to land. It reflects people’s conceptualisation of land as tenured, as ‘owned’ by some Aboriginal group.
Telegraph Station, seeking employment or rations there (Stanner 1980). Then, from the 1880’s, pastoral leases were issued and stocked on the Barkly tablelands on the northern parts of Warumungu country from the east (Liddle 1996). From early in the century onwards, Warumungu men, women and children provided most of the workforce at the cattle stations on the Barkly Tablelands, such as Banka Banka, Rockhampton Downs and Alroy Downs. Pastoral leases were taken up and established in southern parts of Warumungu country, such as Kurundi and Bonny Well, by the 1920’s. The rich mineral wealth of the region began to be tapped after the turn of the century. Substantial quantities of gold were discovered in the 1930’s leading to a gold rush, which caused an influx of non-Indigenous miner, the establishment of the town on its current site and the exclusion of Aboriginal people from Tennant Creek (Maurice 1988).

Historical evidence shows that the initial language of communication between Warumungu and Europeans was an English-based pidgin (Linklater 1940; Linklater and Tapp 1968). Harris has argued that a ‘pastoral industry pidgin’ extended with the pastoral frontier from New South, to inland Queensland and into the Northern Territory in the 1870’s (Harris 1986, Harris 1991). He provides evidence that the major lexical source of this early pidgin was South-east Australian Pidgin English (SEAPE), which developed in the late eighteenth century around Port Jackson in New South Wales. SEAPE ‘was carried throughout much of Australia and was the invariable model presented to newly encountered groups’ (1991:199). Like the stations to the north and west of Tennant Creek, the stations of the Barkly were explored, stocked and then serviced from Queensland. Among the workforce were Aboriginal people from the eastern states (Liddle 1996), who were likely to have

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6 Aboriginal people were moved from the Telegraph Station in the late 1930’s, with official accounts citing the need to keep Aboriginal women apart from Army workers and miners in the area (Maurice 1988: 48). See Nash (1984) and Stanner (1980) for detailed accounts of the Telegraph Station settlement and the Warumungu Reserves gazetted to the east of the site.

7 Certainly today strong links remain with Queensland communities. Personal histories collected from middle aged and older Warumungu reveal that many people spent time in Queensland on stations and in towns, particularly Camooweal. While there has been movement out of the region to many locations, movement to and from Queensland in the east is most common.
already learned the station pidgin. Harris argues the early pastoral industry pidgin varieties stabilised in the Northern Territory, and Northern Territory Pidgin English (NTPE) developed. This process was accommodated by the common ancestor, SEAPE, and probably a further Pidgin variety, which had developed in South Australia and the movement of both Indigenous and non-Indigenous people, including ‘Afghan’ cameleers (Simpson 2000) moving between telegraph stations, cattle stations, police stations, mines and government postings.

Early accounts by William Linklater, who worked on stations on the Barkly Tablelands, indicate that such a pidgin was in use in the region in the 1890’s and at Banka Banka station in the early 1900’s (Linklater 1940, Linklater & Tapp 1968). Linklater noted the following sentence as having been used on Eva Downs station, on the Barkly Tablelands, in the early 1890’s, by a ‘Umbire’ (probably Wambaya) speaker: "Him mad, poor fellow no more hurt him" (Linklater 1940). Such samples reveal at the very least Linklater’s characterisation of Aboriginal speech. In 1901, at Banka Banka station, where Linklater also learned Warumungu, he wrote, “I have often heard the natives complain, in such circumstances, What for, what for? All day long him bin askem, askem, askem. Him makem ear-hole belonga me knock up …. When their hair is washed it is particularly soft and lustrous, and the lubras on Banka Banka would beg to have it trimmed. Cutem hair belonga me along jissors.” (Linklater and Tapp 1968: 164). And further of the women: “They preferred to be given print, needles, cotton and scissors, and then, as they put it, You makem dress belonga me self, on making dresses themselves” Linklater 1940: 166).

Later, recollections of two senior women who grew up at the Tennant Creek Telegraph Station in the 1930’s give some insight into the linguistic environment there. Speakers of a number of traditional languages lived in separate camps. Intergenerational language transmission continued and young children were commonly taken care of by senior relatives, while younger adults worked at the station. However, ‘Pidgin English’ played an increasingly important role among Indigenous people in this environment (E. Nelson and K. Fitz, personal communication 2002). Mrs Nelson recalls:
Nothing out this way here, maybe that way like Warumungu and that way Kaytetye there, Warlmanpa another one. Sometimes mix, come together for corroboree, like singing, dancing, men’s that way, women’s, night-time, separate. Daytime must be work then, old people, and we-mob, kids, little ones, might stay. (in Christen 2004:63)

There was nothing over there; over that way were Warumungu (people), that way Kaytetye (people), and Warlmanpa (people) in another (camp). Sometimes (the groups) mixed, came together for corroboree, for singing and dancing. The men (and) the women at night, (were) separate. During the day (the adults) had to work. The old people and we children, little ones, would stay (at home).

In the late 1930’s people were moved to the ration depot Six Mile and then to Phillip Creek Mission (Mangkamanta), 30 kilometres north of the Telegraph Station site. A senior man and strong Warumungu speaker, Mr. J. Jones, was born in the early 1940’s at a gold mining camp near the Telegraph Station. He wrote about the language situation he recalls when growing up (Jones 1999). He recounts that both his parents spoke to him in Warumungu, but were multilingual in various Indigenous languages; his father a Warumungu speaker and his mother primarily a Warlmanpa speaker. Both parents also spoke ‘Pidgin English’. Mr. Jones visited Phillip Creek Mission in the late 1940’s. Under the control of the Australian Inland Mission, children were separated from their adult family members, slept in dormitories and attended school. Adults lived in camps around the mission, but their contact with children was restricted. Mr. Jones (1999) describes language contact with ‘pidgin English’ and with other Indigenous languages, in increasingly non-Traditional settings:

[S]ome family spoke Warumungu and Warlmanpa and Warlpiri. Mungkamunta or Phillip Creek mission was run by ... missionaries, before it was made a government settlement in the late 1940's. People used to speak English, roughly pidgin English, because other tribes were there, Jingili, Mudburra. People used to work on the roads and for the army, then settle or stop for a while there. A lot of people married people from other tribes. (Jones 1999:2)

In the early 1950’s Mr. Jones returned to and lived at Phillip Creek Mission, where he attended school:

[..] while my father went to Pitikiri or Phillip Creek station, west of the mission. When we started going to school we started learning English, to understand and to write it. We learnt spelling and figures. Our teacher was pretty nasty. You couldn't do your figures or printing right you get caned for that in your little
hand. There was a ration store they used as a hospital, there were a few white nurses. English was getting stronger at this place.  
(Jones 1999:2)

In mid 1956 over 200 Warumungu, Warlmanpa and Warlpiri people were forcibly resettled at Warrabri, (now the community of Alekarenge/Ali-Curung), established as part of the assimilation policy of the era. The Reserve aimed to:

Promote and direct social change amongst the Australian aborigines in such a way that, whilst retaining connections with, and pride in, their ancestry they will become indistinguishable from other members of the Australian community in manner of life, standards of living, occupations and participation in community affairs.  
(Welfare Branch, Northern Territory Administration, Warrabri Aboriginal Reserve, September 1961: 6).

Mr. Jones, a young teenager at the time, was among those resettled. Of life at Warrabri in the late 1950’s he writes:

When we went there we was still going to school. We was learning more about English. A few other tribes came in, like Alyawarr, Kaytetye - that's their country, part of it. There we was mixed tribe again. As I grow up lot of papulanji (white people) bin come. Builders, farmers, plumbers. And their kids. There we start to work amongst Europeans. They taught us to do welding, lots of building, gardening. We was learning more to speak English. From the Europeans and in school. We used to go to a night class, us men. Learned about how to get a license, to learn more about reading, sometime mechanical job.  
(Jones 1999: 3)

The rising importance and exposure to varieties of English and changing life-styles under new efforts at assimilation of Indigenous people, placed pressures on Warumungu and other Indigenous languages (Chadwick 1984). By the 1950’s the ‘Pidgin English’ that was spoken between non-Indigenous and Indigenous people and among Indigenous people as a lingua franca appears to have gained dominance for children living on most of the stations, and at Phillip Creek Mission. At Warrabri, exposure to and instruction in Standard English was intense. Up until this time, Warumungu children continued to learn their traditional language, but these are among the last generations of full speakers. The distribution of full speakers of Warumungu today is evidence of this.

Two language surveys of the Barkly region carried out in the 1980’s (Glasgow 1984, Graber 1988) found that some type of Creole was spoken on stations and in Tennant
Creek, which both assumed was a form of Roper River Kriol spoken to the north. By the 1980’s Roper River Kriol was well known and documented (Sandefur 1979; the work of Harris). Glasgow’s survey covered much of Central Australian and documented all languages in use. While he collected wordlist for traditional languages, he did not record wordlists (or other data) of ‘Pidgin’, the term he used in line with speakers in Tennant Creek for the variety they spoke. His method for identifying this contact variety involved reading out a Roper River Kriol bible text to see if it was mutually intelligible. Of ‘Pidgin’ in the Barkly he wrote:

This really should be called Kriol as it is the first language of many people and appears to be only dialectally different from the Kriol language of the Roper and Kimberly areas. (Glasgow 1984:116)

The second survey was more focused on the Creole variet(ies) spoken in the Barkly and was carried out by Phillip Graber, John Sandefur and a group of Roper River Kriol speaking men from Ngukurr, who carried out much of the data collection (Graber 1988). They approached people (mainly men) on Barkly cattle stations and communities, and in Tennant Creek and spoke Roper River Kriol with them. While they noted some differences with Roper River Kriol, the data they collected and placed in the reports appendix does not include any of the features that distinguish Roper River Kriol from Wumpurrarni English spoken today. This provided evidence to their hypothesis that Roper River Kriol, which emerged at Roper Mission in the 1920’s had spread south with droving stockmen (Harris 1986: Munro 2004). Accepting this account of the emergence of Wumpurrarni English would mean that the features that distinguish it from Roper River Kriol today are innovations, which have taken place in the last twenty years. This seems unlikely. It is more probable that on hearing the visitors speaking Roper River Kriol, the speakers that they met accommodated them by modifying their own speech to sound more like Roper River Kriol, rather than using a form distinct from Roper River Kriol. It is plausible that the similarities to Roper River Kriol can be attributed to the common source of the Creole varieties spoken across northern Australia (SEAPE, NTPE), but that under similar processes of language shift and the growing demands placed on the earlier Pidgin, Wumpurrarni English stabilized relatively independently from Roper River Kriol.
 Aboriginal people began to shift from cattle stations to Tennant Creek in the 1970’s and 1980’s. At this time, employment opportunities declined with new technologies and the right to equal wages for Aboriginal stockmen. Others shifted from Warrabri Aboriginal Reserve (now Alekarenge/Ali-Curung) as paternalistic and assimilationist government policies gave out to new political models of self-management and then self-determination (Christen 2004, Edmunds 1995). Mr. Jones moved to Tennant Creek at this time, and, of the language contact between Indigenous people in the town he writes:

In the seventies, I move out to Nyinkka Nyunyu [town camp] That's that little goanna (dreaming place). And there I start working in Town Council I been working there for several years, then later on I pull out from Town Council. But when I was living in town I met Warumungu, Warlmanpa and Warlpiri speaking people from the stations. They used to come in to town for holiday. After that I start working for Aboriginal projects, they had that for a while, right up to ’86. [...] Then I worked with Julalikari Housing round the eighties. Then more tribes came in, like Alyawarr, Kaytetye, few more other Warlpiri, so we were still living as mixed tribes. I used to still speak my language, but I understand Warlpiri, some part of Kaytetye or Alyawarr. But English, pidgin English, was still there, it was the main language to communicate with each other. Then nineties [...] then all the tribes were working together.

(Jones 1999: 3)

The 1970’s and 1980’s saw the rise of Aboriginal assertions of rights for recognition of Indigenous people, land rights and services, such as housing, health care and Indigenous governance structures, locally and nationally. In Tennant Creek these assertions were bitterly contested by segments of the non-indigenous population, particularly the claim to traditional land, which the Warumungu lodged in 1970’s under the Northern Territory Land Rights Legislation (Edmunds 1995).

When Aboriginal people began moving to Tennant Creek many camped in the bush on the outskirts of the town. Little accommodation was available to them, with the exception of the "Pink palace", stockmen's quarters to the north of town donated by the pastoralist, Mary Ward, which became Mulga camp (Nash 2002). A ‘native village’ was established on the south-western corner, later to become ‘Village Camp’, one of eight town camps, which exist today. Initially speakers of different languages

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8 Town camps are housing areas for Indigenous people, established under special purpose leases. See Edmunds (1995) for an extended discussion about the establishment of Tennant Creek’s town camps.
lived in different camps and this remains, though to a lesser extent today.

Many Indigenous people in Tennant Creek today live in the town camps, while others live in houses and flats in residential streets in the town. Households are often made up of extended families, with other family members living close by. Visiting and socialising with family members is constant, and so children live in a language- and people-rich world (Wigglesworth & Simpson 2008a).

The pre- (and early) contact linguistic ecology of multilingualism in Indigenous languages in this region has been replaced by a new linguistic ecology. Dramatic shift from traditional Indigenous languages to Wumpurrarni English and English has taken place in the last 50 years, a situation which causes Warumungu people great concern. When Warumungu people moved into the town thirty to forty years ago and began to form the speech community that exists today, they brought with them different language repertoires. Generational and regional differences are evident today in the speech of Warumungu adults in Tennant Creek.

The most significant generational difference is proficiency in Warumungu. Full speakers of this language are generally over 50 years of age and levels of proficiency decrease with age. At some locations, however, language shift occurred slightly later or more slowly than at other locations. Many of the adults aged between 35 and 50 years of age, whose proficiency in Warumungu is relatively strong grew up at Rockhampton Downs Station, indicating that at this location, Warumungu continued to be transmitted to children for longer than at other locations. This was noted in the language survey carried out by David Glasgow in 1982 (Glasgow 1984). Banka Banka Station also appears to have been a location where Warumungu continued to be spoken strongly, and the children of particular families grew up with strong proficiency in Warumungu. Adults in this age group who grew up in other locations, such as Warrabri, and who have strong proficiency often report that a particular adult in their language socialisation, often a grandmother with whom they were able to spend time, was key in their having learned a traditional language.
Most middle-aged adults, like most younger adults, have varying levels of partial knowledge (Gal 1989, Tsitsipis 1998) and may use Warumungu features in insertional code switches (Muysken 2000). This type of switching generally involves the use of a single or small number of Warumungu lexical items or morphological features in otherwise Wumpurrarni English discourse (Morrison & Disbray 2007) and is illustrated in the following section. Warumungu insertion is a means that speakers have to express their Warumungu identity and also their language proficiency, which continues to be prized. During the ACLA project I carried out a small survey of language attitudes, playing audio extracts from the recordings speakers of different ages and seeking people’s responses to the different styles in the recordings. The use of Warumungu insertional code-switching in the extracts was positively valued. Insertional code-switching is the most common exposure children have to Warumungu, from full and partial speakers. They also hear elders and sometimes middle-aged adults speaking Warumungu, but long stretches of speech are generally between elders, rather than addressed to the child.

While Warumungu is positively valued, attitudes to Wumpurrarni English are somewhat mixed. When I began recording families for the Aboriginal Child Language Acquisition project (ACLA), some speakers disassociated themselves with the code, informing me that children speak a ‘pidgin’ English, ‘mixed up way’. As I returned to ask for assistance and to have speakers check transcripts, these speakers relaxed their attitude and took interest in my trying to understand the language, its patterns and forms. Some speakers, whose style is light, however, do tend to distance themselves from heavy styles of Wumpurrarni English. These two groups of speaker generally have different language and residential histories, which is discussed below. Initially some school-aged were shy about speaking Wumpurrarni English in my presence. Wumpurrarni English has no role in the school setting. Some children were shy as they associated me with Warumungu language and older people, as I had been working on a learner’s dictionary prior to the commencement of the ACLA project. However, once older children also became more involved, enjoying viewing the video recordings, assisting with deciphering the utterances of young siblings in the recordings, checking my transcriptions and progress learning Wumpurrarni English,
they too became less reticent about speaking in and about Wumpurrarni English, particularly the children of heavy Wumpurrarni English speakers.

Regional differences in the speech style of many middle aged adults (aged 30-60 years) are remain evident in speech styles in Tennant Creek. These are between adults who grew up on the stations of the Barkly Tablelands, where a heavy style of Wumpurrarni English developed, and same aged peers who grew up south of Tennant Creek at Warrabri Reserve (Alekarenge), where exposure to Standard Australian English was intense. The latter tend to speak a ‘lighter’ style of Wumpurrarni English. These differences influence the speech of children, as their linguistic repertoire often reflects the residence history of their family. This endurance is interesting given most children, like most people under 30, have grown up in Tennant Creek.

2.2 Speech styles among Warumungu people in Tennant Creek

2.2.1 Defining Style

In this thesis I use the term ‘style’ to talk about variability in the ways that people speak Wumpurrarni English, and also in the ways that they use Warumungu and English. This use of the term ‘style’ follows Rickford and Eckert’s characterisations, which recognises that in all societies, speakers have stylistic repertoires or different ways of speaking (Rickford & Eckert 2001). This is revealed as speakers alter their speech in response to topics, situations, social relationships and perceptions of audience expectations.

The investigation of style has grown out of the study of sociolinguistic variation. The early sociolinguistic program initiated by William Labov and others (Labov 1966, Trudgill 1974, Wolfram 1969) sought to establish linguistic patterns of social variation across a speech community. In his study of language variation in New York City, Labov (1966) was able to demonstrate a socioeconomically stratified pattern of use of phonological variables across speakers. Further, he showed that speakers varied their production of the very linguistic variables under examination, depending on the elicitation setting. In particular, Labov found that in formal contexts, when speakers attention was on their own speech production, the resulting ‘careful’ speech was least
likely to be the speaker’s usual speech style. He termed this the ‘observer’s paradox’ (Labov 1972). This not only identified a methodological issue for data collection, but provided evidence that speakers share evaluations of the social meaning of the linguistic variables. Labov positioned these variables in a hierarchy, with socially prestigious variants at one end and socially stigmatised variants at the other. All speakers responded to this cline, with variants approaching the more prestigious end of the pole when they paid close attention to their speech, but shifting down the cline in casual speech. The precise variant speakers produced under these conditions was related to the socio-economic status of the speaker, providing important insights into, on the one hand, variation across the speech community, and on the other hand, the stylistic range of the individual speaker. The stylistic range of the individual was shown to span a subset of use along a continuum, locating intra-speaker variation seamlessly in the broader pattern of variation across the speech community.

Since these early and seminal foundations, there have been further developments in sociolinguistic enquiry. Labov’s work placed a new emphasis on field methods, locating the speaker’s manipulation of style in terms of careful versus casual speech central to the process of data collection. However, new approaches have considered style not only as a factor of data collection, but as a basis for investigating variation as social practice (Rickford & Eckert 2001). For instance, Allan Bell (Bell 1984) was able to show that stylistic shifts in phonological and syntactic variables where triggered not by the careful/casual speech dichotomy, but by ‘audience design’ in a study of speech by New Zealand radio announcers. Audience design refers primarily to the shift by a speaker to a style more like that of their listener. Accommodation theory provided a similar account (Giles & Powesland 1975). In Bell’s formulation, the audience may be present or absent, an ‘overhearer’. Bell’s formulation took into account other contextual factors, such as setting and topic, however, his original research on radio newsreaders showed that these contextual factors could be held constant, and that the interaction between speaker and hearer(s) was crucial in triggering a style switch. Rickford and McNair-Fox’s subsequent studies tested and confirmed Bell’s claims (Rickford & McNair-Fox 1994). Bell explained the source of

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9 This is similar to formulations of accounts of code-switching also (e.g. Blom and Gumperz 1972).
stylistic variation through the ‘Style Axiom’ (1984: 151). This posits that style derives from and reflects the variation which exists in the society. In Eckert’s formulation “[S]tyle is the locus of the individual’s internalisation of broader social distributions of variation” (in Rickford and Eckert 2001: 1). The ‘individual’ here is the listener and the speaker; their interaction that makes this practice socially meaningful.

Bell (1984; 2001) describes audience design as the ‘responsive’ dimension of style-shifting and introduces a second notion ‘referee design’, through which ‘initiative’ style-shifts can be explained. Bell writes:

[I]n initiative style-shift the individual speaker creatively uses language resources often from beyond the immediate speech community [or initiative style-shifting] can involve the speaker shifting to an identity more strongly with their own in group, or to an out group with which they want to identify” (Bell 2001).

Initiative style-shifts bring about a change in the situation, while the responsive dimension of style shifting results from the situation. The two notions allow an account of style that views speaker’s language use as dynamic. Speakers draw on the resources of their speech repertoire and the social meanings of these resources. They respond to situations and, through the style choices they make, encode facets of their identity. This is not to say that every utterance is an active, motivated response or initiative and that contextual factors and norms do not guide speakers and listeners. However, style provides a useful means of characterising repertoires of speakers in Tennant Creek. It is also a very useful concept for the discussion of code choices speakers made in the frog story narrations, the focus of later chapters.

2.2.2 Defining Wumpurrarni English

Defining and describing a contact variety in a dynamic setting like Tennant Creek is complex. In section 1.3 I introduced the term ‘Wumpurrarni English’ and explained how this naming came about. In discussing their language, speakers in Tennant Creek

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10 Bell acknowledges that similar formulations to his conceptualisation ‘audience design’ and ‘referee design’ have been developed to explain these concepts in code-switching data (Blom and Gumperz 1972;). Notions similar to ‘referee design ‘ have been developed to explain style shifts in Creole with ‘acts of identity (Le Page and Tabouret-Keller 1985) and among youth groups with ‘crossings’ (Rampton 1993).
acknowledged linguistic features in their language shared with Roper River Kriol, but they stressed the differences and disassociated their language and themselves from ‘Kriol’ and its speakers to the north. The term ‘Kriol’ is understood as the name of a particular language, not a technical term referring to a language type, as in the sense of ‘creole’. Rather, in discussions Warumungu people stressed their local, Warumungu identity, and so this code is both a social and linguistic entity. The presence of Warumungu features in Wumpurrarni English was also stressed, and motivated the importance of a Warumungu term (Wumpurrarni) in the language name. And while it was decided that ‘English’ should be part of the term, ‘Wumpurrarni’ (Aboriginal) English was discussed in contrast to ‘Papulanyi’ (non-Aboriginal) English. This contrast is grounded in part in linguistic differences. However, perhaps more significantly for speakers, it is also grounded in shared notions of ‘Wumpurrarni English’ as ‘our way’, expressing a Warumungu and Indigenous identity, in contrast to a non-Indigenous identity.

In section 2.2 I proposed that Wumpurrarni English has developed from an earlier pidgin used around the turn of the 19th century, which has stabilised over time. Wumpurrarni English has remained in contact with Warumungu, the substrate language and with Standard Australian English, the superstrate and lexifier language. I have also proposed that Wumpurrarni English is best described on a continuum (§1.3.1), with heavy or basilectal to light or acrolectal styles, as in Figure 2.1 below. Above I have suggested that a heavy style emerged and flourished on some stations of the Barkly Tablelands, but I have chosen not to treat this as a separate code in the contemporary speech community of Tennant Creek. I treat this variation within the code I am referring to as Wumpurrarni English, rather than as marking distinct codes.

Figure 2.1: A continuum of styles in Wumpurrarni English.
The poles of the continuum are relatively easy to define, on the basis of linguistic features, which distinguish heavy and light Wumpurrarni English. These differences will be illustrated below with conversational data (Extracts 1 and 2), and a summary of linguistic features is laid out in Appendix A. A stretch of discourse is characterised on the basis of such features. Speakers often have a characteristic speech style, which may be located along this continuum, but, by virtue of their language repertoire, which may span all or part of this continuum, they may shift styles between or within interactions. This may be socially motivated, driven by contextual factors such as the setting and identity of their interlocutor. As the linguistic features at the ‘light’ end of the continuum are those closer to Standard English than at the ‘heavy’ end, a problem arises in locating the point at which a stretch of discourse is identified as light Wumpurrarni English or English. Identifying code relies overwhelmingly on linguistic features, but contextual factors are also insightful. These matters are highlighted in Extract 2 below and central in Chapter 6.

With respect to identifying codes, it is important to note that I have not used the term ‘Aboriginal English’ (Eades 1991, Eagleson et al 1982, Harkins 1994, Kaldor & Malcolm 1991, Malcolm & Sharifian 2002). The varieties encompassed under this umbrella term may share few or many features, as it is used to refer to a number of distinct varieties and sociolinguistic settings. Ian Malcolm writes “the term Aboriginal English refers collectively to the range of distinctive varieties of English maintained by Aboriginal people and used primarily for communication within their speech community” (Malcolm & Sharifian 2002). Aboriginal English is used to refer to the distinct varieties of English spoken in at least four very different settings in Australia, a problematic Kaldor and Malcolm (1991) acknowledge. The settings include:

1. Urban and metropolitan settings, where the variety of Aboriginal English differs minimally from Standard English and also from the non-Standard English spoken by non-Indigenous first language English speakers (Eagleston 1982)
2. Urban rural and remote settings, where Aboriginal English is a first language, such as South-east Queensland, Alice Springs, Darwin and Northern Western Australia (Eades 1991; Harkins 1994; Samson 1980; Kaldor and Malcolm 1991)
3. Remote settings, where a Creole variety is spoken and Aboriginal English may be a second dialect.
4. In communities where the first language is a Traditional Aboriginal Language and the term ‘Aboriginal English’ is used to characterise the English spoken
as second language (or ‘interlanguage’ in Kaldor and Malcolm’s terms 1991: 75).

The style I refer to as ‘light’ Wumpurrarni English might share many features with other varieties described as ‘Aboriginal English’, however, I am situating this within the ecology in Tennant Creek, and argue that this is best understood in relation to the styles and codes within this ecology, which may be mapped as in Figure 2.2

![Figure 2.2: The Wumpurrarni English continuum in relation to Warumungu and Standard English](image)

Figure 2.2 shows the overlap between Wumpurrarni English and Warumungu at one end of the continuum, and between Wumpurrarni English and English at the other end. This style repertoire is then for some is a multi-lingual one, for most at least a bia-dialectal one, and as proposed above and illustrated in the extracts below, speakers shift styles along this continuum. The use of single Warumungu words and phrases to are considered ‘insertions’. Insertions occur within Wumpurrarni English and are a characteristic as a speech style. Similarly the use of some English features is characteristic of a ‘light’ style, and the use of many English features, an ‘English-style’. This is raised again in Chapter 6.

2.2.3 Exploring Speech Styles in Wumpurrarni English

To illustrate some of the variation in speech styles in Tennant Creek, four extended extracts from conversational data are presented in this section. The first two extracts focus on adult speech, the second two on child speech. All highlight the range of speech styles in this speech community. Utterances in Wumpurrarni English are transcribed in an orthography developed from the orthography for Roper River Kriol (§ 3.2.1). Warumungu utterances according to the orthography in Simpson (2002) and
are marked in bold font. Utterances analysed as Standard English are transcribed in the English orthography.

Extract 2.1

The extended extract (SD42A) consists of a conversation between two women who grew up on a cattle station, on the Barkly Tablelands. Both are in their early thirties. Speakers from families with a residential history associated with these stations generally speak ‘heavy’ Wumpurrarni English as their everyday code of communication within their community. The mothers of the two women were sisters, and so following Warumungu kinship conceptualisations, both call the two mothers ‘mother’, and call each other ‘sister’. In the first part of the conversation (2.1-2.14) A2 has mentioned that, like A1’s daughter, some young nieces have just started preschool. A1 responds by asking which school, assuming the two children must have entered primary school, as she herself has not seen these two children at the preschool. A2 explains that they attend different sessions, as one group attends in the mornings, the other in the afternoon. A1’s comments about the children’s behaviour in school, and her anticipated reaction by the teacher, in line (2.4) provides insight into this parent’s reflections on teacher attitudes. In the second part of the extract A2 requests that A1 make her tea (2.5-2.10). Elements from Warumungu are in bold.

(2.1) A1: wat skul-kana dei go-in?
what school-LOC 3Pl go-Prog
what school are they going to?

(2.2) A1: masbi ina big-wan-kana.
must be Loc big-one-Loc
it must be to the big one (primary school)

(2.3) A2: na ebritaim wan P go, damob stop-in na kempe,
No everytime when NAME go 3Pl remain-Prog Loc home
no whenever P goes, they stay home
wal dei go, P stop-in na kempe.
well 3Pl go NAME remain-Prog Loc home
then when they go, P stays at home

(2.4) A1: wal dei lebul warungka-wan ina skul na,
well 3Pl equally mad-Nom Loc school Dis
well if they are both as mad as each other in school,
titja won teik a notis na **warungka**-wan, na dubala deya. teacher won’t take Det notice Prep mad-Nom Dis 3-Dual there
the teacher won’t take any notice of the mad ones, those two.

*(request for tea)*

(2.5) A2: gid-im **ngappa** deya hot-wan an na meik-im di. get-Tr water there hot-Nom and Dis make-Tr tea
get some hot water and make some tea

(2.6) A1: a-m wik na bodi, a-m hanggri C, yu bin id-im brekfs. 1S-be weak Loc body, 1S-be hungry NAME, 2S Pst eat-Tr breakfast
*I’m feeling weak, I’m hungry C, you ate breakfast*

(2.7) A1: **mungku** main no gud. stomach 1S-Poss no good
*my stomach’s no good*

(2.8) A2: wirk-im dat pikinini deya. work-Tr Det child there
get that child working

(2.9) A1: yu fil-im main gats-mob emti. 2S feel-Tr 1S-Poss guts-Pl empty
*you feel my empty stomach*

(2.10) A2: spil-im dadan, an rins-im-at an tu dibeg pud-um, tip-Tr Dem, and rinse-Tr-out and two tea bag put-Tr
tip this one out, and rinse it out and put two tea bags,

rait ful yu pud-um. right full 2S put- Tr
fill it right to the top.

The insertional code switching between Wumpurrarni English and Warumungu in the extract is illustrative of this language practice. Nominals are commonly inserted. In Extract 1, these include ‘warungka’ in line (2.4), ‘ngappa’ and ‘mungku’ in line (2.5). Some case-marking morphology derived from Warumungu appears, for instance ‘–kana’ in (2.1). Warumungu case-markers occur in Wumpurrarni English and alternate (or co-occur with prepositions) (see Appendix A).

The conversation shows some interesting aspects of Wumpurrarni English semantics. Most of the lexicon stems from English, but this does not mean that a given lexeme remains equivalent to its English source form. The explanation given above regarding
the two speakers’ kin relationship (‘sisters’) is one instance of a Warumungu taxonomic classification, which has transferred to English-derived forms. In the text, the sense of the term ‘lebul’ in (2.4) is related to its English source ‘level’ but appears in a context that it would not occur in English. The same is true of ‘gats-mob’ in (2.9), which consists of ‘gats’ (‘guts’, plus the Wumpurrarni English plural marker ‘mob’). The semantics of verbs may differ in terms of transitivity and valency. The sense of the verb ‘stop’ ‘to remain, to stay’ in (2.4) differs from its use in English, though this use does appear in some varieties of English. The verb ‘spil-im’ (2.10) has a sense of non-intention in Wumpurrarni English, and occurs where ‘tip’ might occur in Standard English.

There are a number of bare nouns, that is, nouns without a determiner or quantifier. These are common in heavy Wumpurrarni English and are more fully discussed in Chapter 3 (§3.3). Bare nouns occur very commonly in prepositional phrases, such as following locative prepositions (‘ina’/’na’) as in ‘na kemp’ in (2.4) and ‘na body’ in (2.6). They also appear in argument positions, as in the subjects (‘tijta’ in line (2.5) and ‘mungku’ in (2.5)) and in object position (‘ngappa’ (2.5)). Determiners are also used, with proper nouns, as in (2.2) ‘dat P’, and common nouns, (2.8) ‘dat pikinini’. Wumpurrarni English has dual and plural third person pronouns, as in ‘dubala’ (‘they two’) and ‘damob’ (‘they 2+’) in example (2.4). The plural form has two variants, ‘damob’ and ‘dei’. Damob occurs less in lighter styles of Wumpurrarni English than in heavy Wumpurrarni English.

Characteristic features of Wumpurrarni English verbs include ‘bin’ for past tense marking in (2.6) and -im for marking transitivity of the verb in (2.5). Details of verbal structure in Wumpurrarni English are given in Appendix A.

Finally, the extract shows that Wumppurrarni English has a largely SVO word order. In this it is similar to Standard Australian English. Both codes rely on word order to mark grammatical arguments. Warumungu, on the other hand, marks grammatical arguments with case-marking, and so allows far greater word order variation. However, Wumpurrarni English appears take advantage of variation in the order of

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11 See Hudson (1983), chapter 8 for a discussion of these matters in Fitzroy Valley Kriol.
arguments for pragmatic purposes more than English, as the fronted object ‘dibeg pud-um’ and the adverbial phrase ‘rait ful yu pud-um’ show, in line (2.10).

Extract 2.2

In the second extract (lines 2.11 – 2.32) a lighter style of Wumpurrarni English is used. It is a conversation between three women with a different language history to the women above. Two are in their early fifties, A4 and her sister A3. The third woman, A5, is the daughter-in-law of A4 and aged around thirty. Because the two older women are sisters, both are ‘mother-in-law’ for A5, and ‘nanna’ for A5’s children. A3 and A4 spent most of their childhood years at Banka Banka Station and lived for some time at Warrabri Reserve. They both have had extensive work histories in Tennant Creek that have involved operating in English and have strong command of Standard Australian English, of which they are proud. A3 is a very knowledgeable and strong Warumungu speaker. Her sister is also very knowledgeable, however A4 is much less confident about her skills, and as a result is a less active speaker. A5 grew up and attended school at Warrabri and is a partial speaker of Warumungu. All three speak a light style most of the time, and also use features from heavy Wumpurrarni English.

The conversation takes place in the following situation: A3 is playing with a toy cash register with her granddaughter and grandson, when A4 arrives to tell A5 that the Central Land Council\(^\text{12}\) has a voucher for her to shop (for ‘taka’ (tucker) ‘food’) for relatives in the ‘sorry camp’, where they are mourning a recent death.

\(^{12}\) The Central Land Council (CLC) is the non-government representation body for Indigenous people in central Australia. Its scope is wide and one service it provides is assistance with bereavement and funeral expenses. The provision of a food voucher for family members attending a ‘sorry camp’ is an aspect of this.

(A3 is watching two of grandchildren playing shops with a toy cash register)

(2.11) A3: you pay im with the money.
(2.12) A3: NAME, you gotta pay im with the money.

(A4 arrives and discussion about the voucher from the CLC begins)

(2.13) A4: dei got dat voucher, CLC, for you.
(2.14) A5: who?
(2.15) A4: fo you, voucher.
(2.16) A4: what you gotta come and git it now?
(2.17) A4: NAME want you to do shopping or wat yu kin stei wid lidlgirl?
Name, are you going to do the shopping, or are you going to stay with the little girl?

(2.18) A5: voucher, wat-fo voucher?
What voucher? What's it for?

(A4 points in the direction of the sorry camp).

(2.19) A4: two hundred dollars I think it’s about, for shopping.
(2.20) A5: ye.
(2.21) A4: CLC bin ring-ap fo NAME.
(2.22) A4: “can you tell her to come here, CLC, and pick up this voucher?”
  for food, for you to go and get [food]
(2.24) A4: so you can leave some here.
What cook-Tr-Dur
  what, and cook some food here?
(2.26) A4: I’ll giv dat motaka to NAME, inti?
  I’ll give the motor car to Name, shall I?
(2.27) A4: she said she gona come an get you anyway.
(2.28) A4: you an her, you two gotta do shopping.
(2.29) A4: kuyu amppul buy flour, everything.
    meat 2-Dual
  you two buy meat (and) flour, everything
(2.31) A4: olrait, I’ll give it to NAME.
(2.32) A4: an I’ll tell her to come iya den.  (SD070)

A number of light features occur in this text, and fewer heavier features than in Extract 2.1. Nouns occur with determiners, as in the prepositional phrase ‘with the money’, in line (2.12). Some bare nouns occur in contexts where the referent is not a mass noun, for instance ‘voucher’, in (2.15) and ‘wid lidl girl’ in line (2.17). No ‘heavy’ preposition forms occur, and there are no instances of Warumungu case-markers. The discourse marker ‘na’ does not occur at all, but the question tag ‘inti?’ (2.26) does.

There is dual pronominal reference, but the heavy form ‘dubala’ is not used, rather the ‘you and her’, in (2.29). Only in this light style is a gender distinction made on the third person singular (he/she). ‘She’ occurs in line (2.27). A4 repeats this dual reference in Warumungu in line (2.30), in the single instance of switch-coding by her.

In line (2.22) A.4 switches to English in a line of direct speech. A.4’s use of a copular expression ‘two hundred dollars I think it’s about’, in line (2.23), a further Standard
English feature. A characteristic of light Wumpurrarni English is the use of features of
the Standard English verbal system. In this extract the past tense marker ‘bin’, in line
(2.22) alternates with English past tense marking (‘said’, in line (2.28)). In heavy
Wumpurrarni English the form ‘garra’ expresses both future tense and the modality
obligation. A4 uses ‘gotta’ for future tense, in lines (2.17) and (2.29), which alternates
with ‘gona’, in (2.27). A4 also uses the contracted form of ‘will’, in lines (2.31) and
(2.32). There are only two transitive markers in the text\(^\text{13}\), by A3, in line (2.23), where
the indirect object is fronted, and in (2.25), in which the verb is also marked with the
form –bat, marking durative aspect, also a feature of heavy Wumpurrarni English.

Extract 2.3

The third extract (lines 2.33-2.48) shows code-switching between Standard Australian
English and Wumpurrarni English. It is an extract from play data The conversation is
by three girls, two are aged ten (C1, C2) and C3 is aged three. The girls have a toy
medical kit and are playing doctors and patients. This role-play context triggers the
use of a style very different to the style they normally speak at home. C1 and C2 both
speak light and heavy styles of Wumpurrarni English at home with adults, siblings
and peers. This same repertoire is emerging in the speech of the three year-old, C3,
who is C1’s younger sister. Her only contribution in the text, in line (2.42) is in
Wumpurrarni English. In role-playing, they switch to an ‘English’ style. Both of the
older girls are regular school-attendees, though features from Wumpurrarni English
occur in some of their ‘English’ utterances. Towards the end of the interaction, as C1
relinquishes her ‘doctor’ identity, both switch to the style of Wumpurrarni English
they normally speak (lines 2.45-2.47). The interaction of the older girls reveals their
mastery of different codes and an awareness for context and register.

\((C1 \text{ is wearing a stethoscope and examining C2})\)

(2.33) C1: here the doctor from Alice Springs
\((C1 \text{ puts a thermometer under C2 } s \text{ arm})\)
(2.34) C1: under arm, under the arm NAME.
(2.35) C1: you garra stay in the hospital for five days.
(2.36) C2: nat five days.
(2.37) C1: alright, how much?
(2.38) C2: one days.

\(^{13}\) The transitive form the verb ‘give’ is –it, rather than –im. I analyse the instances ‘giv it’ by
A4 (f and u) as verb+pronoun expressions, as there is no evidence elsewhere in the text that
she is using transitive marking.
(2.39) C1: na two wiks.
(2.40) C1: keep it under deya, keep it under.
(2.41) C2: two wiks?
(2.43) C1: just wait here.
(2.44) C1: can you come closer, please. *(all present laugh)*
(2.45) C1: a needa see in your ears, excuse me Mrs NAME.

*(game changes, C1 code switches. C1 is holding the stethoscope for C2 to speak into)*

(2.46) C1: mi lisin an yu tok

*I’ll listen and you talk*

(2.47) C2: na a’l trai lisin yos hart.

*no, I’ll try to listen to your heart*

(2.48) C1: iya yu lisin main hart.

*here you listen to my heart*

The children’s understanding of style and context is evident in the use of formulaic expressions in the contributions from C1 (2.43, 2.44,) and the request, line in (2.44). C1 uses both a bare noun and an English determiner, in line 2.34). Both C1 and C2 use Standard English plural marking on nouns (in lines 2.34-2.36, 2.39-2.44) and in the hypercorrection ‘one days’, in (2.38). English pronouns occur: ‘it’ (2.40), and the possessive ‘your ears’, in line (2.45). This is in contrast to the expression of possession in the switch to Wumpurrarni English, in lines (2.47) ‘yos hart’ and (2.48) ‘main hart’. Clearly some features that are not Standard English occur in lines, (2.33) to (2.45), such as the omission of the copula in (2.33), the bare noun in the first part of (2.34) ‘under arm, under the arm’, the use of ‘how much?’, rather than ‘how much’ in (2.37) and zero object in (2.40) ‘keep it under there, keep it under’.

**Extract 2.4**

The final extract is an interaction between four children. Three girls aged six and seven (C4, C5, C6) are playing with a doll’s house. The girls are speaking in the Wumpurrarni English style they normally speak and their utterances include some features from Warumungu *(bold)*. Most of these insertions, as in Extract 2.1, are nominals and there are instances of the possessive case-marking suffix –kayi (derived from –kari) (Disbray & Simpson 2005). From lines e) to h) the girls designate the doll’s house as a women’s house. Gendered space is a salient cultural notion. In line (2.57) the only boy present C6, who is three-years-old, suggests he and his mother live there also. He is corrected (with much laughter) and the great-grandmother (G) of most of the children suggests the young men’s camp ‘jangayi’, for him.
(2.49) C4: dat's ma haus!
That's my house!
(2.50) C5: dat  tappali -kayi?
Det group of women- Poss
is that the women's house?
(2.51) C4: mi na inti.
my turn isn’t it.
(2.52) C5: beibi -kayi.
Baby-Poss
the baby’s! (pointing to a cradle).
(2.53) C4: ola      gelmob- kayi inti?
Det-Pl  girl-Pl-Poss   Qt
it's all the girl’s isn’t it?
(2.54) C5:  dei slip iya.
they sleep/live here
(2.55) C4: ol av    da gel,    das    wimob- kayi.
all Prep Det  girl, Dem 3Pl-Poss
all of the girls, it’s ours
(2.56) C4: pikka- gel  an  jeil gel  an N  an  im  gel  an  mi.
baby-girl  and  child  girl  and  N  and  3S  girl  and  1S.
baby girls and little girls and N and she’s a girl and me.
(2.57) C6:  an  mi, mama.
an me and mama.
(2.58) C4:  na yu boi!
no you’re a boy!
(2.59) C6: ma  mama.
1S-Poss mama
my mama
(2.60) G:  jangkayi   haus!
Young men’s camp house
young men’s camp!

The extracts reveal some of the complexity of the language setting in which children are socialised to language in Tennant Creek. They learn not only linguistic forms in the codes they learn, but cultural knowledge (Extract 4) and social behaviour associated with linguistic codes and social identities (Extract 3, in particular).
2.3 Conclusion

In this chapter I have sought to familiarise the reader with the contemporary linguistic setting in Tennant Creek, and some historical forces that have led to this. Wumpurrarni English has been distinguished from Roper River Kriol, in terms of its emergence as a related, but separate contact language. I have explained the terminology used to characterise styles of Wumpurrarni English and introduced conversational data to illustrate the speech styles, which speakers have access to in this setting.

In the following chapter I give a linguistic description of features of Wumpurrarni English, focussing on the nominal system, which is crucial to the investigation of reference tracking in narrative carried out in later chapters.
Chapter 3

Referring Expressions in Wumpurrarni English

3.1 Wumpurrarni English

In this chapter, properties of Wumpurrarni English are presented. The focus is on nominal and pronominal referring expressions, as pronominal and lexical noun phrases are important in the developmental study of the frog story data in Chapters 7-9. I begin by briefly explaining the orthography for Wumpurrarni English and for Warumungu, then describe properties of the Wumpurrarni English noun phrase. The personal pronominal system in Wumpurrarni English, with light and heavy variants, is laid out in section 3.2. Lexical nouns are discussed in section 3.3, with particular attention paid to the distribution and functions of determiners and bare nouns (§3.3.3-§3.3.4). Wumpurrarni English determiner forms are derived from English, however, their distribution and functions in the two languages differ. Comparisons are made with Standard English in this section. I draw also on descriptions of Roper River Kriol, to assess possible similarities between this language and Wumpurrarni English. Finally some observations of narrative style in Wumpurrarni English narrative pertinent to referring expressions are made, in section 3.4.

The description in this chapter is limited to features relevant to the study of reference in discourse. Appendix A may be consulted for a brief description of properties of the verbal system, the use of Warumungu semantic case-marking and a summary of the features characteristic of heavier styles of Wumpurrarni English.
The account of Wumpurrarni English presented is based on a subset of the ACLA recordings, approximately 20 hours of transcribed video recording of interactions between children and adults of various ages. The set includes spontaneous conversational and narrative data, and elicited narrative data. Examples are from adult speakers, unless stated. A small number stem from the frog story corpus and the age of the speaker is marked on the source code, eg. (FR10.8), this indicates a Frog story text by a ten-year-old speaker.

3.1.1 Orthographies

The orthography for Wumpurrarni English is an adaptation of that devised for Roper River Kriol, found in Lee (Lee 2002) based on earlier work by Sandefur (1979). The orthography for Warumungu follows the conventions laid out in the Warumungu Learners Guide (Simpson 2002). The two source languages for Wumpurrarni English (Warumungu and English) have rather different phonological systems. Warumungu has consonants at more places of articulation than English, and English has more vowels than Warumungu. English also has a voicing contrast among stops at all positions in the word, whereas Warumungu has a length contrast word-medially. The convergence of these two systems results in considerable phonological variation.

Consider the representation of the Wumpurrarni English lexemes ‘jakem’ (throw) and ‘kajem’ (catch). The word initial and medial consonant consonant /j/ may occur as a stop or affricate in one of at least three places of articulation; apico-dental, apico-alveolar, lamino-palatal, and may be voiced or unvoiced. The word initial /j/ may also occur as an alveo-palatal voiceless fricative [ʃ]. In addition, variation occurs in terms of voicing of the two velar stops /g/ /k/. To illustrate this variability in voicing, the following minimal pairs in English are often homophonus in Wumpurrarni English: bump/pump, both may reasonably rendered either ‘bamp’ or ‘pamp’, the same is true of got/cut ‘gad’ ‘gat’/’kat’ ‘kad’ and dry/try ‘drai/trai’. The phonology of Wumpurrarni English styles varies, with lighter styles more similar to Standard Australian English and heavier styles more similar to the phonology of Warumungu.
The efficient transcription of a large number of recordings with high levels of variation requires that much phonemic distinction goes unrepresented and a reasonably standardised orthography was devised. As phonological variation was not under investigation, the working orthography allows variant spellings to capture broad acrolectal vs. basilectal differences, and is not designed for fine-grained phonological analysis. The orthography for Wumpurrarni English and Warumungu (Simpson 2002) is presented in Tables 3.1 and 3.2 The consonants of Wumpurrarni English are shown in Table 3.2 in bold. Warumungu consonants are represented (in unbolded smaller font). Warumungu has a set of short and long consonants (e.g. t /tt). The double stop consonants represent long voiceless stops.

<table>
<thead>
<tr>
<th></th>
<th>bi labial</th>
<th>labiodental</th>
<th>apico dental</th>
<th>Interdental</th>
<th>alveolar</th>
<th>retroflex</th>
<th>alveopalatal</th>
<th>palatal</th>
<th>velar</th>
<th>glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>-v</td>
<td>p</td>
<td>p</td>
<td>d</td>
<td>t</td>
<td>tt</td>
<td>rt</td>
<td>d</td>
<td></td>
<td></td>
<td>k</td>
</tr>
<tr>
<td>+v</td>
<td>b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>d</td>
<td></td>
<td></td>
<td>k</td>
</tr>
<tr>
<td>-v</td>
<td>f</td>
<td>th</td>
<td>s</td>
<td></td>
<td>j</td>
<td>jj</td>
<td></td>
<td></td>
<td></td>
<td>h</td>
</tr>
<tr>
<td>+v</td>
<td>v</td>
<td>th</td>
<td>z</td>
<td></td>
<td>j</td>
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<td></td>
<td></td>
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<tr>
<td>nasal</td>
<td>m</td>
<td></td>
<td></td>
<td>n</td>
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<tr>
<td>lateral</td>
<td>l</td>
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<td>l</td>
<td>rl</td>
<td>ly</td>
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</tr>
<tr>
<td>rhotic</td>
<td>r</td>
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<td></td>
<td>r</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>semi cons</td>
<td>w</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3.1 Wumpurrarni English & Warumungu Consonants
The orthography for Wumpurrarni English represents five vowels and four dipthongs:

<table>
<thead>
<tr>
<th>Wumpurrarni English Vowels</th>
<th>Warumungu Vowels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Central Back</td>
<td>Front Central Back</td>
</tr>
<tr>
<td>High i u</td>
<td>High i u</td>
</tr>
<tr>
<td>Mid e e o</td>
<td>Mid [a] [o]</td>
</tr>
<tr>
<td>Low a a o</td>
<td>Low a ,aa</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wumpurrarni English Diphthongs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low central to high front ai</td>
</tr>
<tr>
<td>Mid back to high front oi</td>
</tr>
<tr>
<td>Mid front to high front ei</td>
</tr>
<tr>
<td>Low central to high back au</td>
</tr>
</tbody>
</table>

Table 3.2 Vowels & Diphthongs in Wumpurrarni English

Warumungu also has a set of long vowels or semi-vowels (Simpson 2002).

3.2 Wumpurrarni English Pronouns

In this section features of the Wumpurrarni English person pronoun system are highlighted, then forms are set out in Tables 3.4 (Singular), 3.5 (Dual) and 3.6 (Plural). The possessive forms are only given for the singular pronouns, as these are separate forms (ma, main; yo, yos), which alternate with a set of derived forms made up of the object form + kayi, derived from the Warumungu case-marker. There are very few tokens in the data of separate possessive forms for dual and plural pronouns, found largely in light Wumpurrarni English. The possessive forms are made up of a pronoun form, with –kayi affixed. Demonstrative pronouns are discussed in §3.3.2.

3.2.1 Personal Pronouns

As in Roper River Kriol, Fitzroy Kriol and many Traditional Indigenous languages, no distinction is made for gender on the third person singular pronoun.
Where the three-way distinction is made in the Wumpurrarni English data, these pronouns (he, him, she, her, it) are coded as English.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Object</th>
<th>Possessive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Person</td>
<td>a</td>
<td>mi</td>
</tr>
<tr>
<td>2 Person</td>
<td>yu</td>
<td>yu</td>
</tr>
<tr>
<td>3 Person</td>
<td>i</td>
<td>im</td>
</tr>
</tbody>
</table>

Table 3.3 Singular Pronouns

A distinction is commonly made between dual and plural personal pronouns and, for first person pronouns, between inclusive (including the listener) and exclusive (excluding the listener) forms in traditional Indigenous Australian languages including Warumungu. This contrast is also found in Roper River Kriol (Sandfur 1979; Munro 2004). In Wumpurrarni English this distinction, in particular the inclusive/exclusive distinction only applies to heavier styles.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Object</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light</td>
<td>Heavy</td>
</tr>
<tr>
<td>1 Person incl.</td>
<td>widubala, minyu, minyudubala</td>
</tr>
<tr>
<td>wi</td>
<td>as</td>
</tr>
<tr>
<td>Excl.</td>
<td>widubala, mindubala</td>
</tr>
<tr>
<td>yu</td>
<td>yundubala</td>
</tr>
<tr>
<td>2 Person</td>
<td>yu</td>
</tr>
<tr>
<td>dei</td>
<td>dubala, damob</td>
</tr>
</tbody>
</table>

Table 3.4 Dual Pronouns

Table 3.4 shows specifically dual pronouns (with –dubala affixed) and some like ‘damob’, which can be dual or plural.
Table 3.5 Plural Personal Pronouns

<table>
<thead>
<tr>
<th>Subject</th>
<th>Object</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light → Heavy</td>
<td>Light → Heavy</td>
</tr>
<tr>
<td><strong>1 Person incl</strong></td>
<td><strong>1 Person excl</strong></td>
</tr>
<tr>
<td>wimab, wilat, asmob, olat wi melabat</td>
<td>wimab, wilat, asmob, olat wi melabat</td>
</tr>
<tr>
<td><strong>2 Person</strong></td>
<td><strong>2 Person</strong></td>
</tr>
<tr>
<td>yu</td>
<td>yu</td>
</tr>
<tr>
<td>yumob, yulot</td>
<td>yumob, yulot</td>
</tr>
<tr>
<td><strong>3 Person</strong></td>
<td><strong>3 Person</strong></td>
</tr>
<tr>
<td>dei, damob, olabat</td>
<td>dei, damob, olabat</td>
</tr>
</tbody>
</table>

Possessive forms for first person plural pronouns attested in the data are wimab-kayi, wimob-kayi, asmob-kayi; for second person dual/plural - yundubala-kayi, yumob-kayi; and for third person dual/plural - dubala-kayi, damob-kayi.

3.2.2 Distribution of pronouns

A division between exophoric and endophoric contexts is important in discussing the distribution and functions of pronouns. Exophoria refers to the extra-linguistic or situational context. First and second person pronouns (‘I’, ‘you’, ‘your’, ‘yours’, ‘we’ ‘us’) are inherently exophoric, or deictic. Their meaning and interpretation stem wholly from the situational context of the utterance. Third person (and demonstrative) pronouns occur exophorically, where the extra-linguistic setting provides a context for their resolution, such as a share visual field. In the Wumpurrarni English example, (3.1), the speaker and listener are both observing a child, who is climbing in and out of a cubby house and who is referred to pronominally.

(3.1) Na **i-m** go-in insaid, na **i-m** go-in-bek.  
now 3S-NonFut go-Prog inside now 3S-NonFut go-Prog-back  
now she’s going in, and now she’s coming back out.  
(SD069:84:ET)

Endophoria, on the other hand, refers to the linguistic context, in which meaning and interpretation are created. Pronouns play a central role in reference in discourse, as anaphoric expressions, which are generally “defined in terms of their dependence for interpretation upon some part of the surrounding text” (Stirling 2001:7). An anaphoric
expression may refer back to a single referent (3.2) or an entire proposition (3.3), which are the ‘antecedent’ for the anaphora.

(3.2) Jack washed up all the dishes. Then he went to bed.

(3.3) Jack washed up all the dishes. That really surprised me.

Pronominal anaphoric expressions must agree with the antecedent in number and, in languages, which mark this, in gender. Anaphoric relations may also be expressed, under certain conditions, with zero expressions. In English, for instance, zero anaphor occur generally only as subjects in conjoined clauses with structurally parallel syntactic frames (Marslen-Wilson et al 1982), as in (3.4).

(3.4) Jack washed up all the dishes, then Ø went to bed.

One exception to this in English is recipes (eg. Take 2 eggs, beat til foamy).

The extract from a hunting story in examples (3.5)-(3.8) shows that in Wumpurrarni English zero subject anaphora may occur in adjacent clauses, which are not marked with a conjunction, as in lines (3.7) and (3.8). Note also that objects may also be unrealised (lines (3.6) and (3.7)).

(3.5) tangkila olabat dei bin ged-im-bat
    mussels Pl 3Pl Pst get-Tr-Dur
    mussels they got

(3.6) dei bin go kuk-im-bat Ø na tri kana, big-wan tri iya.
    3Pl Pst go cook-Tr-Dur Loc tree-Loc, big-Nom tree here
    they went and cooked [them] by a tree, the big tree here.

(3.7) Ø kuk-im-bat Ø na.
    cook-Tr-Dur Dis
    [they] cooked [them]

(3.8) Ø taginat-bat tangkila na.
    eat-Dur mussels Dis
    [they] ate those mussels

As zero subject (and object) are possible in adjacent and non-conjoined clauses, it is possible for utterances to made up of a verb phrase alone (3.7). This is common in Wumpurrarni English, in conversation, and in narrative and other extended stretches of discourse.
3.3 Lexical Nouns

Most lexical nouns in Wumpurrarni English stem from English (many via the earlier pidgin), but this is one area in which Warumungu items commonly occur. Warumungu nouns are often inserted into otherwise Wumpurrarni English discourse. Insertion constitutes an important part of the language maintenance practices that take place in Tennant Creek (Morrison & Disbray 2007). Partial speakers of Warumungu know and use many lexical nouns and so the Warumungu input to children consists largely of nouns (see extracts in §2.2.2). Commonly occurring Warumungu nominal insertions can be grouped by semantic domain. High frequency domains include body parts, kin and person terms, types of food and animal names. A small set of Warumungu nominals denoting properties is common, including ‘wangu’ in (3.9):

(3.9) wangu mungkku yu gad-im.
   bad       stomach 2Sg  have-TR
   You are sick in the stomach. (SD042A:CA:52)

Warumungu insertions tend not to occur in very light Wumpurrarni English. When speakers use very light Wumpurrarni English, or near standard English the phonology of the two systems (Light Wumpurrarni English \(\rightarrow\) English and Warumungu) are least compatible and this appears to be a ‘barrier’ for the insertion of Warumungu features. Warumungu nouns are less likely to occur with determiners than nouns that stem from English.

Nouns may be modified by descriptive nominals or adjectives, as in (3.9). Some adjective + noun constructions, such as ‘wulkuman’ old woman, ‘lilboi’ little boy, are treated as single lexemes in Wumpurrarni English (and in other Australian creole languages, see Koch 2000; Munro 2004: 169). Many of these frozen forms refer to humans. Nominalising suffixes -(w)an, -baga also attach to adjectives to form attributive nominals, as in examples (3.10), (3.11) and (3.12):

(3.10) lil-baga do du-bala iya
   little-Nom door two-Nom here
   there are two little doors here (SD062:KM)

(3.11) muv dat tu red-wan fowad
   move Det two red-Nom forward
   move those two red ones forward (SD085:NG)
The nominaliser –baga occurs only in heavy Wumpurrarni English. The nominaliser ‘–bala’ (3.10) occurs generally with numeral expressions in both light and heavy Wumpurrarni English.

3.3.1 Lexical Nouns and Number marking

A growing number of studies have investigated bare nouns (without number marking or determiner) in Creole languages with European lexifier languages and show that the distribution of bare nouns in the Creole diverges from the distribution and syntax of the lexifier language (Zribi-Hertz & Glaube 2007). In Standard English, zero number marking is required for mass nouns (3.13 a) and zero number marking with count nouns generates a mass reading (3.13 b). Bare nominals in English denote kinds or properties with generic or existential readings (Chierchia 1998). However, plural marking is obligatory for count readings of lexical nouns (3.13 c.).

(3.13)  a. Meat costs money.
       b. We ate chicken.
       c. We saw chickens.

Wumpurrarni English diverges significantly from English with regard to number marking, as in Wumpurrarni English plural is not obligatorily marked on the noun. Determiners may indicate number (further discussed in 3.3.1.2), however bare nouns, singular and plural, are common, as in (3.14). Singular and plural interpretations in Wumpurrarni English depend on contextual factors, as reported for Roper River Kriol (Sandefur (1979: 79) and other Creole languages (Deprez 2005: 863; Bruyn 1994: 262; Holm 2000: 215).

(3.14)  i-m  drow-im-bat animal
            3Sg-Non-Fut draw-Tr-Cont animal
she’s drawing the animals

i-m  kop-im damob na box
       3Sg-Non-Fut copy-TR 3plObj Loc box
she’s copying them from the box.                      (SD038:CA:23-24)
There are, however, a range of means available to express number in Wumpurrarni English, though unlike English, these are not obligatory and involve lexical expressions rather than inflectional morphology, e.g. the English plural ‘-s’. They are found in light and heavy styles of Wumpurrarni English. Such expressions include cardinal number, which may follow, as in (3.10), or precede the lexical noun, as in (3.11) above. Quantifiers such as ‘sam’ (some), ‘ola’ (all) and ‘ebri’ (every) precede nouns. Quantifiers such as ‘bigmob’ (many) and ‘olat’ (all) precede or follow nouns, while ‘dumaj’ (much, many) and ‘olabat’ (much, many) generally occur after nouns. Reduplication offers a further means of plural marking, e.g. ‘olmenolmen’ (old man old man=old men).

The suffix ‘–mob’ has developed into a non-individuated plural marker in Wumpurrarni English. This often attaches to person nouns, to denote a group of people, as in (3.15), but also to nouns referring to inanimates, as in (3.16):

(3.15) ola gel-mob-kayi, inti?
       all girl-PL-Poss, Qt
   It belongs to the girls, doesn’t it?      (SD055:SW)

(3.16) dei bin faind-im kaiv laikajat,
      3Pl Pst find-Tr cave like that
     they found a cave like that

       laikajat dei bin faind-im
      like that 3Pl Pst find-Tr
     one like that they found

       kaiv ston-mob iya, ston
      cave stone-Pl here, stone
     a cave, with stones here, stones     (SD062:KM)

A further means of marking number is with determiners.

3.3.2 Determiners and the Wumpurrarni English noun phrase

Differences between Wumpurrarni English and Standard English in number marking are one manifestation of underlying divergences in the grammatical structure of the noun phrase in the two languages. The systems of determiners in the two languages are a further manifestation.
I use ‘determiner’ as an umbrella term for a grammatical class of words, which have the same syntactic relationship within the noun phrase. Determiners are dependants of the head of a noun phrase. The head of the noun phrase is the noun and the forms that may be assigned to the class of determiner in Wumpurrarni English and English are adnominal specifiers or modifiers. These include articles (in English), adnominal demonstratives, adnominal possessive pronouns, adnominal quantifiers. For instance, some of the Wumpurrarni English quantifiers listed above are adnominal determiners, and must occur with a head, eg. (3.17) and other quantifiers in the list are pronominal14, and may occur as noun phrase, eg. (3.18):

(3.17) **Ola kid** bin kam.
   Pl kid Pst come.
   *All the/many kids came.*

(3.18) **Olat** bin kam.
   all Pst came
   *(they) all (or many) came.*

Clearly determiners have semantic and pragmatic functions, and these are also important for the assignment of word class and for describing the properties and distribution of forms. Semantic and pragmatic functions are aspects of meaning. The semantics of ‘ola’, in the example above, expresses plural. Of the relationship between semantic and pragmatic functions on the one hand, and grammatical function on the other, Andrews (1985:63) writes the “grammatical functions of the noun phrase are the relationships in the grammatical structure which participate in determining the semantic and pragmatic functions”. Take for instance the example of the indefinite article in English, as in example (3.19):

(3.19) A man arrived.

The syntactic relations within the noun phrase require that ‘a’ occurs as a dependant to a head (‘man’). One semantic role is to express number (singular), and one pragmatic function is to signal that the referent is new to the discourse. Clearly, ‘a’ has a much more complex set of semantic and pragmatic properties, but these are

---

14 Note that the form ‘olat’ may occur as a head and noun phrase as in 10), but this form is also a determiner, eg. olat kid bin kam.
limited for the sake of illustration. In the following discussion the roles and distributions of determiners in Wumpurrarni English system will be explored by describing grammatical, semantic and pragmatic properties. The properties and distributions of determiners in Wumpurrarni English are distinct from those in English, despite the surface similarities of forms, which stem from English, eg. ‘dat’, ‘dis’ and ‘wan’.

In many languages the development of articles from demonstratives and from numeral phrases has occurred (Lyons 1999)\(^\text{15}\), and has been explained through processes of grammaticisation are common (Hopper & Traugott 1993, Traugott & Heine 1991). In a number of creole languages, forms which are demonstratives in the lexifier language may function as articles in the creole language (Bruyn 1994, Holm 2000) and these may alternate with zero. While the Wumpurrarni English forms stem from English demonstratives and numeral phrases, and these alternate with zero determiner (§3.3.3.1), I avoid the term ‘article’ and describe these forms as determiners. We consider first demonstrative determiners.

3.3.2.1 ‘Demonstrative’ determiners
The determiners ‘dis’ and ‘dat’ in Wumpurrarni English act as demonstrative determiners, in that they may involve contrast between referents and may express deixis, ‘locating the entity referred to relative to some reference point in the extra-linguistic context’ (Lyons 1999:18), as in 12). In Sandefur’s (1979: 94) account of Roper River Kriol the form ‘det’ is analysed as a distal demonstrative and ‘dis’ as a proximal demonstrative. In this example two children built a toy house, surrounded by a fence with two entrances to the yard. The instructions of the older child (both lines in example (3.20)) highlight a proximal/distal contrast between ‘dis’ and ‘dat’:

\[(3.20)\] a garra shat dis geit iya fo drangken-wan
1Sg must shut DemDet gate here Prep drunk-Nom
\[\text{I’ve got to shut this gate in case of drunks}\]
\[(\text{younger sister shuts the other gate})\]

\(^{15}\) Lyon’s describes the semantic weakening or ‘bleaching’ involved in the shift from demonstrative -> definite article, whereby over time the deictic content is lost or less marked than in the demonstrative (1999: 331).
Nicholls (2008: 7), however, has contested Sandefur’s characterisation, arguing that ‘dis’ and ‘det’ as demonstratives have neither deictic semantics nor the syntactic properties of English demonstrative forms. Nicholls argues while ‘dis’ and ‘det’ may “draw the listener’s attention to something in the space surrounding the interlocutors” (p.6), these determiners often appear with adverbial demonstratives (‘iya’ from English ‘here’ and ‘jeya’ from English ‘there’), and are reliant on these adverbials for their deictic readings. The demonstrative determiners are accompanied by adverbials in example (3.20), ‘iya’ in the first line and the discourse particle ‘na’ in the second (perhaps better described as a topicaliser here). However, in Wumppurrarni English it appears that ‘dat’ and ‘dis’ do function as demonstrative determiners, with exophoric or deictic properties some in contexts.

As for the syntactic properties of ‘dat’ and ‘dis’, Nicholls points to the syntactic properties of ‘that’ and ‘this’ in English, which may occur as either demonstrative determiners or pronominal demonstratives, as in (3.21)

(3.21) Don’t shut that gate/ Don’t shut that.

The Wumppurrarni English data confirm that ‘dat’ and ‘dis’ are best described as determiners, as these forms do not occur as both adnominal dependants and as pronominal heads as in English, as in (3.21).

In a small number of instances in the ACLA data demonstrative determiners with the form ‘dat’ occurs. However, these appear in code-switches into a more English style. For instance, in the utterance by a child in (3.22), in addition to the demonstrative pronoun, the question formation has a Standard English structure:

(3.22) Mam, wat’s dis fo?  
Mum what’s this for?  
(SD022:HN)

In Wumppurrarni English, by contrast, demonstrative pronouns are made up of the determiner form + nominaliser, e.g. ‘dadan’. Example (3.23) illustrates a Wumppurrarni English equivalent of (3.22):

---

na dat geit na fo motoka, lib-im opin
no DemDet gate Dis Prep car leave-Tr open

No that gate is for the car, leave it open.  
(SD043A:PP)
(3.23) What's this for?  
*(SD021:PP)*

Finally, the example in (3.24) illustrates how demonstrative pronouns in Wumpurrarni English express a contrastive relationship between proximal and distal referents:

(3.24) *weya dat wumpurrarni-wan laik dijan hiya?*  
where Det black-Nom like Dem here  
*Where's the black one (block) like this one here?*

*(Speaker is offered a different shaped block)*

Na nat *dadan*  
No not Dem  
*No, not that one.*  
*(SD013:VA)*

While these examples show that the determiners ‘dat’ and ‘dis’ have deictic properties “locating the entity referred to relative to some reference point in the extra-linguistic context”, (exophoric), the demonstrative ‘dat’ is not only a demonstrative determiner. It appears more commonly in fact in discourse, without reference to the extra-linguistic context (endophoric). This distribution has been noted for ‘dat’ in Roper River Kriol (Munro 2004, Nicholls 2008) and also Aboriginal English (Sharifian 2001). To explore the distribution of the determiners ‘dat’ and ‘dis’ in Wumpurrarni English, reference is made to accounts of Roper River Kriol.

The distributions of ‘dis’/’dat’ and ‘this’/’that’ mark a significant difference between Standard English and the Creole varieties Wumpurrarni English and Roper River Kriol. Standard English has a set of forms for demonstratives determiners distinct to those for articles. Demonstratives (‘this’, ‘that’) and articles (‘a’, ‘the’) differ in their lexical semantics in Standard English, with demonstratives encoding spatial deixis and the semantics of articles encoding definiteness (Lyons 1999). A central pragmatic function of articles is the marking of discourse status, though demonstratives also have some discourse related functions. We turn now to consider pragmatic discourse functions of determiners in Wumpurrarni English and Roper River Kriol.

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16 Demonstratives in English do not always function to mark spatial deixis, ‘pointing out’ a referent in the non-linguistic context. The demonstrative *this* functions in discourse to introduce new (and specific) referents, in informal speech registers and genres such as personal narrations and jokes (“This penguin walked into a bar…”) (Prince 1981a). Lyons
3.3.2.2 Determiners and discourse functions

In two accounts of Roper River Kriol it is suggested that a distinction between new and previously mentioned referents is expressed with the determiners ‘dis’ and ‘dat’ (Graber 1987). This contrast is similar to the discourse pragmatic contrast expressed by the indefinite article ‘a’ and the definite article ‘the’ in English.

Munro (2004: 111), for instance, proposes that the determiner ‘dis’ marks a referent as new to the discourse (focus) and ‘dat’, a given or previously mentioned information in the discourse (topic) (Lambrecht 1994). Munro’s examples are reproduced in (3.25) and (3.26):

(3.25) wal mela bin gu jeya–na
     TPC 1Pl.ex Pst go there–Em
     well we went there now

     en dis du boi bin dal–im im
     Conj Det two boy Pst tell–Tr 3Sg
     and (these) two boys told him
     (Munro, 2004:113)

(3.26) dei bin meik–im bik faiya
     3Pl Pst make–Tr big fire
     they made a big fire

     en wi bin luk det faiya
     CONJ 1Pl.in PST look DET fire
     and we looked at the fire
     (Munro, 2004:113)

Graber (1987) describes functional roles for determiners in his study of a Kriol narrative, by Queenie Brennan, a Kriol speaker from Barunga (Bamyili). As in Munro’s account, Graber proposes that initial references are generally made with the

(1999) has discussed the distinction between demonstratives and other definite expressions, in particular the definite article in English. He proposes that in some instances, the demonstrative, like the definite article, signals that the identity of a referent is immediately accessible to the hearer, either in the non-linguistic or in the linguistic context. ‘That’ can be used anaphorically, linking back to an expression in the linguistic co-text, be it an entire proposition, or a single referent and in this latter distribution, functions very similar to the definite article: He had a son and that son later became managing director. The limits of this overlap in functions of the demonstrative and the definite article are clear where the identity of the referent is inferable on the basis of world knowledge, as Lyon’s example (p.20) shows: I got into the car and turned on the/*that engine.

17 No mention is made of the bare noun used to introduce this referent in Munro’s account. The focus of the study was not to establish the distribution of bare vs det+noun and the data and analysis occur within a larger study of substrate influences on Roper River Kriol. The issue of bare nouns in Wumpurrarni English is pursued below.
determiner *dis*. He likens the use of *dis* (*dislot*) to the indefinite article (Prince 1981a) in English, in its role of introducing a new character. He notes that the form *dis* also functions as the proximal demonstrative determiner, but argues that its use in narrative discourse is not ‘exophoric’, pointing to a referent in the situational context. In the introduction of new characters in narrative, “the speaker does not intend the hearer to recover information from the context, even though the demonstrative form is primarily used to point to something, whether in the text or the context” (Graber 1987: 211). Rather, it signals that the referent is significant and will play a prominent role as the discourse unfolds, placing the referent ‘in focus’. Graber also discusses a further structure used to introduce referents, which I refer to as left dislocation, this is discussed below (§3.4).

The claims made for Roper River Kriol in Graber (1987) and Munro (2004) do not hold for the Wumpurrarni English data I have investigated. The determiner ‘*dis*’ occurs in the environments I have described above. The determiner ‘*dat*’, on the other hand, occurs as a demonstrative determiner and with referents new to the discourse and those that have been mentioned recently in the discourse. There is no evidence that particular determiner forms or structures are used to introduce a new referent and another set for subsequent mention.

Before turning to the Wumpurrarni English data, Nicholls (2008) more recent study of Roper River Kriol is worth consideration, as, in contrast to Graber and Munro’s accounts, its findings are more similar to the claims I have made for Wumpurrarni English. Nicholls (2008), in her paper devoted to the Kriol determiner ‘*det*’, draws on conversational data18 and argues that there are two major uses for ‘*det*’: an anaphoric function and a function she describes as ‘recognitional’, drawing on Himmelmann’s recognitional demonstrative (Himmelmann 1996). Nicholls writes:

> ‘the anaphoric use of *det* occurs when it is used to refer back to something recently mentioned in the conversation. In effect it reintroduces an already mentioned referent [while the recognitional] use

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18 Close analysis of two conversations (one very short, the other lasting 13 minutes) was carried out for this study. Further examples in the paper are drawn largely from Munro (2004).
of *det* is to introduce a referent that is familiar to the addressee(s), but has not been previously discussed [..]’ (Nicholls 2008).

It is implicit in the ‘recognitional’ use of the determiner ‘det’ that some level of familiarity on the part of the listener is assumed by the speaker. In effect, the speaker is indicating ‘I think you can know what/who/where this is’ (Nicholls 2008: 18)\(^9\). In order to activate this knowledge the reference may be accompanied by further descriptive material and it may take a number of turns for the addressee(s) to identify the referent. Nicholls illustrates this with examples, such as the stretch reproduced in (3.27). The line numbering and speaker code (1.B) are retained from Nicholls (2008: ex. 58,p. 22).

(3.27)

1.B: Dem Beswick-mob la det natha pleis
3Pl [PLACE]-Col Loc Det different place

*The Beswick group is at the place*

weya dei oldei dens karburi
where 3Pl Hab dance corroborree

*where they dance corroborree*

2.F: weya? Weya karburi dei oldei dens?
where where corroborree 3Pl Hab dance

*where? Where do they dance corroborree?*

3.B: jeya-na la det pleis wen dei jidan-abat
there-Emp Loc Det place when 3Pl stay-around

*there at the place where they stay/sit together*

4.B: det biges net jeya weya im jandap la rod-wei
det big fence there where 3s stand Loc road-side

*that big fence there, that runs along the road*

olawei net ol sekbeg
all along fence old sackcloth

*a long fence [made of] old sackcloth*

\(^9\) In Malcolm and Sharifian’s (2002: 178) account based on schema, the use of ‘dat’ evokes a culturally familiar schema. However, this analysis tends not to look at formal aspects of Aboriginal English as a language system, ie. at the distribution all determiners in the system. It also possibly also poses an unnecessary limitation, as topics outside of culturally schematic can be discussed. While ‘dat’ can pragmatically evoke cultural schema, it is also an element in a grammatical system, which is used flexibly.
Such instances occur in a common interactional routine Nicholls describes in Roper River Kriol as an ‘identification scenario’\textsuperscript{20} (2008: 25). This routine is also common in Wumpurrarni English. However, in other interactions, such as the narration of a witnessed event, the notion of familiarity or recoverability is implicit in the use of the determiner ‘dat’. It is used to introduce referents, and anaphorically, to refer back to a recently mentioned referent. The narration in (3.28) was prefaced by the speaker stating that she had witnessed a car accident recently in the main street of Tennant Creek. This frame of reference set up expectations of cars and drivers. Initial mentions are in bold font, while anaphoric references are underlined.

(3.28) wi was weit-ing deya, ye na taun wi bin luk
1Pl Pst wait-Cont there yes Loc town 1Pl Pst see
we were waiting there, in town when we saw it

an \textbf{dat ka fom turis} bin kam-at deya, rait nekstu CLC
and Det car Poss tourist Pst come there right next to CLC

\textbf{Ø pul-at} fast-wan, bat \textbf{dat men}\textsuperscript{21} neba luk
3S pull-out fast but Det man Neg look
\textit{[If] pulled out fast, but the man didn’t look}

\textbf{an 1 nak-im dat Toyota,} rait na said
and 3sg knock-Tr Det Toyota, right Loc side
\textit{and he crashed into a Toyota, side-on}

\textbf{an dat Toyota stop ina midul}
and Det Toyota stop Loc middle
\textit{and the Toyota stopped in the middle}

\textbf{an dat turis bin go tok fo im}
and Det tourist Pst go talk Prep 3S-O
\textit{and the tourist got out to talk (to the driver).} (SD126C:LB)

In the discussion thus far, I have argued that in Wumpurrarni English there is no evidence for a system of determiners which marks on the lexical noun phrase a distinction between newly introduced referents and those previously mentioned in the discourse, as in the English indefinite/definite contrast, or the contrasts suggested by

\textsuperscript{20} Much of the conversation used for the analysis of the determiner ‘det’ was devoted to such ‘identification scenarios’ (Nicholls 2008; 24).

\textsuperscript{21} Note that though this referent is new, I draw on Lyon’s account of familiar/identifiable referents (1999:2), and posit that it is identifiable though the association evoked in the context between ‘the car belonging to the tourist’ and ‘dat men’ (the tourist/driver).
Graber and Munro. In addition, I have looked to Nicholl’s account of the determiner ‘det’. While this form is derived from the English demonstrative, in Wumpurrarni English and in Roper River Kriol, it functions to mark both new (but potentially familiar or identifiable) referents and anaphorically, to refer back to recently mentioned referents.

Bare nouns appear in Graber and Munro’s data (examples 3.26 ‘bik fiya’ and3.27, 4B ‘la rodwei’, ‘net ol sekbeg’) but no account is given for their function or distribution. Below, I will consider the use of determiners and bare nouns (§3.3.2.5), drawing again on Nicholls discussion of Roper River Kriol, some observations from other Creole languages and on Wumpurrarni English data. Before doing so, it important to briefly discuss the determiner ‘wan’.

3.3.2.4 Wan – indefinite determiner?

Very little attention has been paid to the determiner ‘wan/wan-bala’ (derived from English one/one-fellow). It is not mentioned in the works by Graber (1987) or Munro (2004). In Sandefur’s and Nicholls accounts it is considered very generally as an ‘indefinite article’, though both stress that determiners are not obligatory in Roper River Kriol (Sandefur 1979: 105; Nicholls 2008: 11). The examples of ‘wan-bala’ in both studies occur contexts in which the referent is specific, but unknown to the listener. Of the distribution and function of ‘wan/wan-bala’ Sandefur writes:

“though it is most often used as the number ‘one’, it is not infrequently used in the sense of ‘a certain’. Wanbala men bin godan. [I]n everyday conversation would most likely mean ‘One man went’. [W]hile in a story context, it could mean ‘A certain man went”.
(Sandefur 1979: 104)

To assess the extent to which the Kriol determiner ‘wan/wanbala’ might overlap with the English indefinite determiner, it is important to consider some further contexts in which the indefinite article is used in English. These include contexts where the referent is non-specific and generic e.g. ‘a tiger has stripes’, and for non-specific referents occurring as predicates e.g. ‘John is a plumber’. Neither of these contexts are attested with the determiner ‘wan’ in the data presented in Roper River Kriol. These were rejected in Wumpurrarni English. I have stated above that there are few
instances of wan/wanbala in the subset of the ACLA data I draw on. In most instances, native speakers have interpreted these as numerals, as in (3.29):

(3.29) Wan wulkuman bin kam tu (SD043)
One old woman came too.

Example (3.30) could be taken as evidence of non-specific predicate or labelling function, however, again native speakers interpreted this use of ‘wan’ as a numeral, with specific semantics:

(3.30) Iya wan brash (SD021a:KN)
here’s one brush.
here’s a brush^/ this is a brush^.

Note: ‘iya brash’ was offered as a substitute for ‘iya wan brash’.

I tested the distribution of ‘wan’ further by presenting the following examples drawn from the ACLA data and asking two native speakers if the zero determiner realisation could be substituted with ‘wan’. This was rejected in terms of retaining the original sense, as ‘wan’ was either interpreted as a numeral or a specific referent, see (3.31). This change of meaning is marked with ^.

(3.31) wat dijan? (what’s this?)
   im Ø pamp. (it’s [a] pump) (SD104c)
   im wan/wan-bala pamp^ ( = this is one pump [not two], one pump)

The first line in (3.32) is a further instance of labelling, while ‘rebit’ in the second line is clearly a non-specific, generic noun. ‘Wan’ in this context was incongruous in the proposed sentence and resulted in a change of meaning.

(3.32) rebit lib na hol. (rabbits live in holes) (SD47b:RT)
   wan rebit lib na hol^ ( = one rabbit lives in [a/the] hole)

The observations in this section are preliminary and rely on very little data. However, they establish three important points. First, the determiner ‘wan/wan-bala’ is not a preferred means to introduce new referents into a discourse in Roper River Kriol or Wumpurrarni English, a central function of the English indefinite article. Further, this determiner does not appear to share the ‘non-specific’ semantic properties of the English indefinite article. Finally, the determiner ‘wan/wan-bala’ does not appear as frequently as other determiners and bare nouns in Roper River Kriol or in
Wumpurrarni English. Nicholls (2008:12) observes that ‘det’ may occur with specific NPs as well as non-specific NP’s. Her data reveals that bare nouns also occur with both types of NP, as does the data here. We now investigate bare nouns in this system.

3.3.2.5 Bare nouns in Wumpurrarni English

Bruyn (1994) discusses the development of articles from demonstratives and numerals in Creole languages and writes:

“[A]s long as [determiners] have not become plain articles, they alternate with zero. And as long as the overt determiners are not used categorically, they keep a stronger value, such as demonstrative or emphatic. If there is no reason to use [a demonstrative/article form] to give emphasis, to single out a referent, or for other purposes, the bare noun will suffice” (Bruyn 1994: 264).

Two patterns are evident in the distribution of bare nouns in Wumpurrarni English. First they occur most commonly where the NP is the complement of a prepositional phrase, in light and heavy styles of Wumpurrarni English, however, ‘dat’ may also occur and Bruyn’s appeal to ‘emphasis’ and ‘singling out’ appears to account for this. Bare nouns also appear in the core grammatical roles of subject and object and here the second pattern can be seen. Bare nouns in core grammatical roles tend to occur more commonly in heavy Wumpurrarni styles, while in mesolectal styles ‘dat’ generally appears on all subject/object NP’s. Thus, there are linguistic and social variables at play. Bruyn’s explanation may apply to NP’s in preposition phrases in Wumpurrarni English generally, and to all NP’s in heavier styles. We consider the data.

In examples (3.33) – (3.35) prepositional phrases with and without determiners are presented. The location in (3.33) ‘na hol’ (using example (3.32 above) is generic. Example (3.34) is from a narration of a picture book. The tree is a specific referent, which has been previously mentioned. In both, the noun in the locative phase is a bare noun:

(3.33) Rebit   lib na hol.  
rabbit live Loc hole  
*Rabbits live in holes.*  (SD047B:RT)
In (3.35) the speaker uses a bare noun in the preposition phrase ‘gad spiya’, but uses a determiner ‘na dat tri’, emphasising the bush coconut and its location.

(3.35) \textit{i bin go gad spiya}\[3S\text{ Pst go Ass spear}\]
\textit{He took a spear}

\begin{align*}
\text{an trai} & \text{ an pok-im dat kanttaji na dat tri} \\
\text{and try and poke-Tr Det bush coconut Loc Det tree}
\end{align*}

\textit{and tried to hit the bush coconut in the tree} \quad \text{(SD092:PR)}

The general locative preposition \textit{na} is used most commonly for both location and goal, but there are also forms which differentiate the spatial relationships of containment \textit{ina} and contact \textit{ana}. These also occur and overwhelmingly without determiner. In example (3.36), dat occurs adding emphasis to the injury depicted in the picture described, in which a large prickle pierces a boy’s foot and the preposition ‘in’. In a similar phrase in English, ‘the’ would occur.

(3.36) \textit{deya si, nyili bin pok-im im in dat fut} \\
\textit{there see, prickle Pst poke-Tr 3Sg Loc Det foot}
\textit{there see, the prickle poked him in the foot.} \quad \text{(SD018:DF)}

Finally, a determiner may occur in code-switches to English as in example (3.29), where the speaker shifts from English, with the preposition and definite article and then back to Wumpurrarni English.

(3.37) \textit{pud-um-awei na in the box} \\
\textit{put-TR/3Obj?-away Temp Loc Def box}
\textit{put it away now, in the box. Put it away in the box.} \quad \text{(SD005: JN)}

In grammatical subject and object roles, nouns may be marked with the determiner ‘dat’ or may occur as bare nouns. I have described some aspects of the distribution of ‘dat’ and proposed that ‘dat’ + noun occurs anaphorically and to introduce a new referent to the discourse (recall example (3.20) above), adopting Nicholl’s
‘recognitional’ function for this determiner. Here I propose that bare nouns also occur in both contexts in heavy Wumpurrarni English, though there does appear to be some correlation with anaphoric use and dat + noun. That is, in texts where bare nouns occur, dat + noun structures tend to occur in subsequent mentions. However, this is not categorical, subsequent mentions may also be bare nouns, as in (3.30) below. The bare noun structure is likely to be influenced by the Warumungu noun phrase, which does not have obligatory determiners. Warumungu nominal insertions appear to be more likely to appear as bare nouns than English-derived lexical nouns, but also occur with Wumpurrarni English determiners, see example (3.27 ‘dat kanttaji’) above.

To illustrate instances of bare nouns in subject and object position, as new and recently introduced referents, extracts from two personal narratives by adults are presented. In (3.30) the referent ‘ngappa’ water is introduced for the first time in the first line of the extract as an object in post-verbal position. It occurs again as a fronted object and bare noun in the second line, as the source of the water is elaborated. As the water is referred back to in the fourth line, a determiner is used. Initial mentions are in bold, anaphoric references are underlined.

(3.38) dei bin ged-im-bat **ngappa** na.
3Pl Pst get-Tr-Dur water Dis
they got water.

**ngappa** dei bin ged-im im na tri.
water 3Pl Pst get-Tr-Dur 3S-O LOC tree
*water, they got it by the tree.*
dei bin kraj-im im wan said.
3Pl Pst dig-Tr 3S-O one side
*they dug it [beside] the tree.*

dei bin dringk-im-bat **dat ngappa** na hol-kana, deya ding, **ngulya-kana**.
3Pl Pst drink-Tr-Dur Det water Loc hole Loc there ‘thing’ soakage-Loc
*they drank the water from the hole, from the soakage.*
(SD062: KM)

The bare nouns in the second narrative (3.39) are both Warumungu and Wumpurrarni English lexical nouns. Two new referents are introduced, one as bare noun (scorpion) and the other with a determiner (‘dat sharp-wan’).

(3.39) Lisa bin dig-im na, i bin dig-im im
Lisa Pst dig-Tr Dis 3S Pst dig-Tr 3S
Lisa dug, she dug it.
scorpion i bin kam-at
scorpion 3S Pst come-out
a scorpion it came out.

kirtangara bin kam-at, scorpion
scorpion Pst come-out, scorpion
a ‘kirtangara’ came out, a scorpion
den a bin tok ‘Lisa, dat-s rong–wan, dadan yu luk’
and 1S Pst say ‘Lisa, Dem is wrong-Nom Dem you look
And then I said, Lisa that’s the wrong, that one, you see.

‘yu dig-in-ap dat ...
det 2S dig-Cont-up det
you dug up a..’

an dat scorpion bin ab-im dat sharp-wan stik-in-at na dat hol
and det scorpion Pst have-Tr det sharp-Nom stick-Prog-at loc det hole
and the scorpion had a barb, sticking out of the hole.
(SD072:LG)

Just as speakers have the option of using the determiner ‘dat’ to give a referent emphasis in prepositional phrases, in discourse the determiner ‘dat’ may alternate with zero determiner with subject and object lexical nouns to give referents emphasis or to single out a referent, such as, for instance, a previously mentioned referent. Speakers of Wumpurrarni English have a further means to emphasise a referent, which is used in the introduction of the scorpion in (31), a structure I refer to as a left dislocation.

3.4 Referring expressions and narrative discourse

Many have noted that repetition is a common feature in narratives in Australian Aboriginal languages (Bavin 2000, Meakins & O'Shannessy Forthcoming, Walsh 2006). In a previous study I found this feature of Traditional language narrative in productions in Wumpurrarni English (Disbary 2008). In the study, a set of narrations told by adults to young children were analysed to investigate interaction styles. The narratives were prompted by a textless picture book ‘The Quail’ (1986) also known as ‘the Shanghai story’. The analysis revealed that all of the adults in the set used repetition to ‘build up’ the story. Frequently, full lexical nouns occurred as ‘emphatic
subject chains’, where subsequent mentions are not reduced to an anaphoric pronoun, or elided (Meakins & O'Shannessy Forthcoming). Often these subject chains involve left dislocated structures, which have a number of related functions in discourse. In this section, functions of left dislocation in discourse, the role of emphatic subject chaining and the use of repetition are discussed in relation to Wumpurrarni English narrative style.

3.4.1 Left dislocation and emphatic subject chaining in Wumpurrarni English

Left dislocated structures are characterised by a full lexical noun (with or without determiner) followed by a resumptive pronoun, as in ‘scorpion i’ in (3.39) above and reproduced in (3.40). In his analysis of Roper River Kriol narrative Graber (1987: 43) found that left dislocation was most commonly used to introduce new referents. However, in Wumpurrarni English this structure is used both for initial introductions and to re-introduce a previously mentioned referent. Its use in (3.39) may signal and emphasise the unexpectedness of the appearance of the scorpion, as well as facilitate its introduction.

(3.40) scorpion i bin kam-at
scorpion 3S Pst come-out
A scorpion came out.

It has been suggested that functionally “L-dislocation is typically a device to mark topical referents, most commonly definite and anaphoric ones, that have been out of the focus of attention for a while and are being brought back into the discourse” (Givon 2001), and this is true of the example in (3.41). Example (3.41) stems from the frog story data set. In this narrative the frog has already been introduced a few clauses earlier and attention has shifted to the boy and the dog. The reference to the frog, as its unexpected and plot-propelling escape is detailed, is with a left dislocated structure:

(3.41) lidlboi bin go-bat slip an dat kunapa.
boy Pst go-Dur sleep and Det dog
the boy and the dog went to sleep

frokfrok i bin ran-awei na
frog 3S Pst run-away Dis
the frog it ran away

(FR10.6)
Left dislocated structures also appear in contrastive settings, where an alternation between two referents is highlighted. In example (3.42), the first instance of left dislocation functions to shift attention from to the dog, as does the second, and once again, it highlights an unexpected turn of events.

(3.42)  i bin  luk-raun       na   im-kayi hat, den but
3S Pst look-around Dis 3S-Poss hat then boot
and he (the boy) looked around in his hat, then boot

an  dat kunapa  i  bin luk  evriweya  agin
and Det dog 3S Pst look everywhere also
and the dog looked everywhere too

bat dei  neva-bat  faind-em im
but 3Pl Neg-Dur  find-Tr  3SO
but they didn’t find it

dat kunapa  im  stak  insaid nanga  dat bodl
Det dog 3-S-NonFut stuck inside Loc Det bottle
the dog it got (its head) stuck inside the bottle (jar)
(FR12.8)

Notice the occurrence of the determiner in the prepositional phrase in the final clause ‘insaid nanga dat bodl’, which also emphases the location. Left dislocated structures tend to be less common in light Wumpurrarni English. This is particularly true of left dislocation involving objects, with the resultant word order alteration. Example (3.43) provides an instance of object left dislocation, which results in the object being shifted to clause initial position and thereby giving the referent prominence:

(3.43) ngappa  dei  bin  ged-im  im  na  tri.
water 3Pl Pst get-Tr 3S-O LOC tree
water they got at the tree (SD:062:KM)

Full lexical noun phrases in initial position has been associated with prominence in discourse in some Traditional Australian languages (Mushin 2005, Simpson 2006). Givon also writes that left dislocated structures reintroduce a topical referent and in narratives it is often used as a chain initial device (Givón, 2001: 266). Both of these points appear to be true of their use in Wumpurrarni English, which Meakins and O'Shannessy have described in relation to Gurindji Kriol, which also takes advantage of optional ergative marking on agents, to intensify the event. (Meakins & O'Shannessy Forthcoming). They write that the strategy of “repeating the topic as a full nominal and emphasizes the event in the narrative […] and is used in unexpected
and emphatic situations, often the climax of a narrative” (Meakins & O'Shannessy Forthcoming).

In the study of Wumpurrarni English narrations mentioned above (Disbray 2008), emphatic subject chaining was commonly used in repetition routines to ‘build’ a story. These ‘emphatic subjects’ may occur as left dislocated structures (full noun + resumptive pronoun) or simply as a full noun, rather than a pronoun. These nouns may be bare or occur with a determiner. This pragmatic strategy involves the speaker telling a story detail for the first time (Story) followed by a clause, which in some way repeated information. There were a number of ways that speakers uses repetition; by complete repetition of the whole clause (Repeat); by rephrasing all clause or part of a clause (Rephrase); or by repeating one part of the same information and elaborating on it (Elaborate). In some cases, the speaker recaps the event before moving on to the next. Very often the element repeated is a full nominal subject, as the extract presented as example (3.44) illustrates:

(3.44) (SD018:DF, from Disbray 2008: 66)

Page 8
Focus yu luk iya
you look at this

Story ah i bin pok-im i
oh 3S Pst poke-Tr 3SO
oh, it poked him

Elaborate deya si, nyili bin pok-im i
there see, prickle Pst poke-Tr 3SO Loc Det foot
there see, a prickle poked him in the foot
The repetition routines shown in (3.44) are not restricted to subject referents. The example from a conversational hunting narrative presented in example (3.38), and in part in (3.43), shows how the search for and location of water is built up. The referent water occurs as a grammatical object, is emphasised with nominal repetition and details of the search and location are rephrased and elaborated. This example is reproduced in (3.45) (SD062: KM):

(3.45)

<table>
<thead>
<tr>
<th>Story</th>
<th>Elaborate</th>
<th>Rephrase &amp; Elaborate</th>
<th>Elaborate</th>
<th>Elaborate</th>
</tr>
</thead>
<tbody>
<tr>
<td>dei bin ged-im-bat ngappa na.</td>
<td>dei bin kraj-im im wan said.</td>
<td>ngappa dei bin ged-im im na tri.</td>
<td>dei bin dringk-im-bat dat ngappa na hol-kana,</td>
<td>deya ding, ngulya-kana.</td>
</tr>
<tr>
<td>they got water.</td>
<td>they dug it [beside] the tree.</td>
<td>water, they got it by the tree.</td>
<td>they drank the water from the hole</td>
<td>from the soakage.</td>
</tr>
</tbody>
</table>

The use of ‘mangki’ (monkey) for ‘monster man’ has only been found from this speaker.
Speaker’s use of repetition functions to emphasize unexpected and important events. It facilitates foregrounding and backgrounding, as protagonists and details are made prominent. It also allows speakers to linger on an event, to build up the story and add details and recap them before moving on. In this it may give the speaker time to prepare for the next utterances and the listener time to consider the information given. Its use in conversational and performed narration is common and makes a ‘good story’.

3.5 Conclusion

In this chapter I have sought to describe some properties of the nominal system in Wumpurrarni English and highlight some of the variability in this system. I have also contrasted the nominal systems of Wumpurrarni English and of English, to show that similarities on the surface are misleading. The two systems differ fundamentally in that information status marking is obligatory and grammaticised in English, but motivated by discourse pragmatic factors and style in Wumpurrarni English\(^{23}\). This is important from the perspective of the Wumpurrarni English-speaking child, given the divergence between the home language and the language of school. A further distinction I have highlighted between the two languages relates to narrative style, in particular the use of repetition in Wumpurrarni English narrative.

The description of formal and pragmatic features in Wumpurrarni English and narrative style motivate a number of hypotheses for the study of frog story narrations in the following chapters. Results for initial reference are investigated in chapter 7, continuing reference in chapter 8 and discourse strategies in chapter 9.

3.5.1 Language specific hypothesis for the study of frog story narratives

1. Initial introductions of characters in Wumpurrarni English narrations will not be marked with a determiner signalling newness. Initial mentions are likely to

\(^{23}\) The description of the Wumpurrarni English nominal system in this chapter is preliminary, as further insights would be gained through an analysis of the substrate language Warumungu, in particular with respect to bare nouns. Close analysis of the distribution of bare nouns and determiner + noun in discourse might also reveal that the determiner has more nuanced functions in discourse than detailed here. Further, attention to substrate influences may be likely to establish Warumungu as the source of the use of repetition in Wumpurrarni English narrative, as this is a feature of Warumungu (and other Australian languages).
occur as determiner + noun (dat+N) or bare noun or as a left dislocated structure. None of these phases will occur exclusively for the purpose of introducing a new referent. It is not expected that the determiner ‘wan’ will occur commonly to introduce new referents.

2. Where a speaker has chosen to use a more English style for their narration, it is expected that new referents may be introduced with the indefinite article ‘a’.

3. Where a referent is maintained in the discourse, pronominalisation of the referent may occur, but the referent may also occur as a full noun phrase, (repetition through emphatic subject chaining). It is hypothesised that this pragmatic feature of Wumpurrarni English narrative style will result in repetition of full noun phrases in reference maintenance settings.

The following chapter (Chapter 4) explores studies of children’s use of referring expressions to achieve discourse functions from a developmental perspective and in a range of languages. These are reviewed to generate more general, linguistic and cognitive developmental hypotheses, which will be interwoven with the language specific hypotheses above, building a set of motivated predictions for the study of Wumpurrarni English frog stories.
Chapter 4

Children’s Discourse

4.1 Introduction

In this chapter, the current study is positioned within the field of children’s discourse development. We have seen how referring expressions operate in Wumpurrarni English for various discourse functions. As later chapters in this thesis are concerned with Wumpurrarni English-speaking children’s use of referring expressions in narrative, it is useful to look to previous studies of children’s developing discourse, to understand general linguistic and cognitive trends, and to assess these in the light of the language specific points raised in the previous chapter.

The review of the literature in this chapter is divided into four sections. The first section (§4.2) gives a brief overview of a seminal set of developmental studies carried out in the 1980’s, based on narratives elicited with the same prompt as the current study, ‘Frog, where are you?’ (Meyer 1969)\(^{24}\). These culminated in the volume ‘Relating Events in Narrative: A cross-linguistic developmental study’ (Berman & Slobin 1994b). In Chapter 1, I outlined different approaches taken to the investigation of children’s narrative. A distinction between macrostructure and coherence on the one hand, and microstructure and cohesion on the other. Scripts, personal recounts and story grammars have been investigated in terms of their macrostructure and their

\(^{24}\) A full story description is given in §5.1.2.
contribution to story coherence, the global level of story structure. In contrast, microstructures, specific linguistic structures, such as referring expressions have been described as local level aspects of discourse, contributing to story cohesion. However, Bamberg (1987: 15) proposed “the notions of coherence and cohesion are not mutually exclusive, but rather mark two ends of a continuum that can be investigated from both sides”. The studies in the Berman and Slobin volume achieve an integration of the two ends. I draw on one study from this volume, ‘Narrative Structure’ (Berman & Slobin 1994a), which highlights the integration of micro- and macrostructure. This matter is important to the study of discourse strategies, discussed below. I refrain from reviewing all of the studies and findings in this broad research program, as most focussed on verbal structures, rather than nominal structures and reference. Rather, the aim is to provide an overview and synthesis of some methodological issues and findings that inform the current study.

The next three sections (4.3 and 4.4) focus on reference in discourse. In section 4.3 a general account of the study of reference in discourse is outlined, and section 4.4 details quantitative findings from studies of cohesion through reference in children’s picture prompted narrations. The studies in section 4.4 provide a basis for comparison with those of the current study presented in Chapter 7 and Chapter 8. The examination of nominal and pronominal expressions for these discourse functions, at the clause level or the level of adjacent clauses (ie. local cohesion) in the narratives of children of different ages, reveals age-related trends. These can be discerned across a range of languages. However, studies have also identified global strategies children adopt for managing the reference to characters, beyond the level of adjacent clauses, thus integrating micro- and macro-levels of narrative. These strategies provide the basis for the analysis presented in Chapters 8 and 9 of this thesis. One such strategy, the thematic-subject constraint (Karmiloff-Smith 1981, 1983, 1985) is discussed in section 4.4.2 with respect to reference maintenance and switch. In the final section (§4.5), the discussion of discourse strategies is further pursued. To conclude the chapter, a summary of key research findings is given, which generate hypotheses for the following chapters.
4.2 Frog Story Studies (1994)

In their cross-linguistic study of children’s frog story narratives, Berman, Slobin and colleagues sought to identify both general trends in children’s developing cognitive ability to manage the task of relating a narrative, and language-specific properties, which impact on this developmental path. Productions from speakers of five languages were analysed; English, German, Spanish, Hebrew and Turkish. The narrations were from children aged 3-4, 5 and 9 years of age plus an adult set in each language. From each age group, 10-12 narrations were collected. The studies investigated both differences and commonalities in the ways that speakers of different ages narrated the frog story.

Berman and Slobin and colleagues approached the analysis of frog story narrations by identifying a range of linguistic forms and their discourse functions. Linguistic forms are specific linguistic structures, and functions, the “the purposes served by these forms in narrative discourse – the purpose of constructing a text that is cohesive and coherent at all levels: with in the clause, between adjacent clauses, and hierarchically relating larger text segments to one another” (1994: 4). For each of the five languages, the frog story narrations by speakers of different ages were analysed according to five functional categories. Comparison of the productions by 3-, 5-, 9-year-olds and adults revealed strong age related patterns. In fact, Berman and Slobin (1994a: 57) assert that “despite the impact of native-language grammar and rhetoric on the texts produced by the children in our sample [..], our texts are identifiable by age group across the five languages”.

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25 A set of narrations by seven-year-olds was available for Hebrew and Turkish.
26 Most attention was paid to verbal structures, rather than reference, in the analysis of individual languages and in cross-linguistic analyses. Three functional categories received close analysis. These are: ‘Temporality’ – the expression of events on a time line, temporal relations between events, expressed through tense and aspect; ‘Event conflation’ - the use of verbal expressions which include specification of manner/direction; and ‘Connectivity’ - the means to link parts of the narrative, such as conjunction and subordination. Reference was subsumed under the discourse category ‘Perspective’, which covers narrative functions such as foregrounding and backgrounding through agent/patient relations, voice alternation of verbs (active, passive, middle voice) and pragmatic word order. Attention to nominal expressions is brief, with the exception of Bamberg’s investigation of German. Bamberg’s work is discussed in §4.3.
In the study ‘Narrative Structure’ (Berman and Slobin 1994b) children’s ability to produce a thematically coherent text, i.e. a text organised around an overall plotline, was investigated. Frog story narrations in the five languages in the study and from the five age groups were used. To examine thematic coherence, Berman and Slobin identified three core components of the story, the *onset, unfolding, and resolution* of the plot. Attention was also paid to linguistic expressions at a local level, in particular temporal marking and the use of lexical and other markers of relationships between events, which in turn contributed to overall coherence. Thus the analysis invokes both global text elements, and local-level use of linguistic devices, principles of cohesion.

The analysis of narrative structure was motivated by the hypothesis that children’s ability to relate the frog story would show the following developmental path. Initially, children would treat each scene as an *isolated* event. Narrative organization would be restricted to the local level of individual pictures. In the second phase, children would sequentially *chain* events, with temporal organization, though still at a local level. Next there would be evidence of *causal structure*, within a hierarchically organised goal plan (Trabasso and Rodkin 1994, in the same volume). However, this causal structure would still be local, unlike more mature adult narrations, in which an integrated construal of events in an overall *action structure* would be found. At this level, thematic coherence and evaluative comments would be embedded within the causal structure of an initial goal, attempts to reach the goal and a final outcome or resolution.

The investigation of story components in the narratives of the youngest group in all languages showed that 3-4-year-olds had a basic concept of a story, though they failed to produce a global plotline, in which the various events were linked through causality and goal-directed action. Only three percent of the fifty-eight three-year-olds made reference to all three components (1994a: 49). Only 15% made reference to more than one component. Further, the narrations lacked an anchoring tense, as children moved in and out of narrative and picture description modes. At the level inter-utterance connectivity, children at this age typically used utterance initial deictic pointers (*here, now*) describing events and states as largely discreet and equally important rather than temporally, causally or thematically related. The task of narrating the frog story was
clearly very demanding for the youngest group. In eliciting narratives from this cohort, extensive prompting and intervention by the experimenter was required. The authors also note that in all locations in which the study was carried out, large numbers of children were interviewed to gather 10-12 useable narratives, as children at this age tended not to give full accounts or their productions were not fully intelligible (1994a: 59).

The five-year-old age group did not form a homogenous group, with the texts displaying great variation in both thematic structure and linguistic expression (1994a: 64), evidence that at this age represents a transitional stage in children’s linguistic and discourse development. Some children were able to organise chunks of discourse to contrast background, scene setting events with fore-grounded plot advancing events in a global structure. Others continued to produce strings of descriptions. Similar variability between speakers at this age was found with respect to linguistic expressions. In some texts elaborate syntax and a rich lexicon was used, while others were impoverished in this regard. No texts were both globally well-organised and linguistically elaborated (1994a: 65). However, in distinction to the age group below, the five-year-olds showed clear signs of temporal organization. Deictic marking as a connective between utterance begins to gave way to sequential connectives as children at this age chained clauses, at least at a local level.

The nine-year-old group was characterised by its ability to maintain narrative tense and chain events based on both temporal and causal connections at a local level, however the percentage of children who made reference to all three components was still lower than adults (66% compared to 92%), providing evidence of the gradual nature of the development of coherence in narrative. At this age children began to background events and to look ahead to events, developing increasing ability to organise their narrations in terms of an overall action structure at a global level, as well as at a local level. A further distinction between narrations at this age in comparison to those produced by younger children was the extent to which the 9-year-olds attributed inner states and responses to the protagonists. In addition, across all languages a common and unique feature of texts produced at this age was the use of formulaic expressions, such as openings typical of fairy tales and other literary works. In this they were distinct from the younger children and the adult set. Berman
and Slobin (1994a: 74) suggest that this use of formulaic expressions results from the exposure to school-based story-telling activities.

The level of individual variation in the adult set was greater than for any child group, as this group could freely draw on stylistic and rhetorical devices available in their language. However, these productions differed from those of the nine-year-olds in particular ways. In adult texts, each event was embedded within an elaborated network of background circumstances and narrator evaluations. Further, the adults made use of a richer range of expressive options, such as lexical markers, which serve to express sequentiality and propel the plot, e.g., in English, *eventually the boy and the dog grow tired/ where the dog was originally located/ and finally he got the jar off his head* (80). This reflects more than a larger vocabulary. Adult’s deployment of this lexicon highlights a level of thematic cohesiveness not found in child texts, as connections between sets of events are explicitly cross-referenced. A further observation made was that adults used forms with different functions than the children. For instance, children used forms that have a deictic sense, such as *this* and *now*, which, in the adult texts occurred in discourse-anchored ways, e.g., *the dog is intrigued by this beehive and now that the owl has been disturbed* (1994a: 81).

The study revealed the hypothesised developmental path. As predicted, with age children, irrespective of language, moved from isolated events, to chained events, to a causal structure to an action structure. The identification of this path was achieved by analysing linguistic forms and discourse functions and their pairing by children of different ages. Thus both discourse coherence, the level of discourse which captures the overarching level of plot components, and cohesion, at the local level of specific linguistic structures, in this study in particular temporal marking and connective expressions, can and indeed must be examined simultaneously. Both contribute to text well-formedness, and both can be shown to develop with age.

Further, the study showed that the prompt itself posed differential demands to children of different ages. For the three- to four-year-olds, for instance, this prompt proved so difficult that they were generally not able to relate the story alone, but required assistance from the researcher. Children at this age can tell a story, but this
prompt is not a suitable one for investigating their full range of ability. In the older age groups, details were omitted to simplify the task of narrating, but not to the point where the children could not independently narrate a story. The impact of the complexity of the prompt decreases with age. Vulnerability to task complexity is taken up once more in the final section.

We move now to first consider reference in children’s language generally, then focus on studies of reference in children’s narrations of the frog story and other picture prompts.

4.3 Reference and children’s language

A divergent range of claims regarding the course of acquisition of the pronoun use, nominal determiner systems and the pronominal/nominal distinction can be found in the literature, due, to some extent, to theoretical and methodological differences. The acquisition of pronouns, for instance, has been central to research from a formal perspective (Chien & Wexler 1990, Lust 1986, Solan 1987) posing wide-reaching implications for the nature of language and processes of acquisition, and generally showing early mastery of children’s use and interpretation of pronouns, at least at the level of the clause.

A number of studies have examined semantic and pragmatic aspects of reference in child language. Studies have found evidence of early and correct use of nominal determiners, such as the use of indefinite forms for non-specific referents at age three in spontaneous data (Brown 1973) and in the use of definite/indefinite determiners for simple discourse purposes at age three to four, in experimental settings (Maratsos 1976) from English-speaking children.

Some recent studies have investigated the use of nouns versus pronouns among German-speaking children aged between two and four years (Campbell et al 2000, Matthews et al 2006, Wittek & Tomasello 2005). These studies tested children’s ability to choose an appropriate referring expression. The experimental settings varied the amount of shared knowledge of the referents the experimenter held, as their participation in an event, viewing of a video or visual access to a referent was
controlled, and thus varied the amount of information the child needed to provide for the adult to identify the referent (a full lexical noun versus a pronoun). Broadly, the studies showed that from age three- to four-years, children show a developing awareness of their interlocutor’s knowledge and this affects their choice of referring expression. At a younger age, between two and three, the knowledge of the hearer was less influential. However, in response to adults' questions, which included a full nominal (What did X do?), young children were more likely to choose a pronominal referent (he/she Y-ed), illustrating that their ability to choose the appropriate referring expression is sensitive at this age to the immediately prior discourse context.

Studies of monologic narrative and other extended forms of discourse, however, have generated further findings. These have lead to the assertion that children’s full mastery to manipulate referring expressions in discourse, while attending the knowledge states of a listener, develops during the school years. Before reviewing studies of reference in children’s discourse, we consider some models of reference in discourse from a functional perspective.

4.3.1 Reference in discourse

The establishment of anaphoric relations is crucial to reference tracking and cohesion in discourse. Anaphoric expressions are generally defined in terms of their dependence for interpretation on some part of the surrounding text. Stirling writes that the “prototypical anaphoric relation holds between an anaphoric expression and some other delimitable expression of the same category in the preceding linguistic context, such that they have the ‘same’ interpretation” (Stirling 2001). In their function of tracking referents through discourse, anaphoric expressions create links to more fully specified expressions in the text, as in the pronominal references in the following examples.

(4.1) In the night the frog climbed out of its jar and Ø hopped away.
(4.2) When they woke up, the boy and his dog saw it was gone.

A correlation between the form of the anaphoric reference and the degree of accessibility or predictability of the referent has been observed (Givon 1983, Givon 1990). Highly accessible referents are coded with minimal forms. Pronouns, for instance encode a situation where there is no need to spend much effort, as in the
pronominal and zero pronominal references to the frog in example (4.1) above. Full noun phrases, on the other hand, are, in languages such as English, assigned to situations of low accessibility, providing the additional information needed by the hearer, as in ‘the boy and the dog’ in (4.2) above. Givón (1990:969, 1983:18) has proposed that this aspect of reference tracking reflects a general principle of iconicity, that less predictable information will be given more coding material.

In addition to these linguistic observations, a number of mental models have been proposed to explain how referring expression forms map to discourse status, a mapping underpinned by the speaker’s presuppositions about the listener’s knowledge of and attention to the referents in the on-going discourse. Such models have changed over time. Clark and Haviland (Clark & Haviland 1977) proposed dichotomy of old vs. new information, while Chafe’s discourse analysis described more elaborate frameworks of activation states of referents in a stretch of discourse (Chafe 1976). Givon (1983) has constructed a hierarchy of referring expressions in discourse, according to the level of accessibility or predictability of the referent. The marking of the discourse distinction between new and given referents is linguistically widespread and may be depicted on a scale, as in Figure 4.1:

```
Most predictable/accessible topic
  Zero anaphora
  Unstressed/clitic pronouns or grammatical agreement
  Stressed/independent pronouns

  Right dislocated definite nouns
  Neutral ordered definite nouns
  L-dislocated definite nouns

  Cleft/focus constructions
  Referential indefinite nouns

Least predictable/accessible topic
```

Figure 4.1 Givon’s topic continuity hierarchy
Stirling (2001:9) has observed that “choice of one form over another from these hierarchies has been correlated with various factors, including in particular the following, which all have to do with the status of the referent in the on-going discourse”. These are:

(i) recency of mention
(ii) presence of competing alternative referents
(iii) salience of the referent.

In their model, Gundel, Hedberg and Zacharski (1993) proposed a hierarchical model of givenness, which corresponds to the degree to which the referent of a noun phrase can be assumed to be cognitively salient to the hearer. This hierarchy is shown in Figure 4.2, with forms from English:

<table>
<thead>
<tr>
<th>in focus</th>
<th>activated</th>
<th>familiar</th>
<th>uniquely</th>
<th>referential identifiable</th>
<th>type identifiable</th>
</tr>
</thead>
<tbody>
<tr>
<td>in focus</td>
<td>in focus</td>
<td>in focus</td>
<td>in focus</td>
<td>in focus</td>
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<td>in focus</td>
</tr>
</tbody>
</table>

Figure 4.2 Givenness Hierarchy (Gundel et al 1993)

This hierarchy differs from others as it establishes implicational scale, as each status entails those to its right. This means, with some exceptions, that a referent with a particular cognitive status can be accessed by the forms mapped to this status, or by any forms to the right. A referent which is in focus, for instance highly salient or predictable in the discourse or non-linguistic context, might be referred to pronominally, with a definite article and lexical noun, or where conversational maxims permit, with an indefinite referential expression. This conceptualization is particularly useful for considering Wumpurrarni English narratives, where in focus or highly predictable referents may be referred to with full lexical noun phrases, an important element of narrative style in this language (§3.4).

4.4 Reference in children’s narrative

We turn now to empirical developmental studies of children’s reference management in picture prompted narrative tasks. Studies in a range of languages and cross-
linguistic studies are crucial to the formulation of general patterns in language development. Reference in narrative has been investigated in a number of languages, e.g. Australian English (Wigglesworth 1990; 1993; 1997), French (Hickmann et al 1995, Jisa 2000), German (Bamberger 1987; 1994), Hebrew (Berman 1988), Japanese (Clancy 1992), Mandarin Chinese (Wong and Johnston 2001), Spanish (Kail and Sanchez y Lopez 1998), Turkish (Asku-Koç 1994) and one Indigenous Australian language, Warlpiri (Bavin 1987). Three discourse functions are central; introducing, maintaining and switching (and re-introducing referents). We begin with the introduction of referents.

4.4.1 Initial introduction of characters

Developmental studies have shown changes in how speakers of different ages treat referents mentioned for the first time, compared to subsequent mentions. Some studies have shown that younger children make fewer initial introductions than older children, omitting some characters altogether. Wigglesworth (1993) in her study of frog story data, found lower numbers of initial references to secondary characters by four- and six-year-old children, a finding also reported in Clancy (1992). By not mentioning secondary characters, young children simplify the story, as there is less opportunity to make subsequent mention or to switch reference. The omission of characters however has shown to impact on story coherence, as secondary characters are often important to plot propelling elements and causal relationships of event in the story (Bamberger and Marchman 1994). Note that the omission of characters is in line with the more general observation in the study by Berman and Slobin (1994a) (§4.2 above), which reported that the number of core components children included in their narrations increased with age.

4.4.1.1 Pronominal referent introduction

Some studies have shown that children under six do not consistently choose full lexical nouns over pronouns for referent introductions (Abbot 2006, Kail & Hickmann 1992, Kail & Sanchez y Lopez 1997, Wigglesworth 1990, Wigglesworth 1997) and thus choose an insufficiently informative expression.

Bavin investigated narrations by Warlpiri-speaking children of the frog story (2000) and of three shorter picture prompts (1987). In the latter study, Bavin details some
findings regarding initial introductions. Warlpiri is an Indigenous Australian language, which shares grammatical and pragmatic features with Warumungu, the heritage language of the children in the study documented in this thesis. Overt lexical subject and object arguments are not essential in Warlpiri, which has both extensive free and bound pronoun systems and an extensive case-marking system. Bavin writes that in adult discourse, “it is typical to find ellipsis of one or both arguments” (2000:572), as in the following example:

(4.3)  kuju-rnu-lku-palangu ngapa-kurra nyanungu-rlu
       throw-Pst-then-3DualObj water-All that one-Erg

       kuja ngapa-ngka-pala julyurl-wantija
       thus water-Loc-3DualSub Preverb-fall

       then that one threw (them) into the water. Thus in the water (they) swam

In addition, there are non-overt forms of the bound pronouns for third person singular subject and object, as in the zero marked reference to the boy in (4.4):

(4.4)  nya-ngu-palangu jarlji-jarra kalinja nyina-ja-lpa-pala
       see-Pst-3DualObj frog-Dual spouse sit-PstImp-3DualSub

       (he) saw (them) two frogs, husband and wife. (They) were sitting

Bavin (1987) analysed initial mentions in both personal and picture-prompted narrations by a small sample of thirty children, aged from four to twelve. She found the children under six rarely used full lexical expressions or full pronominal forms to introduce characters. Example (4.5) is from a five-year-old, prompted by the depiction of a boy finding a bird, which he takes to a man.

(4.5)  Parnkami ka27.
       run IMPF

       (he)’s running.

       Yanu-rnu-rla jinta-kari
       go by-Dir-Dat one-other

       (He) came to another one.

       Yanu-rnu-rla. Julpu ka-rla yinyi
       go by-Dir-Dat bird IMPF-Dat give

       (He) came to (him). (He)’s giving (him) a bird.

27 ‘Ka’ is the base for an auxiliary cluster. It carries Tense-Mode-Aspect of the verb, and pronominal clitics (bound forms) also attach to it (see O’Shannessy 2006: 24-26).
The use of full noun phrases, however, increased among the six- and seven-year-olds, then from age eight most initial mentions were carried out with these full lexical forms, indicating that the use of ellipsis for initial introductions may be a function of age.\(^{28}\)

Wigglesworth (1993) found that four- and six-year-old Australian English-speaking children used pronouns for initial introductions at higher rates than older children in her study of frog story narrations. A referent effect was also detected, as these younger children used pronominal introductions for main characters at higher rates than secondary characters, which was also true in two further studies of initial introduction in frog story narrations (Kail & Hickmann 1992, Kail & Sanchez y Lopez 1997). This referent effect was also found in the narrations of some of the ten-year-olds in Wigglesworth’s study. Investigation of the other discourse functions (maintaining and reintroducing referents) revealed that this was part of a larger strategy, in which children assigned the boy ‘thematic subject’ status (Karmiloff-Smith 1981) from the outset. Pronominal introduction made up one part of this strategy. The thematic strategy is taken up in the following section.

In number of studies the variable of ‘mutual knowledge’ was strictly controlled, in order to ensure that presupposing expressions (such as pronouns) did not occur as a factor of the elicitation method. Wong and Johnston (2004) for instance, controlled the mutual knowledge between the child and audience, which was a blind-folded puppet, to encourage the child’s reliance solely on the linguistic context in the narration of 16 short (4-6 page) stories. They found that at age five, the Cantonese-speaking children in their study generally used full nouns to introduce new referents, but prior to this age, children used ‘referentially inadequate’ expressions, such as zero and full pronominal forms. Hickmann and colleagues (Hickmann et al 1996; Hickmann 2003) also strictly controlled mutual knowledge, investigating first mentions in Mandarin-, French-, German- and English-speaking children, aged five-, seven-, and nine-years. However, in their results they found little use of pronominal introductions, limited only to some five-year-old English- and German-speaking children. Again, two short, simple picture prompts, with few characters were used.

\(^{28}\) It is not clear whether the children shared visual access to the prompt.
Clancy (1992) investigated initial mention of characters, using three sets of picture sequences and a video prompt, with four- to seven-year-old Japanese children and a set of adults. Across these narrative conditions, Clancy found that four to five-year-olds used pronominal ellipsis (full pronominal forms are used only in specific settings in Japanese) rather than nouns, at higher rates than among older children, who from six-years onwards rated similarly to adult participants. However, she noted that the initial introductions of children who used nominal expressions were less informative than those of adults overall (1992:446).

Thus, evidence from a number of languages suggests that children have generally mastered the pairing of full lexical nouns for initial mentions by around age six, though the pragmatics of their language may not impose an obligation that they do so. The use of local marking on lexical nouns (definite/indefinite articles in many languages), on the other hand, is shown to develop more slowly, both in studies in which mutual knowledge was and was not controlled.

4.4.1.2 Newness marking and nominal expressions
I argued in Chapter 3 that in Wumpurrarni English it is not obligatory to mark locally newness and givenness on the noun phrase, and that this is a feature that distinguishes Wumpurrarni English and English. However, as some children chose to narrate in English, it is important to detail results on newness marking on the local and clausal level.

Bamberg (1987) used the frog story prompt to investigate narrative development in German-speaking children. In this study, the analysis focussed on the three main characters only. He found that indefinite markers, typical for initial mentions in German, were rarely used, even at age nine. However, in this study the children had considerable prior familiarisation with the prompt, having heard it narrated by an adult and having told the story once themselves. In a later paper on the same data, Bamberg presented results for both main and secondary characters (Bamberg 1994). The story involves three main characters (a boy, a dog and a frog) and five secondary characters (bees, a bird, a gopher, a moose and a family of frogs). These results showed an increasing use of the indefinite article for the secondary characters, with a dramatic difference in the rates for adults, who used indefinite expressions almost
exclusively for introductions of these characters, while at age nine, children used
definite and indefinite expressions in almost equal portions (1994: 223).29

Wigglesworth (1993) analysed reference to all animate characters in the frog story. As
in Bamberg’s study, visual access to the prompt was shared during elicitation and
while the children had viewed the story in advance, they had not been told the story
and told it themselves prior to the recordings, as in Bamberg’s method. All
participants told the story under the same conditions, and the analysis of initial
mentions revealed developmental changes in the use of definite/indefinite
determiners. Four- and six-year-old speakers preferred definite articles, with only
around 40% of initial mentions with an indefinite article. The eight- and ten-year-olds
clearly preferred indefinite articles (approximately 70%) and adults used indefinite
articles in over 80% of instances. Effects for characters were also found and these
revealed further developmental trends. First, adults commonly introduced the dog
(and in some instances the frog) with a possessive construction in relation to the
already introduced boy, while the four-year-olds did so at very low rates, with each of
the older groups using incrementally more. The use of a possessive construction
involves creating tighter relationships within the text. Wong and Johnston (2004: 652)
also noted an increasing use of possessive constructions with age.

Studies carried out using frog story narrations in Spanish (Kail and Sanchez y Lopez
1998) and in French (Kail and Hickmann 1992) paid particular attention to the impact
of two narrative conditions on initial introductions; mutual knowledge (MK), where
the speaker and hearer shared visual access to the prompt, no-mutual knowledge
(NMK), where the listener was blind-folded. Both studies examined the way main and
secondary characters were introduced by children aged six-, nine- and eleven-years.
Results indicated that at the age of six the children took the perspective of the listener
to a lesser extent than at age nine. At age six, children used more presupposing forms

29 It is interesting to note, however, that in another study (Hickmann et al 1996), in which
mutual knowledge was strictly controlled, German-speaking adults chose indefinite
determiners for initial mentions at lower rates (66%) than English- (76%) and French-
speaking adults (84%), possibly indicating a weaker preference for explicit newness marking
in this sort of task in German. No evidence was presented that German speakers drew on a
syntactic means, such as word order to express newness.
(such as definite articles) than older groups in the NMK condition. By the age of nine, the children used some presupposed introductions (with definite expressions) in the MK condition, but more indefinite introductions in the NMK condition. By the age of eleven, children had generalised the rule and used appropriate (indefinite and possessive) introductions in both conditions. Referent effects were also found. All speakers used significantly more presupposing expressions for main characters than for secondary characters in the MK condition. The six-year-olds’ use of presupposing expressions in the NMK condition was higher for main characters than for secondary characters.

4.4.1.3 Newness marking on the clause

In addition to the use of local markings of newness, studies by Hickmann and colleagues have focussed on clause structure or ‘global’ markings for newness (Hickmann 2003, Hickmann et al 1996). Global marking refers to the position of the referent in the clause, examples are given below. This concern for clause structure, as well as NP form, arises partly from differences in the languages under investigation; the three European languages have obligatory local marking and optional clause structure marking, while essentially the reverse is true for Mandarin Chinese. Further, Hickmann and colleagues investigated a wide-spread tendency among languages regarding clause structure and local marking of newness, a principle which suggests that new information should come towards the end of a clause. On the basis of this principle, the prediction that a correlation between local marking (for newness) and post-verbal position and, conversely, that preverbal NP’s would more likely be unmarked locally (for newness) was made. To investigate this hypothesis clause types were identified, in which new referents as full lexical NP’s are introduced. Five of the main types were:

I  *Post-verbal existential and other predicating structures*
   It/This/There is a horse.
   C’est/y’a un cheval qui court.

II  *Post-verbal subject in subject-verb inversions*
   At the base of the tree stands a cat.
   Und da ist eine Katze./Und dann kommt ein Hund.
III  *Post verbal objects in transitive clauses*

He sees a cow.
Dann sieht sie eine Katze.

IV  *Preverbal subjects in transitive and intransitive clauses*

The cat comes to the tree
Le chat voit les oiseaux.

V  *Preverbal left-dislocated subject with pronoun*

First a duck she’s sitting in her nest
Et après le chien il arrive.  
(Hickmann 2003: 111)

Figure 4.3 Clause types for initial mentions

Though these structures occurred in all four languages, frequencies varied. Briefly, type I was used very frequently by French speakers overall, and commonly by English and Mandarin speakers. Type II was used commonly by German speakers of all ages, French and Mandarin speaking adults, and rarely by English speakers of any age. Type III, a canonical SVO structure, in which the new referent appeared in object position was represented in all languages. New referents appearing in subject position (Type IV) was the most frequent structure for English (and for Mandarin). Type V was rare in all languages other than French, where this presupposing structure occurred in the narrations of young children only.

Evaluating the predicted correlation between local marking (for newness) and post-verbal position and between preverbal and unmarked NP’s in the four languages under investigation, four main findings emerged. Firstly, first mentions are more commonly post verbal than preverbal in all languages. Secondly, local marking of newness occurred significantly more often in post-verbal constructions than preverbal in all languages except German. Relatedly, post-verbal new referents were more often locally marked than unmarked in all languages. Post-verbal position and local marking for newness also increased with age in all languages but French. Finally NP’s, which were not marked for newness, were more often preverbal than post

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30 This is in part due to the subject-verb inversion required with sentence initial adverbials. These are more commonly used by children than adults.

31 Again this may be largely due to subject-verb inversion (the verb-second constraint) with particular structures in German.
verbal in only English and Mandarin. In these two languages, the use of referents, which are unmarked for newness and in preverbal position, is more frequent in younger children, but decreases with age. Hickmann (2003) concludes that from seven years on in all languages local and global markings of newness attract each other. Before this age non-uses of local/global markings are only weakly related. In addition, in the narratives of young children, deictic uses were found. In these cases referring expressions were embedded in predicating constructions to label the new entity, e.g. This is a horse; And here’s a horse.

The proposition that new information is more likely to occur post-verbally is contrasted with findings for continuing reference, which show that old or given or topical information is more likely to occur pre-verbally. We turn now to findings on continuing reference.

4.4.2 Continuing Reference: maintenance and switch

Where a referent is maintained across adjacent clauses, making it highly accessible, an anaphoric expression such as a full pronoun or pronoun ellipsis is sufficient to signal continuing reference, as in examples (4.1) and (4.2) in section 4.3.1. The task of maintaining reference, where no competing referent occurs, requires less processing and control than initial introduction of a referent, or switch to a second referent, as the child need monitor only the preceding utterance and focus on one referent. Overwhelmingly results show that children over the age of four use pronominal expressions at far higher rates than nominal expressions to maintain reference. Results from a number of studies and languages show that this task is mastered earlier than introducing or switching reference (Bamberg 1987; Clancy 1992; Wigglesworth 1993, 1997; Jisa 2000; Wong and Johnston 2004). However, evidence varies on the precise age at which mastery in this form-function pairing is established, and this may be affected by the complexity of the task.

mostly chose appropriately lean forms (zero and full pronominal forms) to maintain subject from 5-years onwards. While the results revealed that the younger cohort (3-4 years) used pronominal forms (overwhelmingly zero forms) to maintain reference, this was true for all discourse settings and so meant it was not possible to conclude that at this age the children were in fact consulting a discourse model, on the basis of which they selected the appropriate form (Wong and Johnston 2004: 653). From their cross-linguistic study among children aged four-, five-, seven- and ten-years of age, Hickmann and Hendriks (1999: 445) found similar rates of pronominalisation among French-speakers of all ages in same-subject settings, but slightly lower rates among 5- and 7-year-olds, in comparison to the 10-year-olds among the German, English and Mandarin-speaking cohorts. The prompts in the tWong and Johnston (2004) and Hickmann and Hendriks (1999) studies were short picture sequences.

However, in a number of studies, particularly those involving the frog story, a longer and more complex prompt, have also found developmental changes in the use of pronominals to maintain reference (Bamberg 1987, Bavin 2000, Hickmann et al 1995, Jisa 2000, Wigglesworth 1993). Results in a study of Australian English-speaking children (aged four, six eight and ten) (Wigglesworth 1993: 99) show a gradual increase in the rate of pronominals for reference maintenance. The study and the analysis of intra-age variation is further discussed below. In line with Wigglesworth, Jisa (2000) found that all speakers preferred full pronouns to maintain subjects in her study of French speakers narrating the frog story, however, an increase between the 5-year-old group and the 7- and 10-year-olds in pronominal use in this setting was found (Jisa 2000: 608).

In a further frog story study, Hickmann and colleagues (Hickmann, Kail et al. 1995) found that among French speaking children (aged six, nine and eleven) six-year-olds used nominals and left dislocated structures at higher rates than the older children to maintain reference to the main character, the boy. Two factors were considered in interpreting this result, the impact of the external and the internal story structures. To consider the external story structure, the analysis identified the rate of

32 Data in this study were gathered under two conditions; mutual knowledge (MK) and no mutual knowledge (NMK). I report here from the findings from the NMK condition.
pronominalisation in co-referential contexts, depending on whether the instance was within a page (or frame) or whether it coincided with a shift from one page (or frame) to the next. The results showed that overall nouns were more likely to occur to maintain reference at frame boundaries than within frames. However, clear age related patterns emerged, as the six-year-olds used more nouns to maintain reference across page boundaries than the nine-year-olds. The six-year-olds also frequently used left dislocations in this function, though in the texts of older children these are reserved for reintroductions. Further, the difference between the nine-year-olds and the eleven-year-olds was dramatic, with the oldest children using pronouns across page boundaries at a much higher rate than both the six- and nine-year-olds (Hickmann et al 1995).

To consider the impact of the internal structure, Hickmann and colleagues divided the story into three segments and investigated whether maintained references to the boy were pronominalised at higher or lower rates across segment boundaries. On this count they found that rates of pronominalisation within segment boundaries showed a slight and gradual increase across the three age groups (between 80% and 90%), however, the six-year-olds used pronouns to maintain reference to the boy at a much lower rate (<40%) than the nine-year-olds (approx. 60%), who used a lower rate than the eleven-year-olds ( >90%). These analyses showed that only the “eleven-year-olds uses of pronouns follow the principles of discourse-internal coreference which override the impact of the internal or external structure of the story” (Hickmann, Kail et al. 1995: 294).

Close attention to reference maintenance contexts across ages has revealed further developmental patterns. Jisa (2000) found that the use of alternate syntactic structures distinguished child and adult texts in her study of French-speaking children and adults. The child speakers were aged five, seven and ten years. While adults, like the children in the study, preferred full pronominal forms to maintain reference, the adults also used pronoun ellipsis (4.6) and non-finite ellipsis (4.7). The two structures are considered to package information more ‘tightly’.
et gronda son chien
and scolded his dog

et il s’en alla regagner sa maison
and he left to return to his house

accompagné de son chien Tommy
accompanied by his dog Tommy

The 10-year-old children in this sample approached adult usage with respect to pronominal ellipsis, however, non-finite ellipsis occurred rarely in any age group (less than 5% in each), while adult’s use of this referring structure approached 30%. While Jisa’s findings argue for a developmental progression in the capacity to choose structures, which contribute to tighter syntactic cohesion. Further findings from this study, which focus on the ways that children use structures in ways that differ from adult uses are discussed below in relation to the thematic subject constraint.

Bavin (2000) investigating Warlpiri children’s narrations of the frog story also considered subject ellipsis. As Warlpiri also allows object ellipsis (see the discussion Bavin’s studies above), attention was paid to both subject and object references. Overall, Bavin found that children between four- and six-years told stories with very few overt lexical arguments, subject or object. This was true in both reference maintenance and reference switch settings. In using the high accessibility forms (subject and object ellipsis), these young children presupposed the identity of referents, relying on the non-linguistic context, which was provided by the listener’s shared visual access to the story. Their stories were quite incomplete, with few secondary characters introduced and little plot elaboration. Bavin argues that as these young children did not set up antecedents, their null references are not used anaphorically (Bavin 2000), rather the “anaphoric function is acquired later as children develop cohesion strategies for discourse” (Bavin 2000: 585). The next age group, the seven-eight year-olds, included more story detail and more references to secondary characters, which contributed to the need and the inclusion of more overt lexical arguments. These speakers used subject and object ellipsis at markedly lower rates than the age group below. The older children simplified the task in other ways, however, and in comparison to the group above (aged nine and ten), using comparatively fewer complex constructions, little background information and
connectives. Results for the nine-ten-year-olds showed a progression towards those of the adults.

In a set of seminal studies Annette Karmiloff-Smith (1981, 1985) argued that children use linguistic devices for reference maintenance and switch in non-adult, but patterned ways. The studies involved the analysis of picture prompted narratives and investigated the ways that French- and English-speaking children achieved linguistic cohesion in their productions. The youngest children (around age four) in Karmiloff-Smith’s studies relied on spatial deixis and paralinguistic gestures, just as reported for children of the same age in Wong and Johnston (2004), Bavin (2000) and Berman and Slobin (1994). Karmiloff-Smith argued that these young children did not use pronouns anaphorically, as no antecedent was established. Rather, pronominal usage was deictic and the listener could only disambiguate the pronominal reference with reference to the pictures. The utterances of children at this age were not ambiguous, as long as each sentence was looked upon as a separate unit. Ambiguity was evident if the series of utterances was looked at as a whole, as these children were not generating processes to link discourse into a cohesive whole (1985:71). At this stage, the ‘procedural phase’, the production is generated by data-driven processes, as the child describes the content of each picture. Karmiloff-Smith writes:

Each utterance is correct syntactically and has rich lexical variety. In this respect the child is successful. However, the narrative is not organised as a single unit by the child. A series of correct utterances is juxtaposed locally, but lack the organisational property of a single narrative unit (1983: 7).

At the next stage (aged around six to eight years) pronouns were used anaphorically, but the distribution of pronouns differed to older children and adults. Children at this stage tended to reserve the use of pronouns for sentence-initial position to maintain reference to the main character of their narratives. They strongly avoided pronominalising other characters in this position, even where this meant manipulating the verb used, as they moved the main character from experiencer to agent or possessor to maintain its central status. Their use of pronominalisation for secondary characters tended to occur only within conjoined clauses (1981:136, 1985:73).
Karmiloff-Smith also considered children’s spontaneous self-repairs at this level. Repairs were characterised by the deletion from subject slot of a referent that was not the main character (1985:76). In addition, children at this second stage did not ‘cash in’ on the resources of their language to disambiguate pronouns locally, such as by using natural and grammatical gender (1981:129), but devoted their attention to this control process, which she called the ‘thematic subject constraint’ (1985:71). This strategy affected not only how children maintain reference, but also how they switch reference. In particular, switches to the thematic subject occurred with pronominals, rather than nominals. In imposing a “rigid structure” on their productions, by preempting the utterance initial position for the thematic subject, they “have a handle on the narrative unit as a whole” (1981: 139). Karmiloff-Smith refers to this as the ‘metaprocedural phase’ (1983: 7). Production is generated by ‘top-down’ control processes, as the child monitors the flow of connected utterances. Attention to cohesion appears to come at the cost of lexical variety and story detail, but as a narrative, it is a single unit. Utterances are linked within an overall organization. In these narratives pronominalisation is not used to instruct the listener to look back for an antecedent, but rather to signal, by default, the thematic subject. Their use of referring expressions, in particular their use and non-use of pronouns, then is a function of the “macro-thematic structure [they] create and impose on the narrative” (1981: 139). This control process comes at the expense of lexical richness and anaphoric relations at a very local level, which characterised the narratives of children at the earlier stage.

In the third phase, the development of organisation processes has been established, enabling overall organisation, richness of lexicon and story detail to be woven together for the purposes of producing a narrative (Karmiloff-Smith 1983). This stage is characterised by “a dynamic interaction between data-driven and top-down control processes. Environmental stimuli are taken into account and co-ordinated with the top-down control mechanism which organises the whole into a single framework” (1983: 15).

Since Karmiloff-Smith proposed this global strategy, other researchers have tested the thematic-subject constraint, and results have varied. Some have found evidence for a
thematic subject constraint, but this has been limited, leading many to suggest that the model was too strongly stated (Clancy 1992; Orsolini, Rossi et al 1996; Wong and Johnston 2004; Wigglesworth 1990; 1993). No study has strongly confirmed that children rigidly reserve subject position to maintain reference to a thematic subject. Further, while Karmiloff-Smith found this strategy most strongly in use among six-year-olds, the results from other studies suggest that this strategy was in use among younger children (Bamberg 1989) or older children (Wigglesworth 1993, 1997; Jisa 2000).

Some researchers have found no evidence of a thematic subject as a strategy for reference management in children’s narrations. This is true of the cross-linguistic study of French, German and English and Chinese reported in Hickman and Hendricks (1999) and Hickmann (2003). Here it is argued that from four years on, children are sensitive to referential and discourse continuity across clauses. Narrations were elicited through two textless picture books; the first (Horse story) had a clear single protagonist, and two secondary protagonists, and in the second story (Cat story) this story no main protagonist stands out. The prompts were short (five and six pages). Across all ages and all languages, speakers tended to pronominalise referents in subject position, particularly where the subject was co-referent with subject of the previous clause. There was some variance across language and speakers; pronoun use in continuing subject settings in German and Chinese children increased between the ages of seven and ten-years, and in English increased gradually between the ages of five and ten. Some referent-specific effects were noted and are important in the evaluation of the thematic subject constraint. The main protagonist in the first story occurred more frequently as a same-subject co-reference pronominal than characters in the second story, which held across languages and ages, despite variations in position and form. Hickmann and Hendricks did not attribute this as evidence for a thematic subject constraint, but proposed that the special status of a main character in the utterance initial slot might result from three factors:

1. greater frequency of reference to the character
2. factor 1 leads to increased co-reference relations
3. frequent use of NP’s in subject position overall in continuing reference
Hickmann and Hendriks conclude that local co-reference has a ‘massive impact’ on the rate of pronominalisation, in the four languages in their study and at all ages, showing that children are sensitive to referential continuity vs. discontinuity across clauses from four years on’ (1999: 445). Co-reference was shown to have a stronger impact with increased age, suggesting that this becomes a dominant organising principle in the late childhood years. However, they noted also that further quantitative analyses are required to investigate whether individual strategies may not have been uncovered by the analysis undertaken, “with particular attention to children’s uses of forms in same-subject vs. switch–subject contexts” (Hickmann & Hendriks 1999). Given the length of these stories, there may be fewer opportunities for speakers to switch reference between main and secondary characters and this makes assessment of the presence of the thematic subject constraint difficult, a point that Wong and Johnston (2004:651) note of the data they analysed.

Certainly results from switch reference contexts or re-introductions have offered more interesting results with respect to the thematic subject constraint and evidence that at certain ages children may pronominalise main characters more than secondary characters in this discourse function, thus relating to Karmiloff-Smith’s earlier formulation (Orsolini et al 1996). This matter will discussed here and taken up again in section 4.5. Clancy’s broad results show that all child groups (aged 3;8-7;4; Japanese-speaking children) used pronominials to switch reference to the main character more than to the secondary character when narrating a story from a cartoon. This was also true for adults, though at lower rates. The results for the narrations of the long video prompt in this study are less clear, though it appears that children under five tended to switch to the main characters with pronouns more than to secondary characters. This offered some evidence of a differential treatment of a main character. Overall the results for pronoun use for main versus secondary characters in same-subject contexts did not differ in dramatically in any age group.

In the study of frog stories among French-speaking children by Jisa (2000), all speakers preferred nouns to pronouns to re-introduce referents, though all groups used some pronouns to re-introduce referents. There was some evidence of a thematic subject in all age groups, and most strongly among the seven- and ten-year-olds.
Pronominal re-introduction was reserved for the main characters by all ages except the five-year-olds, who used pronouns for secondary character re-introductions also.

Orsolini, Rossi et al (1996) investigated re-introduction in frog story narratives of Italian children in five age groups (4-, 5-, 6- 8- and 10-years old). Overall, like Jisa, they found that all age groups used nouns more than pronouns or null forms to reintroduce referents. Children of all ages also used pronouns and zero forms to re-introduce referents, with the rates for four- and five-year-olds higher than the other child groups. Orsolini, Rossi et al. paid particular attention to zero forms, as Italian is regarded as a pro-drop language. It has personal pronouns, clitic pronouns plus person/number inflections on verbs, allowing the omission of subject reference in a wider range of contexts than English or German or French. The option of dropping subject pronouns is “strongly associated in narratives with specific pragmatic constraints: the grammatical subject can be dropped [...] only when the same entity occupies the subject role in the current clause and in the previous one” (1996: 470). Personal pronouns tend to be used when the role of the referent is emphasised, but where a referent's identity is highly predictable, a zero or clitic is selected.

Guided by these principles, Orsolini, Rossi et al. investigated the use of zero and pronominal forms in switch reference function to determine whether children were relying on other factors in the pragmatic context for the resolution of their pronominal forms. To do so, they tested the ambiguity of these lean forms and found that factors such as verbal semantics and “parallelisms in the text” (1996: 478) facilitated null form resolution. ‘Parallelisms’ referred to instances where in one clause the boy was mentioned, in the next, the dog, and in the immediately following clause reference to the two acting together occurred as a null form (with verbal morphology marking the plural status of the subject). In such instances, references to the boy and dog acting together were very commonly made with null reference, where the discourse context made this clearly resolvable, as in (iii) in example (4.8), by an eight-year-old child. To the right of the clauses from the narration is the authors’ coding for character, form, grammatical role and discourse function.

(4.8) (i) poi il bambino cerca  
then the boy 3S looks  
Boy  
Noun_Subj, RE-INT
nello stivale
*inside the boot*

(ii) poi il cane guarda
*then the dog 3S looks*

nel barattolo,
*into the bowl*

(iii) poi guardano
*then 3Pl look*

(‘then they look’)

However, among four- to five-year-olds, this also occurred where there was potential ambiguity. Overall, all children used null forms where referents were predictable and unpredictable, but eight- and ten-year-olds “were more able to exploit the pragmatic link between the verb in the current utterance and the discourse context representation [or] rely on parallelisms between adjacent clauses” (1996: 479) than younger children.

Having established that younger children are less able to manipulate pronominal and zero pronominal reference than older children are, Orsolini et al. (1996) investigated the correlation between null forms and references to the boy, the main character in the story. This analysis showed that four- and five-year-olds were more likely to reintroduce the boy with a lean form and that the reverse was true for secondary characters, evidence that at this age children were using pronouns to signal the thematic subject, rather than to point back to an antecedent or other pragmatic factors in the discourse. They concluded that older children show a deeper control of discourse production, integrating various cues in the context to assess predictability of the referent. At six, children are developing this new way of processing discourse, while four- and five-year-olds' use of forms “is more driven by the need to enhance an entity’s saliency in the discourse than by the attempt to disambiguate reference for the listener” (Orsolini et al 1996).

4.4.3 Initial, maintenance and switch reference

The review above has outlined analyses and results from a range of studies in various languages for three discourse functions; referent introduction, maintenance and switch. These three discourse functions will be examined in the current study. Chapter 7 will present results and discusses findings regarding the form-function pairing for initial introductions in Wumpurrarni English frog story narrations. Attention will be
paid to the omission of characters, the use of pronouns and the use of lexical nouns and local markings. The interaction of code choice and the use of local marking is also examined in Chapter 7. Chapter 8 will present results for the form-function pairings for reference maintenance and switch.

The studies detailed so far have focussed largely on the use of pronominal and zero-pronominal forms for reference maintenance and on the use of nouns vs. pronouns for switch reference. Generally studies have looked at these form-function pairings in isolation and compared the global results from each age grouping with one another. Few studies have looked for interactions between the two sets of results (when nominals might be used for reference maintenance and pronominals for switching reference), and differences in the distribution of these patterns between and within age groups. Analyses also generally take the adult target and map the path to adult-like production. Some attention is paid to what children are doing when they are not approximating the adult target, for example the omission of characters to simplify the task and the use of pronouns deictically. Karmiloff-Smith’s attention to a global strategy, the thematic subject constraint, which seeks to explain children’s non-adult use of pronouns, is an exception. Karmiloff-Smith’s original findings have not been wholly borne out in the results of subsequent studies, however evidence for the differential treatment of characters and for the use of pronominal forms for switch reference for main characters has been found. Attention to overall discourse strategies provides a means to relate cohesion at the local level to coherence at the whole-story level. Further, investigating discourse strategies provides a means developmental patterns and to look more closely at the productions of individuals within age groups.

The investigation of discourse strategies is adopted in Chapter 9 of the current study. In that chapter, a detailed examination of individual narrations is carried out to explore the use of local and global strategies for organising discourse. The discussion of studies of discourse strategy in the following section will inform the methods and predictions motivating the analysis in Chapter 9.
4.5 Discourse Strategies

Hickmann (2003, 2004), in her detailed discussion relating coherence and cohesion, argues that cohesion at a local level contributes to coherence overall, in a range of ways. With respect to reference, the introduction of characters in a narrative requires discourse cohesion principles to guide the choice of a full lexical expression. At a global level, the establishment of characters plays a crucial role in the creation of a setting or the orientation of a story, serving to anchor at least the episode. Further, forms and structures used in the introduction of secondary characters may signal their relative status, within the episode and more globally and thus contribute to the story plot. Reference also plays a role in discourse planning that goes beyond the adjacent clauses, as speakers mark episode boundaries by over-marking referents, using full nominal expressions where pronouns might suffice for the identification of a referent (Clancy 1992). Finally, and in children’s narrative in particular, the differential means of referring to main characters as thematic subjects versus secondary characters has been posited as evidence of discourse planning at a global level (Karmiloff-Smith 1985).

Bamberg (1987) investigated German-speaking children’s management of reference in frog story narrations. This study investigated a small set of narrations, eight by three- four-year-olds, and five year olds, and nine by a group of nine-ten-year-olds. Bamberg counted only references to the boy and the dog (separately). On the basis of this data set, and in addition to the thematic strategy, three further strategies were identified: ‘an anaphoric strategy’, which was characterised by nominals for reference switch and pronominals for maintenance; a ‘contrasting strategy’, in which pronouns and nouns were used in equal measure to maintain reference (Bamberg 1987: 89); and a ‘nominal strategy’, which involved a picture description mode, in which each reference, irrespective of discourse function, is nominal. With respect to the thematic subject, Bamberg’s findings diverged from Karmiloff-Smith’s (1981, 1985) in terms of the age at which this strategy might be found. In Bamberg’s study this was predominately among very young children (age four). This differs also from the studies discussed above, in which the thematic strategy was found to be in use among older children, such as seven- and ten-year-old Italian-speaking children (Orsolini, Rossi et al. 1996) and French speaking children of the same ages (Jisa 2000).
Bamberg’s findings may have been due to methodological reasons, as the children were familiarised with the story, having been told the story twice by their parents and told it once themselves before their narration was recorded. Results from studies of Australian English-speaking children found the use of a thematic subject in narrations by children aged four very rarely, more common at six and eight, and like the results from the French and Italian studies, present also in the narrations of ten-year-olds (Wigglesworth 1993, 1997). Further in Bamberg’s study, the anaphoric was most common among the nine/ten-year olds, and among some five-six-year-olds. The contrastive strategy was present in the narrations of some four- and six-year-olds. The nominal strategy characterised the narration of one four-year-old. Bamberg also noted that some children (aged five-six) shifted strategies within their narrations.

Wigglesworth (1993, 1997) also investigated reference in frog story narrations through discourse strategies. The participants were Australian English speaking children, aged four-, six-, eight- and ten-years of age, and a set of adults. In these studies, in addition to a thematic subject strategy, a number of further discourse strategies were identified, which differ somewhat to those identified by Bamberg and are more precisely and quantitatively defined. Like Orsolini et al (1996), she found that the boy and the boy and dog acting together were the likely candidates for a thematic subject, and that references to all characters needed to be coded and analysed, which had not been the case in Bamberg’s study.

Wigglesworth (1993) characterised the narrations on the basis of five discourse strategies, drawing on previous work by Bamberg (1987) and Hemphill and colleagues (Hemphill et al 1991), in order to characterise narrations both within and across age groups. These were fine-tuned in the (1997) study to four strategies. I discuss the later study here, and make reference to the earlier study where necessary.

The method involved looking at the ways that speakers maintained and switched reference to the boy and to the boy and dog acting together, then applying a set of criteria to each narration overall. This allowed the characterisation of each narration by strategy and identification of age-related patterns. The criteria for the strategy groups are laid out in Figure 4.4:
Figure 4.4 Criteria for strategy groups: Wigglesworth (1997: 288)

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Pronouns for switch reference to boy and/or boy&amp;dog (%)</th>
<th>Nouns used overall for reference to boy and/or boy&amp;dog (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal</td>
<td>0-20</td>
<td>&gt;60</td>
</tr>
<tr>
<td>Thematic</td>
<td>&gt;70</td>
<td>&lt;50</td>
</tr>
<tr>
<td>Partial Thematic</td>
<td>45-60</td>
<td>&lt;50</td>
</tr>
<tr>
<td>Anaphoric</td>
<td>0-40</td>
<td>&lt;50</td>
</tr>
</tbody>
</table>

Wigglesworth found that there was considerable variability across that age groups in terms of the strategy found. Adult texts were largely identified as anaphoric, as were those of almost half of the ten- and eight-year-olds. Most of the remaining ten-year-olds narrations were classed as thematic. The eight-year-olds’ texts were spread across the strategy groups, as were those of the six-year-olds. In this group and among the four-year-olds the thematic and partial thematic strategies were most common.

Taking the matter further, Wigglesworth divided the long and complex story into four segments, based on structural aspects of the story (initiation of the search, changes in location, number of characters in the segment). The persistent theme in the story is the boy and the dog’s search for an escaped frog, but within the four segments plot-propelling events take place, involving the boy and dog interacting with secondary characters. The processing load of each segment differs, as a function of the additional characters that appear and the degree to which the main characters acted together or independently. The second segment of the story is particularly complex in terms of referential load. In this segment, as the location changes, three secondary characters are introduced, interacting separately with the two main characters and initiating and motivating new actions. The processing task is great, as children must verbalise all of these causally-linked events, whilst tracking the two main characters through the events and introducing and positioning the secondary characters in the segment. Wigglesworth hypothesised that investigating the narrations by segment would allow the identification “of factors that influenced the adoption of [particular discourse organising] strategies in children’s reference tracking techniques in narrative, and how these factors interact in development” (Wigglesworth 1997: 289). The analysis was also designed to highlight the use of the strategies by individual
speakers, rather than present age groups as users of a given strategy. Age related
trends, however, did emerge and an important finding was the degree to which
children of different ages shifted strategies within their narration as a function of the
complexity of the segment.

Adults and children differed dramatically, as only the adults consistently maintained
the same strategy throughout, and overwhelmingly this was an anaphoric strategy.
Ten-year-olds changed strategies at a low rate, evidence that they were able to
manage the narrative at a global level. Where they did shift strategies, this was not
necessarily in response to the most complex segment (the second segment), which
prompted most to the switches in the younger groups.

The majority of the eight-year-olds began their narrations with an anaphoric strategy,
but shifted strategy in the second segment, either to a thematic or nominal strategy.
The nominal strategy provided a local means of managing reference. A clear
correlation between the ability of the eight-year-olds to maintain a specific strategy
across the narrative and the strategy they adopted in the first segment of the narrative
emerged. A small number of eight-year-olds who initially adopted either a thematic or
nominal strategy tended to maintain this across the segments despite differences in
referential load. However, these children all simplified their narratives in some way.

Most of the six-year-olds began with a thematic strategy, and, like the eight-year-olds,
they changed strategies to a more local and less cohesive strategy (nominal or partial
thematic strategy) with the changing referential load of the second segment. In doing
so, they tended to produce a sequentially ordered set of picture descriptions. Most
returned to or switched to a thematic strategy for the final segment. A few were able
to maintain the thematic strategy throughout their narrative, and simplified the
subject, by focusing on one or other of the main characters or referring dually in order
to achieve this. A small number of six-year-olds chose an anaphoric strategy for some
segments suggesting that these children were more confident in their use of overall
organisational techniques and were able to maintain a thematic subject through the
second segment, and then, once the referential load reduced, they adopted the more
mature global approach.
Some four-year-olds used a thematic strategy for brief periods in their narrations, but overall results showed that the children at this age were not able to maintain this approach consistently. Many used a ‘here and now’ approach, that Wigglesworth described as a nominal/pronominal strategy (Wigglesworth 1993), to characterise these children’s use of these forms on basis of local determinants, rather than discourse determinants.

Wigglesworth concluded that a set of children may pass through a number of stages which are “reflected in their ability to organise the referential content of their narrative speech at various levels” (Wigglesworth 1997: 305). Five stages were suggested:

Stage 1 ‘Clausal’: organization is confined to the clause level, and reference to the story pictures is required to make the output comprehensible.

Stage 2 ‘Page’: organization extends to the page level, with each (double) page being described without reference to the previous or following pages.

Stage 3 ‘Segmental’: organization reaches the segmental level, with reference within the segment organized globally, generally with a thematic subject.

Stage 4 ‘Simplified Narrative’: organization is at the narrative level with each narrative being cohesively and coherently organized globally, either with a thematic or anaphoric strategy, although the story line is simplified.

Stage 5 ‘Narrative’: the same as stage 4, except without simplification, with narratives usually organized around an anaphoric strategy

Wigglesworth’s analysis provides important insights into children’s discourse generally, and offers a useful approach for the data set in this study. Attention to intra-group differences allowed consideration of the multiplicity of individual strategies, which global averages can obscure. The analysis also highlights the vulnerability of children’s performance to the complexity of the task (Berman 2004). Across the age groups, children managed the referring task differently, depending on the complexity of the segment. The results showed that from age ten most children were not vulnerable to the complexity of the task, illustrating a developmental point at which the ability to meet both the cognitive demands and the linguistic demands of the task.
This is in line with the finding reported above from Hickmann, Kail et al (1995), with respect to eleven-year-olds reference tracking following the principles of discourse-management, irrespective of the internal or external structure of the prompt.

Berman (2004) has discussed ‘context-sensibility’, the impact of task complexity on children of different ages. She writes “the general pattern of development will be affected by the communicative and cognitive demands evoked in different settings of narrative text production. This means that children may reveal more knowledge of narrative structure and they will perform the act of story-telling better in some situations than others” (Berman 2004). She discusses two developmental reasons for this. The first is that linguistic skills, which are acquired later in childhood have a long developmental history. As in other domains of learning, story-telling acquisition is “not an ‘all-or-nothing’ leap from no knowledge to full knowledge. Rather it involves partial knowledge and reorganisation and integration of prior knowledge across different domains” (Berman 2004: 265), and so more advanced developmental phases manifest earlier under some circumstances and in some areas than others. Relatedly, the second reason for a need for attention to the impact of the task is the observation that children’s abilities are task-sensitive, which again has been borne out by research in various cognitive domains. In narration, as in development generally, when knowledge is not “fully integrated and consolidated with other domains”, and still en route to mastery, children handle tasks better that “take up less mental space or impose less of a cognitive load” (2004: 265). The competence of very young children is least established and most vulnerable to task difficulty.

This is an important point to consider in the comparison of results and findings, particularly those that show early mastery of a skill in one domain, but later in another. In the current study, this insight will be useful in explaining the impact of speakers code choice on the cohesion and coherence of the texts they produced. Finally, discourse strategies capture the way that a speaker tracks referents at a local level, and at a global level, in two ways. First, it has been shown that children’s use of a thematic subject is a window to the way that they manage a stretch of discourse. At a second level, the analysis of strategies shows how children may shift strategies,
responding to the changing demands of the prompt, while seeking to create a coherent text.

4.6 Conclusion

This chapter has detailed the research directions and findings of previous developmental studies of discourse. These reveal how both linguistic and general cognitive development can be observed through the examination of narrative productions by children at different ages. The comparison of studies and the cross-linguistic studies highlight the similarities in children’s narrations within age groups, as well as language specific issues. These findings generate hypotheses for the study of Wumpurrarni English-speaking children.

4.6.1 Developmental hypothesis for the study of Wumpurrarni English frog story narrations

1. Initial introduction of characters

It is expected that, as with other children of this age, most six-year-olds in the Wumpurrarni English study will generally use full lexical noun phrases to introduce new referents. There may be some pronominal introduction and omission of characters, and this will occur at a higher rate among the youngest group, than the older groups. As it has been argued that in Wumpurrarni English there is no obligatory marking on the noun to mark newness from givenness, this distinction will not provide developmental insight (as it does in languages with this distinction, for instance English and German).

2. Maintaining Reference

It is expected that overall pronouns will generally be used to maintain reference and nouns to switch reference, in all age groups. However, nominals will occur to maintain reference under two different conditions, one of which requires a developmental account, the other a language specific account. Previous studies have shown children under ten to use full lexical nouns in reference maintenance settings at much higher rates than children over this age, at page and section boundaries. This indicates that younger speakers
are less competent at creating locally cohesive discourse, but respond to the external constraints of the task. The second condition relates to language specific matters discussed in the previous chapter, the use of repetition and emphatic subject chaining in Wumpurrarni English narrative. It is predicted that reference maintenance with a nominal will occur in the narrations of some children, at page/frame boundaries. This form/function pairing will require careful consideration to distinguish it from repetition and subject chaining strategies. This stylistic feature of Wumpurrarni English narration may occur in the narration of speakers of any age.

3. **Reference Switch:** It is predicted that the six and eight-year-olds will be more likely than older children to switch reference pronominally. There may differential treatment of characters in this respect, indicating that a child may have adopted a discourse strategy, such as a thematic strategy.

4. **Discourse Strategies:** It is predicted that children under ten may adopt a thematic subject strategy to structure their narration, but that the thematic subject will not be as rigidly maintained as in Karmiloff-Smith’s original formulation. It is predicted that children under ten will shift discourse strategies, moving from globally organising strategies (anaphoric and thematic) to more local means of creating cohesion (nominal strategy), depending on the difficulty of the segment. There will be evidence of development for more globally organised discourse between the ages of six and eight.

A final set of hypotheses will be developed from the analysis of code choice in Chapter 6. A small number of speakers in the Wumpurrarni English set chose to narrate in a lighter style than they normally use, and these will generate further predictions regarding language specific form/function pairings (the use of ‘a’ and ‘the’) and between discourse strategy and task complexity. The next chapter presents the method use to code and perform quantitative analyses on the frog story narrations.
Chapter 5

Method

5.1 Study Design

The study was designed to investigate the development and use of referring expressions in narrations by Warumungu children, addressing the hypotheses raised in the previous two chapters. The method used draws on previous studies of children’s narrative development discussed in Chapter 4, (§4.4) (in particular Bamberg 1987; Hickmann 2003; Karmiloff-Smith 1981, 1983, 1985; Wigglesworth 1993, 1997 and Wong and Johnston 2004). In line with this research, the current study investigates the development of both linguistic and cognitive skills involved in the narrative task; the use of nominal and pronominal expressions, which take in the needs of the listener and, which contribute to the construction of a cohesive stretch of discourse. It also investigates the use of discourse strategies, which can be discerned across the narration. The most well researched is the thematic subject constraint (Karmiloff-Smith 1981, 1985).

A coding regime, informed by previous studies and motivated by the hypotheses of the previous chapter (§4.6.1), was developed to investigate the use of nominal and pronominal expressions for the discourse functions of introducing, maintaining and switching referents. This method is justified and laid out in the following sections. Thus the research allows comparisons of Warumungu children’s productions with those of children learning other languages. Further,
the current study provides language specific insights, detailing discourse in Wumpurrarni English, and examining the developmental path of children in a dynamic language setting. Such contexts of language development have not been widely researched. The language input that children receive in this speech setting is variable (Chapter 2) and the use of referring expressions, specifically lexical nouns (Chapter 3), is one area in which variability is manifest. The coding system for referring expression forms captures this variability. Finally, the context of the task is a further variable in the study of Warumungu children’s narrative, as some children chose to perform the task in English, rather than the style of Wumpurrarni English they normally speak.

5.1.1 The Participants and Data

The study involved 48 participants. 40 were children, their ages are set out in Table 5.1. In the child groups there is a gender bias to girls. The numbers of participants in each group is small and for practical reasons this was unavoidable, although given the variable nature of the data a higher number of speakers would have been preferable. In addition, narrations from eight adults were collected. The adult group comprised female speakers only, spread between the ages of nineteen and forty-five years of age. All are primary carers of at least one of the children in the current study.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Five-Six (10)</th>
<th>Eight (10)</th>
<th>Ten (10)</th>
<th>Twelve+ (10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Range</td>
<td>5;4-6;9</td>
<td>8;0-8;10</td>
<td>10;3-10;10</td>
<td>12;4-14;1</td>
</tr>
<tr>
<td>Mean</td>
<td>5;10</td>
<td>8;5</td>
<td>10;4</td>
<td>12;11</td>
</tr>
<tr>
<td>Gender</td>
<td>G:7 B:3</td>
<td>G:7 B:3</td>
<td>G:5 B:5</td>
<td>G:6 B:4</td>
</tr>
</tbody>
</table>

G=girl, B = boy

Table 5.1: Child participants by age and gender

The youngest group range from five to six years of age and will be referred to as ‘the six-year-olds. The oldest child group range between twelve and fourteen years of age and will be referred to as ‘the twelve-year-olds’ or as ‘the teenagers’.

Forty of the 48 participants in the study were also recorded extensively for the ACLA study. This had a number of advantages. It was anticipated that if participants were
familiar with me and the research carried out for the ACLA project, they were more likely to be relaxed with the task and also to narrate in Wumpurrarni English, rather than feel pressured and associate the task and the researcher (as a non-Indigenous woman) with school and English. I also have an in-depth knowledge of the children and their families, their language histories and repertoires. This allows accurate judgments regarding a speaker’s code- or style-switching behaviour in the frog story task. Further, most participants were familiar with the activity of narrating from a picture book as this method had been used regularly and extensively throughout the ACLA project to elicit language from adults narrating to children (see Disbray 2008). In addition, most children had also narrated a story from one of several picture prompts over the course of the ACLA project. This was a very popular activity.

As discussed in the previous chapter, many cross-sectional studies of reference tracking have included speakers ranging from preschool age (three-four-year-olds) to ten years and included a set of texts by adults (Bamberg 1987; Bavin 2000; Berman and Slobin 1994a; Wigglesworth 1997; Hickmann 2003). Some have not included pre-school aged children, such as Jisa (2000). Others, such as Wong and Johnston (2004), investigated language development in Cantonese among children aged up to age twelve, but did not include an adult sample.

In the current study, narrations by very young children (under 5-years) were not investigated, but an teenage group (aged twelve, thirteen and one fourteen-year-old) was included. There are a number of reasons for these choices. First some general findings from previous studies with respect to the productions by very young children should be noted. It has been shown that children under five are more likely to describe each picture rather than create a cohesive narrative than older children. They are more likely than older children to rely on non-verbal and verbal deixis to refer to protagonists. As noted in Chapter 4 (§4.2), the length (24 pages) and complexity of the story has proven to be very difficult for pre-school aged children, particularly where the children have not had extensive exposure to the story prior to narration (Bamberg 1987; Bavin 2000; Berman and Slobin 1994a; Berman 2004; Wigglesworth 1997). Preliminary data collection for the present study showed that children of this young age were very shy with the task. For example, some refused to tell the story
and some narrated a few pages then stopped. Where they did attempt the task, they relied heavily on gesture and deictic pronouns.

A young teenager cohort was included to act as a bridge between the ten-year-old group and the adult group. It was anticipated that among adults the differences in knowledge of standard English, level of education and work history and the wide repertoire of speech styles in the Tennant Creek community would mean that adult texts might constitute a highly variable set, while the texts of school-aged children, particularly from the middle-primary years (children aged eight to ten) might be more uniform and possibly more influenced by standard English.

5.1.2 The use of picture prompts

Picture sequences have proven to be a highly effective prompt to elicit narrative texts for the investigation of developing discourse competence. The task does not place demands on memory as the child views the pictures as they narrate. Their primary advantage from the point of view of the researcher is the comparability of the set of texts generated, offering insights into developmental changes as a function of age. This comparability has also been useful in the examination of cross-linguistic developmental studies. However, a number of variables must be attended to in the use of picture-prompted narratives and in the comparison of results across studies (for an extensive discussion see Hickmann 2003a). The first involves the prompt itself. Picture prompts differ in non-trivial ways with regard to the length, complexity of the story, and presence and number of main vs. secondary protagonists. These parameters have been shown to affect narrations in a number of ways, and researchers have tailored prompts for particular purposes, targeting specific linguistic structures and testing particular skills (Karmiloff-Smith 1981).

Some studies have looked specifically at the impact of the prompt on children’s productions. (McGann & Schwartz 1988) used six-page picture books to elicit narrations and investigate how children maintained and switched reference. Their analysis focussed on three conditions related to the characters in the book; whether the character appeared on the first page, the frequency of appearance and the degree of agency. These conditions were manipulated to assess the impact on children’s
references to main characters. They found that, with the exception of the youngest group (3;3-3;11) the prompt encouraged the identification of a main character, for which pronominal forms for switching reference was reserved, particularly if the main character appeared on the first page and appeared frequently.

Wigglesworth also compared the impact of the story prompt on the referring strategies used by English-speaking children narrating two stories; one with a clear central character and one without (Wigglesworth 1990). She found evidence for the influence of the prompt on the children’s narrations in particular, but also on those by adults. Focusing on the results relevant to Karmiloff-Smith’s thematic subject constraint (§4.4.2), Wigglesworth found that half of the six-year-olds actually did not use a thematic subject strategy in the narrative with a clear main character, though Karmiloff-Smith’s model predicted that for children of this age this would be the case. Wigglesworth found that half of the six-year-olds referred to the secondary character in subject position, both nominally and pronominally, where there was local co-reference. Wigglesworth posited that the length of the story, and particularly the point at which secondary characters appeared, were likely influences. A further influence by the prompt on referring expressions was the active or passive nature of the secondary character, which had bearing on the form of the referring expression and its grammatical role, particularly on the productions by six- and eight-year-olds.

Further, while the length of the prompt can pose problems for younger children, a number of advantages of longer prompts have been raised. Some have suggested that a longer story allows the narrator to become more involved in the story and produce a more complex narrative (Bavin 1987). The length of the stimuli has implications for the opportunity to make repeated reference to main and secondary characters, in maintaining and switch reference functions, which may then be treated as a thematic subject (Wong and Johnson 2004, §4.4.2). Finally, as Wigglesworth’s analysis of discourse strategies, discussed in the previous chapter (§4.5) showed the processing demands that different segments in a long narrative pose allow insight into cognitive differences in the management of linguistic forms between children of different ages.
The manner in which a narrative is elicited has also been shown to affect productions. This involves two separate matters; the mutual knowledge conditions at play during the narration and the child’s previous exposure to the prompt. Some studies have specifically investigated the impact of shared visual access by the narrator and hearer (Kail & Hickmann 1992). Others have noted the impact of prior exposure to the story prompt on children’s performance. Bamberg’s (1987) evidence that very young German-speaking children used a thematic subject strategy is at odds with subsequent research. Their prior exposure may have affected this finding (Wigglesworth 1993: 78).

Very little attention has been paid to the child’s attitude to the task as a variable affecting the resulting production. Wigglesworth (1993) is one exception to this. Wigglesworth found that the majority of ten-year-old boys in her study used referencing strategies, which were overall less mature than the majority of girls of the same age. While it was possible to interpret this as evidence that the boys lagged behind the girls developmentally, Wigglesworth tentatively posited an alternative hypothesis. This suggested that the boys performance might not be explained by their lack of access to the more mature strategy. In fact, the texts showed evidence of mature strategies in use in segments in the story in which the complexity of the task was high. She suggested “that at the age of ten, the boys were uncomfortable with the story-telling task to a female interviewer. They felt it was something girls do but not boys, they were not particularly interested in it, and as a result they decided to adopt the easiest strategy to achieve the goal” (Wigglesworth 1993:165). In the present study the speaker’s attitude to the task, the researcher and themselves and their association between a particular code-choice and the task require attention.

5.1.2 The frog story

Mayer’s “Frog, where are you?” (Mayer 1969) has been used as a prompt in numerous studies covering a range of research questions on children’s developing narrative ability in one language and cross-linguistically (§1.2.1). The frog story consists of a series of twenty-four line drawn pictures. The story is presented in such a way that two pictures appear on most pages, but on pages 5, 7, 8 and 11 the double page represents a single picture. The first and last pages are also single
pictures. From the point of view of an English speaker, the picture sequence is as follows:

Picture 1  A boy and his dog are looking at a frog in a jar
Picture 2A The boy and the dog are in bed; the frog is escaping from the jar
Picture 2B The boy and the dog wake up and look for the frog
Picture 3A The boy and the dog search the room for the frog
Picture 3B They look out of the window; the dog has the jar on his head
Picture 4A The dog falls out of the window, breaking the jar
Picture 4B The boy climbs out of the window and picks up the dog
Picture 5  They go to the forest, the boy calling
Picture 6A The boy searches in a mouse hole
Picture 6B A mouse comes out of the hole and bites him on the nose
Picture 7  The dog is sniffing a beehive; the boy is searching in a tree
Picture 8  The boy is frightened by an owl; the dog is chased by bees
Picture 9A The boy is standing by a rock
Picture 9B The boy climbs up the rock
Picture 10A A deer hiding behind the rock picks up the boy on its antlers
Picture 10B The deer runs off with the boy, the dog in hot pursuit
Picture 11  The boy and the dog are thrown over a cliff
Picture 12A They land at the bottom in a pool of water
Picture 12B The dog climbs on the boy's head
Picture 13A The boy tells the dog to be quiet
Picture 13B They climb over an old log
Picture 14A They see two frogs sitting on a bank
Picture 14B They see that there are also a number of baby frogs
Picture 15  They take one of the babies and leave, waving to the remaining frogs

Figure 5.1: "Frog Where are you?" by Mercel Mayer

The frog story was chosen for the current study for a number of reasons. Firstly the extensive research on child language development generated from this prompt provides a wealth of insights into children’s narrative development and basis for comparison with the current study. Further, as Wigglesworth (1993) points out,
the episodes of the story, in which two characters, a boy and a dog, search for the third, a frog, offer a valuable test of children's reference tracking skills. Narrators must relate the separate and joint activities of the boy and the dog, disambiguate the two where necessary and introduce and maintain reference for several secondary characters, with which the two main characters interact. Further, it is an event rich story. The main protagonists carry out goal-oriented actions in some episodes, and are the recipients of other’s actions in others, providing the narrator the opportunity to manipulate perspective. As each page represents a new event, opportunity for close co-reference is great. The events are temporally sequenced and causally linked and involve a number of changes in location. The level of detail in the story has presented some difficulty for young children (Berman & Slobin 1994). For school aged children through to adults, however, the story appears to be long enough for them to become engrossed in the story, without it being so long that narrators tire of the task.

The extensive use of the ‘frog story’ prompt to date shows that although the story is a European production, its use in diverse cultural settings has been successful. For the participants in the current study, the frog story worked. The basic concept of a child finding, losing and tracking a creature is familiar. The complications in Mayer’s story are of course highly fictional. However, children in Tennant Creek are familiar with a range of stories in which non-everyday events take place with unfamiliar creatures. The structure of the story is a goal-oriented seeking tale, with a number of complications and a final resolution. Such a structure is found in personal recounts, Dreamtime stories and fictional works, with which participants in the study are familiar.

5.1.3 Recording procedure

The recordings took place on two field trips to Tennant Creek, in December 2005 and August 2006. All narrations were video recorded. To avoid an association of the task with school practices and Standard English, the recordings took place at the home of the participant or of a relation, as were the recordings for the ACLA project. Most of the recordings took place at the end of a recording session for the ACLA project. Consequently the child participant was comfortable with camera, the researcher,
Indigenous researcher and other people present. The recordings of the frog story data were carried out at a short distance from other people and activities. In most cases the Indigenous researcher, Betty Morrison Nakamarra set up the frog story elicitation task, and I was present, however when I was alone and carried out the recording, the procedure used was identical. No systematic difference was detected in the stories gathered, on the basis of who set up the task or sat beside the camera.

To set up the elicitation task, we explained to the participants they would be asked to tell a story from a picture book. All participants were made aware that the set of pictures in the book made up a story, as it was part of the study design to record story narrations, rather than to assess whether the participant would, without this being pointed out, realise that the pictures fitted together. Participants were given the book and asked to look through it before telling the story. Some children were unsure of the identity of some of the creatures depicted and the researchers made suggestions. For the youngest group, the researchers checked that the child could label each character as they looked through the book.

The children were told that the researchers were interested in the way that children talk at home, ‘Wumpurrarni way’, because the research was designed to investigate reference tracking in narratives in Wumpurrarni English, rather than test children’s proficiency in Standard Australian English. The children were encouraged to “tok yo wei, laik yumob tok na kemp, nat papulanyi wei” (talk the way that you talk at home, not like a non-Indigenous person). They were told they could use Warumungu words in their stories if they wished-“laik yu mait tok lidlbit langwij du na, laik maitbi yu tok ‘kunapa’” (you might use some Warumungu words, for instance you might say ‘kunapa’ dog). The child speakers were encouraged to tell the story with as much detail as possible - “olat yu garra talimbat, olat wat damob bin du na stori, rili gudwei yu garra tok” (you should tell the whole story, about everything that they all did in the story, tell it really well). The adults were asked to talk as they normally do to family members. Once the participant was ready the narration and recording began.

The researcher carrying out the recording sat beside the camera, rather than behind it, drawing less attention to the camera. The participant generally was seated on
the ground or a chair, the video camera on its tripod at a distance of approximately 1.2 meters from the speaker. As the researcher sat at a distance from the speaker, they did not share visual access to the book, though the researcher was close enough to listen, attend and offer feedback such as ‘yuwayi/yes’, ‘ah ya/ah ha’, where prompting was necessary. The size of the picture book, roughly 15x20cm, generally requires that the narrator holds the book with both hands, which was intended to reduce the likelihood of pointing and encourage full verbal accounts. This was achieved.

5.2 Transcription

The Roper River Kriol orthography (Lee 2002) was adapted and used to transcribe Wumpurrarni English. The Warumungu orthography described in Simpson (2000) was used for Warumungu and Warumungu-derived items. Standard spelling conventions for Standard Australian English were used for items considered English. The narrations were transcribed from the Quick Time digital video file in program CLAN, in CHAT mode. Information about the participant’s identity, age and the recording (such as the tape number, location of recording on the tape) were entered in header tiers in the CHAT file.

In the transcripts each intonation unit was given a separate line, with clause boundaries determined generally by the presence of a finite verb (Berman 1994; Hickmann 2003a; Wigglesworth 1997). In some cases a clause comprised only a verb. As Wumpurrarni English does not use a copula verb, presentational expressions were counted as clauses, as in example (5.1):

(5.1) aul deya na.
  owl there Dis
  The owl is/was there.

Grammatical morphemes were separated from the root they attach to with an underscore, as required in CHAT and shown in (5.2) and (5.3). This is important for the identification and analysis of features identified as English or Warumungu.

(5.2) deya i bin jak-im da ngappa-kana na.
  there 3Sg Pst throw-TR Det water-Loc Dis (FRA8)
  and there it threw him into the water
and left the other frog’s behind (FRA5)

Standard CHAT conventions were used for untranscribed utterances, hesitations, false starts, retraces and direct speech. These are illustrated in examples (5.4-5.6) below. The figure in brackets following the example (10.4) identifies the age and identity of the speaker (10 years, speaker 4). Adult texts are signaled with A. Items inaudible or unclear to the researcher were marked with xx, as in (5.4):

(5.4) papi i     bin xx na woda.
       dog  3Sg Pst x  Loc water
   The dog ? into the water. (FR10.4)

False starts were transcribed, but entered in square brackets and marked off with %, excluding the item from frequency counts and other processing. Pauses due to hesitation are marked with /.

(5.5) [%dat pap da men] da lidlboi bin ding [%/] small-em im.
       Det boy   Pst thing    smel-Tr  3SO
     The dog/ the man, the little boy ‘what’s-his-named’ / smelled it. (FR8.4)

Hesitations expressed with a phonological form, eg, *um*, were placed in square brackets, as in (5.6), but the common hesitation ‘*ding*’, which means ‘what’s-his-name’ is left unmarked, as in (5.5) above. This has been left, as in some cases it occurs as a substitute for the word that does not come to mind (‘dat ding bin…’).

(5.6) an dat lidlboi bin luk-in      dat [%um] witch-kayi hat.
              and Det boy Pst look-Prog Det          witch-Poss hat
     and the little boy looked into the witch’s hat. (FR10.3)

5.3 Coding Systems

Chat files in CLAN allow for the creation of ‘tiers’, upon which comments, coding and other metadata may be entered, below the line of transcription the researcher wishes to annotate. Programs in CLAN can process the information on a given tier to generate outputs such as frequencies, and so are very useful for processing coding marked on the tier. As all referring expressions required coding, a reference tier, marked off as %ref: was used for this in the frog story.
transcripts. This line was entered below each line of transcript, which involved a reference to a protagonist. Details of the coding regime for referring expressions are explained in the following sections (5.3.2-5.3.6). A second was designed to describe language style. This is described briefly below and further in Chapter 6.

5.3.1 Coding for language

To characterise the frog story narrations for code or style choice, Wumpurrarni English was treated as the default language in each text and features from Warumungu and from Standard Australian English were counted separately. Warumungu features were identified on the basis of their surface forms. A set of features was identified as Standard Australian English and these were counted. As it is difficult to develop a set of criteria to distinguish light styles of Wumpurrarni English and Standard Australian English comprehensively at the level of lexeme or morpheme, a set of features was identified as clearly distinguishing the two. These are laid out in §6.2.1 (Table 6.1). Once the number of Warumungu or ‘English’ forms were counted in a given text, the percentage of forms were calculated in relation to the total.

5.3.2 Coding Referring Expressions

Coding procedures developed in a number of previous studies of children’s discourse were considered in the development of the coding system here (Karmiloff-Smith 1981, 1983; Bamberg 1987; Berman and Slobin 1994a; Wigglesworth 1997; Hickmann 2003b). The aims and approaches of each were considered, before a system based largely on Wigglesworth (1997) and Hickmann (2003b) was developed.

Only animate characters were investigated and the coding was designed to capture the following: i) the identity of the protagonist, ii) discourse function, relationship to a prior mention and grammatical role and iii) form. Each of these is discussed in relation to coding systems developed in other studies.

Additional tiers were used as required, for instance page numbers and situational information were entered on a comment tier (%com). On the tier %ges, information about gestures was entered, while on the tier %pro notes were added relating to prosody.
5.3.2.1 Protagonists

A number of effects have been noted regarding the differential treatment of characters, depending on the status of the character as primary or secondary, the degree of agency, frequency and point of appearance of the character (McGann & Schwartz 1988; Karmiloff-Smith 1981, 1985; Wigglesworth 1990). The coding system designed for the current data captures the identity of the three main characters specifically (the boy, the dog and the frog). It also captures references to the boy and dog acting together, as the pair were referred to frequently pronominally (as in Orsolini’s (1996) ‘parallelisms in text’ §4.3.3.2). In contrast, the four secondary characters (the mouse, the bees, the owl and the deer) were coded with one general code, following Wigglesworth (1993). References to one set of characters, the family of frogs at the end, were not included in the study, as there is considerable variability in narrator’s construal of these characters, as either novel or in relation to the frog at the beginning of the book.

5.3.2.2 Referring expression form

The basic distinction crucial to expression form is between nominal and pronominal expressions as it has been posited as encapsulating the new/given distinction, and is foundational to all studies of developing discourse. However, languages permit and rely differentially on types of referring expression forms to mark discourse and information status. For instance, zero subject anaphora is permitted under certain circumstances in Standard English. Zero object anaphora is rare except in specialised genres such as recipes "Take 2 eggs, beat till foamy". However, in Wumpurrarni English both zero subject and zero object anaphora are allowed. Discourse status marking on lexical nouns has been discussed in Chapters 2 and 3 within styles of Wumpurrarni English and in comparison to Standard English. Global marking, generally through the position of constituents in the clause was discussed in the previous chapter, with respect to Chinese and French (Hickmann 2003b).

For the current study, a survey was carried out of all referring expression types which occurred in the data. They grouped into three categories; pronominal, simple lexical and complex lexical expression (left and right dislocations). These are detailed in Tables 5.3, 5.4 and 5.5 in Appendix B.
5.3.2.3 Discourse function and grammatical role

Three basic discourse functions have been investigated in most studies of children’s discourse; first mention, maintaining reference and reference switching.

In coding for continuing and switch reference, studies have varied both in terms of the selection of expressions coded for discourse function and the coding of grammatical role. Some studies have coded only subject references (Karmiloff-Smith 1981, 1985; Bamberg 1987), while others have found it necessary to code a wider range of grammatical and semantic roles (Hickmann & Hendriks 1999). Wigglesworth (1997) proposed that a coding procedure must be able to take discourse context into account in the assignment of discourse function and found it necessary to code the grammatical roles of subject and object to achieve this. For instance, where an object referent intervenes between a subject referent of a clause and the continuing subject in the following clause, the subject of the second clause was coded as a switch reference in Bamberg’s system, though the subject reference is continuing and thus recoverable. This is shown in (5.7):

(5.7) because/then the owl saw that Jimmy was really worried
      and so he left him alone” (Wigglesworth 1993: 63, example 5.2)

In Bamberg’s system all of the referring expressions in (5.7) would be coded as switch-reference. This problem was even more evident in the treatment of zero anaphora, which has restricted distribution in English and must always appear in subject position, a position syntactically parallel to its antecedent. Though an object may intervene between a zero anaphora and its antecedent, there is no other possible interpretation for the for the zero in English, as (5.8) shows:

(5.8) the boy disturbed the owl
      and Ø was attacked by it  (Wigglesworth 1993:64, example 5.6)

Wigglesworth proposed that a coding procedure must be able to take discourse context into account in the assignment of discourse function. In line with this, Wigglesworth further proposed that where an object referent becomes the subject of a following clause, a coding system should be able to capture this continuity of the reference, as in (9) where despite the continuing status of ‘the deer’, this five
year old uses an indefinite article, which marks low accessibility or predictability, though the referent (a deer) is high in accessibility:

(5.9) a deer started/.. he got caught on a deer and a deer started running (Wigglesworth 1993: 67, example 5.9)

5.3.3 Coding procedure for the current data
As mentioned above, all animate referents were coded along three dimensions;
- protagonist
- discourse function and grammatical role and relationship to prior clause
- form.

5.3.3.1 Protagonist
Protagonists were coded with a numerical code:
1. Boy
2. Dog
3. Frog
4. The boy and the dog acting together
5. Other – all other secondary animate protagonists

The protagonist code on the reference tier appears as follows:

(5.10) naitaim dat kunapa i luk-in-at dat frokfrok na,
%ref: 2- 3-

At night the dog was looking at the frog.

5.3.3.2 Form
The referring expression form distinguished simple nouns, complex nouns (left and right dislocations) and pronominal forms. All codes are included in the List of Abbreviations and a comprehensive list of all coded forms, with examples is contained in Appendix B. Coding for form for utterance (5.10) is shown in (5.11):

(5.11) naitaim dat kunapa i luk-in-at dat frokfrok na,
%ref: 2- -ndetpro 3- -ndet
5.3.3.3 Discourse Function and grammatical role

Three main categories of discourse function, first mention, continuing reference and switch reference were coded. The grammatical role was also coded in this sequence. First mentions were coded with f- where they occurred in subject position dsf (different subject, first mention) and in object position dof (different object, first mention). As discourse role and grammatical role are coded in the same string, the grammatical role of all initial introductions is documented, allowing for the analysis of position in the clause to be related to this discourse role. This also allowed patterns to emerge regarding the identity of the character and position in the clause in which particular characters were introduced. Example (5.12) showing the codes for first mention:

(5.12) naitaim dat kunapa i luk-in-at dat frokfrok na,
%ref: 2 -dsf- ndetpro 3 -dof-ndet

Continuing reference was coded either ss (same subject)\(^34\) as in (5.13) or so (same object) as in (5.14):

(5.13) lilboi klain -an na tri –kana
the boy climbed up the tree
%ref: 1-ds-n

Ø luk na hol.
looked in the hole
%ref: 1-ss-proz (FR12.3)

(5.14) an dat kunapa bin luk ad dat bi
and the dog looked at the bees
%ref: 3-ds-ndet 5-do-dndet
dat dat kunapa bin jeik-im dat bi
the, the dog shook the bees
%ref: 3-ss-ndet 5-so-ndet (FR8.6)

\(^34\) This use of ‘same subject’ is quite different from the use of the term in the syntactic switch reference literature. I use the term to mean that the subject of this clause is the same as some entity in the previous clause.
A switch reference was coded **ds** – different subject (5.15), or **do** different object, as in example (5.16).

(5.15) an den i went slip

*and then he (the boy) went to sleep*

%ref: 1-ss-pro

an dat frok went at

*and the frog got out.*

%ref: 3-ds-ndet (FR10.2)

(5.16) bird i bin kam fo im.

*the bird come out to him (the boy)*

%ref: 5-dsfi-npro 1-dos-pro

an dat bi folar-im papi na.

%ref: 5-ds-ndet 2-do-n

*and the bees followed the dog* (FR8.7)

Object referents were coded as different object as in (5.16) above, if the object was different to the object referent of the previous clause it was coded (do). It was also coded (do) where no object had occurred for at least two clauses.

As discussed above in some instances a referent continued across clauses, though it shifted grammatical roles. For instance the object of a clause may appear as the subject of the next clause, as in the third line in (5.17) and such instances were coded were coded **(dos)** (different object includes when there is no object in the previous clause, but the same as subject of the previous clause). Similarly, an object referent may occur in the adjacent clause as subject, **(dso)** (different subject, same as object of the previous clause), as in the last line of (5.17).

(5.17) wen dei bin go slip

*when they went to sleep*

%ref: 4-ss-pro

dat frok rait jamp-ed out

*the frog jumped right out*
These were the general arrangements for coding the data, and a number of specific issues must now be discussed. One issue is raised in example (5.17) above. It concerns coding for discourse function (maintenance or switch) for referents, which persisted across clauses, but shifted grammatical role, coded (dso) and (dos). Ultimately a decision was made as to whether to count the reference as a continuing (ss same subject or so same object) or a switch reference (ds different subject or do different object). Once the first round of coding was complete, all (dso) and (dos) instances were reviewed and categorised as (ss/so) or (ds/do) and these decisions was made with reference to the discourse context. The driving principle behind these decisions was that a continuing reference (ss/so) is one in which the intervening referent (subject or object) was not likely to cause ambiguity. Where a pronoun could have been used, and its antecedent would be clear in the context, this was coded as (ss) or (so). In example (5.18) number could be relied upon to disambiguate the pronominal referents, as dubala and dei are used for the boy&frog and i for the frog.

(5.18) dubala bin gid-ap,

\textit{they (2) got up}

% ref: 4-ss-pro

\textit{an Ø luk nading fo dat frokfrok.}

\textit{and Ø looked in vain for the frog}

% ref: 4-ss-proz 3-do-ndet

\footnote{35 It should be noted that the percentage of expressions that were coded as (dso) or (dos) was small, only 6.01\% of the references coded overall.}
an den dei bin si
*and they saw*
%ref: 4-ss-pro

i bin ran-awei
*that it (the frog) had run away*
%ref: 3-dso-pro (FR12.8)

In other cases, the semantics of the verb contributed to a clear relationship between the object referent in the first line, which then appeared as subject in the following line. In example (5.19), as a bird is unlikely to fall down, but a boy who has climbed up a tree and been given a fright is, ‘i’ occurring as subject in the second line was counted as same subject (ss), to capture the relationship between it and the previous object reference.

(5.19) an deya dat aul i binfraitn-em-bat lidlboi,
*and there the owl it frightened the little boy*
%ref: 5-dsf-ndetpro 1-dos-n

an i bin fol-dan
*and the he (the boy) fell down*
%ref: 1-dso-pro

A further matter concerns coding references to the boy and dog. References to the pair acting together were frequent, particularly in pronominal expressions (dei/dubala) and this character set was coded with a unique identifier coded with the number 4. In instances where the boy and dog had been referred to separately as the subject of the previous two clauses, a joint pronominal reference was coded as (ss), because the antecedent was clear, as in (5.20).

(5.20) den dat dog bin stak in dat [%um] ja
*then the dog got stuck in the um jar*
%ref: 2-ds-ndet
an dat lidlboi bin luk-in dat [%um] witch-kayi hat.
_and the little boy looked in the um witch’s hat_
%ref:  1-ds-ndet

dei bin luk atsaid in da windo, bat nathing.
_and they looked out the window, but in vain_
%ref:  4-ss-pro (FR10.3)

Where boy and dog occurred as subject and object of a clause and then jointly as subject of the next clause, the joint reference was also coded as same subject, as in (5.21) and (5.22):

(5.21) i bin tok na dat kunapa.
_and he said to the dog_
%ref:  1-ds-pro 2-do-ndet

‘shhh, yu lisin deya frokfrok kraiyan?’
‘shhh, can you hear the frog crying?’

dubala bin klain-ap ova na na dat drai-wan stik-kana na.
%ref:  4-ss-pro
They climbed up over the dry log.  (FRA.5)

(5.22) an dat lidl papi lik dat lidlboi.
%ref:  2-ss-ndet 1-do-ndet
_and the little dog licked the boy._
dei was luk-in-araun fo dat frog.
%ref:  4-ss-pro 3-do-ndet
hey were looking around for the frog.  (FR8.8)

However, where the pair had been referred to jointly, and then one appeared as subject or object of a following clause, this was coded as a switch reference, as in:

(5.23) deya na dei bin purl-dan
there they fell down
i bin purl-dan na mungkku

he (the boy) fell down on his stomach.

It should also be kept in mind that in Wumpurrarni English there is only one form for the third person singular pronoun, and no distinction for human/non-human referents, and so ambiguity in references to the boy or dog is potentially great. In a small number of instances speakers referred to the boy\&dog in structures such as the following:

(5.24) kunapa dubala jamp ova na natha wud-kana deya.

dog they (two) jumped over another piece of wood there.

These were treated as variants of the left dislocated structure (noun + pronoun), and thus as nominal reference, though they constitute a less full expression than other nominal references, both simple and complex. This structure is a calque from Warumungu, where this is the normal way of expressing ‘they two’, with the dog as the identifying member. Further, where a speaker repaired an utterance, the final version was the noun phrase coded, as in (5.25):

(5.25) an da boy [/] an dat ding lift da boy up

and the boy [/] the thing lifted the boy up.

Where the speaker repeated a verb phrase as a repair, these were not coded as subjectless as in (5.26):

(5.26) an den i push-ed [/] and den push-ed [/] hit da breik

and then it pushed [/] and then pushed [/] hit the brakes

an den i [/] dat boi an dat dog fell-dan.
and then he [] the boy and the dog fell down

Direct speech was not coded, as in most cases it did not contribute to the ongoing development of the story (as in example (5.21) above). In the majority of cases the direct speech was limited to ‘frog where are you?’ and the boy telling the dog to be quiet (‘shhh’). In a few cases, however, children did use direct speech to depict the events at hand, but these were rare and references to characters in direct speech have not been coded.

Once all referring expressions for the identified protagonists in each transcript were coded and checked. The program FREQ was used to compile all instances of all coding combinations on the %ref tier of each transcript and on the set of transcripts for each age group. These results were exported immediately into Excel spreadsheets and sorted in a variety of ways, before calculations were made.

5.4 Conclusion: Summary of coding

The coding system allows the three distinct discourse functions (initial mentions, maintained reference and switched reference) to be identified and linked with the referring expression form used (most notably nominal versus pronominal (and zero) expressions), generating quantitative results for individual speakers and age groups. The results for initial mentions are presented in Chapter 7. These are discussed in light of the hypotheses developed in Chapter 3 (3.5.1, points 1 &2) and Chapter 4 (4.6.1, point 1), highlighting both developmental and language specific findings.

The results for reference maintenance and switch are presented in Chapter 8. These are first presented as broad results, showing the pairing of pronouns and nouns to the two discourse functions, by age group. The results are related to language specific use of nominals to maintain reference (point 2 in §4.6.1), as well as to the developmental predictions in the section. The form-function pairings for reference maintenance and switch are then analysed in terms of discourse strategy (hypothesis 4 in §4.6.1). The model for identifying discourse strategy is presented in Chapter 8. The quantitative results for form-function pairing are further analysed for discourse strategy in Chapter 9. This analysis is a more fine-grained study, as each narration is examined at the
level of the segment (hypothesis 5 in §4.6.1). Also in this final chapter, a further variable, that of language choice is integrated into the findings and discussion. Thus before the results for these analyses are presented (Chapters 7-9), the analysis of language choice is carried out. This is the subject of the next chapter.
Chapter 6

Code and style choice in the frog story narrations

6.1 Introduction

The data set of frog story narrations captures the wide range of variation in speech styles in the community. While the study was designed to investigate linguistic and cognitive aspects of narrative development focusing on reference, in this dynamic and variable setting, it is crucial to take into account code and style choices that speakers made in their narrative productions. In this chapter, code choice and style are examined through a quantitative analysis of Standard English and Warumungu features that appear in the narrations.

As described in the previous chapter (§5.1.3), all speakers were asked to narrate the story way they normally speak at home. However, it will be shown in this chapter that some speakers narrated in a style, which included a high proportion of features identified as Standard Australian English. The analysis of code choice is important as it allows a characterisation of the texts, distinguishing those texts with many Standard Australian English features as opposed to those with few. The implications are highly significant for the investigation of referring expressions for discourse purposes, in particular in referent introductions (Chapter 7). I have argued that this is one critical difference between Standard English and Wumpurrarni English (Chapter 3).
Speaker’s varying code choices, made under the same elicitation conditions, are also worthy of attention, as they offer a window into patterns of use and language perceptions. The results also give an insight into the extent to which speakers, particularly child speakers, maintained a clear distinction between Wumpurrarni English and Standard English in their narrations.

6.2 Method

To analyse code choice, counts were made of the total number of ‘types’ in each narration. Types are morphemes and lexemes transcribed as separate forms. Counts were completed using the program FREQ in CLAN. This program generates a list of each type in the text under investigation\(^\text{36}\). The types were then grouped according to language (separating Warumungu, Standard English and Wumpurrarni English types) and percentage of types in each language in each narration was calculated. The results given in this chapter are the number and percentage of types in each text.

6.2.1 Distinguishing languages

The method is designed to carry out a broad characterisation of code choice. It quantitatively identifies Warumungu insertions, and the use of particular Standard English features. The goal is to provide a uniform means for comparing texts and identify common patterns. The goal was not to make fine-grained characterisations of styles of Wumpurrarni English (basilectal/mesolectal/acrolectal), which would require considerable quantitative analysis of a large range of features, however, some general observations can be made.

Establishing a set of criteria for distinguishing one language from another requires recognition of the different ways that Warumungu forms appear in Wumpurrarni English. It also requires identifying a set of features that are considered Standard English.

\(^{36}\)The total number of ‘tokens’, that is the number of instances of a given type (lexemes/morphemes) overall, was also calculated in FREQ for each narration. As with types, tokens were grouped according to language and counted, and compared to the total number of tokens overall. However, I chose to work with the number of different types, as these provided a representative spread of the forms.
Warumungu

The conversational and semi-structured data from the ACLA project reveals that Warumungu items occur largely in a Wumpurrarni English frame (§2.2) and that Warumungu features are less likely to occur in light styles of Wumpurrarni English. Warumungu insertions tend to be limited to common nouns, semantic case morphology, and less frequently some adverbials, verbs, and discourse particles (Morrison and Disbray 2008). For the purpose of analysis here, forms stemming from Warumungu were identified on the basis of their surface phonological form. These items were treated as Warumungu features as this is the source language for them and speakers themselves recognise these items as Warumungu. Overwhelmingly these items were lexical nouns and some Warumungu morphology, in particular the suffixes marking possession (‘-kari’/-kayi’), as in example (6.1). Warumungu items are marked in bold font.

(6.1) lilboi i bin stil pik-im-ap im-kayi papi.
the boy 3-S Pst Dis pick-Tr-up 3-S-Poss dog

dat papi an dat boi bin fol-dan nanga ngappa
Det dog and Det boy Pst fall-down oc water

The dog and the boy fell into the water (FR10.4)

In this extract the two items in bold font are counted as Warumungu types, while all others are counted as Wumpurrarni English.

English

As the surface forms of many lexical items in Wumpurrarni English differ only minimally from those in Standard Australian English, the lexicon does not offer a straight-forward basis for distinguishing between the two codes. As discussed in §2.2.1, Wumpurrarni English is understood as occupying a continuum of styles, ranging from heavy to light. Pin-pointing the place on the continuum where Wumpurrarni English ends and ‘English’ begins is difficult. For this analysis, lexical items were treated as Wumpurrarni English and a set of features, which are largely grammatical, were identified as Standard Australian English. These are laid out in Table 6.1. These features either do not occur at all in Wumpurrarni English conversational data, or are very infrequent or occur in settings where a code-switch to
English is clear (as in section 2.2.2, Extracts 2 & 3). The set was also discussed with native speakers of Wumpurrarni English.

<table>
<thead>
<tr>
<th>Verbal</th>
<th>Standard Australian English</th>
<th>Wumpurrarni English</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+ Copula</td>
<td>Ø Copula</td>
</tr>
<tr>
<td>Progressive</td>
<td>‘is’/’was’ + V ‘–in (g)’</td>
<td>Progressive Ω + V ‘-in(g)’</td>
</tr>
<tr>
<td>Passive is/was</td>
<td>is/was + Past participle</td>
<td>-</td>
</tr>
<tr>
<td>Past tense</td>
<td>–‘ed’/ irregular forms</td>
<td>Past tense ‘bin’</td>
</tr>
<tr>
<td>Negation</td>
<td>‘did not’/’was not’ +Verb</td>
<td>Negation via lexical means</td>
</tr>
<tr>
<td>Gender 3rd</td>
<td>+ Gender 3rd person singular pronoun</td>
<td>Ø gender 3rd person singular</td>
</tr>
<tr>
<td>person singular</td>
<td>‘he’/ ‘she’/ ‘it’</td>
<td>pronoun ‘i’</td>
</tr>
<tr>
<td>Pronouns</td>
<td>Possessive personal pronouns ‘his’, ‘their’</td>
<td>Possessive pronoun forms ‘-kayi’</td>
</tr>
<tr>
<td>Genitive</td>
<td>‘-s’</td>
<td>Possessive ‘-kayi’</td>
</tr>
<tr>
<td>Plural</td>
<td>‘-s’</td>
<td>Ø and lexical plural marking</td>
</tr>
<tr>
<td>Preposition/</td>
<td>Standard Australian English prepositions</td>
<td>Wumpurrarni English prepositions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘ana’, ‘gad’ etc.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Warumungu affixes alone or in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>double marked constructions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>eg. ‘ (gad) stik-jangu’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘ (na) ston-kana’</td>
</tr>
</tbody>
</table>

Table 6.1: Features identified as Standard Australian English with corresponding Wumpurrarni English forms

The set does not capture all Standard English features, but focuses on a set identified as markers of ‘English’. Example (6.2) shows the types that can be identified as ‘English’ (in bold font) by this method:
(6.2) da boy luk in da hole, luk at da mouse
    an da dog bark at da boy
    an he shake da tree
    da dog knock da bi-s house down
    an da boy look-ed at da tri
    and da boy fell down when da bird fly out (FR12.7)

The form ‘da’ is analysed as an approximation of the Standard Australian English
‘the’. Its distribution in texts with other Standard English features differs from the
distribution of ‘dat’ and bare nouns in Wumpurrarni English speech styles. It is not
included in the list of features identified Standard English, as referring expressions are
analysed with their discourse functions in the coming chapters.

6.3 Code choice: Results

6.3.1 Warumungu features in frog story narrations

Table 6.2 presents the percentage of Warumungu features used by speakers of
different ages.

<table>
<thead>
<tr>
<th>Warumungu types %</th>
<th>Adult</th>
<th>Twelve +</th>
<th>Ten</th>
<th>Eight</th>
<th>Six</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-35%</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>10-19%</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>5-9%</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>1-4%</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>None</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>22</td>
</tr>
</tbody>
</table>

Table 6.2 Overview of the percentage of Warumungu types and number of speakers
by age

Table 6.2 reveals that overall, Warumungu features occurred to a limited extent only
in all texts, with the exception of four of the adult narrations. In half of the child texts
no Warumungu features appeared and this was true for two adult narrations. Of the
twenty child texts in which a Warumungu feature did occur, sixteen included very few types, ranging from a 1-5% of types in the narration (this generally represents 1-5 types, which is shown in Table 6.5 below).

Considering the groupings according to age, the results for the ten- and twelve-year-old groups are identical and eight-year-old group was very similar. The six-year-olds used the lowest percentages of Warumungu features, with no Warumungu types occurring in six of the texts and at very low rates in the remaining four37.

Among all children who used at least one Warumungu feature, these stemmed from the same set and involved: the possessive marker –kayi, the locative –kVna and/or a handful of nominals (‘kunapa’38 dog, ‘ngappa’ water, ‘karnungu’ boy, ‘pawumpawu’ poor thing). As predicted, all texts with Warumungu features were narrated in Wumpurrarni English, as in examples (6.3) and (6.4):

(6.3) i bin luk ina but-kana.
3S Pst look Loc boot-Loc

he looked in the boot.

an dat papi-kayi ding, hed bin git stak insaid na dat ja
and Det dog-Poss thing head Pst get stuck inside Loc Det jar

and the dog’s thing head got stuck in the jar (FR8.1)

(6.4) dat kunapa bin go-in gat dat ja
the dog Pst go-Prog the jar

the dog went in with the jar

luk-in fo dat frok
Look-Prog for the frog

searching for the frog

........

37 A previous analysis of a subset of ACLA data showed pre-school children using Warumungu features at higher rates than older children (Wigglesworth and Disbray 2008). However, the set analysed was small and drew on recordings in which young children were interacting with elders. A common interaction routine involved the elder prompting the young child to repeat and many of these repetitions were Warumungu words.

38 Attention was paid to instances of ‘kunapa’ dog, as it was used in the elicitation method, when explaining to the children that they were free to use Warumungu words. Its appearance once could indicate that the child was prompted to use the term by the elicitation method, skewing the results given in Table 6.2. However, it occurred once in one narration only (FR8.10), with the child switching to ‘papi’ after this single instance of ‘kunapa’, but was not the only Warumungu that occurred in the narration.
i bin foldan weya dat **ngappa**, dat papi an dat lil boi.
3-S fell down Loc the water, the dog and the boy.

*It fell down into the water, the dog and the boy* (FR8.10)

In texts, which rated 5-10%, in addition to the forms described above, a slightly expanded set of nominals appeared. The range of Warumungu items used by adults includes the set used by children, plus instances of the dative marker (-ki) and associative marker (-jangu), some spatial adverbials (*‘jana’ up/above, ‘parnupurta’ that way, ‘purtangara’ behind*) and some verbs, as in (6.5):

(6.5) sing-in-at fo dat frokfrok-ki na
call-Prog-out for Det frog-Purp Dis
calling out for the frog

an dat **kunapa** bin ran disaid, **parnupurta**-said
Conj Det dog Pst run this side, towards-side
*and the dog ran this way, over this side*

dat lidlboi i sid-dan **jana** olawe!
Det boy 3Sg sit-dan top all the way
*and the boy, he sits on top all the way* (FR:A5)

The text (by A.1) with the highest percentage of Warumungu features is something of an outlier. This speaker is a very strong partial-speaker of Warumungu. She has a wide repertoire of languages and styles, which includes Standard English, light to heavy Wumpurrarni English, as well as strong Warumungu proficiency. She was employed for a number of years as a language worker at the language centre in Tennant Creek and is very committed to Warumungu language maintenance. This style of heavy Warumungu insertion is one that she frequently uses. In addition to the common insertion patterns discussed above, A.1. used nominal modifiers, temporal adverbs, personal pronouns, Warumungu verb stems and full verbs and some full Warumungu clauses. Example (6.6) shows some of the Warumungu features.

(6.6) maitbi i bin gid-im **kunapa akinyi**
possibly 3Sg Pst get-Tr dog-3sgPoss
maybe he went to get his dog.

i bin wer-im **kumppu**-wan but
3sg Pst wear-Tr big-Nom boot
*he put on big boots.*
To sum up, the results show that overall a very small number of Warumungu features occurred in half of the narrations by children and in the other half no features occurred. Common nouns and the possessive case marker –kayi were the most frequent Warumungu insertions. These results reflect the use of Warumungu in conversational data. In some adult texts there were slightly more Warumungu features, and a greater range, which again is in line with conversational data. Just under half of the speakers used no Warumungu features. The following results show that some speakers simply did not choose to insert Warumungu features into their Wumpurrarni English narrations, while others narrated in English. It was proposed in Chapter 3 (§3.3) that Warumungu insertions do not occur in very light Wumpurrarni English and English speech, and this appears to be borne out in the following sections.

6.3.2 Standard Australian English features in frog story narrations

Table 6.3 shows the percentage of Standard Australian English forms in the narrations by age group.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Adult</th>
<th>Twelve +</th>
<th>Ten</th>
<th>Eight</th>
<th>Six</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-25%</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>10-19%</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>5-9%</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1-4%</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>None</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>7</td>
<td>1</td>
<td>24</td>
</tr>
</tbody>
</table>

Table 6.3: Overview of the percentage of Standard Australian English types and number of speakers by age
Narrations in which more than 10% of forms were identified as Standard Australian English are highlighted in bold font. The results reveal that half of children used no forms identified as Standard English at all in their narrations. This was also true for five of the adults and one further adult used very few types. In the texts of eight children, less than 5% of types were identified as Standard English and a further 4 rated between 5% and 9%. A departure from these patterns are the fourteen narrations, twelve from children and two from adults, which ranked above 10% in this analysis, these are highlighted with bold font.

Although the base percentage figure (10%) is relatively low, it should be remembered that the method for coding features captured only those forms that were specifically identified as Standard Australian English, and counting all other types as Wumpurrarni English. The texts that rated 10% and over are actually significantly different to the texts that rated below this figure. Compare the examples above (6.3-6.6), which are in Wumpurrarni English with some Warumungu insertion, with the following three examples. The examples are representative of the twelve narrations, which rated above 10% and are by children, aged twelve years (6.7), ten years (6.8) and six years (6.9).

(6.7) the little boy that **had** a pet frog
    they love-*d* the frog
    and they **put it in** the glass
    they **left** the glass open
    and when the dog and the boy **went** to bed
    the frog **ran** away (12.9)

(6.8) an den i **went** slip
    an dat frok go-out
    an i **saw** no frok.
    i look under da boot,
    but i **saw** no frok
    *and then he went to sleep and the frog got out and he saw there was no frog. He looked under the boot, but he (didn’t) see the frog* (10.2)

(6.9) an da boy put **his** hat on
    da dog stuck
    da boy yell-at fo da frog
    an da dog **fell** down
    da boy look-*ed* out da window
and the boy put his hat on. The dog (got) stuck. The boy yelled out to the frog and the dog fell down. The boy looked out the window.  

(FR6.2)

The 10% figure appears to be the cut-off on this measure for this code choice. Example (6.10) is an extract from the narration by a six-year-old, which, on the analysis of ‘English’ features, fell into the 5-9% group.

(6.10) an dat frok deya i bin git-aut.  
and Det frog there 3-S Pst get-out  
and the frog there it got out

an dei bin luk frog gon.  
and 3Pl Pst see frog gone  
and they saw the frog was gone

an dei bin sing [%/]  
and 3-Pl Pst call  
and they called

[%dei bin luk weya] dei bin luk weya his shu-s  
[false start] 3Pl Pst look where 3S-Poss shoe-Pl  
they looked in his shoes

an dat papi bin stak weya dat glas  
and Det dog Pst stak where Det jar  
and the dog got stuck in the jar  

(FR6.5)

In this narration, speaker 6.5 used some Standard Australian English features, but not consistently. This was true of all speakers whose texts rated between 1% and 10% on this measure. Taking (6.9) as an example, the Standard English features identified include plural marking, but in the text this is the only instance, in three further instances, plurals are unmarked. Further, while some nominal features from Standard Australian English appeared, the Wumpurrarni English verbal system was consistently used.

In contrast, all of the texts, which rated above 10% were consistently near Standard English productions. As non-Standard features occurred in all, these texts represent an English-style, the style that speakers have in their linguistic repertoire, which is closer to Standard English than other styles. An alternative way to interpret these texts is as ‘target’ English narrations, as the speakers, whose first language or dialect differs systematically from the ‘Standard’. Both characterisations are problematic in different
ways. Highlighting ‘non-standard’/‘standard’ distinctions evokes matters of prestige and power, unintended in this analysis. ‘Target’ English implies that children should be aiming for the Standard, which in certain ways, they miss. I resolve this by treating these narrations as productions told in a speech style children have in their linguistic repertoire, and one which reveals interesting insights about children’s understandings of Standard English. I refer to the texts with a high proportion of English features as the ‘English’ texts.

The features identified in Table 6.1 have emerged as good predictors and markers of this code choice. All texts that rated above 10% included all (or almost all) of the features identified in the table, revealing that these features tended to co-occur. That is, if a speaker chose to mark tense and aspect with forms from Standard Australian English, they also used Standard Australian English pronouns and prepositions. There was one exception to this. In the text by (12.5), this teenage girl used the Wumpurrarni English verbal system, but there were also instances of the English personal possessive, plural marking and prepositions. With the exception of this young woman, speakers at all ages generally sought not to mix TMA systems, avoiding the auxiliary ‘bin’ for the most part, and avoiding transitive marking ‘-im’ and durative aspect ‘-bat/-abat/-nabat’ completely, as examples (6.2) and (6.7)-(6.9) show. Bare nouns were completely absent in most of the texts, and appeared very rarely in two texts identified as ‘English’. The same is true of left dislocation. This provides an insight into how children understand differences between Standard English and Wumpurrarni English, and evidence of style and code awareness. In addition, in all but one of the English texts, no Warumungu features occurred. The exception was one instance of one type in the text of a six-year-old (6.2). This matter is further illustrated in the last set of results in section 6.2.3 (Tables 6.4-6.6).

The co-occurrence of features in the ‘English’ narrations reveals awareness for the features, which distinguish Standard English and Wumpurrarni English. However, as the discussion below will show, the speakers approximations of Standard English involved a range of non-Standard forms. The difficulties that speakers of two closely related dialects, a Standard and a non-Standard variety or a creole and its superstrate
language, have been described, particularly in relation to education (de Kleine 2006, Siegel 1999, Wolfram & Shilling-Estes 1998).

Considering now the age distribution of the ‘English’ texts among the child groups, it can be seen that narrations by three twelve-year-olds, half of the ten-year-olds, one eight-year-old and three six-year-olds are identified as ‘English’. In all but one instance (speaker 6.3) this code choice represented a departure from the style the child normally speaks at home. This six-year-old spoke in the style that she normally speaks. Her exposure to Standard Australian English is great, as her father is a first language Standard English speaker, and her mother speaks a very light style, though she also speaks heavier Wumpurrarni English and Warumungu. The family lived away from Tennant Creek for an extended period. The other children whose texts are characterised as English live in environments in which light Wumpurrarni English is commonly spoken, though all use heavier styles as part of their linguistic repertoire. Six of the children are from three sibling pairs and in the case of one of these pairs, their mother is one of the adults who chose to narrate in ‘English’. Thus, the choice to speak in ‘English’ for these speakers was a relatively small shift along the continuum described in Chapter 2, Figure 2.2.

To sum up, the results have shown that in half of the children’s texts and five of the eight adult texts no features identified as Standard English occurred. A small percentage of types occurred in seven children texts and one adult text. Most importantly, a set of twelve child texts and two adult texts have been identified as ‘English’. These texts are further explored in the discussion (§6.3.3) below. Before moving on to the discussion and implications of these results, one further set of results is given to argue that the choice of code or style was very consistent in the narrations. This is achieved by considering the number and percentage of Warumungu and ‘English’ types in individual narrations.

6.3.3 Codes Apart

The following tables show the results for Standard English and Warumungu types in each narration, beginning with the texts by adults (Table 6.4), then by the twelve- and ten-year-olds (Table 6.5) and finally by the eight- and six-year-olds (Table 6.6). The
results show the number and percentage of types for each language. The figures for the ‘English’ narrations are highlighted in bold font in the three tables.

<table>
<thead>
<tr>
<th></th>
<th>English</th>
<th>Warumungu</th>
<th></th>
<th>English</th>
<th>Warumungu</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>1</td>
<td>---</td>
<td>44</td>
<td>32.8%</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>---</td>
<td>9</td>
<td>12%</td>
<td>6</td>
<td>---</td>
</tr>
<tr>
<td>3</td>
<td>---</td>
<td>4</td>
<td>2.8%</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>4</td>
<td>22</td>
<td>20.18%</td>
<td>6</td>
<td>10</td>
<td>7.46%</td>
</tr>
</tbody>
</table>

Table 6.4: Standard English and Warumungu features in Adult texts

The figures in Table 6.4 show that, with one exception, texts are characterised by some Warumungu features in Wumpurrarni English productions OR over 10% percent of English types, indicating an ‘English’ narration. The exception was speaker A.5, who used a small number of types identified as Standard Australian English and some Warumungu features. The code choice in this narration was otherwise not significantly different for the other adult Wumpurrarni English narrations, although as mentioned above and shown in (6.6) A.4’s higher rate of Warumungu insertion set it apart from the other texts. An extract from A.5 illustrates that this text, like the other adult texts, was in Wumpurrarni English, with a small number Standard Australian English features, in bold font in (6.11). Warumungu features are underlined:

(6.11) Dat lidlboi an is kunapa an is frokfrok insaid na bodb.
Det boy and 3SPoss dog and 3SPoss frog inside Loc bottle
[There is a] boy and his dog and frog [is] in the bottle

Wal dat lidlboi an dat kunapa dei bin slip na bed na
Dis Det boy and Det dog 3Pl Pst sleep Loc bed Dis
Well the boy and the dog they were asleep on the bed (FRA.5)

The pattern that either Warumungu OR Standard Australian English features appear in a narration continues in the results for children, as the following tables reveals.

Table 6.5 shows results for ten- and twelve-year-olds. Considering first the narrations identified as ‘English’ (in bold font), the results show that speakers who made this code choice used no Warumungu features. Inversely, speakers who used a Warumungu feature used no Standard English types, with the exception of one
twelve-year-old (12.1) and one ten-year old (10.4). Like A.5 above, however, the number of Standard Australian English types was minimal.

<table>
<thead>
<tr>
<th>Text</th>
<th>Twelve + English N</th>
<th>Warumungu N</th>
<th>Ten English N</th>
<th>Warumungu N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 1.13%</td>
<td>6 6.8%</td>
<td>14 13.86%</td>
<td>---</td>
</tr>
<tr>
<td>2</td>
<td>---</td>
<td>4 4.8%</td>
<td>15 18.98%</td>
<td>---</td>
</tr>
<tr>
<td>3</td>
<td>---</td>
<td>4 4.5%</td>
<td>---</td>
<td>1 &lt; 1%</td>
</tr>
<tr>
<td>4</td>
<td>---</td>
<td>---</td>
<td>1 1.19%</td>
<td>2 5.74%</td>
</tr>
<tr>
<td>5</td>
<td>6 9.09%</td>
<td>---</td>
<td>---</td>
<td>5 2.5%</td>
</tr>
<tr>
<td>6</td>
<td>18 24.32%</td>
<td>---</td>
<td>11 10.0%</td>
<td>---</td>
</tr>
<tr>
<td>7</td>
<td>10 13.33%</td>
<td>---</td>
<td>8 14.8%</td>
<td>---</td>
</tr>
<tr>
<td>8</td>
<td>---</td>
<td>4 2.75%</td>
<td>---</td>
<td>1 &lt; 1%</td>
</tr>
<tr>
<td>9</td>
<td>22 20.56%</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>---</td>
<td>3 2.17%</td>
<td>14 14.28%</td>
<td>---</td>
</tr>
</tbody>
</table>

Table 6.5: English and Warumungu features in the twelve- and ten-year-olds’ narrations

In the narration of one twelve-year-old (12.4) no types were identified as Standard Australian English or Warumungu. This pattern is in itself unrevealing. While the absence of Warumungu types may be an indicator of a lighter style of Wumpurrarni English, it is not a defining feature, as the narrative by 12.4, which has features identified with heavier Wumpurrarni English such as transitive and durative marking (in bold) shows:

(6.12) dat lidlboi sid-dan-bat, waj-im-bat dat frokfrok
Det boy sit-down-Dur watch-Tr-Dur Det frog
The boy is sitting there, watching the frog

deya dat lidlboi bin go na slip na
there Det boy Pst go Prep sleep Dis
and then he went to sleep (FR12.4)

The same is true of 10.9, who used just one Warumungu type:

(6.13) deya i bin sing-in-at fo dat frokfrok
there 3S Pst call-Prog-out Prep Det frog
there he called out for the frog

Ø sing-in-at, Ø luk-araun-abat, Ø smell-im-bat ola bi
3S call-Prog-out 3S look-around-Dur 3S smell-Tr-Dur Det bee
[he] was calling out, singing out, [the dog] sniffed at all the bees (FR10.9)
The final set of results for the youngest groups confirm the pattern revealed so far.

<table>
<thead>
<tr>
<th></th>
<th>Eight English N</th>
<th>Warumungu N</th>
<th>Six English N</th>
<th>Warumungu N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>---</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1 1.51%</td>
<td>---</td>
<td>12 12.76%</td>
<td>1 1.06%</td>
</tr>
<tr>
<td>3</td>
<td>---</td>
<td>2 2.7%</td>
<td>14 17.94%</td>
<td>---</td>
</tr>
<tr>
<td>4</td>
<td>---</td>
<td>1 1.2%</td>
<td>1 1.85%</td>
<td>---</td>
</tr>
<tr>
<td>5</td>
<td>---</td>
<td>3 6.52%</td>
<td>---</td>
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</tr>
<tr>
<td>6</td>
<td>---</td>
<td>4 5.79%</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>7</td>
<td>1 1.38%</td>
<td>---</td>
<td>8 10.83%</td>
<td>---</td>
</tr>
<tr>
<td>8</td>
<td>9 10.97%</td>
<td>---</td>
<td>1 2.43%</td>
<td>1 2.43%</td>
</tr>
<tr>
<td>9</td>
<td>---</td>
<td>3 4%</td>
<td>---</td>
<td>1 1.58%</td>
</tr>
<tr>
<td>10</td>
<td>---</td>
<td>3 2.97%</td>
<td>1 1.7%</td>
<td>---</td>
</tr>
</tbody>
</table>

Table 6.6: English and Warumungu features in the eight- and six-year-olds’ narrations

Speakers who used a high proportion of Standard Australian English types used no Warumungu features (with the exception of 6.2 mentioned above) and where Warumungu types occurred, English types were unlikely to occur.

Some general observations are made regarding Warumungu lexical and morphological features in the texts before focussing on the texts described as English. First, the analysis has shown that adults inserted Warumungu features into Wumpurrarni English narrations, in ways and at levels consistent with conversational and other data gathered in the course of the ACLA project. The same is true of child speakers, who used Warumungu features at lower rates overall than adults, which is again consistent with other data. No age related tendency among the child groups emerges here, with roughly one half of the children using no Warumungu features at all and the other half a few features. The results presented in Tables 6.4 – 6.6 show that speakers who used features from Warumungu generally did not use features from English and vice versa, illustrating a code separation and code awareness.

The results show that 24 of the 40 child speakers used either no or very few Warumungu or Standard English types, or a small number of both (the five speakers mentioned above). Thus the majority of children did not make a marked code choice,
and spoke the style of Wumpurrarni English they normally use, throughout the narration. There is no evidence to suggest that any child spoke in a style heavier than their usual style (with the possible exception of 12.5, discussed in section 6.3.2). Finally, where children used no Warumungu features, this did not necessarily indicate a light style of Wumpurrarni English.

6.4 Discussion

In this discussion, the texts with higher proportions of Standard English features are considered, as it has been revealed that in all but one instance, the choice to narrate in ‘English’ marked a departure from the speaker’s usual style. Three matters are important. The first concerns the accuracy of the characterisation of the texts as English, the second, speaker’s motivation for this code choice and finally, the implications that this code choice has on the study of reference reported in the following three chapters.

6.4.1 English texts

The 14 texts with a relatively high proportion of Standard English types are identified as ‘English’. The basis for this definition is the occurrence of features discussed above. However, non-standard features also occurred in all of these narrations. Non-standard approximations were most common in past tense marking. In most cases the children used both correct irregular past tense marking and overgeneralised the past tense form ‘-ed’ to irregular verbs (e.g. ‘wake’ → ‘waked’, ‘come’ → ‘camed’ etc. also for ‘throw’, ‘catch’, ‘fall’, ‘run’ and ‘find’), illustrating an awareness but not full mastery of this aspect of Standard English. These occurred in texts of children of all ages as in the instances from speakers of different ages in (14) a.- d.

(6.14) a. he **run-ed** away to his family. (FR6.3)
   b. but da little boy **hang-ed** on fo dat [/um] ding (FR8.3)
   c. the dog **ran-ed** away from the bi. (FR10.8)
   d. an dat deer **fro-ed** im down da hill. (FR12.6)

While the over-generalisation of the past tense marker could be expected developmentally from the six-year-old speaker, among older speakers this highlights that for these children Standard English is a second language. This was manifest in
many ways. A further common pattern was zero past tense marking, particularly with regular verbs.

(6.15) a. he get angry.  
   b. and frog **climb** da lid on da tin  
   c. he **look** under da but  
   d. an da reindeer **take** da lidl boi

(6.15)

In all texts there was use of the Standard English progressive aspect, mostly, but not consistently marked for past tense (‘was’ + V-ing). In some cases, this was skilfully used to background on-going actions and contrast with punctual events, using the simple past, as in example (6.16):

(6.16) when the lidlboi **went ap** the rock, 
       dat bird **was look-ing**.

(6.16)

However, overwhelmingly the progressive was used with singular subjects. Where the subject was plural, the auxiliary verb was marked for singular (‘was’ + V-ing). No instances of (‘were’ + V-ing) and no instances of ‘were’ as a simple past tense, indicating that these data do not reveal a full mastery of this.

Preposition use was also frequently non-standard, as in (6.17) and (6.18), from narrations by the two of the 12-year-old speakers:

(6.17) an da dog luk-ed **on** da bottle. 

       ...... 
       dei fol at da krik. 
       da dog and da boy fol **at** da water.  

(6.17)

(6.18) the dog and the boy fall [/] fell to [/] **on** the pond. 

       then the boy heard frog-s croaking.  

(6.18)

Example (6.18) reveals a further source of evidence that the ‘English’ texts are indeed second language productions. Self-corrections, repairs and retraces are common in these texts. In many of the texts the choice to narrate in target Standard English caused dysfluencies, as children attended to their productions in ways that the children who narrated in Wumpurrarni English did not. While in the latter texts children made repairs, these were generally to factual details and sometimes potential ambiguity, while in the target English texts, these were to repair forms, as in the first line of (6.18) above and in (6.19), by a ten-year-old boy below:

---

154
(6.19) and da boy git-ap an luk at da tin
   da boi get [/] get her shoe-s
   i get his shoes an shake it
   nathing
   da boy [/] na da dog fit he no her neck in da tin
   da dog in da tin can not yell

The examples discussed in this section show that these speakers used many English features, indicating strongly that the target language for their productions was indeed English. Speakers systematically drew on Standard English grammatical forms that contrast with Wumpurrarni English forms. In the final section (§6.4.2) some implications for this code choice on reference in the English narratives are discussed.

6.4.2 English texts and style choice

Accounting for the ‘English’ narrations, the triggers and motives of this ‘choice’, is not straight-forward. The discussion of style in Chapter 2 (§2.3.1) explored accounts of style choices in sociolinguistic enquiry, all of which have sought to answer Alan Bell’s question: “Why did this speaker say it this way on this occasion? (Bell 2001). Labov’s ‘observer’s paradox’ (1972) appeals to the notions of careful speech prompted by the nature of the task and notions of language prestige. While Bell’s (1984, 2001) account looks to ‘audience design’, in which speakers may respond to their audience and the situation. A speaker may change their speech style to accommodate the listener, or to draw on the linguistic resources in their repertoire, and to index different aspects of their linguistic identity.

With these insights in mind, I can only speculate about speakers’ motives for their code ‘choice’ in the frog story narrations. Some comments about the context of the recordings can inform these hypotheses. First, as stated in the previous chapter, most recordings were carried out by Betty Morrison, the Indigenous researcher, and some were carried out by me. There was no discernible pattern between code choice and the identity of the researcher who carried out the recording. That is, some of the English recordings were made by me, but most were recorded by Betty Morrison. I anticipated that familiarity with the researcher and the task would important in the current study and sought to record only children who knew me well and were familiar and comfortable with being recorded in Wumpurrarni English. As Wumpurrarni English
is a stigmatised language and excluded from school settings, it was expected that for children who were not familiar with being recorded in this language, doing so might be a source of ‘shame’ (Harkins 1990). This term is widely used by Aboriginal people, in Aboriginal English and creole varieties, which refers to a range of emotions which includes embarrassment and discomfort, generally in social settings. Harkins (1990) has written a thorough analysis of the term.

To gather a set number of texts across the age ranges, it was necessary to record fourteen children who had not been involved in the ALCA project and who did not know me well. Ten of the resultant narrations are in Wumpurrarni English and four in ‘English’. All four narrations were recorded by Betty Morrison Nakamarra. Thus lack of familiarity with the task and the researcher was not a clear variable in the choosing English for these speakers. The task of narrating from a book is certainly a school-like activity and is likely to have been a factor in triggering a ‘careful speech’ style. It must also be noted, however, that in most narrations I would suggest that speakers used a careful speech style, as many told very elaborate and eloquent stories, in both ‘English’ and Wumpurrarni English.

I asked only one speaker (A.4) about this code choice. I did not take the matter up at length with the children, as I did not want to imply that their narrations were inadequate. I did ask two children, whose narrations were in ‘English’ if they wanted to record another story, this time in Wumpurrarni English. One avoided the request, the other said he had purposely told the story ‘proper, straight way’. A.4’s response was similar. She is a young woman in her early twenties and so her formal education is relatively recent. She is a very capable English speaker. She grew up in Tennant Creek and also spent time in a bush community to the south east of Tennant Creek during her youth. She speaks Wumpurrarni English, with heavy features and Warumungu insertions among family. She has strong knowledge of Warumungu and Alyawarr, having been raised mainly by her multilingual grandmother.

A.4 recorded her narration of the frog story herself. This was because, when we wanted to do the recording, straight after an ACLA recording session, A.4 was the only adult at home among many children. I volunteered to continue playing with the
children while A.4 took the camera and carried out the recording. As the mother of a child in the ACLA project, she had, on previous occasions helped out with recordings and transcriptions. She is interested in technology and in language. Over a number of years, we had discussed features Wumpurrarni English and Traditional language use in Tennant Creek. She had taken part in making a DVD newsletter about the project. On the day she recorded her narration of the frog story, A.4 took the book and the recording equipment and sat alone in a quiet spot in her yard and returned once finished. Later, I uploaded the recording and listened to it. When I saw her again I mentioned that I was really interested in Wumpurrarni English stories. She responded by assuring me she was aware of that, and that I had so many recordings in Wumpurrarni English (by her and by others) and pointed out that she sometimes speaks English. This is true. This speaker uses English in situations where she feels she has to, and in situations were she feels she wants to, like in the frog story recording.

In the discussions of the ‘English’ narrations in later chapters, I refer to speaker’s code or style ‘choice’. I am aware of the complexity and presumption involved in using the idea of ‘choice’, given the power and prestige issues, which are complex and inextricable in this setting. However, given the task was set up, with a genuine attempt to encourage children to speak as they normally do, I feel that there was some agency involved in the language ‘choices’ they made.

Ultimately, the ‘English’ texts remain something of an observer’s paradox. One paradox for the observer is, however, that these data offer rich and unexpected insights into the narrative performance generally, and into reference in Warumungu children’s narrations in particular.

6.4.3 Hypotheses and some implications of code choice in the narrations
In the concluding sections of Chapters 3 and 4 sets of hypotheses were detailed. These relate to language specific and developmental aspects of narration. The following set of hypotheses are generated from the current chapter and interrelate with those posited so far.
1. In Chapter 3, I argued that Wumpurrarni English and English differ fundamentally in the grammar and discourse pragmatics of determiner use. It was predicted in that chapter that speakers using a more English style might draw on the Standard English determiner system, distinguishing initial mention (‘a’ + N) from subsequent mention (‘the’ + N).

2. In Chapter 3 the use of repetition in Wumpurrarni English narratives was also described. As this is a distinctive feature of Wumpurrarni English that is not shared with Standard English, it is not expected to occur in the ‘English’ texts. Left dislocated structures in Wumpurrarni English have also been identified as a means of marking new and unexpected events in narrative, and again these expressions are not expected in the 'English’ stories.

3. In 4.4 I drew attention to the finding that children of different ages are differentially affected by the cognitive load that a task may place on them, and this may impact on their performance of a particular aspect of the task. In §6.4.1 above I presented evidence in the form of retraces and self-corrections that the style choice ‘English’ placed linguistic processing demands on most of the children. This matter will be investigated in the final chapter, in which discourse strategies, means of creating locally cohesive and globally coherent discourse, are considered in the light of developmental, language specific and code-choice variables.

We turn now to the results chapters, considering first initial mentions.
Chapter 7

Introducing New Referents

7.1 Introduction

This chapter examines the ways in which speakers of different ages introduced new referents in the frog story data. It is guided by three sets of predictions, which are language specific (Chapter 3), developmental (Chapter 4) and relate to code choice (Chapter 6). Considering first developmental predictions, results for the use of nominal and pronominal referring expressions by age is presented in Table 7.1 in §7.2. Recall that it was expected that all groups would use full nominal expressions to introduce new referents, and should pronominal introductions occur, these would mostly likely occur in the narrations of the six- and possibly eight-year-old groups. The use of pronominal introductions, when these are limited to the main character may also be an indication that the speaker is adopting a discourse-wide thematic subject strategy (Karmiloff-Smith 1985; Wigglesworth 1993). Thus, a second set of analyses is carried out to investigate whether there is evidence of differential treatment of main characters and secondary characters, in general and, by any particular age group. Section 7.3 is devoted to this examination.

Turning now to language specific matters, I have posited that in Wumpurrarni English, a range of nominal forms are used to introduce referents, but that these are not reserved for marking new referents. For instance ‘dat’ + noun (recognitional determiner + noun) and bare nouns may be used for initial introductions, but these are
also used for subsequent mentions. These observations regarding nominal expressions in Wumpurrarni English are tested in §7.2.1. In Chapter 3, I also contrasted the nominal expressions used to introduce new referents in Wumpurrarni English with those used in English. In English, new and inaccessible referents should be introduced with full lexical nouns and marked for newness, typically with the indefinite article ‘a’, though the demonstrative determiner ‘this’ is also possible. In the previous chapter, I argued that a set of 14 frog story narrations were in English. I predicted that these speakers might draw on the means of marking newness offered in English. This prediction is tested in §7.2.1. These assumptions are tested in relation to the data.

7.2 Results: Nouns and pronouns for initial introductions

Table 7.1 presents the percentage and number (in brackets) of nominal versus pronominal expressions used overall and by each group. There are three characters that appear throughout the book (the boy, the dog and the frog) and the four secondary characters that appear briefly (the bees, the mouse, the bird and the deer). This meant that there was potential for the adults to make 56 introductions and a potential for each of the child groups to make 70 initial introductions. The results in Table 7.1 show that in each group there was some character omission, and this was slightly higher among of six-year-olds than other groups.

<table>
<thead>
<tr>
<th>Age group</th>
<th>Nouns % (Number)</th>
<th>Pronouns %… (Number)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>85.57 (255)</td>
<td>14.29 (44)</td>
<td>299</td>
</tr>
<tr>
<td>Adults</td>
<td>90.73 (49)</td>
<td>9.25 (5)</td>
<td>54</td>
</tr>
<tr>
<td>Twelve+</td>
<td>96.91 (63)</td>
<td>3.07 (2)</td>
<td>65</td>
</tr>
<tr>
<td>Ten</td>
<td>88.33 (53)</td>
<td>11.66 (7)</td>
<td>60</td>
</tr>
<tr>
<td>Eight</td>
<td>86.87 (53)</td>
<td>13.11 (8)</td>
<td>61</td>
</tr>
<tr>
<td>Six</td>
<td>63.97 (37)</td>
<td>37.2 (22)</td>
<td>59</td>
</tr>
</tbody>
</table>

Table 7.1: Number and percentage of nouns and pronouns overall and by age group

The results reveal that all groups clearly preferred nominal expressions over pronominal expressions for this discourse function. However, the percentage of pronouns to nouns among six-year-olds was much higher than for the other groups.
This result confirms the prediction that this age group would use pronouns for initial introductions at higher rates than other groups. The percentage of initial introductions by six-year-olds (37.2\%) was more than twice that of the next highest percentage (13.11\%), the figure for the eight-year-olds. The percentage of pronouns ten-year-olds rated slightly lower than the eight-year-olds. The percentage of pronouns in the adult narrations is only very slightly lower than the eight- and ten-year-olds and higher than the twelve-year-old group. This was not expected and will be taken up in §7.3. Before considering pronoun use further, results for nominal expressions are further explored.

7.2.1 Nominal expressions

The following nominal expressions were used to introduce new referents:

- determiner ‘dat’ + noun
- bare noun
- definite article ‘the’ + noun
- left dislocation: bare/‘dat’ + noun + pronoun,
  e.g. ‘papi i bin slip’, dat lidlboi i bin luk
- Indefinite article ‘a’ + noun
- Determiner ‘wan’/ ‘wan-bala’ + noun

There were also a very small number the following:

- possessive expression + noun (also noun + Poss)
- ‘ola’ + noun (for plural reference to the bees)
- right dislocation: pronominal reference with nominal expression
  (‘dat’ + n or bare n) clause finally, e.g.
  ‘dei bin siddan na rum, dat lidlboi an papi’.

No speaker used the demonstrative determiner ‘dis’ + noun to introduce a new referent. Table 7.2 shows the percentage and number of occurrences for the various nominal expressions used to introduce referents. The first important result to highlight in Table 7.2 is the very low use of the indefinite article ‘a’. Only 12 instances occurred. Recall the prediction that speakers who narrated in English might draw on the contrastive use of ‘a’ + noun for new referents and the definite article for given referents. The results show that this was not the case. Attention to the data reveals that
the small number of instances are distributed across ten narrations, covering all age groups. The instances in each age group were not limited to a single speaker using the indefinite article consistently, but rather single instances in three narrations, evidence of intra-speaker variability. While this prediction was not borne out, the analysis of nominal expressions reveals a number of findings that can be explained by code choice.

<table>
<thead>
<tr>
<th>Nominal Expression</th>
<th>% (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>dat + N</td>
<td>39.21 (97)</td>
</tr>
<tr>
<td>bare + N</td>
<td>25.09 (64)</td>
</tr>
<tr>
<td>the + N</td>
<td>16.07 (41)</td>
</tr>
<tr>
<td>left dislocation</td>
<td>9.41 (24)</td>
</tr>
<tr>
<td>a + N</td>
<td>4.75 (12)</td>
</tr>
<tr>
<td>wan + N</td>
<td>3.52 (9)</td>
</tr>
<tr>
<td>poss + N</td>
<td>(3)</td>
</tr>
<tr>
<td>ola + N</td>
<td>(2)</td>
</tr>
<tr>
<td>right dislocation</td>
<td>(2)</td>
</tr>
</tbody>
</table>

Table 7.2: Percentage and Number of Nominal Expressions for all ages

We consider now the most frequent expressions. Table 7.2 reveals that ‘dat’ + N was the most commonly used for initial mentions overall (39.21%), followed by bare nouns (25.09%) and ‘the’ +N (16.07%). The first two expression types, ‘dat’ + N and bare nouns made up at least half of the nominal expressions in each age group. Figure 7.1 shows the distribution of the most common referring expressions by age.

39 There was some further use of the indefinite article by some speakers for first mention of locations, e.g. ‘in a hole’. The use of this structure in such contexts was not consistent within any text. As the study is restricted to tracking animate referents, these instances are not analysed further.
The expression ‘dat’ + N was clearly preferred by three groups, the twelve-, eight- and six-year-olds texts. This expression occurring in over 40% of instances. ‘Dat’ + N also occurred in 30% of the adult initial mentions. The adult pattern varies slightly from the child groups, as bare nouns were the most common expression in this discourse setting in these texts (almost 40%). Bare nouns emerged second to ‘dat’ + N overall. It should be noted that no speaker used bare nouns exclusively for initial introductions, and so no hypothesis positing that in some styles bare nouns signal newness and ‘dat’ + N might signal givenness is pursued.

Among the child groups, bare nouns occurred at rates around 20% in all groups with the exception of the eight-year-olds. Among this age group, bare nouns accounted for over 30% of the nominal expressions used for initial mention. The lowest percentage of the use of the English definite article (‘the’ + N) was found in narrations by this age group. Recall that the findings in Chapter 6 revealed that only one eight-year-old narrated in English, and indeed the few instances of ‘the’ + N are from this speaker. The results for ten-year-olds represent another distinct pattern. As revealed in Chapter 6, half of the children in this age group narrated in English and so it is not surprising to see the highest percentage of the form ‘the’ +N (39.62%) occurring here.
Left dislocations accounted for almost 10% of the total nominal expressions. This result provides evidence that left dislocation is not a preferred means to introduce new referents in discourse in Wumpurrarni English, as Gruber (1987a) found for Roper River Kriol. In fact, it will be shown in the following chapter, that left dislocation was used at similar rates in the other discourse functions (maintaining and switching reference). Left dislocation was used at similar rates by all age groups, though slightly less among the ten-year-old group. This result and the fact that only one of the instances of left dislocation came from a narration characterised as English indicate that speakers associate left dislocation with Wumpurrarni English.

There is some evidence of a correlation between character identity and the occurrence of left dislocation. We turn now to consider the impact of the referent and their role in the story on the referring expressions used.

7.3 Main and Secondary characters

Previous results have suggested that the identity of the character may affect the strategies for introducing characters into the discourse, and the differential treatment of characters may vary across age groups (Bamberg 1987; Hickmann 2003a; Karmiloff-Smith 1981; Wigglesworth 1990). It has been shown that speakers, particularly younger speakers, aged six-ten, are more likely to presuppose the identity of the main character, and that children may rely on this presupposition in organising the discourse around a thematic subject (§4.3.2.2. and §4.4). The use of a thematic subject strategy involves the child reserving the subject position for pronominal reference to the thematic subject (Bamberg 1987; Karmiloff-Smith 1981, 1987; Wigglesworth 1993; 1997), and they may adopt this strategy from the beginning of their narration, introducing the thematic subject pronominally (Wigglesworth 1993:92)

In line with such findings, in the current data there was a strong tendency for the pronominal first mentions to occur more in reference to the boy, the dog and the two referred to jointly, than to other characters, as Table 7.3 shows. References to the frog are counted with secondary characters, as the frog was not singled out in the way that the boy and dog were in terms of pronominal reference. Table 7.1 revealed that
overall only 14.29% of the 299 initial introductions were pronominal. The percentage of pronominal initial mention for the boy and dog is clear evidence of differential treatment of these characters.

<table>
<thead>
<tr>
<th>Character Group</th>
<th>Percentage &amp; number of pronominal first mentions</th>
<th>Number of first mentions by character group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boy, Dog</td>
<td>37.5% (33)</td>
<td>88</td>
</tr>
<tr>
<td>Frog &amp; others</td>
<td>5.21% (11)</td>
<td>211</td>
</tr>
</tbody>
</table>

Table 7.3 Pronominal introductions: boy, dog and all other characters: all groups

The few pronominal references to the frog and other characters stemmed mainly from the six-year-old group (7 of the 11 instances). As it has now been established that the pronominal first mentions are confined largely to references to the boy and dog, and this may be evidence that these characters are singled out as thematic subjects, there is value in considering the distribution of pronominal first mentions of the boy and dog across the age groups. The numbers in Table 7.4 are of course still very small but the distribution of pronominal vs. nominal first introductions of the boy and dog by the six-year-olds clearly differs from the distribution in the other age groups. Recall that there were a total of 16 introductions of the boy and dog in the adult set and 20 in each child set.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Number of Introductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult (N=16)</td>
<td>4</td>
</tr>
<tr>
<td>Twelve (N=20)</td>
<td>2</td>
</tr>
<tr>
<td>Ten (N=20)</td>
<td>6</td>
</tr>
<tr>
<td>Eight (N=20)</td>
<td>6</td>
</tr>
<tr>
<td>Six (N=20)</td>
<td>15</td>
</tr>
</tbody>
</table>

Table 7.4 Number of pronominal introductions of the boy and the dog, in each age group.

Only two children in the six-year-old group did not introduce the boy with a pronoun. Among the eight- and ten-year-olds the use of pronouns was less wide-spread and the 6 instances in the eight-year-old group stem from four speakers and the 6 instances by the ten-year-olds stem from three speakers. Findings from previous studies suggest that the use of a pronoun to introduce a main character in the discourse may be evidence that the speaker is establishing a thematic subject and may use this thematic subject to organise the discourse. Karmiloff-Smith’s original claim (1981, 1985) proposed that children around the age of six-years are most likely to engage a thematic strategy and the evidence here suggests that this may be true of the youngest
group in the current study. However, subsequent studies have also found evidence of this strategy in narrations by older children (Wigglesworth 1993). The results above may indicate that this strategy may be in use by some older children. This matter is pursued in Chapter 8, where switch reference contexts are examined, and in Chapter 9, which is devoted to an analysis of discourse strategies.

Pronominal introductions by adults were not expected. A survey of individual texts showed a difference in the ways that the pronominal introductions occurred in the children’s texts, as compared to the texts of the adults who used pronouns to introduce these main characters. In the adult frog story narrations where a pronominal introduction did occur, it was followed within three clauses by full nominal phrases, disambiguating the pronominal introductions, as in example (7.1). The use of the pronoun appeared to function as part of the scene setting, before the specifics of the story were presented. The use of pronominal first mentions in narrations in traditional Australian languages has been noted (Van der Wal 1992).

(7.1) deya na dei bin sid-dan-bat kantu na rum
     there Dis 3Pl Pst sit-down-Dur inside Loc room
     *There now, they were sitting in the room.*

     i bin tapinyngara
     3S Pst night
     *It was night time*

     windo dadan deya
     window Dem there
     *there’s a window there*

     kunapa deya, prokprok, an karnungu maanjun-wan
     dog there frog and boy little-Nom
     *The dog is there, the frog and the little boy.*  

This was not the case in example (7.2), in which a ten-year-old speaker introduced the boy with a pronoun in the first line, then included a plural pronominal reference in the third line, before using a full lexical expression for the boy in the fifth line.

(7.2) i  sid-in-dan na
     3S sit-Prog-down Dis
     *he’s sitting down*
an dat dog luk-in-at dat frokfrok
and Det dog look-Prog-at Det frog
_and the dog is looking at the frog_

dei tok-in, maitbi hepi fo dat frokfrok
3Pl talk-Prog maybe happy for Det frog
_and they are talking, perhaps saying [they are] happy about the frog_

bat dat frokfrok bin trai gid-at na, gad rum na fud
but Det frog Pst try get-out Dis with room Loc foot
__but the frog tries to get out, stretches out one foot__

an _dat boi_ an dat dog slip
and Det boy and Det dog sleep
_and the boy and the dog sleep_ (FR10.9)

In (7.3) by a six-year-old speaker, the boy and dog were introduced pronominally in
the first line of the narration, but the first nominal reference to the dog appeared eight
clauses later, and to the boy eleven clauses later, when it becomes necessary to refer
separately to each character. Note the use of repetition in building up the opening of
this story.

(7.3) _dei_ bin ding luk
3Pl Pst thing look
_they looked_

naitaim dei bin luk-in-at
night time 3Pl Pst
_at night they were looking_

dei bin go slip na an
3Pl Pst go sleep Dis and
they went to sleep and
[five clauses using _dei_ to refer to the boy and dog jointly]

an _dat papi i_ bin stak weya dat glas
and Det dog 3S Pst stak where Det glass
and the dog it got stuck in the jar

an [%dat] demtu bin sing-at
and 3-Du Pst call-out
_and the two of them called out_

an da papi i bin smash dat glas
and Det dog 3S Pst smash Det glas
_and the dog it smashed the jar_
Note that the six-year-old speaker in (7.3) used a left dislocation when she eventually referred nominally to the dog and to the boy in subsequent mentions, as discussed in Chapter 3 (§3.4). Left dislocations frequently functioned to contrast the separate actions of the dog and boy in subsequent mentions as in (3), and in some initial introductions, as in (7.4):

(7.4) dat lilboi im sid-dan na jea
   Det boy 3S-NF sit-down Loc chair
   The boy, he’s sitting on a chair

an dog, dat kunapa [\] dat kunapa i bin luk-in-at dat frog.
and dog Det dog Det dog 3S Pst look-Prog-at Det frog
and the dog, he’s looking at the frog

However this contrastive setting was not the only context in which left dislocation was used in the child narrations. Left dislocation occurred more commonly in initial introduction settings, which marked unexpectedness, prompted mostly by the appearance of secondary characters. The emergence of the bees was marked with a left dislocation in a number of texts. Example (7.5) stems from an eight-year-old and (7.6) from an adult.

(7.5) an papi trai kraj fo im, inti?
   and dog try scratch for 3S-O, QT
   and the dog tries to scratch for it, doesn’t it?

an i bin smash-em
and 3S smash-Tr
and it smashed it.

an i sing-at-bat fo frokfrok
and 3S call-out-Dur for frog
he (the boy) calls out for the frog

an bi i bin kam
and bee 3S Pst come
and the bee it (bees they) came      (FR8.7)

(7.6) kunapa deya bak-in fo dat ding kurlppu
   dog there bark-Prog for Det thing honey
   the dog there is barking for the thing- honey (hive)
The examples from children show that their mastery of the expressive and pragmatic resources available in their language.

7.3.1 Character identity and position in the clause

A final analysis of initial introductions shows that the identity of the character may have impacted on the position of the referring expression in the clause. Wumpurrarni English has generally Subject-Verb-Object and so a survey of the grammatical role of first mentions gives an overview of the position in the clause that particular referents occupied. One exception to this is left dislocated (fronted) objects, but only one instance occurs in the first mention data and so is not of concern here.

Recall in Chapter 4 (§4.4.1.3) Hickmann’s (2003) analysis of initial introductions found that post-verbal position was more common than preverbal position for initial mentions in the narrations she investigated. The data set was made up of narrations of two short picture books by speakers English, French, German and Mandarin Chinese (200 speakers in four age groups). Referent introductions occurred commonly in post verbal structures, such as ‘existential and other predicting structures’, such as ‘It/there is a horse’ and as post verbal objects in transitive clauses e.g. ‘He sees a cow’. Note that in the Wumpurrarni English data set, there very few ‘existential structures’ and none of these canonical story openers were used in the ‘English’ texts. In the three instances that such labelling structures occurred, verbless clauses occurred, as in (7.7):

(7.7) wan-bala frokfrok.
    kunapa wan-bala. (FR12.2)
    [there was] one frog. [there was] one dog.

These handful of instances were counted as preverbal position.

The results for the current study show that main characters occurred overwhelmingly in preverbal position and secondary characters occur both pre- and post-verbally. The
results are very uniform across ages and so the percentages and numbers are given for all texts together.

<table>
<thead>
<tr>
<th>Character</th>
<th>Pre-verbal position</th>
<th>Postverbal position</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>All references</td>
<td>67.89 (203)</td>
<td>32.77 (96)</td>
<td>299</td>
</tr>
<tr>
<td>Boy</td>
<td>97.91 (47)</td>
<td>2.08 (1)</td>
<td>48</td>
</tr>
<tr>
<td>Dog</td>
<td>93.75 (45)</td>
<td>6.25 (3)</td>
<td>48</td>
</tr>
<tr>
<td>Frog</td>
<td>35.41 (17)</td>
<td>64.58 (31)</td>
<td>48</td>
</tr>
<tr>
<td>Other</td>
<td>60.64 (94)</td>
<td>39.35 (61)</td>
<td>155</td>
</tr>
</tbody>
</table>

Table 7.5 Position of initial mentions in the clause, according to character: All groups

Two preliminary findings can be posited from the results in Table 7.5. First, the higher rate of new referents in pre-verbal position might suggest that this position is preferred for this discourse function. Around two-thirds of initial mentions occurred in pre-verbal position. However, such a finding must be considered in relation to the possible impact of the prompt. Specifically, the boy and dog are presented as active agents in the story and were almost exclusively in pre-verbal position, while the frog rated highest in post-verbal position. The frog was generally introduced in relation to the boy and the dog, who variously caught the frog, were looking at it or had it in the jar. The passive role of the frog in the beginning of the story impacted on how it was introduced and this was uniform across the age-groups. Finally the remaining secondary characters were introduced in both subject and object roles. Where they appeared as subjects or topics, speakers generally introduced them as active agents carrying out some kind of action in relation to the two already established characters. In some cases they were subjects of intransitive clauses, which depicted their appearance, as in the examples of left dislocation (4) and (5) above. Where they appeared as objects, they were in some way acted upon by one or both of the main characters.

7.4 Summary and discussion

Three sets of findings have been generated in this chapter, addressing developmental matters, code choice and nominal phrases in Wumpurrarni English. The developmental findings have shown that, as predicted, the youngest children in the
data set introduced characters more frequently with a pronoun than the other age groups, mirroring findings with children of this age in previous studies (Bavin 2000, Kail & Sanchez y Lopez 1997, Wigglesworth 1990, Wigglesworth 1993, Wong & Johnston 2004). Young children’s use of pronouns in settings that are low in accessibility is interpreted as evidence for a couple of developmental claims. First, pronominal use is generally posited as revealing children’s lack of attention to the knowledge state of their listener, a social requirement of discourse (Wong & Johnston 2004). Socially and cognitively, young children are less aware of the potential ambiguity of their utterances than are older children. Further, and relatedly, children’s language development moves from reliance on situational and contextual cues to more a mastery of reliance wholly on the linguistic context (Hickmann 2003, McCabe & Peterson 1991). The use of full nominal expressions in initial mentions is a manifestation of this development.

However, while the use of pronouns without the establishment of an antecedent might be interpreted as unstructured use of pronouns, Karmiloff-Smith (1981, 1983, 1985) has shown that close attention to differential pronominal use, according to character, and across a stretch of discourse provides insight into children’s developing awareness of discourse level coherence. The results in this chapter indicate that further investigation of discourse strategy is warranted, as there is evidence among six-year-olds and older children for a thematic subject strategy. Pronominalisation in initial mentions showed referent effects. Where speakers used pronouns to introduce a new referent, it was more likely to be in reference to the boy or the dog than to other characters.

The analysis has also revealed that adult use of pronouns for initial mentions showed a different pattern, to that of the children’s. Adults quickly resolved the pronominal reference within a few clauses, which was not the case for children.

One final developmental observation concerns the omission of characters. It has been reported that children aged six and under (Wigglesworth 1993; Clancy 1992, see §4.4.1) may omit secondary characters. This was true to some extent of all the child groups, and the youngest children as a group rated similarly to the eight- and ten-year-
old groups on this measure. More attention will be paid to this matter in the individual analysis in Chapter 9.

Developmental studies of initial introduction in narrative have generally investigated languages, which mark nominal expressions locally for newness and for givenness, as English and European languages are well represented in the research. Thus investigations of initial introduction generally focus on age-related differences in terms of the use of forms comparable to the English indefinite article ‘a’ versus the use of the definite article ‘the’. I have argued in Chapter 3 that in Wumpurrarni English nouns are not marked for this newness/givenness distinction. However, as it was shown in the previous chapter, a subset of the narratives are in ‘English’. It was predicted that in these texts, referent introductions might occur with an indefinite article. The results showed very clearly this not to be the case. These children overwhelmingly used the English definite article ‘the’ for referent introductions.

A couple of explanations can be offered. The first may be developmental. It might be argued that these children chose forms that were insufficiently low in predictability, revealing their lack of awareness for the listener’s mental map of the story. Indeed, the use of a definite article for the initial introduction of a character is taken as evidence of developing mastery of the form-function relations, as this is generally found in younger rather than older children’s productions. This may be a plausible account for the younger children (the three six-year-olds) in the current study. However, it is not well-supported by the evidence across the texts. Children at all age levels and adults used ‘the’ rather than ‘a’. The second explanation proposes that these speakers are second-language users this system in Standard English and so are not familiar with this distinction. This may go some way in explaining the result, but it must be remembered that almost all speakers used at least one instance of ‘a’, either in the introduction of a character in the story (or with reference to a location, see footnote 1). This reveals that these speakers have an awareness for this distinction in Standard Australian English. However, this knowledge may not be fully integrated into the nominal system these speakers draw on. Thus, a third explanation might propose that although these speakers have mastery over a range of features in Standard English, there is an interaction at play between this knowledge and
Wumpurrarni English. In Chapter 3, I argued the nominal systems of Wumpurrarni English and Standard Australian English diverge significantly and the newness/givenness marking distinction is one aspect of this. This finding is important as it pin-points this divergence and shows its impact. It provides insight into speakers’ perceptions and performance. The implications of this are important. Schooling for these children takes place exclusively in Standard English, with little attention to children’s home language. Their ‘English’ productions include many features of Standard Australian English, and also, as shown in Chapter 6, non-standard features. However some non-standard features, such as the use of definite articles in initial mentions may be associated with developmental stages, rather than understood as manifestation of systematic differences between home and the dominant language of school, Standard English.

The Wumpurrarni English texts and the use of ‘dat’ + N in initial mentions are also relevant in this matter. In Chapter 3, I argued that the form ‘dat’ bears only superficial similarity to Standard Australian English. As a ‘recognitional determiner’ (Nicholls 2004), it may have anaphoric properties, but not necessarily. The examination of nominal expressions in initial introductions in the Wumpurrarni English texts has revealed some variability in the forms that occur. ‘Dat’ + N was the most commonly used expression, but bare nouns were also common. Bare nouns were more likely to occur in adult texts than child texts. The analysis has provided further evidence that Wumpurrarni English diverges from descriptions of Roper River Kriol. There were no instances of the form ‘dis’ and very little use of ‘wan’/’wan-bala’. Left dislocation was shown to occur for initial mentions, with a contrastive function and to mark unexpectedness, however, it made up for only around 10% the total nominal expressions. This structure will be investigated in the following chapter, as it appears in similar rates for subsequent mentions.

In summary, this chapter has shown evidence of a developmental shift between the six- and eight-year-olds, as the some of the youngest children pronominalised initial mentions. The results have also confirmed that a range of nominal structures may be used for this discourse function in Wumpurrarni English, in contrast to descriptions of other Kriol varieties. Finally, among the speakers who chose to narrate in English, all
used the nominal structure a + N to introduce new referents, but no speaker did no speaker did so consistently. In the next chapter, the results for continuing reference are presented.
8.1 Introduction

This chapter details the patterns of reference maintenance and switch by each age group. The results are quantitative and less attention is paid to code and style choice than in the previous chapter, as the focus for the chapter is on form-function pairings for reference maintenance and switch. However, in the final section of the chapter (§8.4), some effects of language and style variation in the data set will be discussed in relation to discourse strategy. The first set of analyses in section 8.2 show the number and percentages of nominals and pronominals for the discourse purposes of reference maintenance. These are presented by age group. In section 8.3 a further set of quantitative analyses are carried out to characterise narrations on the basis of discourse strategy. The first set are designed to establish whether the boy and dog are treated differently to other characters on the basis of five criteria and therefore the most likely candidate for a thematic subject. Previous studies of the frog story have shown that the boy (Hickmann, Kail et al 1995; Bamberg 1987) or the boy and the boy and dog acting together (Wigglesworth 1997) to be potential candidates for a thematic subject. Results presented in the previous chapter on initial mentions showed that the boy was more likely to be introduced with a pronoun than any other character. This gave an indication that some speakers may have been establishing this character as a thematic subject at the beginning of their narration. The establishment of a
thematic subject is crucial to the investigation of the thematic strategies (Chapter 4, section 5).

In the final section of this chapter (§8.4) individual narrations are analysed to characterise each text according to one of five discourse strategies, based on those developed in previous studies (Bamberg 1987, Hemphill et al 1991, Wigglesworth 1997). Recall that in Chapter 4, it was shown that patterns of use of nominals vs. pronouns by individual speakers provide a means of characterising narrations by discourse strategy. Discourse strategies for reference tracking relate local level cohesion and texts level coherence and through the investigation of strategies developmental change can be seen (Karmiloff-Smith 1891, 1985; Bamberg 1987; Hemphill Wigglesworth 1997).

8.2 Continuing reference

Three sets of results are presented in this section. Tables 8.1 and 8.2 provide baseline figures to consider before moving to the results for the pairings of forms (nominal and pronominal forms) to discourse functions (switching and maintaining reference). Figure 8.1 shows the noun types used in the texts. It shows the number of references overall and the total number and percentage of nominal and pronominal references. Below these figures, the number and percentage of pronouns and nouns in the narrations in each age group are detailed.

<table>
<thead>
<tr>
<th>Noun</th>
<th>Pronoun</th>
<th>Total References</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1210</td>
<td>53.44%</td>
</tr>
<tr>
<td></td>
<td>1054</td>
<td>46.55%</td>
</tr>
<tr>
<td></td>
<td>2264</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>By age</th>
<th>Six</th>
<th>Eight</th>
<th>Ten</th>
<th>Twelve</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total references</td>
<td>336</td>
<td>384</td>
<td>440</td>
<td>505</td>
<td>599</td>
</tr>
<tr>
<td>Nouns</td>
<td>147</td>
<td>189</td>
<td>280</td>
<td>295</td>
<td>299</td>
</tr>
<tr>
<td>% Nouns</td>
<td>43.75</td>
<td>49.21</td>
<td>63.63</td>
<td>58.41</td>
<td>49.91</td>
</tr>
<tr>
<td>Pronouns</td>
<td>189</td>
<td>195</td>
<td>160</td>
<td>210</td>
<td>300</td>
</tr>
<tr>
<td>% Pronouns</td>
<td>56.25</td>
<td>50.78</td>
<td>36.36</td>
<td>41.58</td>
<td>50.08</td>
</tr>
</tbody>
</table>
Table 8.1: Total References and Referential form overall and by age

The results show a gradual increase in the number of references across the age groups and this is a developmental finding, as it is an indicator of text length. It should be recalled that in all child groups there are 10 speakers, and only 8 in the adult group. The breakdown of the figures by age reveals that the six-year-olds used more pronouns than other groups, while the ten-year-olds stand out with a higher proportion of nouns than other groups. This high rate of nominal use is a notable finding. The twelve-year-olds fall between the ten-year-olds and the eight-year-olds, who rate similarly to adults on this count. Six-year-old group used a higher percentage of pronouns than the older age groups.

Table 8.2 shows the number and percentage of the two discourse functions investigated in this chapter: maintenance and switch. The first line shows that number and percentage of references devoted to reference maintenance overall, and the number and percentage of reference devoted switch reference overall, followed by the number and percentages for each age group. The figures by age show that adults maintained reference more than any of the child groups, though the percentage of maintained references by adults was only slightly higher than that of the twelve- and eight-year-olds. The six- and ten-year-olds rated slightly less on this count.

<table>
<thead>
<tr>
<th>Total Maintained references</th>
<th>1044</th>
<th>46.11%</th>
<th>Total Switch references</th>
<th>1220</th>
<th>53.88%</th>
</tr>
</thead>
<tbody>
<tr>
<td>By age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total references</td>
<td>336</td>
<td>384</td>
<td>440</td>
<td>505</td>
<td>599</td>
</tr>
<tr>
<td>Total maintenance</td>
<td>141</td>
<td>177</td>
<td>183</td>
<td>242</td>
<td>301</td>
</tr>
<tr>
<td>% maint.</td>
<td>41.96</td>
<td>46.09</td>
<td>41.59</td>
<td>47.92</td>
<td>50.25</td>
</tr>
<tr>
<td>Total switch reference</td>
<td>195</td>
<td>207</td>
<td>257</td>
<td>263</td>
<td>298</td>
</tr>
<tr>
<td>% switch</td>
<td>58.35</td>
<td>53.9</td>
<td>58.40</td>
<td>52.07</td>
<td>49.74</td>
</tr>
</tbody>
</table>

Table 8.2: Maintenance versus Switch Function overall and by age
The final set of baseline results focus on noun types across the five age groups, for both switch and maintenance functions. It reveals that four noun types occurred in the data, for both reference maintenance and switch. The results mirror the results for noun types detailed in Chapter 7 and are an indicator of code choice across the age groups. Three forms occurred most frequently: recognitional determiner + noun, e.g. ‘dat papi’, bare nouns, e.g. ‘papi’ and, in the English texts only, the + noun, e.g. ‘the dog’. Dislocated structures\(^{40}\) occurred at slightly higher rates than for initial introductions, with 11%-16% of nominals occurring as dislocated structures in the children’s narrations and 20% in the adult narrations.

Across the child groups, nouns marked with the recognitional determiner were the most common noun type. In all child groups bare nouns occurred, with the twelve-year-olds using a higher proportion than the younger child groups. Among the adult texts, bare nouns (27%) were almost as common as recognitional determiner + noun (39%). The English definite determiner (realised as ‘da’ in some instances) occurred in all age groups, and these instances stemmed almost exclusively from the narrations told in English. The highest proportion of this type can be seen among the ten-year-old children.

\(^{40}\) The noun type ‘dislocation’ in Figure 8.1 combines left dislocated structures (‘papi i’, ‘dat papi i’) and the small proportion of right dislocated structures, which occurred (‘i bin bark, papi’ / ‘i bin bark dat papi’). It also combines dislocations that occurred with a determiner and bare left dislocations. The dislocations that occurred in the child texts were overwhelming Det + N + Pro, while the instances in the adult texts were divided between Det + N + Pro and N + Pro.
olds in Figure 8.1. Only a very small number of instances of bare nouns and left dislocated structures were found in the 14 English texts. The following section (§8.2.1) shows that nouns were used overwhelmingly for reference switch and to less extent for reference maintenance. The results for noun types are not given separately for these discourse functions, but are collapsed in Figure 8.1. However, the difference in the percentages for the various noun types in the two discourse functions was very small for the child groups, indicating that global averages did not reveal that any noun type was more likely to occur in switch or maintenance setting. Adults, on the other hand, used a slightly higher proportion of left dislocations for reference maintenance than for switch reference. This appears to be related to the use of repetition that was common in their stories.

The general results thus far reveal a number of points. First, the number of references to characters overall show an increase with age, with the six-year-olds producing the lowest and the adults the highest number, a developmental finding detailed in previous studies of reference (Berman & Slobin 1994b, Hickmann et al. 1995, Wigglesworth 1993) and narrative more generally (Berman and Slobin 1994a). The group averages show that adults and eight year-olds used nouns and pronouns in roughly equal proportions, while the six-year-olds used more pronouns than nouns. The result for the ten-year-olds differs from all others dramatically, with 63% of references occurring as nominals. This was not expected and does not mirror results previous studies.

Table 8.2 revealed that adults, twelve- and eight-year-olds maintained and switched reference in roughly equal proportions, while again the six- and ten-year-olds stand out, with the percentage of references switched higher than maintained. The results for form-function pairings are considered in the next sections.

8.2.1 Reference maintenance and reference switch

There are a number of ways in which continuing reference to a specific character is achieved. Having introduced the linguistic referent, appropriate anaphoric reference allows continued the reference. Anaphoric reference may be marked by a full nominal, a pronoun, or a zero anaphor. The important element in anaphoric reference
is that the reader/listener be able to map the anaphor onto its linguistic antecedent from his/her mental representation of the preceding discourse. Maintained reference across adjacent clauses is a discourse context in which the referent is high in accessibility, by virtue of the recency of mention of the referent. So long as there is no other potentially competing referent, a pronoun is likely to be the most economical expression. Its use contributes to the achievement of cohesion within and between clauses. In Wumpurrarni English narrative, however, full lexical nouns may occur where reference is maintained. Thus the results for maintaining reference may reflect this language specific feature.

Figure 8.3 shows that for all age groups, a maintained referent was substantially more likely to be a pronominal expression than a nominal expression. Adults maintained reference with a pronoun nearly 80% of the time, the eight- and twelve-year-olds at a slightly lower rate. The six-year-olds did so at a slightly higher rate, and the ten-year-olds maintained referents with a nominal at the highest rate, 38.75%.

![Figure 8.2 Nouns and pronouns to maintain reference by age](image_url)

Switch reference, like the introduction of new referents, is a low accessibility discourse context. Where there is potential ambiguity between referents, this
reintroduction needs to flag that the referent has changed, through a full nominal expression. Figure 8.2 shows the percentage of nouns to pronouns for this function by each age group. Clearly all groups used nouns at a much higher frequency than pronouns to switch reference, with nouns appearing in this discourse context more than 60% of the time. However, a gradual increase in the percentage can be detected, with each child group using slightly more than the last. The lowest rate is among the six-year-olds (65.5%) and highest among the twelve-year-olds (86.7%). Adults, however, rate just below the ten- and twelve-year-olds.

![Figure 8.3 Percentage of pronouns and nouns to switch reference by age](image)

To review the second set of results (Figures 8.2 and 8.3), findings from previous studies suggest that in maintaining reference all speakers prefer pronouns to noun and Table 8.2 showed this to be true of the current data. However, from previous results one would not predict that six-year-olds would rate highest on this count. Previous studies have either shown that children of this age maintain reference pronominally at similar rates to older speakers (Clancy 1992; Hickmann and Hendriks 1999; Wong and Johnston 2004) or, with, in studies of the frog story, at rates lower than older children and adults. Hickmann, Kail et al (1995) found evidence of development of reference in narration quite late in childhood. In this study, nine-year-old children used nouns to maintain reference at much higher rates at page and episode boundaries than eleven-year-olds. They concluded that only at age eleven do children follow
discourse-internal principles, and prior to this they are influenced by the internal and external structure of the prompt (§4.3.2.2). However, this study did not find nine-year-olds to be more influenced by the structure of the prompt than younger children, which is what appears to be the case for the ten-year-olds in the results provided in Figure 8.2. Thus while the results for the ten-year-olds in Figure 8.2 might be explained by structural properties, an account must be given for why this has not affected the eight- or six-year-olds to the same extent.

Wigglesworth found that a small number of ten-year-olds in her study engaged a nominal strategy in their narrations of the frog story, which involved picture description rather than the creation of a cohesive discourse. A small number maintained this for the entire narrative, and others adopted it for particular segments, such as the complex second episode. This latter use was, however, more common among eight and six-year-olds. This is taken up in §8.4, where individual narratives are characterised on the basis of strategies, and in the following chapter, which investigates strategy use in different segments in the story.

A further explanation for high levels of nominals to maintain reference in the current data might be the use of repetition and subject chaining, which has been described as a feature of Wumpurrarni English. However, it would be unexpected that this factor impacts most heavily on the results of the ten-year-old group, given this group has the highest proportion of English texts. This explanation may be useful, however, in interpreting results for the adults.

All age groups preferred nominal expressions for switch reference function, and results show an increase across the child groups, in line with previous studies. However, adults used pronominals for this discourse function at levels slightly above the ten- and twelve-year-olds, which was not expected. The use of pronouns to switch reference is one type of evidence for a thematic subject. Attention will be paid to narrative style by adults in assessing this finding.
8.3 Evidence for a thematic subject

Five criteria are applied to establish whether the boy, the dog or the boy&dog, or any combination of these characters are treated as thematic subjects in any of the groups under investigation. The first two consider the frequency of reference of all characters (Table 8.3) and then frequency of pronominalisation of the boy, the dog and the boy&dog (Table 8.4). Two further kinds of evidence require examination of form and discourse function. Tables 8.5-8.7 detail results for form-function pairings (the use of pronominals and nominals in reference maintenance and switch settings) in references to the boy, the dog and the boy and dog acting together. This is important in identifying whether there is a tendency to switch reference to main characters with a pronoun among any of the age groups. Tables 8.8-8.11 focus on the appearance of main characters pronominal grammatical subjects. Tables 8.12 and 8.13 look at pronominalisation and subject status and discourse function. Finally, zero subject pronouns are grouped according to referent (Table 8.14).

Hickmann and Hendricks (1999, and Hickmann 2003) have argued that the special status of the main character result from factors associated with properties of the prompt combined with general discourse pragmatic patterns, rather than a ‘thematic subject’ as proposed by Karmiloff-Smith (1981, 1985). These factors are:

1. greater frequency of reference to the character (due to the prompt)
2. factor 1 leads to increased co-reference relations
3. frequent use of NP’s in subject slot.

The third point draws on the pragmatic tendency in many languages for subjects to be topics (Andrews 1985). Topics are “by definition given, that is, presumed to be known by virtue of the preceding discourse or already shared knowledge” (Andrews 1985). Factors 1 and 2 lead to main characters occurring commonly as topics of clauses. Certainly subjects and topics tend to occur in initial position and this position is associated with topicality and prominence marking in Wumpurrarni English (§3.4), traditional Australian languages (Simpson 2006) and Creole varieties such as Fitzroy Valley Kriol (Hudson 1983). The thematic subject draws on this pragmatic tendency. However, its formulation with respect to developmental patterns focuses on the way that this is generalised to manage the discourse globally, to the point of overriding
other discourse pragmatic principles (such as switching with a nominal) by children in ways, and to a degree not found in adult productions. Thus Tables 8.5-8.7 and Tables 8.12 and 8.13 are crucial in revealing the use of a thematic subject. The extract in (8.1) shows this strategy, as reference to the boy is pronominalised irrespective of discourse function:

(8.1) Page 8)

\[
\begin{align*}
\text{dat lidlboi bin fol-dan na pawumpawu} & \\
\text{Det boy Pst fall-down Dis poor thing} & \\
\text{aul deya na} & \\
\text{owl there Dis} & \\
\text{i bin go na} & \\
\text{(i = the boy)} & \\
\text{3S Pst go Dis} & \\
\text{dat aul bin na top, flai-ing, Ø falo-im bihein.} & \\
\text{Det owl Pst Loc top fly-Prog 3S follow-Tr behind} & \\
\text{i bin sing-at agin.} & \\
\text{(i = the boy)} & \\
\text{3S Pst call out again} & \\
\text{da dog bin na graun,} & \\
\text{there dog Pst Loc ground} & \\
\text{im sing-in-at.} & \\
\text{(im = the boy)} & \\
\text{3S-NF call-Prog-out} &
\end{align*}
\]

*The boy fell down, poor thing. There’s an owl there. He went, the owl was above, flying, following him. He called out again. The dog was on the ground, he called out again.*

(FR10.9)

It was predicted that some children might use a thematic subject strategy to manage reference and globally organise the discourse around the central character (§4.6.1) (the boy or possibly the boy and dog).

The number and percentage of references to the boy, the dog, the boy&dog acting together are compared to the total number of references over all in Table 8.3. The figures reveal an overall uniform pattern of the frequency of mention of each character or character group. In all age groups the boy was referred to more frequently than any other character (around 40%), in line with previous studies. The dog and the boy&dog invited between 15 and 25% of all references in all groups.
If we consider the references to the boy plus those that include the boy (boy&dog), we see that references to the boy make up between 50% and 60% of all references in all groups. On this scale, the boy appears to be the likeliest candidate for thematic subject status. In the next table we consider pronominal reference, restricting the results to references to the boy, dog and boy&dog, as the other characters clearly emerge as secondary in all age groups. Table 8.4 shows the number and percentage of pronominal references to the boy, the dog and the boy&dog in relation to the total number and percentage of pronouns overall.
Once again there is considerable uniformity across the ages, with all ages pronominalising the boy at higher rates than any other character. Pronominal reference to the boy and boy&dog make up 70-80% of all pronominal reference. This finding mirrors previous studies of the frog story (Bamberg 1987, Hemphill et al 1991, Hickmann et al 1995, Wigglesworth 1997) and the general pattern that main characters are pronominalised at higher rates than secondary characters (Hickmann 2003, Hickmann & Hendriks 1999). Table 8.4 shows that the figure for the adult group is higher than any other group and this may be related to the result in Table 8.2, which showed adults maintained reference at higher rates than the other groups. Pronominal reference to the dog was slightly lower among the eight-year-olds than the other age groups, although all groups used pronouns at low rates for this character. The eight-ten- and twelve-year-olds referred to the pair acting together at slightly higher rates than the other age groups. The table also reveals that around 70% of all pronominal references made by each age-group was in reference to the boy and the boy&dog. We focus now on grammatical and discourse role.

8.3.1.1 Pronominalisation, discourse function and initial position

The previous two tables have shown that the boy and the boy&dog were referred to and pronominalised more frequently than other characters by all age groups. In this section the treatment of these main characters in switch and maintenance functions (Tables 8.5-8.7), the selection of characters to pronominalise in initial position (Tables 8.8-8.11). Finally the combination of these variables, form and function pairings for pronominal subjects is investigated (Tables 8.12 and 8.13).

<table>
<thead>
<tr>
<th></th>
<th>Six</th>
<th>Eight</th>
<th>Ten</th>
<th>Twelve</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boy: Total SW</td>
<td>75</td>
<td>96</td>
<td>98</td>
<td>99</td>
<td>109</td>
</tr>
<tr>
<td>Boy: Total SW Pro</td>
<td>35</td>
<td>40</td>
<td>21</td>
<td>14</td>
<td>38</td>
</tr>
<tr>
<td>% Boy SW Pro</td>
<td>46.66</td>
<td>41.66</td>
<td>21.42</td>
<td>14.14</td>
<td>34.86</td>
</tr>
<tr>
<td>Boy: Total MN</td>
<td>60</td>
<td>62</td>
<td>70</td>
<td>84</td>
<td>120</td>
</tr>
<tr>
<td>Boy: Total MN Pro</td>
<td>44</td>
<td>44</td>
<td>43</td>
<td>57</td>
<td>106</td>
</tr>
</tbody>
</table>
The table shows that the six- and eight-year-olds switched reference to the boy with a pronoun at comparably higher rates than the other groups, lending some tentative support to a thematic subject. The results for the ten- and twelve-year olds show a very different pattern. The rates of pronominalisation for switch reference are very low, in comparison the results for younger children.

The results for reference maintenance are also interesting, as the ten- and twelve-year-olds appear to have pronominalised reference at slightly lower rates than the child groups below them. This is an unexpected result in the light of previous studies, but was raised in the results for reference maintenance generally in Table 8.2.

Adults switched and maintained reference to the boy with a pronoun at higher rates than the ten- and twelve-year-olds. In the previous chapter it was shown that adult’s use of pronouns in low accessibility settings functioned differently to that of children’s use and this point warrants further attention in the analysis of individual narrations.

All groups switched reference to the dog with a pronominal expression at much lower rates than to the boy, as Table 8.6 reveals:

<table>
<thead>
<tr>
<th></th>
<th>Six</th>
<th>Eight</th>
<th>Ten</th>
<th>Twelve</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dog: Total SW</td>
<td>49</td>
<td>51</td>
<td>64</td>
<td>60</td>
<td>91</td>
</tr>
<tr>
<td>Dog: Total SW Pro</td>
<td>10</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>% Dog SW Pro</td>
<td>20.40</td>
<td>1.96</td>
<td>7.81</td>
<td>0.00</td>
<td>8.79</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Six</th>
<th>Eight</th>
<th>Ten</th>
<th>Twelve</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dog: Total MN</td>
<td>16</td>
<td>12</td>
<td>30</td>
<td>29</td>
<td>50</td>
</tr>
<tr>
<td>Dog: Total MN Pro</td>
<td>13</td>
<td>9</td>
<td>17</td>
<td>17</td>
<td>30</td>
</tr>
<tr>
<td>% Dog: MN Pro</td>
<td>81.25</td>
<td>75.00</td>
<td>56.66</td>
<td>58.62</td>
<td>60.00</td>
</tr>
</tbody>
</table>

Table 8.6 Switching and maintaining reference to the dog
The youngest group pronominalised more frequently in both switch (20.4%) and maintenance (81.25%) function, but the older groups clearly avoided pronominalisation in the absence of an antecedent. However, the six-year-old group referred to the dog pronominally less frequently to switch reference (20.4%) than they did the boy (52.23%).

The numbers of references to the boy&dog are far smaller than to the boy (Table 8.5) but Table 8.7 reveals a higher percentage of pronominal switches to the pair than to the boy alone, particularly among the ten- and twelve-year-olds. The use of a pronoun to maintain reference to the pair is also higher than pronominal reference maintenance overall (Figure 8.3).

<table>
<thead>
<tr>
<th></th>
<th>Six</th>
<th>Eight</th>
<th>Ten</th>
<th>Twelve</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boy&amp;Dog: Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW</td>
<td>24</td>
<td>38</td>
<td>26</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>B&amp;D: Tot. SW Pro</td>
<td>16</td>
<td>27</td>
<td>17</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td><strong>% B&amp;DSW Pro</strong></td>
<td>66.66</td>
<td>71.05</td>
<td>65.38</td>
<td>57.14</td>
<td>64.70</td>
</tr>
<tr>
<td>B&amp;D: Tot. MN</td>
<td>39</td>
<td>59</td>
<td>45</td>
<td>84</td>
<td>75</td>
</tr>
<tr>
<td>B&amp;D: Tot. MN Pro</td>
<td>34</td>
<td>50</td>
<td>36</td>
<td>75</td>
<td>68</td>
</tr>
<tr>
<td><strong>% B&amp;D: MN Pro</strong></td>
<td>81.17</td>
<td>84.74</td>
<td>80.00</td>
<td>89.28</td>
<td>90.66</td>
</tr>
</tbody>
</table>

Table 8.7 Switching and maintaining reference to the Boy&Dog

The next set of tables (8.8-8.11) focus on pronominalisation in references to the three main characters in subject position. Table 8.8 provides the number and percentage of pronominal references in subject position, and Tables 8.9-8.11 for the boy, dog and boy&dog.

<table>
<thead>
<tr>
<th></th>
<th>Six</th>
<th>Eight</th>
<th>Ten</th>
<th>Twelve</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Subject</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>references</td>
<td>264</td>
<td>307</td>
<td>358</td>
<td>395</td>
<td>487</td>
</tr>
<tr>
<td>Total Pro. Subject</td>
<td>163</td>
<td>170</td>
<td>144</td>
<td>182</td>
<td>261</td>
</tr>
<tr>
<td><strong>% Pro. subject</strong></td>
<td>61.74</td>
<td>55.37</td>
<td>40.22</td>
<td>46.07</td>
<td>53.59</td>
</tr>
</tbody>
</table>
Table 8.8 Pronominal reference in subject position

<table>
<thead>
<tr>
<th></th>
<th>Six</th>
<th>Eight</th>
<th>Ten</th>
<th>Twelve</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boy: total Subject</td>
<td>111</td>
<td>118</td>
<td>155</td>
<td>159</td>
<td>198</td>
</tr>
<tr>
<td>Boy: Pro. Subject</td>
<td>72</td>
<td>77</td>
<td>61</td>
<td>78</td>
<td>123</td>
</tr>
<tr>
<td>% Boy Pro. Sub.</td>
<td>64.86</td>
<td>65.25</td>
<td>42.36</td>
<td>42.85</td>
<td>47.12</td>
</tr>
</tbody>
</table>

Table 8.9 Pronominal reference to the boy in subject position

One criteria for the thematic subject is its pronominalisation in subject position, and this is mostly to be found in the narrations of six-year-old and possibly also in those of older children. Table 8.9 shows that, as a group, the six-year-olds were as likely to pronominalise the boy in subject position as for the characters overall and the and eight-year-olds were more likely to do so. The ten- and twelve-year-olds and adults were slightly less likely. The treatment of the dog by all ages differs from that of the boy, as table 8.10 shows:

<table>
<thead>
<tr>
<th></th>
<th>Six</th>
<th>Eight</th>
<th>Ten</th>
<th>Twelve</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dog: Tot. Sub.</td>
<td>55</td>
<td>53</td>
<td>79</td>
<td>74</td>
<td>118</td>
</tr>
<tr>
<td>Dog: Pro. Sub</td>
<td>22</td>
<td>9</td>
<td>17</td>
<td>15</td>
<td>33</td>
</tr>
<tr>
<td>% Dog: Pro Sub</td>
<td>40.00</td>
<td>16.98</td>
<td>21.51</td>
<td>20.27</td>
<td>27.96</td>
</tr>
</tbody>
</table>

Table 8.10 Pronominal reference to the dog in subject position

The dog is less likely to be pronominalised in subject position than the boy and than overall, in all age groups. The six-year-old group rated highest here, though the figures for this group show that the six-year-old group used a higher proportion of pronominals than nominals than the other groups, generally (Table 8.1) and in subject position (table 8.8).

Table 8.11 presents another pattern, with a substantial tendency among all groups to pronominalise the boy&dog.
Table 8.11 Pronominal reference to the dog in subject position

Table 8.11 reveals that the six- and eight-year-olds used even higher percentages of pronouns for the boy&dog than for the boy. However, all age groups referred to the boy&dog pronominally at much higher rates than the boy or the dog or overall (Table 8.8). Given this uniformity, further explanation is sought for this results and these are discussed in relation to the results for Table 8.13. In this table and Table 8.12, the trend for six- and eight-year-olds, emerging in Table 8.9, can be seen more strongly. Table 8.12 shows the percentage of pronouns used in subject position to switch and maintain reference to the boy, and Table 8.13, to the boy&dog.

Table 8.12 Pronominal reference for grammatical subject for the boy by function

The six- and eight-year olds use of pronominals to switch subject when referring to the boy appears to offer further evidence that speakers in this age group may be using a thematic subject strategy. The percentages are much lower for the ten- and twelve-year old speakers, posing a clear difference between these groups and the two younger groups. The adult group, on the other hand, appears to represent an intermediate point.

Consideration of reference maintenance of this character in subject position, clearly all age groups are much more likely to pronominalise in co-referent contexts, with all
rating over 60% in this measure. But here the curious result emerges that while adults and the two youngest groups do so in more than 75% of instances, the ten- and twelve-year-olds did so at lower rates (63.88% and 67.08% respectively).

<table>
<thead>
<tr>
<th></th>
<th>Six</th>
<th>Eight</th>
<th>Ten</th>
<th>Twelve</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>B&amp;D: Total Subject SW References</td>
<td>13</td>
<td>33</td>
<td>20</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>B&amp;D: Pro Sub. SW</td>
<td>1</td>
<td>25</td>
<td>9</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>% B&amp;D Pro.Sub. SW</td>
<td><strong>76.92</strong></td>
<td><strong>75.75</strong></td>
<td><strong>45.00</strong></td>
<td><strong>66.66</strong></td>
<td><strong>68.42</strong></td>
</tr>
<tr>
<td>B&amp;D: Tot. Sub. MN</td>
<td>34</td>
<td>54</td>
<td>51</td>
<td>82</td>
<td>72</td>
</tr>
<tr>
<td>B&amp;D: Pro. Sub. MN</td>
<td>29</td>
<td>49</td>
<td>45</td>
<td>73</td>
<td>65</td>
</tr>
<tr>
<td>% B&amp;D: Pro. MN</td>
<td><strong>85.29</strong></td>
<td><strong>90.70</strong></td>
<td><strong>88.23</strong></td>
<td><strong>89.02</strong></td>
<td><strong>90.27</strong></td>
</tr>
</tbody>
</table>

Table 8.13 Pronominal reference for grammatical subject for the boy&dog by function

A number of interesting differences between the results in Table 8.12 and 8.13 should be highlighted. First, considering switch reference tokens, all groups were more likely to use a pronoun with the joint characters, the boy&dog. While pronominalisation in subject position is one type of evidence for a thematic subject, the results in Table 8.13 (and Table 8.11 above) should be considered in the light of other factors, such as properties of the prompt and the form of the pronoun. There are relatively few opportunities for plural reference in the story apart from the boy&dog, limited largely to the bees and the family of frogs. Thus the plural reference to the boy&dog, combined with factors such as the verbal semantics and other meaning aspects may be mean that a plural pronominal reference is reasonably unambiguous in the contexts in which it occurs. This is not so for the third person singular pronoun, which in Wumpurrarni English does not distinguish human from non-human referents (‘i’, ‘im’) and so a direct comparison between the results for pronominal switch reference to the boy, in table 8.12 and those to the pair acting together cannot be made. However, a comparison of the results for maintaining reference raises other issues.

---

41 In Wumpurrarni English there is a dual pronoun *dubala*, which would further contribute to the clarity of reference, given that the boy and dog are the dominant pair in the story. However, its use was limited and so this form variation was not coded.
While the ten- and twelve-year-old speakers appeared less sensitive to local coreference, using fewer pronouns to refer to the boy to maintain reference than other groups, this is not the case for the boy&dog. The question of how widespread the use of nouns to refer to the boy to maintain reference is in the individual narrations of these older children, and why this may be occurring requires further explanation. Before seeking this, one further set of results is presented. Table 8.14 shows the proportion of zero subject anaphora in relation to pronouns overall, and the percentage used to refer to the boy and the boy&dog.

<table>
<thead>
<tr>
<th></th>
<th>Six</th>
<th>Eight</th>
<th>Ten</th>
<th>Twelve</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total zero subject anaphora</td>
<td>11</td>
<td>14</td>
<td>30</td>
<td>44</td>
<td>53</td>
</tr>
<tr>
<td>% Zero Sub. anaphora</td>
<td>5.82</td>
<td>7.17</td>
<td>18.75</td>
<td>20.95</td>
<td>17.66</td>
</tr>
<tr>
<td>Boy,Boy&amp;Dog: Zero</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suj. anaphora</td>
<td>4</td>
<td>6</td>
<td>18</td>
<td>31</td>
<td>38</td>
</tr>
<tr>
<td>% Boy,Boy&amp;Dog: Zero</td>
<td>36.36</td>
<td>42.85</td>
<td>60.00</td>
<td>70.45</td>
<td>71.69</td>
</tr>
</tbody>
</table>

Table 8.14 Zero subject pronoun references to the boy and boy&dog

Two trends can be detected in Table 8.14. First, there is a clear increase with age in the use of zero subject anaphora. The second trend is the higher rate of zero subject anaphora devoted to the boy&dog, by the two older child groups and by adults. The small number of tokens by the six- and eight-year olds appears to be spread over a range of characters.

8.2.3 Summary of results

The analyses so far has revealed the following general points:

1. the boy is most frequently referred to by all groups.
2. pronominal reference to the boy and the boy&dog makes up a high proportion of pronominal references by all groups and references to the boy&dog are more frequently pronominal than nominal regardless of discourse function.
3. in general, pronominalisation in utterance initial position is not reserved
exclusively for the boy, although all age groups show a preference for this, the eight-year-olds most strongly.

4. for all groups, pronominals are avoided when switching reference to the dog, and for the children, even where reference is maintained, pronominals are used less than 60% of the time, by the ten-, twelve-year-olds and adults.

The following age related tendencies emerged:

5. pronominalisation of the boy and boy& dog in a reference switching function is used by six- and eight-year-olds much more than by the adults and pronominal switch to the boy in subject position was highest among six- and eight-year-olds.

6. pronominalisation of the boy and boy& dog in a reference switching function is used much less by ten- and twelve-year-olds than adults and younger children.

7. ten- and twelve-year-olds maintained reference to the boy and the dog with a pronoun less than adults and younger children.

8. zero subject anaphora was more common in ten- and twelve-year-olds' and adults' narrations than in six- and eight-year-olds and was used most commonly for the boy and boy& dog.

On the basis of these global results, there appears to be some evidence that among the six- and eight-year-old groups a thematic subject strategy may be in use. While the boy emerges clearly as thematic subject, so too do the boy&dog acting together. Among the ten- and twelve-year-olds there is a pattern of a higher proportion of nominals in reference maintenance and switch than the other groups and this may be evidence that some speakers may have engaged a nominal strategy. Alternatively, this may be due to the use of repetition and subject chaining.

The picture is not clear for the adult group, with adults clearly preferring nominals for switch reference function and pronominals for reference maintenance, but use of pronominals for references to the boy and boy&dog in switch settings. Previous results of adult productions have revealed that their productions may be most variable,
as these mature users have access to the widest range of rhetoric styles (Berman and Slobin 1994a; Wigglesworth 1997).

Global results may indicate age-related trends, but may also mask inter-speaker variation. As the number and percentages of references to the boy and boy&dog are high, an analysis of individual narrations, focusing on references to these characters is warranted. With this basis established, we turn now to investigate individual narrations.

8.4 Discourse strategies: Individual narrations

In Chapter 4 (§4.4) studies of reference, which have investigated discourse strategy were reviewed, with particular attention paid to the analysis by Wigglesworth (1993, 1997). This analysis and its method were useful in a number of ways. First, the study identified a range of discourse strategies and showed which strategies were common to speakers of different ages, building on previous developmental explanations regarding discourse strategy (Karmiloff-Smith 1981, 1985; Bamberg 1987). Further it proved successful in showing intra-group variation in the ways that children of the same age tracked the main characters.

8.4.1 Method

The method in this analysis relied on a set of criteria for identifying five discourse strategies, adapted from that devised by Wigglesworth (1997: 288) to suit Wumpurrarni English data. The criteria and five strategies developed for the current study are presented in Figure 8.4.
The strategies Wigglesworth found in her study proved to be suitable for the characterisation of the narratives in the current study, although some changes were made to Wigglesworth’s original set (§4.4). First, two changes were made to the anaphoric strategy. This strategy is characterised by the use of pronouns to maintain reference, nouns to switch reference, as in example (8.2):

(8.2) den  dat  dog bin stak  in dat [um] ja.
then Det dog Pst stuck in Det jar

an dat lilboi bin luk in dat [um] witch _kayi hat.
and Det boy Pst look in Det witch-Poss hat

dei bin luk  atsaid in  da windo,      bat nathing,
3Pl Pst look outside in Det window but nothing

an   den dat  dog bin fol,
and then Det dog Pst fall

i   bin smesh dat ja.
3S Pst smash Det jar

an   dat boi  bin luk,
and Det boy Pst look

wen   i  bin jamp,
when 3Sg Pst jump

i   bin git apset.
3S Pst get upset
And the dog was stuck in the jar, and the boy looked in the witch’s hat. And they looked out the window, but in vain. And then the dog fell and it smashed the jar and the boy saw, [and] when it jumped, he got upset.

The anaphoric strategy in Wigglesworth’s criteria allowed for some nouns to maintain reference, pronouns to switch reference. The criteria for the anaphoric strategy for the Wumpurrarni English data allows for slightly more pronouns to switch (5%) and nouns overall (10%) than in Wigglesworth’s criteria. This was to capture the narrations, which tend to rate high on these form-function pairings due to repetition, as in examples 8.3) – 8.5):

(8.3) kunapa jamp deya,  
    dog      jump there

    i traina gid-im dat hani rigin.  
    3S try      get-Tr Det honey apparently

    the dog jumps, its seems it’s trying to get the honey (hive/bees)

[five intervening lines, in which subject is shifted to the boy and object, to the frog]

    i    bin nok-em na.  
    3S Pst  hit-Tr    Dis

    kunapa deya stand-ing tri-kana,  
    dog    there stand-Prog tree-Loc

    Ø nok-em im.  
    3S hit-Tr    3S-O

    it hit it, the dog is there standing at the, tree it hit it  
    (FRA8: 96-101)

The return to the dog as subject in the third line is carried out with a pronoun, then in the line, where reference to the dog is maintained, this is with a nominal. The switch with a pronoun, then follow up with a nominal is similar to the pattern described for initial introductions by adults (§7.3).

Repetition and rephrasing of elements of clauses or entire clauses was common in the adult data, as in (8.4) and (8.5):

(8.4) frokfrok i    bin klaim-at dat ja  
    frog     3S Pst   climb-out Det jar

    dat big frok i   bin klaim-at.  
    Det big frog 3S Pst climb-out
the frog it climbed out of the jar
the big frog climbed out.  (A3: 19-21)

(8.5) dat lidlboi bin klaim nanga ston-kana, na olabat.
Det boy   Pst climb Loc   stone-Loc  Dis all around

an dat lidlboi klaim rait top na, na hil-kana,
and Det boy   climb right top Dis   Loc hill-Loc
the little boy climbed all the stones
and the little boy climbed right to the top of the hill   (A5: 128-131)

Such instances are responsible for the relatively high counts of these form-function pairings revealed in the results for adults above. This represents an important difference between Wumpurrarni English and English narrative style, which has implications for reference tracking. This difference has been incorporated into the quantitative method devised.

The second change involved adding a pronominal strategy as this captured the narrations of three six-year-olds, in which reference to the boy and boy&dog were near exclusively pronominal. This ‘here and now’ strategy has been noted in the narratives of three- five-year-olds (Karmillof-Smith 1981; Bamberg 1987; Wigglesworth 1993)42. Example (8.6) is an extract from 6.8, one of the ‘pronominal’ narrations.

(8.6) (Page 9)
an     i    bin klain -ed-ap   na  dat ding.  (i = the boy)
and 3S Pst climb-Pst-up  Loc Det thing

an     i     bin it-im misel.  
and 3Sg Pst hit-Tr Refl

and dog finish

(Page 10)

and 3Pl Pst fall-down Loc water

42 Wigglesworth later described this as ‘no strategy’ (1997: 300).
This child (6.6) used very few nouns overall, and pronominalised secondary as well as main characters in switch reference setting. Without reference to the pictures, the narrative is impossible to follow. In an earlier study (1993) Wigglesworth did include a nominal/pronominal strategy for similar productions.

The thematic subject remains as described by Wigglesworth (1997) and involves the use of pronouns for more than 70% of switches to the main characters, the boy and the boy&dog. Example (8.7) shows this strategy.

(8.7)  (Page 8)
_dat lidlboi bin fol-dan na pawumpawu
Det boy Pst fall-down Dis poor thing

aul deya na
owl there Dis

i bin go na (i = the boy)
3S Pst go Dis

dat aul bin na top, flai-ing, Ø falo-im bihein.
Det owl Pst Loc top fly-Prog 3S follow-Tr behind

i bin sing-at agin. (i = the boy)
3S Pst call out again

da dog bin na graun,
there dog Pst Loc ground

im sing-in-at. (im = the boy)
3S-NF call-Prog-out
The boy fell down, poor thing. There's an owl there. He went, the owl was above, flying, following him. He called out again. The dog was on the ground, he called out again.  

(FR10.9)

The criteria for the nominal strategy remains the same as in Wiggleworth’s account. It involves very little if any use of pronouns to switch reference and a high proportion of nouns to refer to the boy and or boy&dog overall. This captures those narrations in which nouns are used to maintain reference and also those in which reference was frequently switched, which limited the opportunity to develop cohesion between clauses and to develop a rich story. Examples (8.8) and (8.9) illustrate this strategy.

Page numbers are included to show how at each new page the continuing referent is maintained with a noun in example (8.8) and within pages in example (8.9).

(8.8)  (Page 11B)
   an dat boy an dat dog fall
   (Page 12A)
   an the boy bin fes in da woda,
   (Page 12B)
   an the boy bin hepi.
   (Page 13A)
   an the boy said "yu [shaut] shaut kwait
   (Page13B)
   an da boy luk oba da big log.

   And the boy and the dog fell. And the boy was first in the water. And the boy was happy. And the boy said ‘you shout quiet’. And the boy looked over the big log.  

(FR10.2)

(8.9) (Page 1)
   dat dog is hangri fo dat frog.
   (Page 2)
   da frog i got da bodl.
   da frog jamp-ed out.
   (Page 3)
   an da boy jamp-ed out da bed.
   an da boy luk -ed anda da but.

   The dog is hungry for the frog. The frog it’s got a jar. The frog jumped out. And the boy jumped out of bed. And the boy looked under the boot  

(FR12.7)

The final discourse strategy is the partial thematic strategy. The use of both nouns and pronouns to switch reference and pronouns to maintain reference to the boy and/or boy&dog should typify this strategy group. Bamberg (1987) and Wigglesworth (1993; 1997) found the quantitative analysis for this strategy to capture a range of differently structured texts, and therefore found this strategy characterisation least sensitive.
Bamberg (1987), for instance, found that in some narrations, which on the basis of the quantitative analysis were characterised as partial thematic overall, the speaker shifted strategies from episode to episode. Some shifts involved the use of a thematic strategy and a shift to an anaphoric strategy, indicating a mature approach to the referencing task. Alternatively it represented the use of a thematic strategy in part, with a shift to a local anaphoric strategy, indicating a page-level approach. Further Wigglesworth (1993) found that in some cases the partial thematic strategy captured narrations, which were not in fact thematic at all and where no clear strategy had been adopted, but rather a ‘local anaphoric strategy’ was in use, in which some pronominalisation of maintained referents occurred but not consistently. Further, it captured narrations, particularly by younger speakers who opted to refer to the boy&dog jointly, even when the pair were acting separately, providing a particular means of simplifying the task. These matters are considered more closely in the next chapter, as a closer analysis of individual narrations is undertaken.

8.4.2 Discourse Strategies: Individual results

Table 8.16 details the quantitative analysis of individual narrations overall, applying the criteria laid out in Figure 8.4. The tables of these results are provided for reference in Appendix C.

<table>
<thead>
<tr>
<th></th>
<th>Anaphoric</th>
<th>Thematic</th>
<th>Partial</th>
<th>Nominal</th>
<th>Pronominal</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
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<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Eight</td>
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<td>4</td>
<td>1</td>
<td>0</td>
</tr>
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<td>0</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 8.15 Discourse Strategy: all narrations

Table 8.15 reveals that the anaphoric strategy was preferred by adults, with six of the eight adults adopting this strategy, and seven of the ten twelve-year-olds. The narrations of two adults were characterised as thematic and partial thematic. Adult’s preference for an anaphoric strategy has been reported in narrations of the frog story in English (Wigglesworth 1993:1997) and German (Bamberg 1987). It was expected that the oldest group, the twelve-year-olds, would be most likely to have access to this most mature model and the results show this to be the case. A number of results for the twelve-year group in the foregoing sections showed higher rates of nominals than
among adults and the eight and six-year-old groups, overall (Table 8.1), in reference maintenance function (Figure 8.2) and in reference maintenance settings (to the boy Table 8.5, 8.12). The identification of three texts as nominal provides some explanation of these results.

Four ten-year-olds’ narrations were characterised as anaphoric. This is also in line with Wiggleworth’s (1997) findings on this measure. In that study, almost half of the ten-year-olds were shown to be using an anaphoric strategy. Table 8.16 also reveals that a further four narrations were identified as using a nominal strategy. However, as for the twelve-year-olds above, this may explain the high percentages of nominals for the age group overall. Two further narrations are characterised as thematic.

The narrations by the eight-year-olds were spread across a range of strategies; three anaphoric and two thematic, one nominal and the remaining four, partial thematic. The six-year-olds are similarly spread, with two thematic, one nominal and the remaining five, partial thematic. In addition, two narrations described as pronominal (as in example 2), which are the only instances of this in the set.

8.4.3 Conclusion

The ability to track referents across narrative has been shown to develop across school years. The results in this chapter reveal that the oldest speakers, the adults and twelve-year-olds tended to adopt the most mature strategy in their narrations of the frog stories, while the two youngest groups used less mature strategies. Fewer eight-year-olds used an anaphoric strategy, while some used a thematic strategy and the majority a partial thematic strategy. As discussed above, further investigation may fine-tune this finding, as the diagnostic for the partial thematic is least sensitive. Among the youngest group, two children used the least cohesive strategy (example 8.6). Their stories were very short (see Appendix C, Table C.5) and lacked a coherent plotline. The events they described were set in the past tense, setting up a temporal narrative framework, they lacked orienting information about locations and changes in location, and transparent referencing, and so at the level of both text coherence and cohesion these narratives were incomplete. This was, however, exceptional. The remaining six-
year-olds told much fuller stories and, on the basis of the analysis carried out in this section adopted a thematic or partial thematic strategy to manage their stories. One story was characterised as nominal. As discussed in relation to the eight-year-olds, further investigation of the partial thematic texts may yield closer insights.

The results for the ten-year-old group reveal the use of an anaphoric strategy in four of the narratives, and the same number of narrations were characterised as adopting a nominal strategy. A number of explanations have been posited tentatively for this, such as a picture description mode, in which pronouns are not carried across page boundaries and language specific explanations pointing to the use of repetition in Wumpurrarni English narrative. A further code-related explanation may be found in the choice by half of the children in this age group to narrate in English. It was shown in §6.3.1 that for some children this code choice posed an additional cognitive load, as the children concentrated on the production of correct English forms, resulting in hesitations and self-corrections. Given that the task of narrating a long and complex story prompt has been shown to be a demanding one, it is possible that this is also a factor important to understanding these results. These matters are taken up in the final chapter.
Chapter 9

Discourse strategies and the interaction of code, style and task complexity

9.1 Introduction

In this final chapter, individual narrations and discourse strategies are examined in a more fine-grained and qualitative way. In the previous chapter (§8.4), each narration was characterised for discourse strategy, on the basis of a quantitative method. While the analysis provided preliminary characterisations for narrations in each age group, a number of more specific issues could not be satisfactorily explained. For instance, it was noted that the identification of discourse structured by a ‘partial thematic’ strategy (as in some six- and eight-year-old’s narrations) may mask speakers’ use of a number of discourse strategies. It has been hypothesised that children under ten are more likely than those above this age to switch between strategies at different points in the narrative (Chapter 4). The complexity of the prompt, and in particular the referencing task involved, varies from segment to segment. A close analysis of the prompt and the narrations divided by segments will allow the examination of strategy shifts, revealing developmental findings.

Further, a notable finding for the ten-year-old speakers was the higher rate of nominals for reference maintenance, and the identification of four narrations as using a nominal strategy. Two possible explanations have been posited for this. On the one
hand, the frequent use of nominals to maintain reference, and resultant characterisations of a nominal strategy, might be due to the use of repetition and elaboration, characteristic of Wumpurrarni English narrative style. Such an explanation would thus draw on language specific factors (as discussed in Chapter 3). On the other hand, the use of a nominal strategy might indicate that these speakers were organising their narratives locally, reintroducing characters at each page boundary. By examining strategy use and code choice, the explanation for such local level organization may found in the additional load that narrating in English posed to speakers. Such an account draws on code and style choice as a factor of individual variation (Chapter 6).

Thus the aim in the final analysis is to integrate a number of factors in the creation of a locally cohesive and globally coherent stretch of narrative. These factors are developmental (age, the impact of the changing demands of the prompt) and language and context specific (the pragmatics of Wumpurrarni English narrative and code and style choice). In the discussion of the findings, the interrelations between these factors are explored. This final chapter will thus provide cognitive developmental insights into narrative development, and insights about the nature of Wumpurrarni English narrative and the code and style choice in the contact setting, Tennant Creek.

9.2 Strategies and Segments: Individual analysis

9.2.1 Method

The segmentation of the story for the current investigation is identical to that of Wigglesworth (1993, 1997). Wigglesworth’s division was devised to capture the thematic unity and referential load of the various parts of the story. It was largely in line with the episodic structure identified in Bamberg and Marchman’s study (Bamberg & Marchman 1994), which tested the psychological validity of episode boundaries in this picture prompt. The four segments are as follows:
<table>
<thead>
<tr>
<th>Segment</th>
<th>Pages</th>
<th>Story outline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1-4B</td>
<td>Introduction to boy, dog &amp; frog. Frog escapes, boy and dog search separately inside house; dog falls out of window; boy follows.</td>
</tr>
<tr>
<td>2</td>
<td>5-8</td>
<td>Search is focussed outside; boy and dog undertake different activities simultaneously, interacting with other animals that appear briefly but actively.</td>
</tr>
<tr>
<td>3</td>
<td>9A-11</td>
<td>On the first frame of this segment the boy appears without the dog, and though the dog is depicted from page 10, the actions of the boy are fore-grounded in this segment.</td>
</tr>
<tr>
<td>4</td>
<td>12-15</td>
<td>New environment; boy and dog land in the pond; from this point they act in tandem, finally finding the frog family.</td>
</tr>
</tbody>
</table>

Table 9.1: Segments in the Frog Story

The first segment introduces the characters and initiates the search motif. At all points in this segment at least one character is acting alone; the frog escapes as the boy and dog sleep, the boy and dog search in different locations in the room, before the dog falls out of the window and the boy then follows. This development leads to a change of location in segment 2, as the pair set off together, and then once more undertake different activities, which bring each separately into contact with a range of additional characters and brief complicating events. The exclusive focus on the boy at page 9A signals the beginning of the third segment, in which the boy is fore-grounded as he mistakenly climbs on the horns of a deer and is carried off, though the dog does reappear in these pictures. The final segment involves a further change of location and for the remainder of the story the pair act largely together, finding the family of frogs and then leaving the scene with one of the frogs.

Wigglesworth argued that the processing requirements of the segment varied “in terms of the number of characters who appear and the differential activities they perform” (1993; 131). In segment one, the presence then absence of the frog must be detailed to propel the plot forward. After this point, however, only the boy and dog...
remain as central characters and there are a number of ways to proceed. For instance, a speaker may focus on the activities of one character and ignore the other. The pair may be referred to plurally and one or both sets of activities may be described, which Wigglesworth described as a “dynamic interaction between what is depicted in the book and how the subject relating the story describes the events” (1993: 131). The second segment involves a greater processing load, as the speaker must introduce new referents and actions that impact upon the main characters. The third segment poses less difficulty in terms of the number of characters, as the pictures fore-ground the boy. However, the story takes an unexpected turn, as the boy climbs onto the rocks and grasps some sticks. The sticks are actually the antlers of a deer, which carries the boy off. The shift of the boy from actor to patient poses other conceptual and encoding demands. The dog does appear in this segment, but is backgrounded. In the final segment, the boy and dog appear together, acting largely jointly, means that the reference-tracking task is potentially reduced.

9.2.2 Predictions and questions
On the basis of her segmental analysis of Australian English frog story narrations, Wigglesworth (1997; 305) proposed a five stage developmental model (discussed in Chapter 4, §4.5). This was designed to map stages, which are reflected in children’s ability to organize the referential content of their narrative speech. The first stage was organization at a clausal level. In the second, organization extended to the page, without reference to the previous or following pages. Where pronouns are used within clause or page boundaries, but not beyond, this is a local anaphoric strategy. Strategies, which organize discourse at the level of the clause or page are local level strategies.

In the third stage, organization reached a segmental level, with segments organized globally, generally with a thematic subject. In the fourth organization was at the narrative level. Each narrative is cohesively and coherently organized globally, either with a thematic strategy or an anaphoric strategy, with a simplified storyline. The final narrative stage was the same as stage 4. These narratives were almost always globally organized narrative around an anaphoric strategy. This model not only
allows a characterization of discourse development, but also a means of integrating local level cohesion and global coherence, two crucial and interrelated aspects of narrative structure (§4.1.). At the clause and page levels, discourse is organized at a local level. At the segmental level there is global organization but switches between strategies across would mean that across the discourse organization is both local and global. Finally, at both the narrative and globally organized narrative stages, the discourse organization is global.

The following preliminary predictions and questions for each age group are based on the hypotheses detailed in previous chapters, and on the findings in Chapter 8 (detailed in Table 8.16, which is reproduced below for ease of reference). The strategies are also divided in terms of the level of discourse organization they achieve (local/local&global/global), following the discussion above.

<table>
<thead>
<tr>
<th></th>
<th>Six</th>
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</tr>
</tbody>
</table>

Table 9.2 Discourse Strategy: all narrations (reproduced Table 8.16)

**Adults** The discourse strategy identified from the global averaging measure adopted in §8.4 will be a reliable indicator of the strategy identified for the adult narrations (detailed in Table 9.1). This is because the adults are likely to have maintained the strategy they adopted at the outset and are unlikely to be sensitive to the changing load of the various segments. Language specific factors, in particular, the use of repetition through subject clause chaining, will explain the rates of reference maintenance with a noun.

**Twelve-year-olds** These speakers are also likely to have globally organized their strategies and maintained the strategy adopted in the first segment. Thus the finding
that seven of these speakers used an anaphoric strategy generated from the global measure (Table 9.1) is likely to be largely accurate. An account for the high rates of nominalisation for reference maintenance in the group results and the identification of three narrations characterised as using a nominal strategy must be sought.

**Ten-year-olds** Most children in this age group adopted an anaphoric strategy or a thematic strategy in the first segment in Wigglesworth’s study (1997: 294) and maintained this throughout. Similarly, most of the 9-10-year-olds in Bamberg’s study of German-speaking children used an anaphoric strategy throughout. Hickmann, Kail et al (1995) found that by age eleven, the French-speaking children in their study were not sensitive to the external structure of the story and applied general discourse organizing principles throughout, however the group below, aged nine, were more sensitive to page boundaries, while Wigglesworth (1997: 293) found that at age ten most of the Australian English-speaking children in her study were unaffected by the changing referential load of the different segments in the frog story. However, close investigation revealed that a small number did change strategies, particularly at the beginning of, or part-way through the second segment. This switch was generally to a nominal or local anaphoric strategy. The local anaphoric strategy is characterised by the use of nominals to switch reference and pronoun to maintain reference, but with pronouns never carried across page boundaries. One speaker at this age described each picture independently and did not relate events in a globally structured narrative, using a nominal strategy throughout (1997: 296). Wigglesworth (1997:295) also found that the narrations were less complex and rich in detail than the adult narratives. For instance, it was common that speakers at this age referred jointly to the two main characters where possible or the simplified of the story line by ignoring the dog and focussing exclusively on the boy.

The results generated by the investigation in the previous chapter (reproduced in Table 9.1) indicate that six of the ten-year-old Warumungu children used a global referring strategy (anaphoric strategy or thematic) and it is predicted that these speakers may have maintained this throughout, or some may have switched in the second segment to a nominal or local anaphoric strategy. The narrations of four of
the children were characterised as using a nominal strategy through the global average measure. Close examination may reveal that other strategies were in use in different segments in these narrations. Further explanations have been discussed above for this result, such as the rate of emphatic subject chaining, or the impact of the code choice. Finally, it is expected that children at this age may have used the same means as the Australian-English speaking ten-year-olds in Wigglesworth’s study to simplify the referring task, i.e. joint reference to the boy & dog and omission of reference to the dog.

Eight-year-olds A number of general findings for this group indicate a developing, though not full mastery of the ability to organize reference anaphorically throughout the frog story task (Orsolini et al. 1996 for Italian; Bavin 2000 for Warlpiri).

On the overall measure the narrations of half of the eight-year-old Warumungu children were characterised as partial thematic, the strategy grouping most likely to mask switches in discourse strategy (Chapter 8, §8.4.1). It is expected that the segmental analysis will reveal that these children may have used a global referencing strategy for parts of their narrations, but are likely to have switched strategies, particularly in the second segment.

Six-year-olds Karmiloff-Smith’s original formulation of the thematic subject constraint was based on the narrations of children at this age, although subsequent studies found the original formulation too strongly stated and a less rigid version has been proposed. Evidence of a thematic subject strategy was found in the narrations of five and six-year-olds in a number of studies (Orsolini et al. 1996; Bamberg 1987), and also for older children. Despite a range of different variables in the literature, there is consensus in the various studies in a range of languages that at age five-six, mastery of discourse competence is emerging and not complete (Wong and Johnston 2004; Bavin 2000; Jisa 2000; Wigglesworth 1997; Hickmann, Kail et al. 1995; Hickmann and Hendricks 1999). In the study of Australian English-speaking children’s Wigglesworth found that most children at this age were showing clear signs of the developing ability to create a cohesive narrative, through the adoption of a thematic subject, a global organizing strategy, though children at
this age told simplified narratives, in comparison to older children (eg. joint reference to the boy&dog, omission of story details, few connectives). Children at this age are also more strongly influenced by the prompt (Hickmann, Kail et al 1995; Wigglesworth 1997).

The results generated in section 8.4 (shown in Table 9.1) indicate that two children in this group used a pronominal strategy, a here-and-now approach, which responds wholly to the prompt and lacks a discourse organizing strategy. However, the remaining narrations were classified as either thematic or partial thematic, plus one nominal text. The results from Chapter 7, regarding initial introduction of the main characters indicated that a high proportion of children at this age may have been using a thematic strategy. It is expected that the segmental analysis of the narrations by Warumungu six-year-olds will reveal that most children at this age are also beginning to globally organize their narratives. It is also expected that the Warumungu six-year-olds may prove vulnerable to the changing referential parameters of the prompt and the segmental analysis may reveal that the partial thematic strategy results mask strategy shifts.

9.3 Segments and Strategies: Results

9.3.1 Adult narratives

The stories by the adults are distinct from the child texts. Most were long, full and detailed, with changes in locations and connections between events clearly expressed. The average length of the adult narrations was higher than any of the child groups (Appendix C). All were over 80 clauses, with the exception of the narrations by A4 and A7, who narrated in English and whose narratives were relatively short (51 and 40 clauses respectively, see Appendix C, Table C1). All secondary characters were introduced in almost all stories (two did not name the mouse). Six of the adult texts were identified as adopting an anaphoric strategy in the global analysis (Table 8.17). The segmental analysis revealed that all of these adults used an anaphoric strategy in each of the four segments. One of these anaphoric narratives was an English text (by A4).
The narrations of two adults were not characterised as anaphoric in the global analysis. The text by A7 was characterised as thematic, and by A1, as partial thematic. The segmental analysis revealed that both of these were in fact largely anaphoric. A7 began the story with a thematic approach, referring pronominally to the boy in switch reference settings. The second and third segments were anaphoric and in the last segment, the thematic strategy was adopted once again, with references to the boy alone and to the pair occurring pronominally. A1 began the story with pronominal introductions of the boy, dog and the frog, however resolved these quickly with full nominal expressions (see example (6.1) in Chapter 6), and this segment and the second and third segment were anaphoric. In the final segment most of the switches to the boy were made with pronouns, and so, as in A7’s narration, in this segment a thematic strategy was adopted.

As discussed in Chapter 8, instances of reference maintenance with a nominal were common in most Wumpurrarni English texts. These instances were not concentrated in a particular segment and generally pronouns were carried across page and segment boundaries. In many instances of reference maintenance with a noun the adult speakers repeated the subject (or object) referent in a full nominal, along with all or some part of a preceding clause, elaborating with further detail, as in (9.1), by A.8:

(9.1) (Page 12)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>lidlboi</td>
<td>deya</td>
<td>purl-dan</td>
</tr>
<tr>
<td>boy</td>
<td>there</td>
<td>fall-down</td>
</tr>
<tr>
<td></td>
<td>Loc</td>
<td>water-Loc</td>
</tr>
</tbody>
</table>

the little boy falls into the water

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>lidlboi</td>
<td>sid-dan</td>
<td>na ngappa</td>
</tr>
<tr>
<td>boy</td>
<td>sit-down</td>
<td>Loc water</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and dog</td>
</tr>
<tr>
<td></td>
<td></td>
<td>top 3S-Poss</td>
</tr>
</tbody>
</table>

the little boy sits in the water with his dog on top

‘Emphatic subject chaining’ (Meakins and O’Shannessy, Forthcoming) is one aspect of repetition in Wumpurrarni English narrative, as described in Chapter 3 (§3.4). Repetition of the topic as a full nominal emphasises the event in narrative, adding discourse prominence to the topic and to “unexpected and emphatic situations” (Meakins and O’Shannessy, Forthcoming: 23). In the example the boy’s fall into the water, an unexpected location (‘na ngappa’ ‘in the water’) is emphasised.
While the identification of discourse strategy is based on the treatment of the two main characters in subject position, the segmental analysis allows a more qualitative examination and discussion of how secondary characters were treated in the narrations. In the case of these six adult texts narrated in Wumpurrarni English, repetition also occurred with other characters. The following example from A3 shows how this speaker introduced the deer as subject, re-introduced the boy as object with a nominal, in the following clause pronominalised both referents, then recapped the scene, using full nominal phrases for both characters:

(9.2) (Page 10)

bat stik-wan, i was [/] datwan i reindiya-kayi, but stick-Nom 3S was Dem 3S reindeer-Poss

but a stick, it was.. that’s the reindeer’s

i’ s dat reindiya-kayi horn 3S is Det reindeer-Poss horn

it’s the reindeer’s horn

an i bin lift-im-ap dat lidlboi na and 3S Pst lift-Tr-up Det boy Dis

and it lifted up the little boy

an i bin karri-im im and 3S Pst carry-Tr 3S-O

and it carried him

dat reindiya bin karri-im dat lidlboi na Det reindeer Pst carry-Tr Det boy Dis

the reindeer carried the boy (FRA3)

9.3.1.2 Adult narratives: Summary

The segmental analysis revealed the following important points. Most of the adults maintained an anaphoric strategy through out. The narrations, in which this strategy was not maintained, began and ended with the other globally organizing strategy (a thematic strategy). Thus all segments were globally organized. Their strategy changes were not in response to the increased referential load of the second segment, in fact these speakers shifted as this point to the anaphoric strategy. Repetition was common in most of the six Wumpurrarni English texts and this contributed to the rates of nominals for reference maintenance (§8.2, Figure 8.3). This marks an important difference between Wumpurrarni English narration, and the general pragmatic pattern
found in languages such as English, in which continued reference is generally treated as high in accessibility and so receives minimal coding (Givon 1983, see §4.3.1).

The two English texts were shorter than all others. One was anaphoric throughout (A4), the other thematic and anaphoric (A7). Repetition was not found in these narrations.

9.3.2 Twelve-year-olds

The findings from previous chapter (Table 9.1) indicated that seven of the narrations by twelve-year-olds were characterised as using an anaphoric and three a nominal strategy. Like the adult’s texts discussed above, most of narrations by these teenage speakers were globally organized. Seven stories were narrated in Wumpurrarni English. In these stories there were instances of repetition, reference maintained with a nominal, to emphasise and highlight, evidence of the development of this rhetorical feature in the speech of younger Wumpurrarni English speakers.

Six of the narrations in Wumpurrarni English by twelve-year-olds were globally organized with the anaphoric strategy, one was locally organized. Example (9.3) by 12.8 is an example of a full, rich and globally managed stretch of narrative narrated in Wumpurrarni English:

(9.3) (Page 4)

\[
\begin{align*}
\text{papi and lidlboi stil luk, sing-in-at} \\
\text{dog and boy still search, call-prog-our} \\
\text{the boy and dog keep searching, calling out}
\end{align*}
\]

(dei bin go langa bush na, an Ø sing-at-bat.
3Pl Pst go Loc bush Dis and 3Pl call-Dur
they go into the bush and Ø keep calling)

\[
\begin{align*}
\text{an dei bin si-im bi haiv na, ola bi-mob,} \\
\text{and 3Pl Pst see-Tr beehive Dis Pl bee-Pl} \\
\text{and they see a beehive, with lots of bees}
\end{align*}
\]

\[
\begin{align*}
\text{ola dak-wan tri du dei bin luk.} \\
\text{Pl dark-Nom tree too 3Pl Pst look} \\
\text{and all the dark trees, they saw}
\end{align*}
\]

(PAGE 6)

\[
\begin{align*}
\text{dat lilboi i bin sing-in-at insaid na hol, big-wan.} \\
\text{det boy 3S Pst call-Prog-out inside Loc hole big-Nom}
\end{align*}
\]
and the boy called into a deep hole

and Det dog 3S Pst jump Loc Det beehive Det honey-Poss bee
*and the dog it jumped up to the beehive*

and little mouse Pst come-out
*and a mouse came out*

and 3S bite-Tr Det boy poor thing Loc nose
*and bit the poor boy on the nose* (FR12.8)

The segmental analysis revealed that in all but one of the narrations characterised as anaphoric this strategy was maintained throughout. Speaker 12.2 used a nominal/local anaphoric strategy at a number of points in her narrative, particularly in the first segment, maintaining reference to the boy with a nominal. The story by 12.2 was in Wumpurrarni English, and, while some of the instances of nominals for reference maintenance appeared to be examples of emphatic subject chaining, at other points reference was maintained with a nominal at page boundaries, and *did not* appear to add emphasise a character or to rephrase a previous or recap an event. The first clause of Page 3 in (9.4) is one example of nominal reference maintenance at a page boundary. By contrast, the first clause of Page 5 illustrates an instance where reference to the boy is maintained with a full nominal expression and does appear to be an instance of clause chaining. Reference to the boy is repeated with a left dislocation. Through this structure the speaker incorporates reference to the dog and emphasises their change of location and the inception of the search outside:

(9.4) dat lilboi wen i bin gid-ap,
*and the boy, when he got up*

i bin luk no frokfrok gad dat jak.
*and he saw [that there was] no frog in the jug*

(Page 3)
*lilboi bin luk na im -kayi but*
*the boy looked in his boot*
Nominals for reference maintenance were frequent in this narration, but the quantitative segmental analysis showed that this text was locally organized with a local anaphoric strategy in the first segment and globally organized, with a global anaphoric strategy, for the remaining segments. Recall, the local and nominal strategies provide a local level means to organize discourse at the page and clause level organization, are easier to manage and are a less ‘mature’ organizing strategy. However, this speaker clearly revealed the ability to globally organise most of her story.

While the local organizing strategy occurred in only the first segment of 12.2’s story, it characterised all segments of the narration by speaker 12.4. His narration was characterised as using a nominal strategy in the analysis in Chapter 8 (§8.4). In 12.4’s production there were instances of repetition, with reference maintained with a nominal within page boundaries, but also across page boundaries (in (9.5), the first clause of Page 13). This speaker slipped in an out of a picture description mode throughout the story, which overall was structured with a local anaphoric approach. Some utterances were sequentially joined with ‘den’ and others with ‘deya na’ (‘there
now’). This sort of flagging with a phrase like ‘deya na’ did not occur in other narrations in this age group at all, and rarely in other age groups.

(9.5) (Page 11)

\[
\begin{align*}
\text{an & den dat & buliki bin push-em dat & lilboi an dat papi,} \\
\text{and then Det cow & Pst push-Tr Det & boy & and Det dog} \\
\text{and then the cow pushed the boy and the dog}
\end{align*}
\]

\[
\begin{align*}
\text{an & dei bin & fol-dan & na} \\
\text{and 3Pl Pst fall-down Dis} \\
\text{and they fell down}
\end{align*}
\]

(Page 12)

\[
\begin{align*}
\text{an & deya na, & deya & dei bin & fol & ina & woda na.} \\
\text{and there now there 3Pl Pst fall & Loc water Dis} \\
\text{and there now, there they fell into the water}
\end{align*}
\]

\[
\begin{align*}
\text{an & deya na, & an & da & papi & bin & smal-im & Ø & na.} \\
\text{And there now and Det dog Pst smell-Tr Dis} \\
\text{And there now, and the dog sniffed [him]}
\end{align*}
\]

\[
\begin{align*}
\text{an & lilboi & bin & lisin & da & nois & na.} \\
\text{and boy & Pst & hear Det noise Dis} \\
\text{and the boy heard a noise}
\end{align*}
\]

(Page 13)

\[
\begin{align*}
\text{an & lilboi & bin & tok 'du-im kwait & na'} \\
\text{and boy & Pst & say & do-Tr quiet Dis} \\
\text{and the boy said 'keep quiet'}
\end{align*}
\]  

Clearly this speaker was able to create anaphoric relationships in the text, and carry pronouns across page boundaries and so the use of a local organizing strategy does not reflect this teenager’s capacity to manage reference in discourse. Further, the picture description mode he adopted was not in response to the referential complexity of the segment. It is proposed that this speaker could have constructed a globally coherent narration, just as most of his peers narrating in Wumpurrarni English did. Tentatively, I suggest that this young male speaker felt the task was something for young children, and so he sought a very simple and quick way to be done with it\textsuperscript{43}.

\textsuperscript{43} Wigglesworth (1993: 164) also found that the speaker’s attitude to the task may have been a variable in the productions she recorded, particularly some of the among the oldest boys (aged ten) in her study, who tended use a less mature global strategy (thematic) than like-aged girls (anaphoric) A number of possible explanations were considered, but Wigglesworth found speaker’s orientation to the task the most plausible account. She proposed that the boys...
Although 12.4 took part willingly, he may well have found the task rather childish. He had taken part in ACLA recordings in the past, but as a care-giver for younger kin and not as a ‘subject’.

Considering now the three ‘English’ narrations, one (by 12.9) was globally organized with an anaphoric strategy throughout. However, she accomplished this by referring jointly to the boy&dog, in the first and second segments. She detailed few of their separate activities and the secondary characters they encountered. In the first segment no mention was made of the separate searches the boy and dog made (the boot, the jar) and in the second segment the separate encounters were simplified and the mouse and the owl were omitted (Page 6A in (9.6) below). This was not the case for other narrations in this strategy and age group. Example (9.6) is from the second segment:

(9.6) (Page 5)
they went looking for him in the forest,
but they still couldn’t find him.
(Page 6A)
they looked in the holes and the bee hives and up the tree
but there was no frog there.

(Page 6B)
they looked on top of the trees and down below
but they still couldn’t find him.
(Page 7)
once the dog hit the bee hive and made it fall.
then the bee came down, it chased the dog. (FR12.9)

In the third and fourth segments reference in this narration was made almost exclusively to the boy, and little mention is made of the dog. This simplification of the referencing task was not common in the other globally organized narrations by speakers in this age-group.

The other two ‘English’ narrations were very short, both shorter than the other productions by speakers in this age group (Table 8.18, Appendix C). The length of the narrations impacted on the characterisation of discourse strategy carried out in section 8.4, as in shorter narrations there tended to have more reference switches and fewer opportunities to create cohesive links between clauses. The segmental analysis

felt the task was for girls rather than boys, and “they decided to adopt the easiest strategy to achieve the goal” (1993: 165)
revealed that speaker 12.6 used an anaphoric strategy in the first segment and a nominal strategy, in the second, third and fourth segments, though in the final segment a local anaphoric strategy, in which some instances of reference maintained within the page were pronominalised. 12.7 used a nominal strategy throughout. These characterisations are made on the basis of the quantitative criteria for the nominal strategy (>60% nouns for reference to the main characters overall). These two male speakers switched constantly between the two main characters, rarely making reference to the joint activities of the two characters, which would have provided opportunities to pronominalise (what Orsolini, Rossi et al (1996) have referred to as parallelisms’ in the text, section 4.3.2.2). This lack of local level cohesion gave the narrations a stilted effect. Both generally devoted each new clause to an action carried out by one or the other main character and most clauses began with a nominal. The story by 12.6 was the shortest in this age-group. The narration by 12.7 was also short and included very little detail. Example (9.7) from segments two and three, by 12.7 illustrates this:

(9.7) (Page 5)
an da boy i was calling
and the dog was smelling
(Page 6)
da boy look in da hole at da mouse
and da dog bark at da boy
and i shake da tree
(Page 7)
and da dog knock da bee’s house down
and da boy looked at da tree
(Page 8)
da dog ran away.
and da boy fell down when da bird fly out
(Page 9)
da aul xx da boy.
da boy i call for da frog
(Page 10)
an da reindeer take da lidlboi
an Ø ran with im.
(Page 11)
an da dog an da boy dei fall-down.
(Page 12)
dei fol at da krik.
(Page 13)
an da dog an da boy fall at da woda.
an da boy look at da dog.
an da boy talk ‘shh’ to da dog.
Both these narrations and the narration above by speaker 12.4 (9.5) were locally organized. In all three a picture description mode was assumed, with each picture or frame described in a sequential set of events. Reference management was not used to create a globally organized whole. The texts by 12.7 and 12.6 are different that of 12.4. Speaker 12.4 did use joint pronominal reference locally and this contributed greater continuity to the events, he also flagged the picture description mode by prefacing a number of the clauses with ‘deya na’. Speakers 12.7 and 12.6 made little or no use of joint pronominal reference. The alternation between characters at each new clause in the narrations by 12.6 and 12.7 created discontinuity. However, it is assumed that these speakers, like the other twelve-year-olds in the set, including 12.4 above, are able to globally manage reference.

Above it was suggested that 12.4 may have chosen a quick and easy way to ‘get through’ the task, and he may have wished to do so, because telling a story from a picture book was something associated with young children. Speakers 12.6 and 12.7 had had much less involvement with the ACLA project, and so less reason to associate being recorded with young children. However, they had less experience with being filmed, and in particular being filmed speaking Wumpurrarni English. This may have influenced their code choice on this occasion, as they associated the task and the non-Indigenous researcher more with school than with home language. It should be noted that these two teenagers were quite regular school attenders, and both are proud of their achievements in school. The recordings of 12.6 and 12.7 were carried out by the Indigenous researcher in this occasion, who set the task up in Wumpurrarni English and gave clear instruction that they should speak in Wumpurrarni English. However, these two speakers preferred to speak in ‘English’. Thus, possible explanations for the short, locally organized narrations by 12.6 and 12.7 are complex and tentative. It may be suggested that they too were embarrassed with the task, and sought to get through it quickly. This may have been because of the task itself, the camera, but also because narrating in ‘English’ poses linguistic difficulties. This final point raises a further, tentative explanation for these two locally organized narrations. It is suggested that the attention to code choice, to the verb forms and prepositions and
other features that characterised the children’s ‘English’ productions, added a
cognitive processing load and this may have come at the expense of local cohesion,
and to a greater global discourse coherence. This tentative proposition must be tested
further, on both the ‘English’ and Wumpurrarni English narrations. In the discussion
of the globally organized ‘English’ narration by 12.9 above, example (9.6), it was
suggested that this speaker simplified the referencing task by referring jointly to the
boy and dog. This was not found in any of the globally organized Wumpurrrarni
English narrations. 12.9’s simplification of the referencing task constitutes further
evidence of a correlation between code choice and simplification of the referencing
task.

9.3.2.1 Twelve-year-olds: Summary
The segmental analysis revealed the following important points. Six of the twelve-
year-olds maintained an anaphoric strategy through out. One further speaker used this
strategy in all segments but the first. Thus most of the narrations in this age group
were globally organized. One of these was in ‘English’, however, in this narration the
speaker (12.9) simplified the task by referring jointly to the boy&dog or exclusively
to the boy.

Three speakers used nominal/local anaphoric strategies throughout their narrations
and so three narrations were locally organized. It is posited that this findings cannot
satisfactorily be accounted for by general cognitive and linguistic developmental
considerations, as the majority of narration in this age group globally organized their
narrations, as might be expected in the light of previous studies which included ten-
and eleven-year old speakers. Three explanations for a local organizing strategy have
been posited. For one speaker (12.4) it was tentatively suggested that there may have
been some reluctance towards the task, as it might be construed as childish.
Reluctance towards the task may also stem from discomfort with being recorded, and
particularly being recorded in English, which was the case for two speakers (12.6 and
12.7). A further hypothesis suggests that narrating in English may pose an additional
cognitive load, which impact on the creation of discourse level coherence. The
simplification of the referring task in 12.9’s globally organized narration may offer
related evidence to this hypothesis, as the means she adopted to create a cohesive and
coherent stretch involved simplifying the referring task by referring jointly to the
Finally, no speaker changed strategy in response to the varying level of complexity of the segments in the prompt.

9.3.3 Ten-year-olds

In the results from the global analysis in section 8.4, two texts were characterised as thematic, four as anaphoric, and four as nominal. On the basis of previous research and the hypotheses in §4.6.1, it was predicted that most children at this age would adopt a global organizing strategy, a thematic or anaphoric strategy, and maintain this for all segments. Some may shift in the second segment and simplify the referring task by adopting a local anaphoric strategy and narrate events at the level of the page.

The texts of four of the ten-year-old speakers were identified as using an anaphoric strategy (10.3, 10.5, 10.6, 10.10) in the global analysis. Three maintained this strategy throughout all segments (10.3, 10.5, 10.6). All three spoke in Wumpurrarni English.

(9.8)  (Page 5)

Dei bin go luk-ing evriweya.
3Pl Pst go look-Prg everywhere
they go looking everywhere

dat dog bin hit dat bi an hani.
det dog Pst hit Det bi and honey
the dog hit the tree and the hive

an ola bi bin ran-ing-awei.
and Det bee Pst ran-Prog-away
and the bees were running away

Dei flei-ing-awei.
3Pl fly-Prog-away
they were flying away

(Page 6A)
an [%i/] dat lilboi bin luk-ing thru da hol.
and Det boy Pst look-Prog through Det hol
and the boy was looking into the hole

(Page 7)
an dat hani bin smesh,
and Det honey Pst smash
and the hive got smashed

Olda bi bin gon.
Det bee Pst gone
all the bees left
and Det boy Pst look Loc hole
_**and the boy looked in a hole**_

(Page 8)

an i bin find owl,
and 3S Pst find owl
_**and he hound an owl**_

i bin fol-of dat tri,
3S Pst fall-off Det tree
_**and he fell out of the tree**_

wen dat owl bin flai-at
when Det owl Pst fly-out
_**when the owl flew out**_ (FR10.3)

The stories by 10.5 and 10.6 included elaboration and repetition across adjacent and non-adjacent clauses left dislocation to signal contrast as reference switches from one topic to another. This is illustrated in example (9.9) by 10.5:

(9.1) (Page 7)

an dat kunapa i bin trai it-im-bat bi
and Det dog 3S Pst try hit-Tr-Cont bee
_**and the dog it was trying to hit the bees**_

dat kunapa bin trai nok-im im na nathan tinga-bi
Det dog Pst try knock-Tr 3S-O Dis another bee
_**the dog was trying to knock down the stinger bees**_

bat bi bin trai-na jeis-im-bat im
but bi Pst try-Prog chase-Tr-Cont 3S-O
_**but the bees were trying to chase the dog**_
(Page 8)

an dat bird na i bin trai frighten-im dat lidlboi
and Det bird Dis 3S Pst try frighten-Tr Det boy
_**and the bird it was trying to frighten the boy**_

an dat kunapa da bi i bin jeis-im-bat
and Det dog Det bee 3S Pst chase-Tr-Cont
_**and dog, the bees they chased [it]**_

(Page 9)

an dat bird bin stil folar-im-bat dat lidlboi, da lidlboi na
and Det bird Pst still follow-Tr-Cont Det boy, Det boy Dis
_**and the bird was still following the boy, that boy**_ (FR10.5)

The segmental analysis showed that one narration characterised as anaphoric, by speaker 10.10, began with an anaphoric strategy, but this speaker switched to a
nominal-local anaphoric strategy for the second, third and fourth segments. This narration was similar to 12.7’s, as both began with a global strategy, but used a local strategy for most of the narration. Also like 12.6, this narration was in ‘English’. Speaker 10.10 also chose to refer to the boy exclusively, thus omitting reference to the dog’s interaction with the bees. Further simplification of story detail included the omission of the owl. Example (9.9) is an extract from the second segment by 10.10

(9.9) (Page 6A)
lilboi look ina hole
an i couldn’t see
(Page 6B)
then a mouse popped out of the hole
(Page 7)
da boy searched in da tree
Ø could'n see da frog
(Page 8)
da boy fell down
an Ø got up
(Page 9)
da boy climbed up da rock
and Ø called out “where are you frog?”
den da boy ran
and Ø fall [/] fell in da woda. (FR10.10)

10.10’s ‘English’ narrative has many Standard Australian English features (such as past tense marking and locational prepositions) and is lexically rich, including phrases such as ‘searched’, ‘the mouse popped out of the hole’ above and, further in the story, ‘he heard croaking sounds from the log’. This speaker concentrated very much on his code choice and its accuracy, creating a rich and fluent narration. He also made some self-corrections, generally to verb morphology, as in the final line. However, it is not globally organized. This speaker also simplified the referencing task by omitting mention to the dog. It is suggested that for this speaker also, the processing load of producing a Standard Australian English narration may have impacted on his ability to create a globally organized narration. This ten-year-old was not reluctant or shy in telling the story, and he was used to the task and being recorded.

A further three of the texts (10.1, 10.2, 10.8) characterised as nominal in section 8.4 were narrated in English. And here a correlation begins to emerge between local discourse organization among older children and code choice. As global organization is generally expected from these more mature speakers, evidence that code choice is
an important factor affecting discourse organization (as a factor of linguistic and cognitive development).

The segmental analysis revealed that two speakers (10.1 and 10.8) used a nominal strategy, and at some points a local anaphoric strategy, in all segments of their narrations. Nominals were used in most instances and some local anaphoric relations were established, with some use of pronouns in adjacent clauses. One speaker (10.2) began with a thematic strategy in segment 1, but shifted to a nominal strategy in the second segment and maintained this throughout. Like 10.10 above, 10.2 focussed on the actions of the boy, omitting mention to the dog.

The narration by 10.1, also a locally organized ‘English’ story is similar to those told by twelve-year-olds above (12.6, 12.7), as this ten-year-old tended to switch frequently between the two main characters. He appeared to focus on getting the story details right, and like 10.10 paid attention to his style choice. Like 10.10, speaker 10.1 had participated in recordings for the ACLA project in the past. The high incidence of hesitations, retraces and self-corrections is illustrated in example (9.10) below. The first utterances of in retraces are marked in square brackets, hesitations are marked []:

(9.10) (Page 3B)
   da boy [], na da dog fit he no her [nik] neck in da tin.
   da dog in da tin can not yell.
   (Page 4)
   da boy yell “frog where are you?”
   da dog fall down on da ground with the []tin.
   da boy [get aut /get at] get out,
   and get da dog [/] get da dog an [].
   wal da dog lick im.       (FR10.1)

The text by 10.8 stands out. It is the shortest in data set overall (19 clauses) and was made up of a set of picture descriptions, with many of the clauses in the first two segments in the present continuous. There are very few conjunctions at all. Most clauses begin with a nominal subject. Only four pronominal references occur in the text, all within page boundaries and nominals are used in continuing subject reference contexts almost twice as frequently as pronominals to refer to the boy and boy&dog. The plot is significantly simplified, with few secondary characters mentioned and plot propelling events omitted. Example (9.11) illustrates this:
This young girl was not one of the children, who regularly participated in the ACLA project, and so it is unlikely that she was used to speaking in the style she normally speaks on camera, and while the Indigenous researcher set up and recorded this narrations, it appear that for the speaker, the audience was non-Indigenous person (the non-Indigenous researcher as ‘overhearer’).

The fourth nominal narration in this age group, by 10.4, was narrated in Wumpurrarni English. Close attention to this narration in the segmental analysis revealed that this speaker used an anaphoric strategy in the first and second segments and a local anaphoric strategy in the third and fourth. This speaker depicted the actions of the boy and the dog separately, and made less use of joint reference than ten-year-olds, whose narrations were anaphoric. Frequently the switches between characters were signalled with left dislocation, contrasting the focus of attention and adding prominence to the characters and events, as shown in example (9.12):

(9.12) (Page 2A)

<table>
<thead>
<tr>
<th>lilboi bin slip,</th>
<th>dat frog i bin git-at fom dat ja.</th>
</tr>
</thead>
<tbody>
<tr>
<td>boy Pst sleep</td>
<td>det frog 3S Pst get-out from Det ja.</td>
</tr>
<tr>
<td><em>the boy slept</em></td>
<td><em>the frog it got out of the jar</em></td>
</tr>
</tbody>
</table>

(9.11) (Page 5)
the boy is calling for the frog

(Page 6)
a bee bit the boy on his face

(Page 8)
the dog ran-ed away from the bee
the boy hunt the owl away

(Page 11)
the boy fell down into the water

(Page 13)
the boy said to the dog “shh” (FR10.8)
The level of detail in this narration and the attention to both main characters sets it apart from the other texts by ten-year-olds, in which a nominal strategy was in use. Where reference was continued across clauses, this was achieved equally with nouns and pronoun within page boundaries and across boundaries and in some instances these nominal expressions were cases of repetition. This speaker did not shift strategies in response to the complex second segment, and so it did not appear that the local anaphoric strategy was clearly associated with the changing load of the segments.

Finally, two narrations were characterised as using a thematic subject strategy (10.9 and 10.7) and the segmental analysis revealed that both maintained this strategy throughout. The production by 10.7 is the fifth ‘English’ texts in this age set. 10.7’s narration was unique among all collected as this speaker initially chose to establish the boy as an active narrator, relaying much of the action that involved the boy and the persistent theme of the search in the speaker’s monologue. The utterances in the boy’s monologue are generally introduced with a quotation verb *i was tokin laik* “...” or *i sed* “...”, and the pronominal reference was without a recently established antecedent. This opening was very entertaining, with this speaker projecting the voice of the main character, the boy.

[9.13] (Page 2) maitbi i was tokin laik [i= the boy]
“wi goin to slip,” [wi= the boy&dog]
“you [/] you can be good?” [yu= the frog]
mai bi laik dis hiya,
“you’ll be olrait?”
“because me and da dog gana go aslip”
(Page 3)
an dei bin slipin
an da frog went [/] went outa da jar. (FR10.7)

Towards the end of the second segment this speaker changed to a more conventional narration style.

9.3.3.1 Ten-year-olds: Summary

The segmental analysis revealed the following important points. Three ten-year-olds who adopted an anaphoric strategy maintained this global strategy throughout their narrations. All were in Wumpurrarni English. These texts did contribute to the high proportion of nominals for reference maintenance, as two of these speakers used repetition and subject chaining strategies at various points in their stories. In these cases reference maintenance with a nominal occurred within a page, not across page boundaries.

Two speakers maintained a thematic strategy throughout, one spoke in ‘English’, the other in Wumpurrarni English. Thus half of the narrations of this age-group were globally managed. The set of globally managed narrations were made up four of the five Wumpurrarni English texts in this age group. One further Wumpurrarni English text was anaphoric for the first two segments, and then a local anaphoric strategy was in use. In four out of the five ‘English’ texts, reference was locally managed, in all segments in two narrations (10.1, 10.8) and all but the first segment, in two narrations (10.2, 10.10).

In light of results from previous studies, one might expect that most that ten-year-olds speakers would globally organize their narrations, and half of the speakers did so. I posited above that the twelve-year-olds, whose texts were locally organized, that developmental accounts do not offer a suitable explanation. Three explanations were offered. The first considered the speakers attitude to the task of narrating a children’s story, the second considered the speaker’s attitude to the task of narrating in ‘English’, and the third raises the hypothesis that narrating in ‘English’ poses an
additional cognitive load, which is manifest in a less coherent, locally organized narration. The first explanation may apply to the ten-year-olds, though there was no evidence that these speakers found the task childish. Considering the second explanation, it is possible that the speakers, having responded to the context as a school task, and chosen to speak English, were uncomfortable with this public and recorded performance. The production by speaker 10.8, whose narration was very brief, and who was not used to the task, might be interpreted in this light. The other three speakers did not tell particularly short stories, nor were they clearly reluctant about the task. The examples from speakers 10.10 and 10.1, examples (9.9) and (9.10) show that these speakers paid close attention to their carefully constructed narrations. Hesitations, retraces and self-corrections in three narrations of the locally organized narrations offer further support to the hypothesis that code choice impacted on discourse coherence.

9.3.4 Eight-year-olds

According to the predictions above for the eight-year-olds, the segmental analysis might prove the characterisations on the basis of the global results (Table 8.16) least reliable. In particular, it was expected that the narrations characterised as partial thematic are actually narrations, in which switches between strategies occurred. Relatedly, this analysis was expected to show that the speakers in this set were less likely than the group above to maintain a strategy through their narration, particularly if they began with an anaphoric strategy. It should be recalled that only one speaker in this age group narrated in ‘English’ (8.8), which represented a small style shift for this boy.

Before discussing the individual narratives, a brief summary of the results for the segmental analysis is given, as the characterisations of strategies based on the analysis in Chapter 8 (section 4) did change. Five speakers maintained the same strategy throughout their narrations and five switched strategies. Of the children who maintained a global strategy throughout, in three cases this was an anaphoric strategy (8.6, 8.9, 8.10), in one (8.7) a thematic strategy, and in the case of fifth globally organized narration, (by 8.4) a partial thematic strategy was used throughout. The
remaining five speakers switched used a range of strategies, which involved combinations of anaphoric/thematic and local anaphoric/nominal approaches.

Three narrations by eight-year-olds were characterised as anaphoric, (8.6,8.8 and 8.9) (Table 9.1). The segmental analysis revealed that 8.6 and 8.9 used an anaphoric strategy throughout, to manage reference to the boy and dog separately, and in joint references, where appropriate. In both narrations, all secondary characters except the mouse were introduced in these globally organized narrations, as revealed in example (9.14), from 8.9. However, these narrations differed from those in the same strategy group by adults and ten- and twelve-year-olds as, in the texts by eight-year-olds, causal relationships between events were often not made explicit, as revealed in (9.14):

(9.14) (Page 7)

```
lidlboi bin klain-ing-ap na tri top
boy  Pst climb-Prog-up Loc tree top
The boy climbed to the top of the tree
```

```
Ø luk  nanga na hol
Ø look Loc   hole
and looked in the hole
```

(Page 8)

```
an dat jukjuk bin frighten-im dat [%kunap] /[ ] lidlboi
and Det bird  Pst frighten-Tr Det          /[ ] boy
and the bird frightened the boy
```

```
an dem bi-s jeis-im-bat dat kunapa
and Dem bee-Pl chase-Tr-Cont Det dog
and the bees chased the dog.
```

(Page 9 A&B)

```
dat lidlboi klaim-ing-ap na rok top
Det boy   climb-Prog-up Loc rock top
The boy was climbing on top of the rock
```

```
i      klain-ap na an i bin sing-in-at-bat na
3S    climb-up Dis and 3S Pst sing-Prog-out-Cont Dis
he climbs up and he calls out
```

(Page 10A)

```
reindiya bin kam, Ø gid-im im
deer  Pst come 3S get-Tr 3S-O
a reindeer came and got him
```

(Page 10B)

```
an   Ø ran-ing-awei gad im
and Ø run-Prog-away with 3S-O
```
and ran away with him

dat kunapa bin ranawei na said Ø bak-bat
Det dog Pst run-way Loc side 3S bark-Cont
the dog ran along beside, barking (FR8.9)

The narration by 8.10 was classified as thematic but close examination revealed that this speaker used an anaphoric strategy in all four segments. This girl did make a small number of switches with a pronoun to the boy and these were spread across the narration. She also made a small number of switches to the boy&dog pronominally, and these were in settings where the plural reference was retrievable, cases of what Orsolini, Rossi et al (1996; see section 4.3.2.2) referred to as ‘parallelisms’ in the text. In 8.10’s case, the plural pronominal references to the boy&dog generally followed a clause in which a secondary character appeared in subject position. This meant that although a clause with a different subject had intervened between the previous references to the boy and to the dog, the plural pronominal reference was not ambiguous. This contributed to local cohesion and to the global organization overall, but it also contributed to the percentage of pronouns to switch reference, influencing the global average measure, on the basis of which the characterisation was made. The final line in example (9.15) shows an instance of this parallelism:

(9.15) (Page 4)
dat kunapa bin go-in gat dat ja, Ø luk-in fo dat frog.
Det dog Pst go-in with Det jar 3S look-Prof Purp Det frog
the dog went inside the jar looking for the frog

dat lilboi bin git waild fo dat papi.
Det boy Pst get angry Purp Det dog
the boy got angry with the dog

an dat papi bin lik-im dat lilboi-s feis.
and Det dog Pst lick-Tr Det boy-Poss face
and the dog licked the boy’s face

(Page 5)
dei bin sing-in-at fo dat frog,
3Pl Pst call-Prog-out Purp Det frog
they called out for the frog

dat frog neva bin kam.
Det frog Neg Pst come
The frog didn’t come
8.7’s narration, like 8.10’s was classified as thematic, but unlike 8.10, the segmental analysis confirmed that 8.7 did in fact use a thematic strategy and this was maintained this throughout her narration. She adopted the boy as thematic subject to globally manage the discourse. While most switches to the boy and instances of reference maintenance were pronominal, reference to the other characters were anaphorically managed (pronouns to maintain reference), as example (9.16) reveals:

(9.16) (Page 4B)
dat frokfrok nat na dat ding.
Det frog Neg Loc Det thing
the frog wasn’t in the thing

an papi trai smal fo im, inti? (im = frog)
and dog try smell Purp 3SO QT
and the dog tries to sniff it out, doesn’t it

an i bin smash dat ding (i = dog)
and 3S Pst smash Det thing
and it smashed the thing

(Pages 5)
an i sing-at-bat fo frokfrok. (i = the boy)
and 3S call-out Purp frog
and he (the boy) calls out the frog

an bi i bin kam-at.
and bee 3S Pst come-out
and the bees came out

(Pages 6A&B)
i bin luk-bat fo frokfrok. (i = the boy)
3S Pst look-Dur Purp frog
he kept looking for the frog

i bin sing-at
3S Pst call-out
he called out (FR8.7)

One narration in this age group was classified as partial thematic. In section 8.4.1, the partial thematic strategy was described as follows: ‘the use of both nouns and pronouns to switch reference and pronouns to maintain reference to the boy and/or boy&dog should typify this strategy group’. This was true for narration 8.4. This girl
used some pronouns to refer to the boy and the boy&dog in switch reference settings, but also tended to use nominals for the boy and the dog separately to switch, where there was potential for ambiguity. In this her narration was similar to that of 8.10, who drew on parallelisms in the text and pronominalised reference to the boy&dog. However, 8.4 used nominals for switches less frequently than 8.10. Reference to all other characters was anaphoric.

In the remaining five narrations strategy switches occurred. Three had been characterised as partial thematic (8.1, 8.3, 8.5), one as anaphoric (8.8) and one as nominal (8.2). A variety of combinations of strategies were used in these narratives.

Three eight-year-olds began with a thematic strategy (8.1, 8.5 and 8.8), referring jointly to the boy&dog, but towards the end of the episode as the separate or early in the second segment, as actions of the pair required separate reference, this was achieved through a local anaphoric strategy. This strategy was then maintained for the second segment. In all three of these narrations the second segment was highly simplified and short, with many story details omitted. These speakers switched in each clause between the action of the boy and the action of the dog. The complications involving the secondary characters were either very brief and undeveloped, or omitted altogether. This is illustrated in example (9.17) from 8.5. It shows the transition between segments two and three (pages 4 -> 5). The transition to a local anaphoric strategy begins at page 6A.

(9.17) (Page 2)

<table>
<thead>
<tr>
<th>da</th>
<th>frok i</th>
<th>bin gid</th>
<th>-at</th>
<th>na</th>
</tr>
</thead>
<tbody>
<tr>
<td>there</td>
<td>frog</td>
<td>3S Pst</td>
<td>get-out</td>
<td>Dis</td>
</tr>
<tr>
<td>the frog got out</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Page3)

<table>
<thead>
<tr>
<th>wen</th>
<th>dei bin gid</th>
<th>-ap</th>
<th>na</th>
</tr>
</thead>
<tbody>
<tr>
<td>when</td>
<td>3Pl Pst</td>
<td>get-up</td>
<td>Dis</td>
</tr>
<tr>
<td>they got</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

an i   luk-in-at | evriding  
and 3S | look-Prog-at | everything |

_and he was looking at everything_ 

(Page 4)

<table>
<thead>
<tr>
<th>an</th>
<th>dat dog</th>
<th>kud-n</th>
<th>jamp</th>
<th>-at</th>
<th>fom dat windo</th>
</tr>
</thead>
<tbody>
<tr>
<td>and Det dog could-Neg</td>
<td>jump-out from Det window</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

_and the dog couldn't jump out of the window_
an i  bin bast-im glas
and 3S Pst bust-Tr glass
*and it broke the jar*

(Page 5)
an dei bin sing-in-at  na
and 3Pl Pst call-Prog-out Dis
*and they were calling out*

(Page 6A)
an dat lil boi bin sing-in-at  deya samthing  ina hol
and Det boy  Pst call-Prog-out there something  Loc hole
*and the boy was calling out there to something in the hole*

(Page 6B)
an ['] dat dog traina klaim-ap iya.
and Det dog try to climb-up here
*and the dog’s trying to climb up here*

(Page 7)
an i  bin fol-dan  na,  dat lil boi.
and 3S Pst fall-down  Dis Det boy
*and he fell down, the boy*

an dat bi-mob  jeis-im dat [%um] dog.
and Det bee-Pl  chase-Tr-Dur  dog
*and the/some bees chased the dog*

(8.5)

Of the three speakers who began with a thematic strategy and shifted to a local anaphoric strategy, two speakers then returned to a thematic strategy (8.1, 8.5) for the last two segments. Thus 8.1 and 8.5 used a thematic strategy for three segments, shifting only in the complex second segment. 8.5 focussed near exclusively on the actions of the boy as thematic subject for the third segment and the pair for the final segment, while 8.1 referred near exclusively to the boy for the third and fourth segments, as example (9.18) shows:

(9.18) an dat ding, i  bin go  na  top na  dat ding na, reindeer
and Det ding 3S Pst go Loc  top Dis  Det thing Dis reindeer
*and that thing, he got on top of that thing, the reindeer*

an den [%nada] dat lilboi bin top na  im-kayi hed-kana
and then Det boy  Pst top Loc  3S-Poss head-Poss
*and then the boy got on its head*

(Page 10B)
papi  bin bak-in  tu.
dog  Pst bark-Prog too
*and the dog was barking too*
it threw him right into the water, into the water

and then he says ‘shh dog’

and then he looked over

and he found [it]

found the frog

Although speaker 8.8 began with a thematic strategy, and like 8.1 and 8.5 shifted to a nominal strategy, 8.8 used a different strategy combination for segments three and four to 8.1 and 8.5. In order to accurately describe the events of the third segment he maintained the nominal strategy in this segment. Each clause began with a nominal. Then he switched to an anaphoric strategy in the last segment. Example (9.19) is an extract from segment three:

scare crow make the little boy fall down fom the tree
and that little poor thing duck
and the poor little [boy] ducked
and dat little papi traina go for im up there
and the little boy hanged on for that thing
and the little boy reckon this was the tree
and the little boy was going gad that thing

8.2 and 8.3 began their narrations with an anaphoric strategy, though like the some of the older speakers above (10.4, 12.6, 12.7) they switched between reference to the boy, the dog and frog frequently in this segment. The complex second segment was similar to the narrations of the other eight-year-olds whose narrations included
strategy switches, in that the second segment was very short and lacking detail. 8.2 used a local anaphoric/nominal strategy for this segment, which continued in the third segment, before switching to an anaphoric strategy in the final segment. These were the same strategy choices by 8.8. Speaker 8.3 handled the last two segments differently. At the appearance of the boy alone in the third segment 8.3 adopted a thematic strategy, which continued in the fourth segment, just as 8.1 and 8.5.

There is substantial variability in this small number of texts, but this can be generalised. Three patterns for the first and second segments can be highlighted. First, all five began with a global organizing strategy. At the complex second segment all speakers abandoned the initial strategy. Each responded to the changed demands of the second segment by adopting a local anaphoric or nominal approach and by simplifying the events. As a result, the second segment by all speakers in this set was very short. Patterns for managing the third and fourth segments are more fragmented. Having switched to a local anaphoric/nominal strategy for the second segment, two (8.1 and 8.5) returned to the thematic strategy they had started out with. One speaker (8.3) adopted a thematic strategy for these segments, having started out with an anaphoric strategy. The other two speakers maintained a local anaphoric/nominal strategy for the third segment and shifted to an anaphoric strategy for the final segment.

9.3.4.1 Eight-year-olds: Summary

The segmental analysis revealed the following important points. Five speakers maintained a global organising strategy throughout; in three cases this was anaphoric, in one case thematic, the other partial thematic. There was evidence of simplification in the anaphoric and thematic narratives, particularly at the complex second segment.

The other five speakers began with a global organizing strategy but all shifted to a local anaphoric/nominal strategy for the complex second segment and plot details in this segment were simplified. For the third and fourth segments, all returned to a global strategy, either a thematic or anaphoric.
9.3.5 Six-year-olds

Though previous studies have shown evidence of an emerging ability to organize discourse globally at age six (through a thematic strategy in Karmiloff-Smith 1981, 1985), it was expected that in the current study with a more complex prompt, this group were likely to engage a range of strategies. Wigglesworth, for instance, found that at the complex second segment six-year-olds were likely to change to a local anaphoric/nominal strategy for this segment. They then refered jointly to the boy&dog in the third segment, as a means of simplifying the referring task. This sensitivity to the prompt showed that the children related events within the page and that their productions were clearly data driven.

The analyses in Chapter 7 of the Warumungu six-year-olds’ narrations, which showed high rates of pronominal introduction of the boy and dog, provided some evidence that some children may be using a thematic subject strategy, at least at the beginning of their narrations. However, recall that it was among the six-year-olds that pronominal introduction of secondary characters was also found (section 7.3). The analysis of discourse strategies in section 8.4 further elucidated these results. First, the global results revealed that two of these children were using a pronominal strategy throughout. That is, they introduced, maintained and switched reference to the boy and dog (and boy&dog) with a pronoun, increasing the rates of pronominalisation for all discourse functions for this age group. In using pronouns for all discourse functions, these two children engaged a here-and-now approach, relying on the extra-linguistic setting and the presumption of shared knowledge of the listener. Both children used pronouns to introduce all characters, and, as discussed in section 8.4, they also switched reference to secondary characters with a pronoun. The other six-year-olds also used high rates of pronominalisation for initial mention of the boy and dog, but not for the secondary characters.

Three children spoke in ‘English’ (6.2, 6.3, 6.7). For one speaker (6.3) this did not represent a departure from her usual speech style. The other two (6.2 and 6.7) light Wumpurrarni English is one of the styles they routinely hear at home.
The global results detailed in section 8.4 indicated that, in addition to the two pronominal narrations mentioned above, six were categorised as partial thematic, one as thematic and one as nominal. The segmental analysis revealed that three six-year-olds adopted a thematic strategy at the beginning of their narrations and managed to maintain this throughout (6.7, 6.3 and 6.9). The narrative of one six-year-old (6.1) was classified as thematic on the basis of the quantitative criteria (§8.4) and the segmental analysis confirmed this and revealed that this child maintained this strategy throughout. However, this thematic texts differed markedly from the texts of the older speakers. This girl began her narration with a simplified first episode in which she focussed on the actions of the dog. Only one reference was made to the boy, in a joint reference to the boy&dog, with a plural pronominal. It is proposed that the most salient event in the first segment for this child was the dog’s head becoming stuck in the jar and she built the first segment around this event, rather than the broader search motif that continues throughout the story, and is led by the boy.

44 This is evidence that the production was data-driven, rather than globally organized. At the start of the second episode the boy was adopted as thematic subject, as example (9.20) demonstrates:

(9.20) (Page 3A)
no frokfork
Neg frog
[there was] no frog

(Page 4)
an i bin fol (i =the dog)
and 3S Pst fall
and it fell

i traina [/] i bin smash-it dat glas (i =the dog)
3S try 3S Pst smash-Tr Det glass
it tried, it smashed the jar (i =the dog)

(Page 5 – Segment 2)
i bin sing-at fo dat frok. (i =the boy)
3S Pst call-out Purp Det frog
he calls out for the frog (FR6.1)

All subject references to the boy in switch and maintenance function were pronominal, with the exception of one nominal reference, in object position. From the

44 Recall that the elicitation method involved the child first looking through the book to familiarise themselves with the story overall before beginning the narration.
second episode onwards reintroductions of the dog were nominal, co-referent expressions were pronominal, both within and across page boundaries. All secondary characters were introduced and events depicted throughout the second, third and fourth episodes, during which this 6 year-old retained a thematic strategy. Like the older speakers using this strategy, other characters were pronominalised in subject position where there was local co-reference.

Two narrations were classified as partial thematic in section 8.4, but the segmental analysis revealed that these were actually thematic (6.3 and 6.9). Both adopted the boy as thematic subject for the first three segments. Both used some nominal expressions to refer to the boy, particularly in switching between the separate actions of the boy and the dog in the first and second episodes, but switches to the boy were also pronominal and in the fourth segment referred jointly to the boy&dog as thematic subject. Both simplified the complex second segment by omitting orienting information such as changes of location (in this and other segments), causal relations and, in the case of 6.3, reference to the bird. The narration by 6.3 was one of three in this age set which featured a high proportion of ‘English’ forms. ‘English’ is the code this child uses generally and there was no evidence of an impact of this code choice on the reference tracking by this girl.

Four further narrations were classified as partial thematic in the analysis in Chapter 8 (6.4, 6.5, 6.7, 6.10). The segmental analysis revealed that three of these speakers shifted between a thematic and a local anaphoric/nominal strategy. In this their narrations were similar to the eight-year-olds who mixed strategies. Three of these six-year-olds (6.4, 6.5, 6.7) began with a global organizing strategy, a thematic strategy. All three abandoned this for a local anaphoric or nominal strategy at the beginning of the second segment, switching between the action of the boy and the dog in each clause and also simplifying the events in a very abbreviated account. Speakers 6.4 and 6.5, who narrated in Wumpurrarni English switched between the two using left dislocated structures for contrast. Example (9.21) from the start of segment two by 6.4 illustrates this:

(9.21) (Page 5)
   an dei bin sing -at
   and 3Pl Pst call-out
and they called out

(Page 6A)
an  dat boi i bin luk  ina hol
and Det boy Pst look Loc hole
and the boy, he looked in the hole

an  dat papi i  bin luk  dat bi an [xx]
and Det dog 3S Pst look Det bee and [xx]
and the dog, it looked at the bee and x

(Page 7)
an dat boi i bin luk weya dat tri
and Det boy 3S Pst look where Det tree
and the boy, he looked in the tree

(Page 8)
an  den, dat boi  i  bin fol-dan.
and then Det boy 3S Pst fall-down
and then the boy he fell down

(Page 9, Segment 3)
i  bin go weya  dat rok,
3S Pst go where Det rock
he went to the rock

All retained the local anaphoric strategy/nominal for the third segment and then switched to a thematic strategy for the fourth segment, referring jointly to the boy and dog, as the appeared together once more.

A fourth narration, by 6.10, was also classified as partial thematic. However, the segmental analysis revealed that this boy used a pronominal strategy to refer the boy, the dog and the boy&dog. Nominals for these characters were very rare. All references to the boy and dog acting together and also to each character acting separately were pronouns. As this little boy chose to depict the separate activities of both the boy and the dog in the first three episodes, the resolution of the pronominal references was impossible without reference to the pictures. In the final episode he referred only to the boy, and at this point the ambiguity of the previous episodes ceased. However, all secondary characters were introduced, and these and reintroductions for the secondary characters were made with almost always with a nominal (in bold font in example 9.22), and the few instances of continuing reference
involved pronominal reference. An extract from the second segment demonstrates this:

(9.22) (Page 5)
\[ \text{bi go na, } \emptyset \text{ go-in bek} \]
\[ \text{bee go Dis } \emptyset \text{ go-Prog back} \]
\[ \text{bees are going, going back.} \]

(Page 6)
\[ \text{deya tu } i \text{ bin bait-im dat bi} \]
\[ (i = \text{the dog}) \]
\[ \text{there too 3S Pst bite-Tr Det bee} \]
\[ \text{there it bit the bees} \]

\[ \emptyset \text{ git purl-dan na} \]
\[ (\emptyset = \text{the bee hive}) \]
\[ \emptyset \text{ get fall-down Dis} \]
\[ [it] \text{ gets knocked down.} \]

(Page 7)
\[ \text{deya } i \text{ kol-bat weya dat lidl hol deya} \]
\[ (i = \text{the boy}) \]
\[ \text{there 3S call-Dur where Det little hole there} \]
\[ \text{there he calls into the little hole} \]

\[ an i \text{ purl-dan na afta} \]
\[ (i = \text{the boy}) \]
\[ \text{and 3S fall-down Dis afta} \]
\[ \text{and he fell down after that} \]

\[ \text{igls } []/ \text{ igl sid-dan ap deya} \]
\[ \text{eagle sit-down up there} \]
\[ \text{an eagle was sitting up there} \]

\[ \text{deya dat bi-mob jeis-im-bat } \emptyset \text{ na} \]
\[ (\emptyset = \text{the dog}) \]
\[ \text{there Det bee-Pl chase-Tr-Dur Dis} \]
\[ \text{there the bees chased (it/the dog)} \]

\[ an i \text{ bin purl-dan} \]
\[ (i = \text{the boy}) \]
\[ \text{and 3S Pst fall-down} \]
\[ \text{and he fell down.} \]

This boy sought a globally organized structure through the differential treatment of the two main characters as compared to secondary characters. Like the narrations of all six-year-olds, this story is very short of detail and many elements of the story were simplified, and causal relationships are not made.

Like 6.10, 6.6 and 6.8 used a pronominal strategy to maintain reference to the boy, the dog and the boy and dog. However, these productions differ from those of 6.10, as a pronominal strategy was used to refer to all characters in these highly simplified stories. Like other speakers in this age group, their texts were simplified in a number
of ways, such as the absence of orienting detail and plot propelling actions, initiated particularly by secondary characters, which were often completely omitted. The stories by 6.6 and 6.8 were simplified with respect to reference tracking. Of the total 17 subject and object references to characters in the text by 6.8, only three were nouns, and these were first mentions of the frog and the two secondary characters that appeared in the story. Similarly, speaker 6.6 used only 4 nominals in the 24 references in her narration. These nominals referred exclusively to the dog. Example (8.5) in Chapter 8 stemmed from this production. Both stories were highly ambiguous, in the sense that they could only be understood with reference to the pictures.

Finally, one narration in this set was classified as nominal and the segmental analysis revealed that his boy used a nominal/local anaphoric strategy to manage reference in all segments. Light Wumpurrarni English is included in the range of input styles in the home environment of this boy, but in his frog story narration he paid close attention to code, carefully choosing the words and forms, and telling his story in ‘English’. He told a long and detailed story, but switched reference very frequently, creating a rather disjointed text, with few opportunities for continuing reference, very like a number of the narrations by twelve- and ten-year-olds, who made this style choice. He maintained reference with a nominal within and across page boundaries in almost equal proportions to pronouns to the boy and boy\&dog and overall, to all characters, as the extract in example (9.23):

(9.23) (Page 11)
   an da reindeer chase the boy
   an i chucked the dog and the boy in the water
   (Page 12)
   an the dog and the boy fell down swim the water
   an they had a good swim
   an the boy and the dog getting happy
   and they hear something from that hole there               (FR6.2)

9.3.5.1 Six-year-olds: Summary

The segmental analysis revealed the following important points. Four six-year-olds maintained a strategy throughout their narrations. In three cases this was a thematic strategy and in one, a nominal/local anaphoric strategy.
Three speakers switched strategies for the second and third segments. All began with a thematic strategy but shifted to a local anaphoric/nominal strategy for the complex second segment and the third segment, simplifying plot details in both. All returned to a thematic strategy in the final episode referring jointly to the boy&dog. The narrations of two children lacked a discourse organizing strategy, either local or global, and, as a result, could not be understood without access to the pictures.

One child used also a pronominal strategy to refer the boy, dog and boy&dog. This strategy is the least mature, however this boy showed developing discourse ability as he generally referred nominally to secondary characters in switch reference setting and pronominally to maintain reference.

The three English texts in this set all differed in terms of referencing strategy. Speaker 6.3 used a thematic strategy throughout, 6.7 shifted between a thematic and a nominal/local anaphoric strategy, and 6.2, a nominal/local anaphoric strategy.

9.5 Discussion

9.5.1 Development of cohesion and coherence in discourse

There are a number of strategies children may use in their attempts to organize discourse. Three strategies provide a global means of organization - an anaphoric, a thematic strategy and, where this strategy proves to be in use across a segment or an entire narration, a partial thematic strategy. While global strategies can be discerned at the level of the segment and the narrative overall, the nominal/local anaphoric and the pronominal strategies operate at the local level of reference management and the description of events depicted in the pictures. These strategies achieve only local level cohesion, which does not extend across page boundaries, or provide a structure to organize narrative as a coherent whole. Despite the small number of narratives in the current study, developmental findings are revealed in the use of global versus local strategies. These findings are summarised Table 9.2.

The summary presented in Table 9.2 groups the narrations in three categories. These are GLOBAL, narrations globally organized throughout, GLOBAL & LOCAL, narrations in which both global and local strategies were used, and LOCAL,
narrations, which were overwhelmingly or exclusively locally organized, with a local anaphoric or nominal strategy. The categories are a synthesis of the more detailed five-stage model devised by Wigglesworth (1997:305). The schema in Table 9.2 sets out the developmental cline, from most mature organization (GLOBAL) to least the cohesive and coherent organization (LOCAL), revealing clear age-related trends. An anomalous set of findings is circled in the table, which include the locally organised narrations by ten- and twelve-year-olds.

<table>
<thead>
<tr>
<th></th>
<th>GLOBAL</th>
<th>GLOBAL &amp; LOCAL</th>
<th>LOCAL</th>
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<td></td>
<td>Narrative</td>
<td>Simple Narrative</td>
<td>Simple Narrative</td>
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<td>Adult 12+</td>
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<td>5</td>
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Table 9.3 Distribution of globally and locally organized narrations by age

The results in Table 9.3 reveal clear developmental trends in the ability to manage reference locally, segmentally and at the discourse-wide level. The bolded numbers reveal the concentrations in each age group and highlight this spread. While each age group is discussed below in turn, it is clear from Table 9.3 that in some cases speakers of different ages were operating at the same stage in the task of managing reference in discourse. The adult texts are found the first cell, as are most of the twelve-year-old texts and half of the ten-year-old texts. Half of the eight-year-olds globally managed their narrations, and the other half switched between global and local strategies. The six-year-old results are more dispersed across the table. The table also shows that some six-, eight- and ten-year-old children used global strategy (most a thematic strategy) to manage their narrations throughout, and other speakers at these ages used switched between global and local strategies. The stages are not age specific, but correspond to a developmental stage in the given task. It should be recalled, however, that the narrations of most ten-year-olds were more coherent in other respects than the eight- and six-year-olds overall, because of the notable trend amongst the two younger groups to omit details, which provided causal and plot propelling information.
The results circled in Table 9.3 represent the narrations, in which a local-level discourse organization pattern was used, in which either no or just one segment was globally organised (12.4, 12.6, 12.7, 10.1, 10.2, 10.8, 10.10). It has been posited above that these results cannot satisfactorily be accounted for by general cognitive and linguistic developmental considerations. All but one of these narrations was in English, and this set is made up of over half of the English narrations overall. Thus a clear correlation between the nominal/local anaphoric strategy and the English texts has emerged. Three possible explanations have been offered for these results; the speaker perceiving the task to be childish; reticence towards being recorded speaking ‘English’; and the cognitive load that this style shift represents.

In the next sections, the results from the segmental analysis are discussed, first by age group to highlight age-related trends found in the child narrations, and then to consider the locally organised narrations.

9.5.1.1 Adults and twelve-year-olds: Global strategies
The anaphoric strategy is the most mature, as, in engaging this strategy, general principles of discourse management are applied. The segmental analysis has shown that most adults and most twelve-year-olds (seven of the ten speakers) used this strategy throughout their narrations. Clearly, and as predicted, adult speakers and the young teenager group have access to this discourse strategy and most used it. In addition, these mature speakers told more detailed stories than younger speakers, including orienting details, changes in location and causal and motivating events. Their texts were also longer than those of the younger child groups, with the adult texts longer than the twelve-year-olds.

The quantitative criteria for the characterisation of anaphoric Wumpurrarni English texts differs from that for Standard Australian English, as in Wumpurrarni English the use of nominals in reference maintenance settings constitutes an important and eloquent feature of narration. This is a crucial difference between narration styles and discourse construction in Wumpurrarni English and Standard Australian English. Repetition of full noun phrases in Wumpurrarni English, in subject position, allows
the speaker to dwell on an element of the story, to repeat it or elaborate on it and to build-up the story detail and story line (§3.4). Repetition was a strong feature of Wumpurrarni English texts by the adult group and by most twelve-year-olds. This contributed to the higher than expected levels of full nominal expressions to maintain reference. However, simply comparing global results of form-function pairing (nominal for reference maintenance) masks both the distribution, and what is achieved through this pairing. Only through the fine-grained segmental analysis, paying attention to page boundaries in particular, was it possible to systematically demonstrate that the use of this rhetorical device is controlled.

Instances of repetition, and resultant the full nominal expressions, occurred at various points in the narrations of these mature speakers, and were not restricted to particular segments. This is part of a larger pattern. These mature speakers adopted and retained a global and consistent strategy throughout their narrations, irrespective of the changing referential and cognitive loads, which the different segments posed. This was true also of the adults who narrated in ‘English’ in this set (A4 and A7). These speakers did not use repetition in their narrations.

Unlike most of the child speakers who narrated in English, the two adults were able to adopt and maintain the most mature discourse strategy, indicating that their ability to structure discourse, in English, and presumably in Wumpurrarni English, is well established. One can only speculate whether the length of these two narrations (shorter than all other adult texts) is unrelated to code choice, or is indeed related to the additional load that narrating in English posed, or, alternatively, reflects a reluctance to speak at length in a lighter style than a speaker would normally use. One of these speakers is generally a reticent person, the other has previously narrated long and full stories on camera for the ACLA project. There was, however, no evidence that the code choice of these two speakers affected the referencing or discourse structure of their narrations. The was evidence, however, in the full and globally structured English story by 12.9 that this young woman simplified the referring task to achieve the internal cohesion, global coherence and level of detail found in her

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45 The narration of one twelve-year-old poses an exception (12.5) as she engaged repetition in her narration, but also appeared at points to maintain reference nominally at page boundaries.
story. This simplification involved referring jointly to the boy&dog where possible, a feature not found in the Wumpurrarni English anaphoric narrations by adults or by other twelve-year-olds. The impact of code choice, and a discussion of the other twelve-year-old texts, is carried out fully in section 9.5.2.

9.5.1.2 Ten-year-olds: Global strategies

In addition to these older groups, three of the ten-year-olds used an anaphoric strategy throughout their narratives. All were in Wumpurrarni English. Like the older speakers above, two of these speakers told full and detailed stories, with repetition and elaboration. A further two ten-year-olds began with and maintained a thematic strategy throughout their globally managed narrations. One narrated in Wumpurrarni English and the other in English, shifting only from his usually light style of Wumpurrarni English. Thus, just as the ten-year-olds in previous studies involving the frog story (French speaking eleven-year-olds in Hickmann, Kail et al 1995; German nine-ten-year olds in Bamberg 1987; Australian English speaking ten-year-olds in Wigglesworth 1993, 1997) and previous studies involving other prompts (e.g. Wong and Johnston 2004) the Warumungu children, who narrated in a familiar code style organized their narrations around a global strategy. A further speaker (10.4) maintained a global anaphoric strategy in the first and second complex segment, but a local anaphoric strategy in the third and fourth segments, a combination of global and local strategies. The remaining four ten-year-old texts, which were locally organized are considered in the light of code choice (§9.5.2).

9.5.1.3 Eight-year-olds: Global strategies & local strategies

Half of the eight-year-olds told stories managed with a global strategy throughout and half switched between global local strategies. However the globally organized narrations contrasted with those of ten- and twelve-year-olds in this strategy group, as the narrations by eight-year-old were notably less detailed. This marks off the narrations of eight-year-olds more generally. Thus, although the three eight-year-olds performed similarly to the older groups in terms of adopting and maintaining an anaphoric strategy, their narrations were simplified in terms of story detail, such as causal relations and location changes. There were also few instances of repetition, which is an important means of developing narrative detail in Wumpurrarni English. The thematic strategy (or partial thematic, in the case of 8.4) was used by two further
eight-year-olds. It was expected that some children at this age may maintain a global strategy throughout their narration, but most would adopt a more local approach for the complex second segment, at least in the light of Wigglesworth’s (1997) study of Australian English speaking children.

All eight-year-olds who used a combination of global and local strategies began and ended with a global strategy but adopted a local strategy for either the second segment, or the second and third segments. In these segments, speakers provided a sequential but brief set of picture descriptions. This marked an alternative strategy to simplifying the referring task. As mentioned above, in those narrations in which one strategy was maintained, other means of simplification were seen; the omission of characters, details and reference to separate actions of the boy and dog. One or other or both of these two forms of simplification characterised the narratives of all children at this age, providing evidence that these children’s productions were data-driven, as they were clearly affected by the changing demands of the prompt at the level of segment. This is in contrast to the age groups above.

9.5.1.4 Six-year-olds
The broadest range of strategies and strategy combinations were found in this set. Three children at this age adopted and maintained a thematic strategy, and thus organized their productions across the whole text, while a further three sought to organize their narrations at the level of the segment with this global strategy. In these cases, in response to the additional referential load of the second and third segments, like the eight-year-olds, these six-year-olds adopted a local referring strategy. They produced very brief descriptions of the events of segments two and three, which were less detailed than those of the eight-year-olds.

The two narrations, which involved only a sequential set of descriptions of actions and no clear referents also stemmed from this group (6.6, 6.8, see example (8.5) in the previous chapter). These texts were classified as pronominal and were organized at the level of clause only. In one further narration organized at the level of the clause only, there were brief instances of organisation at the page level (by speaker 6.10, see
example (9.22)). The final narration, by 6.2, a nominal/local anaphoric strategy was used throughout and this narration will be discussed in relation to code choice.

Two strong developmental findings may be stressed. First, the children at this age were most affected by the prompt, revealing that their narrations were most data-driven. This is in line with findings from like-aged Australian-English speaking children (Wigglesworth 1997: 302), and also with French-speaking children (Hickmann, Kail et al. 1995). Three children simply described events and actions they viewed, and were thus organizing their speech only at the level of the clause throughout. Three began by globally organizing their narrations at the level of the segment, with a thematic strategy, but responded to the second segment by adopting a picture description mode, just as six-year-olds in the two previous studies that attended to this variable (Wigglesworth 1997, Hickmann, Kail et al. 1995). And finally, also confirming the trend of the Australian English-speaking children, the Warumungu children who used a thematic strategy for all or part of their narrations chose to adopted the joint referent of the boy&dog as thematic subject in the third or fourth segment. A further instance of the data driven nature of children’s narrations at this age was demonstrated with example (9.20). This six-year-old structured the first segment around the dog, as this depicted event was salient to her. These observations resonate with the more general developmental trends Berman and Slobin (1994b) noted in their cross-linguistic study of narrative structure (reviewed in §4.2). Recall in this study, Berman and Slobin (199ba: 65) noted that the children aged five showed clear signs of discourse organization but that they managed events at a local level, and did not manage to maintain a coherent structure across all components of the long story (1994b:68). They also found this group to be the least homogeneous, in terms of both narrative structure and linguistic expression (1994b: 65), and this was within and across texts.

9.5.2 Locally organized narrations

The nominal/local anaphoric strategy operates at the clause or page level, rather than connecting previous and future utterances. While it may allow a speaker local control to manage reference and cohesion between clauses within a page or frame, it does not achieve segment or discourse-wide coherence and often characterises picture
description modes. In the discussion above it has been demonstrated that six- and eight-year-olds frequently used this strategy for the complex second segment, and the third segment. In these segments, the cognitive task of managing reference to main and secondary characters within a global strategy tested them maximally and they responded by reducing the referencing task to a local level control process. Thus, this strategy reflects an interaction between a developmental stage and response to task difficulty.

The pattern of use for this strategy among the older speakers (12.4, 12.6, 12.7, 10.1, 10.2, 10.8, 10.10) and one six-year-old (6.2) was very different. There was little or no evidence of a global strategy, either at all, or in more than the first segment (10.2, 10.10). The narrations by ten and twelve-year-olds of this group are somewhat incongruous with the findings for their age-groups and so other explanations have been posited to tentatively account for these texts; the speaker perceiving the task to be childish; reticence towards being recorded speaking ‘English’; and the cognitive load that this style shift might make on a speaker. The first two explanations are not mutually exclusive, as both involve an interaction between language and identity. The number of texts is clearly small, and so findings cannot be made on the basis of widespread trends, however they raise some very interesting issues, with respect to the presentation of the self and performance in ‘English’.

Different types of evidence can be considered to test the hypothesis that the use of a local level control process resulted from the code choice. Code choice clearly does not account for the narration by 12.4, who used a local strategy throughout his Wumpurrarni English narration. It has been suggested that reticence towards the task may explain the picture description mode he adopted. To further explore the hypothesis that narrating in ‘English’ posed an additional cognitive load, we must consider all the ‘English stories’. Only four of the narrations by six- and eight-year-olds in were in ‘English’ (6.2, 6.3, 6.7, and 8.8). Only the narration by 6.2 was locally organised throughout. Speaker 6.3 on the other hand used a global strategy, used a thematic strategy. She was the only speaker whose ‘English’ text was not a departure from her usual speech style, and so this child did not have to attend to her code style, but was able to focus on telling the story. Speaker 6.7 began and ended her much
simplified narration with a thematic strategy and switched to a nominal strategy in the second and third segments, before returning to a thematic strategy, just as other children in this age set. She simplified the story quite drastically, which was also the case for other children at this age. Speaker 8.8 similarly switched from a globally organised to locally organized strategies for the second and third segments, as example (9.19) shows. However, this narration had few hesitations and retraces and so there is little clear evidence to suggest that this speaker’s code choice affected the fluency and flow of this narration. The pattern of organizing strategies in his narration are shared with other eight-year-olds in this set (8.1, 8.2, 8.3, 8.5). All began and ended their stories with a global organizing strategy, but switched to local strategies for the second and third segments. Thus there is no evidence to suggest that the developmental account offered for the other eight-year-olds does not hold for 8.8. The narration by 6.2 (see example (9.23)), on the other hand, was organized at the page level and differs greatly from the other ‘English’ texts by younger children. This boy paid very close attention to code, to his word and form choices, and it seems that this posed an additional cognitive load. It is suggested that this boy’s attention to code and the details of the story came at the expense of local cohesion and discourse coherence.

Six of the eight ‘English’ narrations by older children were locally organized (10.1, 10.2, 10.8, 10.10, 12.6, 12.7), leaving only little scope for comparison with those, which were globally organized (10.7, example (9.11) and 12.9, example (9.4)). As discussed in section 9.5.1.1, there was no clear evidence that the choice to narrate in English impacted on the adult narrations, though it was noted that these were shorter than the other texts. However, it was clearly shown that in the full and globally structured narration by 12.9, this speaker simplified of the referring task through joint reference to the two main characters, which was not present in any other mature and globally structured narration (see example (9.6), and the discussion which follows the example, and §9.5.1.1 above)). There was no such evidence of this in the narration by 10.7, whose narration was idiosyncratic (example (9.13)), but globally managed, with a thematic subject strategy throughout. The comparison between the ten- and twelve-year-old speakers who chose to narrate in ‘English’ and those who chose to narrate in Wumpurrarni English, however, is stark, as global organization was clearly and strongly associated with these speakers at this age.
By not globally managing reference, the ten-year-old and twelve-year-old speakers, who narrated in ‘English’ simplified the narration task. Attention to these texts reveals other ways in which the narrations were simplified. Some of the texts were notably shorter, providing a set of picture descriptions, with various secondary characters and the sub-plots they initiated omitted, and allowing few opportunities for reference maintenance (12.6, 12.7, example (9.7) and 10.8, example (9.10)). Throughout these narrations, and at points in the others, to adequately encode the various actions of main characters, there was a constant switch between them, but no development of the action or relations between actions created, which made the narrations disjointed. There also tended to be simplification of the referencing task through the omission of mention to the dog (10.1, 10.2, 10.10 example (9.9)), particularly but not exclusively) in the third and fourth segments. However, while three of the narrations by ten-year-old were simplified in some ways, they were, like the narration by 6.2, carefully narrated, with attention made to both lexical choices, grammatical features and story details. They were also longer than those mentioned above (12.6, 12.7 and 10.8). Like 6.2, the ten-year-olds who told more involved stories carefully considered the words and phrases they chose. As discussed in §9.3.3, speaker 10.1 made a number of self-corrections, and carefully chose vocabulary, such as “paddling” (in the pond scene). Similarly 10.10’s narrative included phrases such as “the mouse popped out of the hole” and “he heard croaking sounds from the log”. Thus, these children, like 6.2, were attending to the language they were speaking in and to constructing a full and correct ‘English’ narration. The evidence from these ‘English’ stories coupled with the results from like-aged children speaking in Wumpurrarni English, who were able to globally manage reference, clearly suggest that the impact of their style choice affected text cohesion and coherence. Just as the increased conceptual and referential load of the complex segments in the story posed additional cognitive and linguistic demands on the Wumpurrarni English speaking children, causing many of them to adopt a local organizing structure to manage the referencing task, it is argued that the task of narrating in ‘English’ represents a similar cognitive load, with similar linguistic outcomes. The children who narrated in ‘English’ are capable bilingual or bi-dialectal speakers and learners, and their ‘English’ narrations showed their awareness for differences between Standard English and Wumpurrarni English,
avoiding Wumpurrarni English features, such as verb tense (‘bin’) and aspect marking (‘-im-bat’)(Chapter 6, section 3.2). However, this finding indicates that at a deeper level of language control than vocabulary or morphology, at the level of discourse management, these children do not have the same mastery in the ‘English’ style they adopted as most of the children in their like-age cohorts, who narrated in the style of Wumpurrarni English they normally speak.

On the other hand, children in the study were able to demonstrate their narrative skill in sophisticated ways in the style of Wumpurrarni English they normally speak, and in ways that can be shown as developmentally akin to children speaking other languages and this reflects general cognitive and linguistic development. The results confirm developmental trends borne out in a number of languages, with respect to reference tracking, in French (Hickmann & Hendriks 1999), Warlpiri (Bavin 2000) and Mandarin Chinese (Wong & Johnston 2004), in terms of the creation of cohesive and coherent discourse (Berman & Slobin 1994b). The ‘English’ narrations, on the other hand, were overall less maturely structured. Three of the ‘English’ narrations were very short (by 10.8, 12.6, 12.7). There is less evidence in these narrations of the type, which has been presented illustrate attention to code for the narrations by 6.2, 10.1 and 10.10 (expressive vocabulary, hesitations, self-corrections) and so only tentative claims can be made that code choice posed an additional cognitive load, which resulted in these less cohesive and coherent texts. The alternative explanation, that the speakers felt uncomfortable with the task and took a quick route to completing it, cannot be ruled out. However, if this was the case, then code choice also contributed to these less maturely structured narrations. Thus in all six narrations, the choice to narrate in ‘English’ appears to have resulted in less maturely structured narrations, than those of same-aged peers speaking Wumpurrarni English. The evidence indicates that children narrating in their Wumpurrarni English do so more accurately at the level of lexical and morphological features, but crucially, demonstrate a stage-appropriate mastery of discourse management. This linguistic and cognitive skill level is not revealed in the ‘English’ productions to the same degree as in the Wumpurrarni English narrations.
This clearly has implications for educational settings. Given that educators do not have access to understand children’s first language/dialect competency, their assessment of children’s skill level is based only on their impressions of the children’s performance in ‘English’.

9.5.3 Conclusion

The study of reference in narrative among Warumungu children and adults has generated both general linguistic and cognitive findings, and language specific insights. The study has confirmed previous findings, that the development of discourse management continues throughout the school years. Testing this ability at different developmental stages reveals that at different stages children have the knowledge and skill to manage reference, and over time this consolidates, and becomes less vulnerable to demands of a particular task. This confirms the observation by Ruth Berman (2004), that, as in other domains of learning, story-telling acquisition is “not an ‘all-or-nothing’ leap from no knowledge to full knowledge. Rather it involves partial knowledge and reorganization and integration of prior knowledge across different domains” (Berman 2004: 265), and so more advanced developmental phases manifest earlier under some circumstances and in some areas than others.

In narration, as in development generally, when knowledge is not “fully integrated and consolidated with other domains”, and still en route to mastery, children handle tasks better that “take up less mental space or impose less of a cognitive load” (2004: 265). In the Wumpurrarni English texts, it was demonstrated that children are developmentally sensitive to the demands of the task, as their skill is not yet fully established. This was manifest in the younger children’s response to the complexity of the second and third segments of the frog story. Eight-year-olds and six-year-olds solved this problem by reducing the reference tracking load and describing the events in the pictures one by one. However, for some of the children who narrated in ‘English’, the cognitive load they faced was not the prompt itself and the changing complexities within it, but the style they chose to narrate in, which appears to have impacted on children’s ability to globally structure their narratives.
The study has investigated a number of aspects of Wumpurrarni English and shown some dimensions of variability in this language. I have sought to provide an account for the latter through sociolinguistic and historical description. The nominal system and the role of different types noun phrases and their functions in discourse have been described, and contrasted with those of other Australian Creole languages and with English. Features of Wumpurrarni English narrative style have been described, in particular the use of repetition and elaboration to build events in narrative. Narrations with repetition, where a speaker builds an event, adding detail, giving the listener time to consider the information, and the speaker time to consider the next detail are features of a ‘good story’ in Wumpurrarni English. Further analysis of the current data and further research on children’s conversational narratives may reveal further differences between adult and child Wumpurrarni English.

The study has shown that the conventions of Wumpurrarni English narration differ from those of Standard Australian English narration. Repetition and nominal reference maintenance are generally associated with less mature productions in Standard English, while these are mature rhetorical features of Wumpurrarni English narration. This is an important difference between the narrative styles in the two languages. In the school setting, judging children’s narrations according to the rhetorical and pragmatic norms of Standard English may lead to the impression that children’s discourse represents a lower stage of development than is the case. The current study has shown very clearly, that analysis of children’s production in the language they normally speak reveals a developmental path the same as that described for a wide number of other languages. More generally, this study highlights the need to assess children’s linguistic and cognitive skill development in relation to the norms of their input language.

The small number of ‘English’ texts, combined with the differences shown between Wumpurrarni English and Standard Australian English, raise further important issues relating to education. In the introduction to this thesis, a number of reasons for the low academic achievement by speakers of creoles, dialects and non-standard varieties (de Kleine (2006). One reason was the lack access that children have to the language of instruction, the Standard language, in the case of the children here, Standard
English. While this study has looked only at production, further research on receptive skills is likely to reveal a relationship between the differences between the two systems, and the lack of access to instruction in the language they understand best. Language is central to imparting knowledge on all areas of knowledge, from maths and science to literacy and literature. For the children in this study, in the school context, new knowledge must be processed in a language style, which itself places on the child an additional cognitive load. And the school context is rarely one in which children can demonstrate their skill as story tellers.
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Appendix A

Some Properties of Wumpurrarni English

These notes provide a brief description of some Wumpurrarni English features and their functions, and of some aspects of variation. The nominal system is discussed in Chapter 3, and here attention is paid to the verbal system (§A.1) and to some common prepositions and Warumungu case-markers in Wumpurrarni English (§A.2). A summary of heavy Wumpurrarni features can be found in section A.3.

A.1 Verbal system

The lexical source for the overwhelming majority of verbs in Wumpurrarni English is English and the earlier pidgin, from which it developed. Some verbs have been innovated in the earlier pidgin or in Wumpurrarni English, with a shift in the semantics of the verb\textsuperscript{46}, e.g. ‘stei’ and ‘slip’ taking the meaning of (permanently or temporarily) ‘reside’, and ‘luk’ combining the meanings ‘look’ and ‘see’. Some innovations represent a shift in word class, frequently from noun to verb, for instance ‘taka’ ‘food’ is the stem for ‘tag-anat’ ‘to eat’. In other cases, the valency of a verb has shifted e.g. ‘wer-im-an klos’ – to put clothes onto self or someone/thing else, dress one’s self or someone/thing. Some Warumungu verb stems occur in Wumpurrarni English, inflected with Wumpurrarni English verbal morphology, e.g. ‘warlanjayi-nabat’ – dance-durative. The use of the transitive marker on Warumungu transitive verbs has not been attested.

The verbal system of Wumpurrarni English bears many similarities to other contact varieties, such as Roper River Kriol as described by Sandefur (1979) and Munro (2004), and Fitzroy Valley Kriol as described by (Hudson 1983). As in English, the minimal finite verbal clause consists of a verb and its argument(s). However, the contact varieties, transitive verbs generally take a transitive marker, ‘-im’, (occurring

\textsuperscript{46} See Hudson 1983:151-162 for a more full discussion of similar changes in Fitzroy Valley Kriol.
as ‘im’, ‘um’ or ‘em’, in harmony with the final vowel of the verb). Main verbs in Wumpurrarni English and the other Australian contact languages are not inflected for tense, person or number. However, verbs may take directional, durative or progressive affixes. In addition the affixes that encode progressive and durative aspect on the verb, Tense, Mood and Aspect properties are encoded in auxiliary verbs, which are separate words, or where a pronominal subject occurs, may be affixed to the pronoun47.

A.1.1 Verbal affixes

Four types of affixes occur on W.E. verbs:

- Transitive marking, -im, -em, -um
- Directional particles, e.g. –on ‘on’, -ap up, -at ‘out’, –raun ‘around’
- Durative aspect, realised as –bat/-abat/-nabat
- Progressive aspect, realised as –in/-ing

Verbs may be marked with the transitive marker to show that a verb is functioning transitively. -im may be affixed to an intransitive verb to change it to a transitive verb as in (A1) and (A2):

(A1) yu sid-dan iya luk.
    2S sit-down here look
    You sit down here look. (SD009:124:PD)

(A2) sid-im-ap doldol, go-an.
    sit-Tr-up doll, go-on
    Sit the doll up, go on. (SD009:75:PD)

Two affixes may occur on the same verb stem, as in (A2). For intransitive verbs, a directional affix may co-occur with durative or progressive aspect marking, as in examples (A3) and (A4):

(A3) sambadi gid-in-of
    somebody get-Prog-off
    Someone is getting out (of a car). (SD009:94:JN)

47 O’Shannessy (2006) has shown that Light Warlpiri (a mixed language spoken in Lajamanu, 400km north-east of Tennant Creek) relies on an auxiliary cluster, a pronominal and a verbal element, that expresses tense, aspect or mood (-m non-future and –rra future, plus modal interpretations). Wumpurrarni English shares some of these forms, though they do not make up a full paradigm, as in Light Warlpiri.
daya, olabat bin sid-dan-abat na faiya-kana.

Dis 3Pl Pst sit-down-Dur Loc fire-Loc

Ah there, they sat down by the fire. (SD043C:61:BM)

Note that the order of the two sets of affixes in (A3) and (A4) is reversed. The progressive (-in, -ing) precedes the phrasal particle, in a more English-like pattern, and the form –in/-ing is also shared with Standard English. The durative marker (-bat, -abat, -nabat) follows the phrasal particle, in a less English-like pattern (A4). While the pattern in (A3) is more English-like, note that there is no auxiliary required to mark tense, as is required in English (is/are).

Aspect, according to Sandefur (1979) refers to the “manner in which the verb action is regarded or takes place through time” (197: 119). He defines the progressive aspect (-in/-ing) in Roper River Kriol as denoting “an action continuing through some point of time indicated elsewhere in the context” (1979: 121) and notes that it cannot occur on a verb marked for transitivity. Sandefur also notes the semantic overlap of the progressive (-in, -ing) and the durative (-bat/-abat/-nabat) aspects, which denotes an action as being continuous, and also repetitious (1979: 119). These definitions and observations hold generally for Wumpurrarni English, though a full examination to distinguish possible functions has not been carried out.

However, there are some tendencies in Wumpurrarni English in the distribution of the progressive and durative aspect forms important to the distinction between light and heavy Wumpurrarni English styles. First, the durative aspect tends not to occur in discourse with features of light Wumpurrarni English. Speakers associate the continuative with heavy Wumpurrarni English. A second point is that to mark transitivity, speakers must use the durative aspect marker, as unlike the progressive form ‘-in’, it can co-occur with transitive marking. In heavy Wumpurrarni English texts in the data set, the progressive aspect marker tends to occur with intransitive verbs, or verbs low in transitivity rather than strongly transitive verbs.

---

48 O’Shannessy notes that in Light Warlpiri, verbs marked for progressive aspect are often followed by the transitive marker –it, unless the object is first or second person (2006: 44).

49 Hudson (1983: 40), discussing Fitzroy Valley Kriol, notes the overlap of meaning between the progressive and the durative, which she refers to as the ‘iterative’, but discusses an additional meaning of the durative/iterative, the denotation of plural participants.
A.1.2 Verbal auxiliaries

Sandefur defines auxiliary verbs as those that “modify the meaning of the main verb of a verb phrase. They differ from main verbs in not being able to stand alone, except in topic-comment constructions which have no linking verbs” (1979: 125). Verbal auxiliaries in Wumpurrarni English are used to express tense, mood and aspect. Some express tense alone, while others express a combination of tense-mood-aspect. Most auxiliary verbs are free forms, but some bound forms occur on personal pronouns. The auxiliary verbs found in Wumpurrarni English are summarised following Sandefur’s five categories of tense, mode, aspect, voice and negation in Kriol.

<table>
<thead>
<tr>
<th>Tense</th>
<th>Past/Non-Future</th>
<th>Present/Non-Future</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>bin, (-m)*</td>
<td>Ø, bin, (-m)*</td>
<td>garra</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(-l)*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>gona</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

| Modal                | Intention       | garra (-rra)*      | ‘going to’ |
|                      | Possibility     | garra, mait, maitbi| ‘might’ |
|                      | Necessity/Advisibility | garra (-rra)* | ‘have to’ |
|                      | Desire          | shud /shuda/shudbi | ‘should’ |
|                      | Ability/Permission | wanda/wana/(-na)* | ‘want (to)’ |
|                      | Permission      | kin                | ‘can’ |
|                      | Lack of ability/permission | kan            | ‘can’t’ |

| Aspectual            | Present habitual | olais†              | (always) |
|                      | Past habitual    | yusda               | ‘used to’ |

| Voice                | active           | Ø                   | ‘get’ |
|                      | Passive          | git                 |        |

| Negation             | (present)        | (nat)†, -m nat, don | ‘not,do(es) not’ |
|                      | (past)           | -m neba             | ‘not,never’ |
|                      | (nomo, neba)†    |                    |        |

Table A.1 Summary of Verbal Auxiliaries in Wumpurrarni English

denotes bound forms which occur on some personal pronouns, † adverbials
Tense

The use of ‘bin’ as a past tense marker in Australian English-based contact varieties is widely documented (Kaldor & Malcolm 1991, Koch 2000). In Wumpurrarni English ‘bin’ may occur with an unmarked verb as in (A5) or with a verb marked for progressive aspect, as in (A6) or durative aspect as in (A4) above.

(A5) i bin go.
   3S Pst go
   He went.  (SD008:303:CR)

(A6) i bin tok-in ‘Nanna’.
   3S Pst say-Prog Nanna.
   She was saying ‘Nanna’.  (SD010:211;MA)

This auxiliary also occurs as a bound form ‘–m’, affixed to a first (a-m) or third person singular (i-m) or third person plural (dem) pronominal subject.

Present tense is generally unmarked on the main verb or on an auxiliary verb. However, two of the bound forms mentioned above (first person singular ‘a-m’, and third person singular ‘i-m’ also occur in present tense contexts in Wumpurrarni English, as in (A7) and (A8):

(A7) yu biga-wan, i-m lidl-wan.
   2S bigger-Nom 3S-NonFut little-Nom.
   You’re bigger, she’s little.  (SD031:438:EG)

(A8) a-m wik na bodi.
   1S-NonFut weak Loc body
   I’m weak in the body (from hunger).  (SD042A:116:HA)

The ‘a-m’ form (A8) is very similar to the form of the English expression (‘I’m’, and ‘I’m V-ing’ below), and are likely to be re-enforced by this English pattern, however, the generalisation of ‘–m’ to third person is a separate innovation, lending support to the proposal that ‘-m’ is a part of the Wumpurrarni English auxiliary system, and that ‘a-m’ does not necessarily indicate a style shift to English. These bound forms also occur in present continuous contexts and where the verb is marked for progressive aspect (A9) or the durative aspect (A10) and (A11). In example (A9), a mother gives an on-going commentary as her young child climbs in and out of a cubby house. The ‘going inside’ and ‘coming back out’ are underway as she speaks.

(A9) Na i-m go-in insaid, na i-m go-in-bek.
Future tense is most commonly expressed by the auxiliary garra. Some instances of ‘a-l’ (I’ll) occur in the data, but these are relatively few and occur with the first person. There are also a small number of instances of ‘gona’. Most of these are found in texts where a speaker is speaking light Wumpurrarni English, as in (A12), where the child speaker uses the English-like preposition ‘wid’ and a determiner form ‘da’. In these cases, the auxiliary similar to that required for the English structure (copula + going) occurs only with the first person in the Wumpurrarni English data.

Gona also occurs in some texts where speakers code-switch to English. Example (A13) is from a text in which a group of children aged between eight and ten-years are playing with a toy medical kit. They role-play being doctors and nurses, and when in character, code-switch to English, using features such as the copula auxiliary (‘-s’), the locative preposition (‘in’) and article (‘da’):

Thus it would appear that the expression of future tense encoded with ‘–l’ and ‘gona’ occur in light Wumpurrarni English, and ‘garra’ in both light and heavy styles. The future tense marker ‘garra’ expresses an intention or predicts a likely event. Example (A14) is from the same transcript as (A9), where a mother is watching a small child climbing in and out of a cubby house. In (A14) she predicts the child will climb out.
She’s going to come outside now.  (SD069:83:ET)

Mode

Garra also has a number of modal functions. It is used often in warnings, expressing negative potential future event. In (A15), the speaker warns the researcher not to pay any attention to her very friendly dog, who, once invited to play, won’t stop.

(A15)  hid-im dat kunapa!
  hit-TR Det dog
  na i garra resul-um pipul fo long taim
  no  3S FUT wrestle-TR people Prep long time

  Hit that dog! No, he’ll keep playing with people (with you) for ages.
  (SD086A:114-143:RT)

As much of the ACLA data involves interaction between adults and children, it is not surprising that imperatives are frequent. These often include ‘garra’. Most are from adults to children, but some are from adults to adults and these appear to imply necessity, or advisibility. It is not always straightforward to know how a speaker views an event or state, and the strength of the assertion of obligation/necessity. In example (A16) a mother tells a child that she must pay for goods (in their pretend shop), and the implication of necessity is quite clear:

(A16)  yu garra pei-im
  2S FUT pay-TR
  you have to pay!
  (SD063:127:ET)

A small number of instances of ‘afta’/’lafta’ also occur in the data, which like this final meaning of ‘garra’, express obligation. These do not appear to be associated with a particular style of Wumpurrarni English.

A.1.3 Transitive marking

Some linguistic factors, which influence the distribution of the transitive marker and have been noted in other Australian contact varieties are discussed before focussing on transitive marking in Wumpurrarni English. In addition to verbs marked for progressive aspect discussed above, a number of linguistic environments have been identified in which the transitive marker is less likely to occur or does not occur at all. (Simpson & McConvell 2006) noted that verbs low in transitivity, such as ‘luk’ ‘look, see’, ‘lisin’ ‘listen, hear’, ‘si’ ‘see’, ‘gad’ ‘have’, and ‘wan(d)’ want’ are less likely to
be marked for transitivity than verbs that are highly transitive. Simpson and McConvell (2006) also proposed that a further context of low transitivity, irrealis mood including future, potential future and admonitive/evitative mood, shows a correlation with the omission of the transitive marker, drawing on data from Roper River Kriol, Light Warlpiri and Gurindji Kriol. O’Shanessy (2006) argues for Light Warlpiri that where the auxiliary cluster is marked with either of the future tense markers ‘–rra’ and ‘–l’, in contexts of a potentially negative event, as in warnings, the transitive marker is omitted (though this is not the case in (A16) above).

In their survey of clauses with transitive verbs in Wumpurrarni English, Simpson and McConvell (2006) found that one third were not marked for transitivity. They identified code style as a social factor influencing the occurrence or omission of the transitive marker. The transitive marker was omitted in some phrases with light or English features, as example (A17) shows. In the first clause the verb ‘opin’ is not marked, and the determiner ‘da’ appears with the noun. In the second part, the verb is marked and the noun is bare, features of the heavier style:

(A17) opin da windo iya,  
open Det window here,  
open the window  

\[\text{opin-im windo i garra go in deya} \]  
\[\text{open-TR window 3Sg FUT go Prep there} \]  
open the window, it’s going to go in there.  
(SD044Ce.mor.cex: 301:LT)

A further point important to the discussion of the distribution of the transitive marker is the potential for ambiguity in identifying the form. In many contexts it is homophonous with the third person object pronoun (im), which is optionally realised in Roper River Kriol and in Wumpurrarni English. Sandefur (1979) has noted for Roper River Kriol that the transitive marker “not only indicates that the verb is functioning transitively, but it can also carry the weight of the object of a transitive construction. That is, its presence allows the object to be deleted” (116). He gives the following examples:

(A18) Ai bin binijim mani  
I finished (i.e. used up) the money.  

\[\text{Ai bin binijim } \O. \]  
\[I \text{ finished (the money)} \]  
(Sandefur 1979: 116)
In their survey of transitive marking in Wumpurrarni English, Simpson and McConvell judged that around 30% of the clauses with transitive verbs in the data set were followed by ‘–im’ and an unrealised object (V-im im vs. V-im Ø). They considered semantic and pragmatic accounts for zero object pronoun marking. Their preliminary investigations indicated that the semantic categories of humanness and non-humanness appeared to influence the realisation of pronominal objects. In clauses with a non-human object referent, the referent was less likely to be marked with a pronoun, while human referents were more likely to be pronominally marked.

A.2 Prepositions and semantic case-marking

In Wumpurrarni English both prepositions and post-nominal suffixes derived from Warumungu are used to indicate oblique functions. Some of the preposition forms are shared with Roper River Kriol and Fitzroy Valley Kriol, while some are distinct and have been attested only in Wumpurrarni English (eg. the locational preposition ‘na’). Post-nominal case-marking, however, does not occur in Roper River Kriol (Munro 2004) and is not reported in Hudson’s work on Fitzroy Valley Kriol (1983). The use of both case-marking morphology from Traditional Indigenous languages and prepositions derived from Kriol/English is a characteristic feature of Australian mixed languages, such as Gurindji Kriol (Meakins 2007) and Light Warlpiri (O’Shannessy 2006).

A full account of the properties and distribution of Warumungu-derived case-markers in Wumpurrarni English is yet to be developed. A preliminary description for the widely-used case-marker for attributive possession ‘-kayi’ has been written (Disbray & Simpson 2005) and some analysis of locative prepositions and case-markers carried out (Disbray 2004). Thus, in this section a brief description of attributive possession (§A.2.1) and locational prepositions and locative case markers (§A.2.2) is given. In addition, two further semantic case-marking suffixes are common, generally in heavy Wumpurrarni English styles; the purposive/benefactive/dative (‘-ki, -ka, -ku’) (A19), the proprietive having/instrument/accompaniment ‘-jangu’ (A20):

(A19) dei bin kulanta fo prokprok-ki.

3Pl Pst call-out for frog-Dat (FRA1)
they called out to the frog

Double marking, the use of a Wumpurrarni English preposition and a semantic case-marker is common, though case makers do also occur alone.

(A20)  im-kayi dadi gat spiya, bumarang-jangu dei bin kad-im
       3S-Poss dad got spear boomerang-Inst  3Pl Pst cut-Tr

   *his father has a speaker, with the boomerang they cut it*  (SD:62)

A.2.1 Possession

Possessive pronouns are discussed in Chapter 3 (§3.2.1). The first and second person singular are derived from English forms (eg. ‘main’ ‘my’ and ‘yo’/’yos’ your). However, the third person singular occurs as an innovated form, ‘im-kayi’. Dual and plural possessive pronouns are similarly formed (wi-mab-kayi ‘our’). This pattern does not draw on Warumungu. In Warumungu, there is a separate set of personal possessive pronouns and these are not formed with the suffix ‘-kari’ (Disbray & Simpson 2005). In Wumpurrarni English, the suffix ‘-kayi’ is used with nominals, as well as personal pronouns and is widely used by speakers for this function (A21). The English genitive ‘-s’ is rare.

(A21)  dis im-kayi karnanti.
       Det 3-Poss mother
       *This is his mother*

       dis-wan-iya-kayi dis-wan maanjun-wan-kayi julaka.
       Det-Nom-here-Poss Det-Nom small-wan-kayi bird
       *This one here’s, this bird belonging to the small one*
       (SD006B:A)

A.2.2 Location/Goal

Both location and goal are most commonly expressed in Wumpurrarni English with the preposition ‘na’. This form appears to be unique to Wumpurrarni English. The forms ‘langa’/’la’ occur extensively in Kriol/Aboriginal speaking areas in Australia, but occur only very occasionally in Wumpurrarni English (5 counts by three speakers in the data surveyed). The preposition ‘na’ expresses general location and does not specify the spatial relationships position (at), contact (on), containment (in) or goal/motion towards (to, onto, into), as illustrated in (A22)-(A24):

(A22)  i-m na skul
       3S-Non-Fut Loc school
He’s at school (SD005:JN)

(A23) i bin hit-im im rait na im-kayi purluju
3S Pst hit-Tr 3S right Loc 3S-Poss head
*It hit him right on the head* (SD092:PR)

(A24) an dei bin keri-em, keri-em-bat im na dat nes
and 3Pl Pst carry-Tr, carry-Tr-Dur 3S Loc Det nest
*and they lifted, lifted it into the nest* (SD092:PR)

While the most common way of expressing location is with the general locative preposition ‘na’, there are many ways to stipulate spatial relations most precisely. These include forms such as ‘ina’ (in) and ‘ana’ (on) and a range of locative adverbials/prepositions which stem from both English, ‘inside’ in example (A25), or from Warumungu, as in ‘kaantu’ ‘inside’ in example (A26):

(A25) Ye, go insaid na kabi-aus na.
yes go inside Loc cubby-house Dis
*Yes, go into the cubbie-house.* (SD028:LG)

(A26) i bin jamp kaantu ina plein
3S Pst jump inside
*It jumped into the plein.* (SD058:LG)

Locative phrases are a further domain in Wumpurrarni English, in which forms from Warumungu commonly occur. These include ‘kaantu’ (inside), ‘jana’ (up, above, high, on top), ‘purtangara’ (behind).

In addition to these locative phrases, the Warumungu allative case-marker is used in Wumpurrarni English, particularly heavy Wumpurrarni English, to denote both location and goal. While the suffix is derived from Warumungu, it does not have the same syntax or distribution as in the source language. The allative has two major uses in Warumungu; it denotes motion towards, with both transitive and intransitive verbs; and it denotes the location of an object or an action in a transitive clause. In intransitive clauses, forms of the ergative suffix denote the location of an object or action.

In Wumpurrarni English this division does not persist and the Warumungu-derived form ‘-Kvna’ may denote both motion to or location, in both transitive and
intransitive clauses. Further differences exist. In Warumungu the allative occurs as one of three allomorphs; ‘–kina’, ‘-kana’, ‘-kuna’ and the form is conditioned by the final vowel of the item to which it is attached. In Wumpurrarni English the form does not always follow this vowel harmony rule and the form ‘–kana’ appears to be a default form. Further, in Warumungu case-marking occurs on all parts of the noun phrase, but in Wumpurrarni English only the phrase-final item is marked, as in (A27):

(A27) beibi silip **langa** mangkaja, lila-wan mangkaja-**kana**
   baby sleep Loc blanket, little-Nom blanket-Loc
   baby is sleeping on the blanket, on the little blanket  
   (SD055:SZ)

Warumungu nouns were more likely than English-derived nouns to be marked with ‘–kVna’ in the ACLA data surveyed, suggesting that the language of the nominal may be encourage the use of a preposition vs. case suffix (or double-marked constructions). However, ‘–kVna’ also occurs with English-derived nominals, as in (A28):

(A28) disco-**kina** dei go inti?
   disco-Loc 3Pl go, dis
   They are going to the disco aren’t they?  
   (SD006A:LG)

With English-derived nominals double marked constructions (Prepostion + Noun - kVna), as in example (A29) occurred slightly more often than Noun-kVna.

(A29) yo san i bin skid-im-bat modiga tu intit?
   2SPos son 3S Pst skid-Tr-Dur car too Qtag,
   Your son, he was skidding his car around too, wasn’t he?
   **na bausheid-kana**?
   Loc boughshade-Loc?
   at the boughshade?  
   (SD042A:HA)

The use of semantic case-markers, alone and double marked with a preposition is one source of variability in Wumpurrarni English. While the possessive marker ‘-kayi’ is widely used, other case markers are generally found more commonly in heavy styles. Table A2 in the following section provides a summary of the features found in heavy Wumpurrarni English.
A.3 Summary of heavy Wumpurrarni English features

<table>
<thead>
<tr>
<th>Nominal</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Insertional code-switching</td>
</tr>
<tr>
<td>• Heavy pronoun forms</td>
</tr>
<tr>
<td>• Heavy demonstrative forms</td>
</tr>
<tr>
<td>• Bare nouns</td>
</tr>
<tr>
<td>• Dislocated structures,</td>
</tr>
<tr>
<td>(particularly fronted objects)</td>
</tr>
<tr>
<td>eg. yunmidubala (we 2 excl)</td>
</tr>
<tr>
<td>eg. dijan, darran <em>this</em>/<em>that</em></td>
</tr>
<tr>
<td>eg. a bin luk-em papi</td>
</tr>
<tr>
<td>eg. Scorpion i bin kam-at.</td>
</tr>
<tr>
<td><em>Scorpion it came out.</em></td>
</tr>
<tr>
<td>eg. Ngappa dei bin gid-im im</td>
</tr>
<tr>
<td><em>Water they got it</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Verbal</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Durative verbal marking</td>
</tr>
<tr>
<td>• Transitive marking</td>
</tr>
<tr>
<td>-bat, -abat, -nabat</td>
</tr>
<tr>
<td>-im</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Prepositional</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Warumungu case-markers</td>
</tr>
<tr>
<td>• in place of or with prepositions</td>
</tr>
<tr>
<td>eg. disko-kina <em>at/to/in the disco</em></td>
</tr>
<tr>
<td>eg. gad shanghai-jangu <em>with a shanghai</em></td>
</tr>
</tbody>
</table>
## Appendix B

### Coding for referring expression forms

<table>
<thead>
<tr>
<th>CODE</th>
<th>FORM</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>Bare noun</td>
<td>dog, lidlboi</td>
</tr>
<tr>
<td>nin</td>
<td>Wan/wan-bala + noun</td>
<td>wan squirrel, wan-bala jukjuk</td>
</tr>
<tr>
<td>nnum</td>
<td>Numeral expression + noun</td>
<td>wan-bala frog (in contrastive context) tu-bala frok</td>
</tr>
<tr>
<td>nindef</td>
<td>Indefinite article + noun</td>
<td>a frog, some frogs</td>
</tr>
<tr>
<td>ndet</td>
<td>Determiner + noun (determiner + adjective +noun)</td>
<td>dat dog, damob bi</td>
</tr>
<tr>
<td>ndef</td>
<td>Definite article + noun</td>
<td>the/da dog</td>
</tr>
<tr>
<td>ndem</td>
<td>Demonstrative + noun</td>
<td>dis bird</td>
</tr>
</tbody>
</table>

*Table B.1: Simple referring expressions with a lexical noun*
<table>
<thead>
<tr>
<th>CODE</th>
<th>FORM</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>npro</td>
<td>Left dislocation: bare noun +</td>
<td>a. dog i bin ranawei.</td>
</tr>
<tr>
<td></td>
<td>resumptive pronoun</td>
<td>b. bi i jeis_im_bat im.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Papi dei bin jeis_im_bat im</td>
</tr>
<tr>
<td>ndetpro</td>
<td>Left dislocation: det + noun +</td>
<td>a. dat dog i bin ranawei.</td>
</tr>
<tr>
<td></td>
<td>resumptive pronoun</td>
<td>b. dat bi i jeis_im_bat im.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. dat papi, dei bin jeis_im im</td>
</tr>
<tr>
<td>nprozo</td>
<td>Left dislocation: bare noun (object)</td>
<td>dog dei bin jeis_im_bat Ø.</td>
</tr>
<tr>
<td></td>
<td>with zero resumptive pronoun</td>
<td></td>
</tr>
<tr>
<td>ndetprozo</td>
<td>Left dislocation: det + noun (object)</td>
<td>Dat dog i bin jeis_im_bat Ø.</td>
</tr>
<tr>
<td></td>
<td>with zero resumptive pronoun</td>
<td><em>The dog, it (the bee) chased Ø(the dog).</em></td>
</tr>
<tr>
<td>npost</td>
<td>Right Dislocation: pronoun + bare</td>
<td>dei bin ran awei, boi an dog</td>
</tr>
<tr>
<td></td>
<td>noun clause final</td>
<td></td>
</tr>
<tr>
<td>ndetpost</td>
<td>Right Dislocation: pronoun + det +</td>
<td>Dei bin faindim im dat frokfrok kunapa dubala</td>
</tr>
<tr>
<td></td>
<td>noun clause final</td>
<td></td>
</tr>
</tbody>
</table>

Table B.2: Codes for complex referring expression forms

As the grammatical role is included on the coding string it is possible to separate left dislocated subjects from left dislocated objects. However to incorporate a means of marking the instances of zero pronoun object marking in these structures it was necessary to create an additional pair of codes, nprozo and ndetprozo.
<table>
<thead>
<tr>
<th>CODE</th>
<th>FORM</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>pro</td>
<td>Pronoun</td>
<td>i, im, tubala, dei, damob</td>
</tr>
<tr>
<td>proe</td>
<td>Pronoun (English)</td>
<td>he, they, him</td>
</tr>
<tr>
<td>proz</td>
<td>∅ subject anaphora</td>
<td>i looked an ∅ faind wan frog</td>
</tr>
<tr>
<td>prozo</td>
<td>∅ object anaphora</td>
<td>I bin bait_im ∅ na, na nos.</td>
</tr>
</tbody>
</table>

Table B.3: Codes for pronominal referring expressions
Appendix C

Results tables: Individual Strategies

In this section the results tables, which inform the summary in table 8.16 are given. There is a table for each age group, beginning with the results for the adult texts (Table C.1). A number of points must be explained regarding the presentation of these results. One set of columns details the references to the boy, showing the instances of switch with a nominal (S-N), switch with a pronominal (S-P), maintained reference with a nominal (M-N) and maintained reference with a pronominal (M-P). The total number of references to the referents is given (TOT). In the next set of columns the references to the boy are added to references to those for the boy&dog This second set of figures is marked in bold. The total for all references is given in the last column.

The number of clauses in the narration overall is given in square brackets, beside the code identifying the individual speaker, for example in the first line of Table C.1. [51]A4. The narrations in each table are grouped according to the strategy used and ordered as in Table 8.16. Within each strategy group, the narrations are ordered from the fewest nominal switch references (S-N) to the highest number of nominal switches for references.

<table>
<thead>
<tr>
<th>References to the boy</th>
<th>References to the boy&amp;dog</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaphoric Strategy</td>
<td></td>
</tr>
<tr>
<td>[51] A4</td>
<td>3 2 1 10 16</td>
</tr>
<tr>
<td>[86] A3</td>
<td>5 0 1 7 13</td>
</tr>
<tr>
<td>[93] A2</td>
<td>9 8 6 18 41</td>
</tr>
<tr>
<td>[92] A6</td>
<td>10 3 2 18 33</td>
</tr>
<tr>
<td>[94] A5</td>
<td>10 2 13 28</td>
</tr>
<tr>
<td>[87] A8</td>
<td>12 3 15 33</td>
</tr>
<tr>
<td></td>
<td>4 2 2 18 27</td>
</tr>
<tr>
<td></td>
<td>5 4 1 23 36</td>
</tr>
<tr>
<td></td>
<td>11 10 6 33 59</td>
</tr>
<tr>
<td></td>
<td>10 3 2 24 39</td>
</tr>
<tr>
<td></td>
<td>12 2 4 22 50</td>
</tr>
<tr>
<td></td>
<td>13 4 3 17 37</td>
</tr>
<tr>
<td>Thematic Strategy</td>
<td></td>
</tr>
<tr>
<td>[40] A7</td>
<td>3 6 0 14</td>
</tr>
<tr>
<td></td>
<td>4 7 0 18 19</td>
</tr>
<tr>
<td>Partial thematic Strategy</td>
<td></td>
</tr>
</tbody>
</table>

281
| A1 | 6 | 6 | 2 | 6 | 20 | 7 | 10 | 4 | 21 | 43 |

Table C.1: Form/Function pairing of references to the boy and boy&dog: adults
<table>
<thead>
<tr>
<th>References to the boy</th>
<th>References to the boy&amp;dog</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-N</td>
<td>S-P</td>
</tr>
<tr>
<td><strong>Anaphoric Strategy</strong></td>
<td></td>
</tr>
<tr>
<td>[44] 12.1</td>
<td>9</td>
</tr>
<tr>
<td>[43] 12.2</td>
<td>11</td>
</tr>
<tr>
<td>[30] 12.5</td>
<td>7</td>
</tr>
<tr>
<td>[39] 12.3</td>
<td>8</td>
</tr>
<tr>
<td>[75] 12.8</td>
<td>8</td>
</tr>
<tr>
<td>[75] 12.10</td>
<td>5</td>
</tr>
<tr>
<td>[45] 12.9</td>
<td>2</td>
</tr>
<tr>
<td><strong>Nominal Strategy</strong></td>
<td></td>
</tr>
<tr>
<td>[38] 12.4</td>
<td>9</td>
</tr>
<tr>
<td>[35] 12.7</td>
<td>6</td>
</tr>
<tr>
<td>[29] 12.6</td>
<td>6</td>
</tr>
</tbody>
</table>

Table C.2: Form/Function pairing of references to the boy and boy&dog: 12-year-olds

<table>
<thead>
<tr>
<th>References to the boy</th>
<th>References to the boy&amp;dog</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-N</td>
<td>S-P</td>
</tr>
<tr>
<td><strong>Anaphoric Strategy</strong></td>
<td></td>
</tr>
<tr>
<td>[45] 10.6</td>
<td>8</td>
</tr>
<tr>
<td>[37] 10.10</td>
<td>9</td>
</tr>
<tr>
<td>[59] 10.3</td>
<td>8</td>
</tr>
<tr>
<td>[44] 10.5</td>
<td>6</td>
</tr>
<tr>
<td><strong>Thematic Strategy</strong></td>
<td></td>
</tr>
<tr>
<td>[54] 10.9</td>
<td>3</td>
</tr>
<tr>
<td>[35] 10.7</td>
<td>1</td>
</tr>
<tr>
<td><strong>Partial Thematic</strong></td>
<td></td>
</tr>
<tr>
<td>[54] 10.9</td>
<td>3</td>
</tr>
<tr>
<td><strong>Nominal Strategy</strong></td>
<td></td>
</tr>
<tr>
<td>[50] 10.4</td>
<td>17</td>
</tr>
<tr>
<td>[49] 10.1</td>
<td>12</td>
</tr>
<tr>
<td>[33] 10.2</td>
<td>5</td>
</tr>
<tr>
<td>[19] 10.8</td>
<td>3</td>
</tr>
</tbody>
</table>

Table C.3 Form/Function pairing of references to the boy and boy&dog: 10-year-olds
### References to the boy

<table>
<thead>
<tr>
<th>S-N</th>
<th>S-P</th>
<th>M-N</th>
<th>M-P</th>
<th>TOT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### References to the boy&dog

<table>
<thead>
<tr>
<th>S-N</th>
<th>S-P</th>
<th>M-N</th>
<th>M-P</th>
<th>TOT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Anaphoric Strategy

| 44 | 8.6  | 5  | 2  | 2  | 3  | 12 | 7  | 4  | 2  | 14 | 27 |
| 39 | 8.9  | 4  | 1  | 0  | 4  | 9  | 6  | 2  | 0  | 14 | 22 |
| 34 | 8.8  | 4  | 0  | 3(4)| 2  | 7  | 5  | 2  | 4  | 9  | 20 |

#### Thematic Strategy

| 41 | 8.7  | 1  | 9  | 0  | 4  | 14 | 1  | 11 | 0  | 4  | 16 |
| 38 | 8.10 | 2  | 3  | 1  | 3  | 9  | 2  | 6  | 2  | 10 | 20 |

#### Partial Thematic Strategy

| 26 | 8.5  | 3  | 3  | 0  | 3  | 9  | 3  | 7  | 0  | 6  | 16 |
| 40 | 8.1  | 3  | 2  | 2  | 11 | 18 | 4  | 3  | 2  | 12 | 21 |
| 37 | 8.3  | 4  | 3  | 0  | 8  | 15 | 4  | 6  | 2  | 8  | 20 |
| 38 | 8.4  | 3  | 2  | 2  | 4  | 12 | 3  | 7  | 3  | 10 | 23 |

#### Nominal strategy

| 40 | 8.2  | 9  | 0  | 4  | 0  | 13 | 12 | 0  | 4  | 4  | 20 |

#### Table C.4 Form/Function pairing of references to the boy and boy&dog: 8-year-olds

### References to the boy

<table>
<thead>
<tr>
<th>S-N</th>
<th>S-P</th>
<th>M-N</th>
<th>M-P</th>
<th>TOT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### References to the boy&dog

<table>
<thead>
<tr>
<th>S-N</th>
<th>S-P</th>
<th>M-N</th>
<th>M-P</th>
<th>TOT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Thematic Strategy

| 33 | 6.1  | 1  | 4  | 0  | 3  | 8  | 1  | 6  | 1  | 3  | 3  | 13 |

#### Partial Thematic Strategy

| 25 | 6.4  | 5  | 2  | 1  | 2  | 10 | 5  | 5  | 1  | 9  | 20 |
| 39 | 6.7  | 4  | 4  | 0  | 3  | 11 | 4  | 4  | 0  | 5  | 14 |
| 25 | 6.5  | 4  | 0  | 2  | 2  | 8  | 4  | 5  | 2  | 9  | 20 |
| 39 | 6.3  | 4  | 5  | 0  | 10 | 19 | 4  | 6  | 0  | 17 | 27 |
| 38 | 6.9  | 3  | 3  | 1  | 13 | 20 | 3  | 3  | 1  | 13 | 20 |
| 28 | 6.10 | 6  | 2  | 0  | 2  | 8  | 3  | 3  | 0  | 2  | 8  |

#### Nominal Strategy

| 55 | 6.2  | 10 | 0  | 1  | 2  | 16 | 11 | 0  | 5  | 4  | 20 |

#### Pronominal Strategy

| 22 | 6.8  | 0  | 4  | 0  | 2  | 6  | 0  | 5  | 0  | 2  | 7  |
| 22 | 6.6  | 0  | 4  | 0  | 3  | 7  | 0  | 4  | 0  | 9  | 13 |

#### Table C.5 Form/Function pairing of references to the boy and boy&dog: 6-year-olds
Author/s:
DISBRAY, SAMANTHA

Title:
More than one way to catch a frog: a study of children’s discourse in an Australian contact language

Date:
2008

Citation:

Publication Status:
Unpublished

Persistent Link:
http://hdl.handle.net/11343/35428

File Description:
More than one way to catch a frog: a study of children’s discourse in an Australian contact language

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