Development of the French determiner phrase in monolingual
and bilingual first language acquisition

by

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ABSTRACT

This study explores the acquisition of the determiner phrase (DP) in monolingual (L1) and bilingual (2L1) French. I investigate the acquisition of DP structures and features in the speech of two monolingual French and two bilingual French-English subjects from the CHILDES (Child Language Data Exchange System) corpus. I perform a thorough, longitudinal examination of the children's data, from the ages of 1;10 to 4;00, focusing on the description and analysis of their development of DP elements, words, and structures such as the definite and indefinite articles, demonstratives, and numerals, as well as the DP features of gender, number, and definiteness. I also consider the Adjective Phrase (AP) and its interaction with the DP.

This study complicates the traditional view of discrete, simplified stages of DP acquisition, arguing instead for an ongoing and complex process. Application of the Minimalist model of syntactic analysis provides essential insights into the underlying processes of child grammar, and suggests a number of previously unaddressed characteristics and patterns in French DP development.
For my partner, Kim, and my parents, Charmayne and Kathy, without whose patience, love, support, and encouragement I could not have completed this journey.
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CHAPTER 1
INTRODUCTION, PURPOSE, AND METHODOLOGY

1.1 First Language Acquisition: A Brief Overview

Research on child language acquisition has a rich and storied past. The idea that children can seemingly start from nothing and develop a complex system of communication within the first few years of their lives is undeniably fascinating and has long provoked scholarly interest. While the theoretical approaches to understanding child language have differed over time, the goal has remained the same, namely, to gain a deeper understanding into this amazing phenomenon and use it to explore the wonders of human cognition.

Early linguistic research in first language acquisition consisted primarily of diary studies, the majority of which date from the late 19th to the early 20th century. The researchers, most often parents of their subject, kept notes and made observations regarding the development of their child’s speech over time (see Ingram, 1989, for a through overview). The rise of Behaviorism in the early to mid 20th century brought a dramatic change in methods, with researchers shifting to cross-sectional “large sample” studies in order to establish broad norms for child language acquisition (Ingram, 1989, pp.12-13). However, the greatest shift in the theoretical focus and methods used in the linguistic study of child language acquisition, one that continues to dominate research to this day, came with Noam Chomsky’s ideas of Universal Grammar (1957,1965).

The theory of Universal Grammar, or UG, proposes that children are born with an innate cognitive capacity to acquire language. Chomsky (1965) argues that, as human beings, we are hardwired with a language-learning capability that allows us to rapidly
create a complex system of grammatical structures. Given normal developmental conditions and access to linguistic input, any child can learn any human language within the first few years of his or her life. The child simply has to acquire a few overarching language principles, and set a finite number of language-specific syntactic parameters and she has set her grammar in place. This idea, the Principles and Parameters Theory, created a great deal of interest in creating rule-based descriptions of child language in order to further understand the syntactic processes underlying acquisition (Ingram, 1989; O’Grady, 1997).

The advent of Chomsky’s (1995) Minimalist Program saw an increased interest in understanding the underlying processes of complex syntactic structures. This model seeks to simplify syntactic architecture by focusing on economy of representation and “reduc[ing] theoretical apparatus to the minimum which is conceptually necessary” (Radford, 2009, p. 48). It also works to incorporate the ideas of the Principles and Parameters theory, arguing that all seemingly parametric differences in language are due to lexical properties in individual languages (Boeckx, 2006). Parameters are born out of the assignment of morphosyntactic features to lexical items (van Gelderen, 2013).

1.2 Key Questions and Issues in First Language Acquisition

1.2.1 The Maturation vs. Continuity Debate

The shift to gain understanding of the underlying processes of the acquisition of complex syntactic structures created two major camps in the field of first language acquisition, and sparked a debate that is still ongoing – that of Maturation vs. Continuity. Briefly, the Maturation Hypothesis proposes that children have a different underlying syntactic structure than adults, one that entirely lacks functional categories (e.g. Borer &
Wexler, 1987; Radford, 1990). Conversely, the Continuity Hypothesis states that children have the *same* underlying structure; they just do not necessarily have complete access to it from the very beginning (e.g. Demuth, 1994; Hyams, 1996; Lust, 1999). Although it is one of the most prevalent topics of discussion in the literature on L1 acquisition of syntax, the Maturation vs. Continuity debate is, to a certain extent, spurious. The primary reason for this is the lack of clarification of terminology used to discuss children’s acquisition of language. Neither side seems to realize that, perhaps with a few minor exceptions, they both have a very similar view of child language. I will return to this idea shortly, but first I will begin with an overview of the two sides of the debate.

The Maturation Hypothesis (MH) is usually cited to begin with Felix (1987) and especially Borer and Wexler (1987), but the major MH proponent referred to in the literature is Radford (1990). In studying the early syntactic structures of English (it is relevant that he did not consider other languages in his study), Radford proposed that children have underlying structures that are completely lacking in functional categories. Notably, he suggested that children begin with a Small Clause (SC) and that their structures change when they “mature” (tying this, as most do, to possible shifts in cognitive development). Radford argued that children have three distinct stages, with three corresponding structures: the one-word stage; the lexical-thematic stage, where they are beginning to combine words, but only those with lexical meaning [N,V,P,A]; and finally the functional-nonthematic stage, where their structures shift and allow for grammatical words and morphemes [D,C,I]. The basic idea is that in the second stage, children are limited to the structures to create two-word combinations of solely lexical

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1 Interestingly enough, Borer and Wexler (1987) called their theory Continuity. Wexler (1999) acknowledges that this “caused some confusion”. 3
words, e.g. A+N, V+N, etc. Not until they age and mature to the functional-nonthematic stage can they create combinations of functional+lexical words, such as D+N.

The MH is certainly not without its problems. One of the reasons Radford (1990) cites for proposing that children’s language develops in these discrete stages, one building upon the other, is that children seem to follow this path universally, i.e. one never finds a child who begins with function words and then later adds in lexical ones. This in itself can hardly be argued against since cross-linguistic data do show children’s language beginning with lexical items; although, crucially, such data also find evidence of children using Infl very early on, from the beginning of their recorded data. It is not surprising that Radford’s argument would be lacking in regards to the acquisition of Infl in particular, as English-speaking children acquire Infl-related elements significantly later than, e.g., French- or Italian-speaking children (Chierchia et al., 1999). Perhaps the most refutable and damning aspect of Radford’s argument is that he links it specifically to age. Based on his data, he estimates that the lexical-thematic stage begins at 2;01 and the functional-nonthematic around 2;06. There are a couple of problems with this. First, a wealth of studies of both monolingual and bilingual show this not to be the case. While children do indeed seem to begin with lexical words, they vary widely in terms of age of production of functional structures. Secondly, the way in which Radford proposes these stages and their corresponding structures, it is as if they almost “magically” appear and then are without error – the child wakes up at 2;06 and suddenly has a new functional-nonthematic structure with which he can create a more “adult” grammar.

Under the Continuity Hypothesis (e.g., Clahsen, 1990/1991; Demuth, 1994; Hyams, 1996; Lust, 1999; Pierce, 1992), children are believed to have the same
underlying structures as adult speakers, although there is debate as to their level of access to these structures and the reasons behind their initial omissions of function words. Demuth (1994), for example, attempts to link omissions of functional elements to underlying phonological constraints, specifically to metrical feet. Her data seem to adhere to this idea; however, many authors since then (e.g. Kupisch, 2003; 2005) say their data refute phonology as the main explanation. Hyams (1996) suggests that perhaps the omission of function words in the syntax is due to the absence of pragmatic/semantic features, such as specificity. She finds evidence in favor of this argument for both D and I. Children may have an underlying DP, she says, but its features are underspecified. Children’s bare nouns are taken to have an immediate “here”, deictic interpretation. Similarly, their verbs are not specified for tense. Hyams claims the so-called “null-subject” in English (e.g. in a sentence like Want cookie) is not in fact a missing subject. Rather, the children are using a bare infinitive, which has not been specified for tense or person features, and is used for an immediate “now, deictic interpretation. Thus, it is the not the lack of structure in children’s speech, but the lack of features.

As stated earlier, this “debate” is somewhat misleading because most scholars seem to agree on the basic ideas but get sidetracked by some terminological issues. We can see this in the seeming confusion of even those contributing significantly to the debate. Kenneth Wexler’s ideas on the subject are an interesting case. His work in Borer and Wexler (1987) is usually cited as being the first major argument for the MH. However, in Poeppel and Wexler (1993), the authors state very clearly that “the child has the adult grammar”, going so far as to propose the Full Competence Hypothesis (FCH). But then again in Wexler (1999), he devotes the entire article to the idea that language
must be “maturational”. But it is in this article where the confusion is shown (not just for Wexler, but for most). Wexler argues that language must grow (i.e. it is not learned) and that “maturation=growth” (p. 56). Proponents of Continuity, or “Rigidity” as he insists it should be called, do not allow for this growth but instead claim that the child has it all from the beginning, with no development. It is interesting that Wexler does not, or perhaps cannot, specifically cite anyone who believes this. As should be clear to anyone researching L1 acquisition, the idea that children have a full underlying structure is far from believing that no growth or development occurs in their language. Lust (1999), who is a supporter of the Strong Continuity Hypothesis (SCH) remarks on this. The SCH, she says, does not at all claim that children’s languages do not mature. It is clear that they develop, even if just through acquisition of the language-specific lexicon through experience. What is erroneous is the view that “maturation” per se is equivalent to the ideas of the Maturational Hypothesis. The SCH simply proposes that children begin with an entire skeleton of the underlying syntax of the target language and that experience (and perhaps the awareness of semantic/pragmatic constraints that come with cognitive development) leads them to fill in the rest.

1.2.2 Ages vs. Stages

As is often noted in the literature (Clark, 1985; Radford, 1990; Müller, 1998; among many others), individual differences in age and rate of acquisition of grammatical items vary greatly across learners. Age is thus a notoriously unreliable factor by which to gauge language development, and arguments that attempt to tie development too closely to age, such as Radford’s (1990) suggestion that functional structures come online at age 2;6, are often subject to blistering critiques. The most common practice is to therefore
propose stages in acquisition that occur within a range of ages, depending on the individual development of each child.

Brown (1973) is generally credited with attempting to establish stages of acquisition in child language, which take place over the first few years of the child’s life. His book focuses on two primary stages: Stage I consists primarily of one or two lexical items; Stage II sees the appearance in grammatical structures and longer phrasal and sentence structures. Further stages of development focus on more complicated structures and their refinement. These general stages have subsequently been widely adopted in the field as a measurement of acquisition (e.g. Heinen & Kadow, 1990; Chierchia et al., 1999). A few detailed examples of stage systems, focused on French language learners, are outlined in section 1.3.1.

1.3 Previous Studies of the DP and NP in the Monolingual and Bilingual Acquisition of French

In this section, I provide a survey of some of the most important previous research in the acquisition of the DP in monolingual (L1) and bilingual (2L1) English learners of French. Although the focus of this dissertation is not on bilingual acquisition (i.e. an in-depth look at each of the bilingual child’s languages and the possible interactions and influence between them), it is necessary to have a basic understanding of some of the cross-linguistic processes that may influence the bilingual subjects in this study.

Furthermore, in many ways, research on the DP in bilingual first language acquisition (BFLA) has been addressed in more depth than in monolingual acquisition, and therefore provides additional insights into the process. The primary reason for this skewing of research seems to be a general assumption that acquisition is relatively simple and
straightforward for monolingual children. Without the possible cross-linguistic competition, it is often reasoned that the monolingual child will have an easier and perhaps faster time processing input and establishing her lexical and functional categories (Döpke, 2000; Koehn, 1994). This seems to be especially true regarding DP development in French children, given that determiner phrases and elements have a very strong presence in adult French language (so they are constantly in the child’s input). However, although these assumptions persist in the research, there is little evidence to show that the development of the DP in the monolingual child is not as equally rich and varied as that of a bilingual child, and while there may be some differences in the two, neither is more straightforward than the other. Indeed, analysis of data from both types of learners, as performed in this study, provides a more well-founded argument and a more well-rounded understanding of the phenomenon.

1.3.1 A Brief Overview of French L1/2L1 Stages of DP Acquisition

While research on the acquisition of the DP in French is somewhat limited (notable examples include: Heinen & Kadow, 1990; Granfeldt, 2000a; Hulk, 2004; Pannemann, 2006; Prévost, 2009), some work has been done trying to determine the order in which grammatical elements are acquired. In order to place the data provided by my subjects within the framework, I will briefly discuss these stages here. Heinen and Kadow (1990) delineate a somewhat comprehensive view of the five stages of acquisition in monolingual French children. The child begins with one-word utterances (at approximately age 1:1), usually a lexical item such as a noun or verb (most often a root infinitive). In the second stage, at the age of about 1;8, the child begins combining words (two-word stage). These words may vary but often consist of Agent+Action or
Agent+Object. In stage III (approximately age 2;1), function words such as articles and prepositions begin to occur regularly, along with present tense, auxiliaires, copulas, modals and subject clitics. Typically at around 2;6, the child hits stage IV and begins to incorporate future tense, possessives, object clitics, conjunctions, and relative pronouns. In the fifth and final stage, beginning when the child is around 2;11 years old (and gradually developing for some time), reflexives appear along with more abstract moods such as imperfect, conditional, and subjunctive (Heinen & Kadow, 1990).

The acquisition of determiners by children (whether monolingual or bilingual) is an important though somewhat overlooked area of study. One reason it is so rich in providing insight into L1 or 2L1 acquisition of syntax is due to the highly functional nature of determiner elements – definite and indefinite articles, demonstratives, personal pronouns, possessive adjectives. In regards to determiners, Heinen and Kadow (1990) note “articles are acquired in phase III but no child uses all article forms at this stage” (p. 61). They also remark that children generally begin with the definite article (most often a default masculine article) “even in contexts where one would expect to find the indefinite article” (p. 61).

Hulk (2004) and Pannemann (2006) have specifically addressed the stages of determiner acquisition in monolingual French children. The description of the stages in (1) is taken from Hulk (p. 257):

(1) Stage 1: Bare noun
    Stage 2: Det or Adj + N
    Stage 3: Det+Adj+N
    Stage 4: Postnominal Adj. added to stage 3 structure
    Stage 5: Adj. gender agreement occurs with noun

---

2 Only prenominal adjectives are available to learners at this stage
Hulk does not say exactly when gender agreement appears on definite and indefinite articles, though she suggests that such agreement errors are quite rare in monolingual learners.

To clarify a couple points regarding (1) above, in stage 2, the child combines a noun with either a determiner or an adjective, but not both together. This suggests that she may only initially have access to two positions in the nominal structure (see [2]) and then later develop an extra position allowing for both a determiner and pronominal adjective (see [3]). Citing Granfeldt (2000), Hulk (2004) observes that “the appearance of post-nominal adjectives in the child data [both monolingual and bilingual] indicates the next step in the structural development of the DP: the position of the adjective suggests [noun movement]” (p. 254) (see [4]). She suggests possible syntactic derivations for some of the stages she describes (all trees from Hulk 2004, p. 254):

(2) Stage 2 structure

```
   N
   /\    
  Det/Adj  N
     le/petit poisson
```

(3) Stage 3 structure

```
   N
   /\    
  Det  N
     le 
     /\  
    Adj  N
       /\        
      petit poisson
```
(4) Stage 4 structure (incorporating N-movement to account for postnominal adjective)

These structures are helpful, but, as this study attempts to show, are limited in the information they provide and highly restrictive in their assumptions about children’s syntactic knowledge and structures. For example, Hulk (2004) does not give a DP structure for “Stage 1”, the bare noun stage, and questions whether or not a DP is indeed present in earliest nominal phrases (see also Prévost, 2009). Some researchers, such as Kupisch (2005), state clearly that bare nouns cannot project DPs, as they “do not refer to specific entities” (p. 147). It can easily be argued, however, that contextual discursive evidence suggests otherwise. Children’s initial utterances are most often deictic and specifying in nature, as they typically refer to an object in the immediate vicinity. We can therefore propose that the child is in fact using a specifying DP structure, but simply has not yet fully understood the requirement for the semantic and syntactic features that determiners encode.

1.3.2 Previous Studies of the DP in BFLA

Much of the research on the bilingual acquisition of nominal phrases (NPs) and DPs has focused on French-German bilinguals (see Meisel, 1994, for discussion of the DUFDE project), with other important studies focusing on French-English bilinguals
(Paradis & Genesee, 1997), French-Dutch bilinguals (Hulk, 2000), and German-English bilinguals (Döpke, 2000). Although these studies focus on bilinguals and are primarily concerned with identifying areas of cross-linguistic influence in the children, they do provide essential insight into the processes inherent to the acquisition of determiners and other DP elements. Analysis of the simultaneous development of the DP and NP in French-German bilinguals, for example, has illustrated a number of important issues that arise in language development. Koehn (1994) and Müller (1994) discuss the difficulties of the acquisition of gender and number features in the DP and NP. They find clearly delineated phases in the children’s acquisition and successful use of such features. The children in Koehn’s (1994) study did not use any determiners or gender markings until the age of 2;4. Their use of number distinctions began earlier (2;2), but was limited and not always target-like. However, the existence of some number distinctions as well as the difference in time of development for each of the children’s languages (French DP elements and marking of gender and number features were acquired before German) leads Koehn to the conclusion that the lack of grammatical markings on nouns and determiners is likely not due to the complexity of the semantic concept of encoding gender and number but rather that the corresponding grammatical features are not yet available to the children.

Müller (1994) and Koehn (1994) also note that it is unclear whether the definiteness feature is available in the early phases of language acquisition. Indefiniteness in particular seems to pose a problem for young children. Both Müller (1994) and Koehn (1994) observe that, while the use of definite articles is almost always target-like in their subjects, use of indefinites shows much more variation with a much higher frequency of
deviant structures. Furthermore, the children do not seem to associate the definite and indefinite article together, as evidenced by their variation in gender marking on the articles (e.g. la poupée ‘the doll’ used with *un poupée ‘a doll’; der Bär ‘the bear’ with *eine Bär ‘a bear’). These errors and lack of patterning suggest that very young children have a difficult time acquiring the definiteness feature. This could be due to the complex semantic content inherent to the encoding of definiteness, but that is not yet clear. Unfortunately, the acquisition of definiteness features is rather difficult to assess and remains largely unaddressed in the literature on acquisition of the DP (whether monolingual or bilingual) (see Prévost, 2009 for further discussion).

1.4 Purposes and Motivations for this Study

This project adds several important contributions to the study of language acquisition and syntax. First, there are a limited number of studies of DP acquisition in L1 and 2L1 syntax, and only a couple of those address the French DP (e.g., Granfeldt, 2000; Heinen & Kadow, 1990; Hulk, 2004; Müller, 1994). In comparing the production of four subjects, two monolingual and two bilingual children, this study expands the research significantly.

Secondly, the very limited research that has been previously done on the French DP is lacking in a number of ways. The majority of this research is only vaguely descriptive of proposed stages in French DP development (e.g. Hulk, 2004) and possible ages for their development. They may address the acquisition of definite articles or gender, for example, but their discussion tends merely to skim the surface. As noted in section 1.3.1, research on various important elements of the DP such as the development of number and gender features or the placement of the adjective within the extended DP
structure are virtually nonexistent. In taking a longitudinal view of the data and thoroughly analyzing how the subjects develop and construct DP structures step-by-step, the scope of this study will take each of these elements into consideration, which will constitute a considerable and meaningful contribution to the field.

Lastly, and perhaps most importantly, the discussion of the data will include a comprehensive analysis based upon current Minimalist theory (e.g., Adger, 2003; Giusti, 1997, 2002; van Gelderen, 2013). Such an analysis is, in fact, almost non-existent in the current literature on the DP, where data are described almost tangentially with a few nearly meaningless and faulty trees. I believe there is significant insight to be gained into the processes of syntactic acquisition through application of these theories to the data provided by the children.

1.5 Research Questions

This study seeks to address the following questions:

- How do L1/2L1 learners of French construct and develop the extended Determiner Phrase, including essential DP elements (such as articles, demonstratives, possessives) and important DP features (such as gender and number)?
- What is the order of acquisition of these elements and what can it tell us about language development?
- In what ways can the application of the Minimalist model to child language data help explain and clarify the complex processes of DP development?
1.6 Methodology

This dissertation has been designed as a multi-subject, longitudinal case study, which investigates the production of 4 French-speaking children. Two of the children are monolingual learners of French, while the other two are simultaneous bilingual learners of French and English. This study considers only the French production of the bilingual children.

The multi-subject, longitudinal case study design was carefully chosen for a number of important reasons. First of all, a longitudinal approach is necessary in order to consider the development and expansion of the DP. Second, while a one-subject case study would be able to provide some evidence of this gradual building of the DP over time, considering the production of multiple children allows a wider view of acquisition in general. It must be noted that this study does not purport to make broad or universal claims regarding the development of the DP in French-speaking children. Rather, by adding important data and analysis, it expands our knowledge and understanding of this phenomenon.

1.6.1 Subjects

All of the data come from CHILDES (Child Language Data Exchange System) (MacWhinney, 2000), an extensive online database used by many L1 acquisition researchers, due to its rich and varied data. The data for the monolingual children, Madeleine and Théophile, come from the “French – Paris” corpus; the data for the bilingual children, Olivier and Gene, are from the “Genesee” corpus. The following paragraphs provide a brief outline of the pertinent facts about each of the 4 subjects,
summarized from the information provided in the database manuals available on CHILDES (http://childes.psy.cmu.edu/manuals/).

- **Madeleine**

  Madeleine’s data are provided by Aliyah Morgenstern and her colleagues for their project “Acquisition du langage et Grammaticalisation” (Morgenstern & Parisse, 2007; Morgenstern & Sekali, 2009; Leroy, Mathiot & Morgenstern, 2009; Morgenstern & Benazzo, 2009). The project, which focused on filming children during the first few years of their life in order to expand data on L1 learners of French, lasted from 2005-2011. Madeleine is a monolingual French speaker living in Paris. She was filmed at home in a naturalistic play setting. Over the course of many recording sessions, she interacts with a number of different interlocutors, although the majority of her interactions are with her mother. There are 31 transcripts of her speech available on CHILDES, providing a range of data from 1;00 to 4;10. From the ages of one to three years old, she was filmed nearly every month during one-hour sessions. Thereafter, she was filmed approximately every 3 months. The data used for this study have been reduced to 22 transcripts, ranging from 1;06.04 to 4;01.27. The reasons for these restrictions are due to the scope and focus of the project – Madeleine does not begin using nouns until age 1;03, and by age 4;01 has acquired all DP elements and uses the majority in a target-like manner.

- **Théophile**

  Théophile’s data also come from the “Acquisition du langage et Grammaticalisation” project, summarized above. He is a monolingual speaker from a suburb of Paris, whose data are recorded in a naturalistic play setting with both his mother and father. There are a total of 33 one-hour sessions of Théophile’s data on
CHILDES, ranging over three years (1;00 to 4;01). As with Madeleine’s data, I have chosen transcripts pertinent to this study. As Théophile does not use NPs/DPs until the age of 1;10, I have excluded his early transcripts.

- **Olivier**

Olivier’s data come from Genesee’s corpus of French-English bilingual children. Some specific details regarding Olivier are available in Paradis and Genesse (1996) where he is a subject of study. As described in their study, Olivier is being raised in a bilingual French-English home in Montréal. His father speaks French, his mother English, and generally they adhere to a “one parent, one language” approach, though the data show that that is not always the case. It is readily apparent in the data, and confirmed by Paradis and Genesee, that French is initially Olivier’s dominant language though later he begins to use both more equally. Olivier’s data was collected in a naturalistic play setting at home in hour-long play sessions. 20 minutes of each session was then transcribed using the CHAT system. Olivier was recorded over a period of slightly over two years, from 1;10 to 4;00 years of age resulting in a total of 17 sessions on CHILDES – 7 in English with Olivier and his mother, 7 in French with his father, and 3 in a bilingual French-English setting with both father and mother. As this dissertation is focused on French acquisition, only the French and bilingual French-English transcripts are included in the analysis.

- **Gene**

Very little information about Gene is available on CHILDES. Like Olivier, he is part of the Genesee corpus. Based on the database manual, we can therefore assume him

---

3 DP-related acquisition is not considered in Paradis and Genesee (1996). The authors focus on verb finiteness, negation, and subject pronouns.
to be from Montréal, being raised in a bilingual French-English home. His transcripts indicate that his data is recorded in a naturalistic play setting, with conversations taking place between him and his father. Gene’s data are very limited. Only 4 transcripts are available on CHILDES, and they are spaced 6 months apart, beginning when Gene is 1;10 and ending at 3;07. Like Olivier, Gene’s data were collected in a naturalistic play setting at home in hour-long play sessions, with 20 minutes of each session then transcribed using the CHAT system. As will be apparent in the analysis sections of this study, Gene appears to be rather strongly English dominant. He often responds to his father in English, though the latter uses French. Nevertheless, although it is considerably more limited, his production data follow a similar pattern to those of the other three children and thus provide a valid and valuable source for inquiry into DP development.

1.6.2 Data Collection and Coding

A total of 59 data sets were analyzed for this study. The number of data sets for each child, summarized in Table 1.1, varies in length and range of age, based upon availability in CHILDES.

Table 1.1
Summary of Subjects and Data Sets

<table>
<thead>
<tr>
<th>Name of subject</th>
<th>Number of data sets analyzed</th>
<th>Age range of analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madeleine</td>
<td>22</td>
<td>1;06.04 – 4;01.27</td>
</tr>
<tr>
<td>Théophile</td>
<td>23</td>
<td>1;10.00 – 4;01.24</td>
</tr>
<tr>
<td>Olivier</td>
<td>10</td>
<td>1;10.05 – 4;00.19</td>
</tr>
<tr>
<td>Gene</td>
<td>4</td>
<td>1;10.28 – 3;07.17</td>
</tr>
</tbody>
</table>

In the case of the bilingual children, only the French and bilingual French-English data sets were included in analysis, due to the focus of this study. Of the two bilingual subjects, only Olivier has available bilingual data sets (3 out of the 10).
Analysis of the transcripts focused on the determiner phrases produced by each child. Utterances were coded for the following elements:

- Bare nouns
- Definite articles
- Indefinite articles
- Possessive determiners
- Demonstratives
- Quantifiers
- Adjectives and adjective placement

The surrounding discourse was also considered, as contextual evidence can contribute additional insight into the children’s production of each element.

1.7 Organization of Dissertation

The remainder of the dissertation will be organized as follows: Chapter 2 will lay out the theoretical framework that forms the basis of analysis for this dissertation. I explain the rationale for the functional layer of the DP and describe the arguments that have been put forth for the positions in the syntactic derivation of all of the elements pertinent to this study, with particular attention paid to the French and Romance DP.

Chapters 3 and 4 consist of detailed descriptions and analyses of the data that comprise this study. I consider each child’s data individually, providing key examples of both correct and erroneous production in order to provide a more fully formed view of their development. Chapter 3 gives an overview of the development initial DP elements, namely bare nouns, and definite and indefinite articles. Chapter 4 addresses the remaining DP elements: possessive determiners, demonstratives, quantifiers, and adjectives. The
acquisition and application of DP features such as gender, number, and definiteness are discussed in both chapters as they pertain to each element.

Chapter 5 provides an in-depth, data driven discussion of the children’s DP development. Analyzing the data through the lens of the Minimalist model, I argue for a substantially more complex underlying DP structure in the children’s early speech than has traditionally been proposed in previous studies.
CHAPTER 2
THEORETICAL FRAMEWORK

2.1 Introduction

As one of the goals of this dissertation is to tie the Minimalist model (Chomsky, 1995) to the data produced by the subjects, it is important to provide a foundation of the key concepts related to the syntactic structure of the DP. In this chapter, I provide the theoretical background for this study. I begin by briefly discussing the rationale behind the existence of the DP (Abney, 1987) before continuing on to describe the position of determiners within the DP. Because this dissertation concerns the development of French, specific focus is placed on the DP/NP structure in French and Romance languages.

2.2 The Necessity for a Determiner Phrase

One of the fundamental arguments behind the necessity of a determiner phrase in minimalist structure is that it rationalizes the parallel structure between the NP and the VP (Abney, 1987). Current theory provides the VP with functional layers in the CP and the TP, which allow for the projection of functional verbal elements such as tense. Similarly, the DP supplies the NP with a necessary functional layer, which provides a place for the projection of functional, non-thematic, elements such as determiners and quantifiers.

Another important argument in favor of the DP, cited by Abney (1987), is that it gives a clear full phrase position in the tree structure for determiners. Abney argues that no important functional element should be treated as “syncategorematic” or unimportant, and not worthy of its own projection (p. 2). By giving determiners their own projection,
we are more faithful to X-bar theory for two reasons: a) nothing is treated as extra/syncategorematic material, and b) we do not have to use multiple-bar-level structures to represent various functional elements in the NP (e.g. there is a place for a determiner and a numeral preceding a noun). Tree (1) shows a basic multiple-bar-level tree for the phrase *The three dogs* as proposed before the adoption of DP; (2) shows the same tree with DP layer:

(1)

```
      N''
    /    |
   D    N''
  /    |
NumP  N'
    |
  N
```

(2)

```
      DP
    /    |
   D    NP
  /    |
NumP  N'
    |
  N
```

Further rationale behind the DP is that “when determiners stand alone, they continue to behave precisely like noun phrases, which is unexpected unless the phrase they project is in fact a ‘noun phrase’” (Abney, 1987, p. 169). Without a DP layer, stand-alone determiners would have to be a NP with an empty head.

2.3 An Overview of Placements of Elements within the DP

Much of the general literature on the DP (Abney, 1987; Adger, 2003) uses the English noun phrase as a form of reference. In this section, I will give a brief overview of
the placement of functional elements such as determiners and pronouns within the DP, before moving on to the DP structure in Romance in the next section.

The basic structure of an English noun phrase with the DP functional layer, is as represented in (3) (from van Gelderen, 2007).

(3)

![Diagram](image)

Articles, as Giusti (1997) notes, are a closed class of functional elements that are phonologically and morphologically weak on the noun with which they appear (indeed, in many languages, such as French and Romanian, they are clitics), and have little to no semantic value. They are projected into HeadDP, or $D^0$, where they get the $[+\text{DEF}]$ feature. Giusti (2002) maintains that articles are the only functional heads of the DP, although many (such as van Gelderen, 2007; Abney, 1987) also place the English genitive, ’s, in HeadDP.

Within this basic structure, additional determiners such as demonstratives and possessors occupy the specifier of the DP, or SpecDP. There are a few points of evidence in support of this argument. First is the similarity between DP and CP. When SpecCP is occupied by a $wh$- word, for example, HeadCP must be null, and vice versa. The same is true for DP – either Spec or Head DP may be occupied, but not both. This helps explain
how demonstratives and articles can be in complementary distribution though in different positions on the tree (Giusti, 2002). Further justification for the placement of many determiners in the SpecDP is the fact that, unlike articles, they can be pronominalized and stand alone (e.g. That coffee is really good/that is really good). Lastly, Brugè (1996; 2002) and van Gelderen (2007) among others note that these elements have certain interpretable φ (phi) features that must be checked in SpecDP.

All other modifiers are not in the DP but have their own projections. In a basic tree structure this is usually AP; however, there is an increasing effort to “explore” the DP hypothesis and create many different functional levels, with adjectives having many levels of placement, depending on hierarchical type (Rowlett, 2007). In modern theory, functional levels are typically given one of two structures. A more strictly minimalist approach is to use a “small nP” or “nP shell” in which to project features and external arguments (Valois, 1991; Adger, 2003; van Gelderen, 2007; 2011). One advantage of using this method is that it helps retain the parallelism between the NP and the VP.

Example (5) illustrates use of a nP shell for the Swedish nominal phrase boken ‘the book’ (4) (examples from van Gelderen, 2007):

(4) \textit{bok-en}
  \begin{tabular}{l}
  \text{book-the} \\
  \text{‘the book’}
  \end{tabular}
The second method, illustrated in (6), follows a more “cartographic” approach, and makes use of the projection of multiple functional phrases (FP) or agreement phrases (AgrP) in which to place elements – definite articles, demonstratives, quantifiers, adjectives, adverbials – in the noun phrase (Cinque, 1994; Brugè, 1996; Giusti, 1997; 2002; Laenzlinger, 2005, etc.). This dissertation adopts a primarily cartographic approach because it is the dominant method of representation, particularly in (2)L1 syntax. I provide further discussion and evidence for the expanded DP hypothesis in section 2.5.

(6)
2.4 Determinerless Determiner Phrases: The Argument for Null DPs

The DP Hypothesis also proposes that even sentences with no overt (i.e. phonologically evident) determiners project a DP – this is called the Null DP (see Abney, 1987; Adger, 2003; Longobardi, 1994; Radford, 2009). There are a number of observations that bolster this claim. The first goes back to VP-NP parallelism. VPs are believed to be dominated by the functional layers TP and CP regardless of whether these latter are overtly indicated in a sentence. If the NP-DP relationship is indeed parallel to the VP-TP-CP relationship, then the same rules should apply – DP should project whether or not a phonologically realized determiner occurs within a sentence.

Further evidence for null determiners is somewhat less speculative. One point of evidence is found in the grammaticality of determiner-less plural nouns in English. Consider the following:

(7) Dogs are adorable

(8) *Dog is adorable

The first sentence (7) allows for no overt determiner, but (8) does not. This is because in English, singular nouns must be accompanied by a determiner (e.g. ‘The/that/my dog is adorable’), and necessarily project a DP. There is no evidence to indicate that this DP would suddenly disappear if the noun becomes plural. We can therefore hypothesize that, in English, there is a null plural determiner, but no null singular determiner (Adger, 2003).

A close analysis of proper names provides additional support to the hypothesis. In English, proper nouns generally do not take determiners, as shown in (9) and (10):
(9) (*The) Target is my favorite store

(10) (*The) Kim is moving to California

However, as noted by Adger (2003), there are cases where determiners are perfectly grammatical, and even necessary with proper nouns, as shown in (11) and (12).

(11) The Target on Rio Salado is my favorite store

(12) The Kim we all like is moving to California

What this suggests is that proper names have an available, though not always overtly filled, functional layer.

Furthermore, in certain languages, such as Greek, proper names must be accompanied by an overt determiner. Radford (2009) gives the following example:

(13) O Gianis thavmazi tin Maria
    The John admires the Mary (= ‘John admires Mary’)

Lastly, coordination of proper and common nouns (e.g. ‘Kim and her cat are moving to California’) suggests that both nouns have an available functional DP layer, as coordination may only take place between similar kinds of categories (Radford, 2009, p. 82).

It must be noted that the Null DP hypothesis is not without criticism. One criticism is, not surprisingly, that it is difficult to prove the existence of a category or element that is not overtly realized. The lack of truly cross-linguistic evidence (i.e. not just “cross-linguistic” between Indo-European languages) is another qualm often cited by detractors of the Null DP (Wall and Kabatek, 2013, provide an excellent overview of this debate). Nevertheless, such critiques often come with less data to support their claims than those who advocate for the existence of Null DPs.
In this study, I adopt the theory of a null DP in sentences with bare nominals and include it in my analysis. This is, in fact, a significant choice, as most studies of child language acquisition do not even acknowledge the Null DP hypothesis and its potential implications on the analysis of early child language DPs.

2.5 The Romance Determiner Phrase: Focus on French

2.5.1 The N(P) Raising Hypothesis

Many of the current fundamental assumptions about the nominal phrase in Romance hearkens back to Cinque’s (1994) N-raising hypothesis. To account for both pre- and postnominal modifiers, as well as to account for the differences in word order between Romance and Germanic, Cinque proposes that N is generated in head NP and undergoes leftward raising “to a head intermediate between N and D” (1994, p. 88). In addition to accounting for pre-and postnominal adjectives in Romance, further evidence for N-raising concerns cross-linguistic adjective ordering. There is evidence for “a relative ordering of the different classes of adjectives which is by and large the same across languages, apparently based on a scale of distance from the N” (Cinque, 1999, p. 99). In other words, in languages where all adjectives (A) are come after the noun (N), NA languages, the ordering will be the mirror-image of AN (prenominal) languages, as exemplified in (14) and (15), respectively. Romance languages, which can be classified as ANA, also adhere to this ordering (16):

\[ \text{(14) Example} \]

\[ \text{(15) Example} \]

\[ \text{(16) Example} \]
Another important argument for why N-raising occurs in Romance but not in Germanic, is that Romance languages have strong nominal features (e.g. gender) that need to move up the tree in order to be checked (Cinque, 1994; Brugè, 1996).

### 2.5.2 Bare Nouns

In section 2.4, the argument for the presence of a null DP was discussed with primarily English data for support and elucidation of the hypothesis. This section focuses on application of the theory to Romance languages, and particularly to French. Wall and Kabatek (2013) argue that Romance languages have greater variation in what their DPs permit than English vs. German. Regarding bare nominals, for example, Schmitt and Munn (1999) and Dayal (2011) have shown that Brazilian Portuguese allows a greater range in both argumental and predicative uses than its other Romance counterparts, which, in turn, show varying levels of use of grammatically acceptable bare nouns.

French has long been considered the Romance language with the most restrictive uses of bare nominals. Adger (2003) asserts that French does not allow for bare nominals at all, while Märzhauser (2013) clarifies that it is particularly bare nominals in argumentative positions that are not allowed. Close analysis shows this not to be the case,
however, as French does allow perfectly grammatical bare nominals under specific conditions. Perhaps the most well known occurrence is in post-copular predication as in (17), a construction used by Romance languages in general.

(17) Jean est professeur
   Jean is professor

Bare nominals can also be found in prepositional phrases (e.g. Il est allé en boîte hier soir ‘he went out to the club last night’), in expressions of quantity (e.g., elle a bu beaucoup de café ‘she drank a lot of coffee’), in negatives (e.g., il n’y a pas de sucre ‘there isn’t any sugar’), and in part/whole constructions (e.g. J’ai acheté un chien à long museau ‘I bought a dog with a long snout’ [example from Wall & Kabatek, 2013, p. 3]).

Of course, nominal constructions in French still overwhelmingly require a determiner of some kind. Nevertheless, it is worth acknowledging that adult French grammar does indeed permit bare nouns. We can therefore propose that a null DP, while relatively restricted, does indeed exist in French, a proposition that has important implications for child French language.

2.5.3 Determiners in the Derivation: The Position of Articles, Demonstratives, Possessors, and Quantifiers

Although it has experienced some criticism (e.g. Boucher, 2003, 2006), the idea of N(P)-raising is largely accepted within current theory, and many syntacticians have adopted that framework to describe the entire nominal phrase, including determiner phrase and additional modifying elements that are projected to the left of the NP. As mentioned above, since Abney’s (1987) early hypothesis on the existence and structure of the DP, current theory has sought to expand the DP and the nominal phrase, arguing that
each of the modifiers that can occur between a determiner and the noun warrants its own maximal projection. These multiple functional projections also permit the noun, adjectives, and determiners such as the demonstrative to move up the tree, checking features along the way (Valois, 1991; Cinque, 1992; Brugè, 1996, among many others).

The position of the definite article in French has been traditionally posited to lie in the head of the DP, or $D^0$ (see for example Giusti, 2002; Coene & D’hulst, 2003; van Gelderen, 2007). However, with the effort to expand the DP, many have argued that articles may be generated in a functional phrase closer to the noun before optionally moving up to $D^0$ to check features. I will return to this idea in section 2.6.

The position of demonstratives within the Romance DP is more complex than that of definite articles. In the most basic sense, the demonstrative in French and other Romance languages lies in SpecDP, just as it does in English. However, the fact that many Romance languages have both pre- and postnominal demonstratives (French is an exception in this respect), leads many, such as Brugè (1996) and Giusti (1997), to argue that in Romance the demonstrative does not initially project into SpecDP. Instead, it is likely base-generated in the specifier position of a lower functional phrase next to NP, and can optionally move up to SpecDP at PF, or phonetic form.\footnote{It always moves up to SpecDP at LF (logical form) in order to check features.} This argument is particularly well-suited to Spanish and other Romance languages that have postnominal demonstratives, but the same basic argument has also been applied to French, although it lacks an overt postnominal demonstrative (Brugè, 1996, and Bernstein, 1997, 2001, provide convincing evidence).
Cinque’s (1994) argument for leftward N(P)-raising to justify Romance word order (specifically its use of pre- and postnominal adjectives) can also be readily and convincingly applied to demonstrative movement and placement in the derivation. In her analysis of the determiner phrase in Spanish (a language that permits both pre- and postnominal demonstratives, seen in (18) and (19)), Brugè (1996) makes the following observation:

The demonstrative is generated in the specifier position of a functional projection lower than all other functional projections containing the different classes of adjectives and immediately superior either to the functional projection whose specifier is occupied by the postnominal possessive, if any, or to the NP projection (p. 2)

The demonstrative then moves from its base position to SpecDP. This movement is optional at PF (in languages with a postnominal demonstrative such as Spanish), but is mandatory at LF, as the demonstrative must check features – φ-features as well as those of deixis and referentiality – in SpecDP (Brugè, 1996; Giusti, 1997). In Spanish, for example, a noun phrase such as ‘this book’ may be rendered with either a prenominal (18) or postnominal (19) demonstrative:

(18) *este libro*

\(\text{DEM-M book}\)

this book

(19) *el libro este*

\(\text{ART-M book DEM-M}\)

this book

---

6 Just as with nouns, movement must be leftward based on Kayne’s (1994) hypothesis.
A basic tree structure for an utterance such as (18), illustrated in (20), is straightforward.

(20)

```
DP
  ---
    |  |  |
este D'| NP|
    |  |  |
D   | N  |
    |   |
libro
```

However, if we try to account for the structure of (19) without the base-generation hypothesis, the derivation, shown in (21), becomes more complicated and dubious:

(21)

```
DP
  ---
    |  |  |
D'  | NP|
    |  |
el  | AdvP|
    |   |
libro
    |  |
este
```

Without leftward adjunction of the demonstrative, it is difficult to justify the syntax of the postnominal demonstrative without resorting to the questionable use of an adverbial phrase, perhaps an AdvP or functional phrase (FP), after the noun, as in (21). But not only does the structure above fail to provide a place for the prenominal option, it also fails to account for the deictic feature the demonstrative must check within the DP. If we are to assume that the ‘este’ in (19) carries the demonstrative features of $[\pm_{\text{PROX}}]$, $[\pm_{\text{REF}}]$ (not to mention the features of number and gender), then it must get them from

---
7 I do not address N-movement in this structure
SpecDP, thus the necessity for leftward adjunction up to the DP as in (22), which also incorporates N-movement:

\[(22)\]

The tree for ‘este libro’ would follow the same structure except that the demonstrative, *este*, would move up to SpecDP and D\(^0\) would be null.\(^8\) The difference between ‘este libro’ and ‘el libro este’ is therefore largely semantic. The postnominal use of the demonstrative is the less marked form as it does not move to SpecDP at PF and does not have as strong of features, while the prenominal form is more strongly marked as a referential deictic (Brugè, 1996).

Brugè (1996) believes that this base-generation of the demonstrative is neither Spanish nor Romance specific, but that “there is evidence to assume that cross-linguistically the demonstrative is generated in a low position inside the extended nominal projection,

\(^8\) For explanations concerning why Spanish and other romance languages allow the article to occur with postnominal but not prenominal demonstratives cf. Brugè (1996; 2002), Giusti (1997; 2002).
namely in the Spec FP position” (p. 49) regardless of whether a certain language allows
the base position at PF. In languages such as English or French, in which the base-
position demonstrative cannot overtly occur, the demonstrative simply must move to
SpecDP in order to check features.

Possessive determiners are similarly argued to originate in an FP closer to the
noun before moving up to SpecDP for feature-checking. While some work has been done
on the placement of the English genitive possessive ‘s within the trees (such as Abney,
1987; van Gelderen, 2007), relatively little focus has been placed on the position of
possessive determiners, particularly in French. Alexiadou (2004; 2005) suggests they
generate in nP, in a base position next to the noun, while Coene and D’hulst (2003)
suggest a position between AgrP and NumP, which they label PossP. Regardless of the
label, the consensus in the limited amount of work that has been done on this determiner
suggests that it adheres to much the same rules as demonstratives. The fact that
possessive determiners are in complementary distribution with demonstratives also
suggests that the two occupy the same position in SpecDP.

Quantifiers represent a bit of a question mark in the literature. Abney (1987) treats
them simply as modifiers of nouns, a specific kind of adjective, which do not lie in the
DP. Adger (2003) places them within the DP, but only as a head, Q, within a larger
determiner phrase. Radford (2009) and Coene and D’hulst (2003) provide arguments for
full quantifier phrases (QP), which project above the NP. One thing that poses somewhat
of a problem in the analysis of quantifiers is that, unlike most determiners, they are not
always in complimentary distribution with articles. Some quantifiers (22) seem to require
a definite article, while others (23) do not allow one.
This observation has led some (e.g. Coene & D’hulst, 2003) to suggest that quantifiers that require definite articles have an essentially different structure from those that do not.

### 2.6 Features in the DP

In this section, I will provide a brief discussion of the definiteness feature and of the so-called ϕ-features of gender and number and give an overview of how these may be represented within the tree structures.

In section 2.5.3, it was observed that definite articles are widely considered to generate in the head of the DP, $D^0$, where the definiteness feature, $[\pm\text{definite}]$, lies (Ritter, 1992; Giusti, 2002; among many others). This analysis can pose somewhat of a problem for French, as the definite article does not always encode definite features, i.e. it may also be used in generic statements with no reference or specificity. Often, a definite or generic interpretation depends simply on context and previous discourse, as in (24).

\begin{equation}
(24) J’aime le vin \\
I like (the) wine
\end{equation}

This has led many to argue that articles may be generated in an AgrP (Boucher 2003) or a FP (Coene & D’hulst, 2003) before optionally moving up to $D^0$, depending on whether or not they are markers of definiteness in a specific context, so a generic interpretation of (24) would be represented as (25), while a definite one would indicate the additional step of checking the $[\pm\text{definite}]$ feature, as in (26).
Indefinite articles, it should be noted, are generally assumed to follow the same pattern as definite articles. They also project into D^0, where they check the [-definite] feature. We might assume that, given that indefinite articles cannot have a generic interpretation, they may only project into a structure such as (26), where they forcibly get
their definiteness feature. However, indefiniteness and the syntactic processes of indefinite articles in particular have received remarkably little focus in DP research, and such assumptions remain unverified in the literature.

Ritter (1992) proposes the existence of a NumP between the DP and the NP, where, she argues, both the features of gender and number generate. While her study focuses primarily on pronouns in Hebrew, research on Romance DPs suggests that they have a similar structure (see for example Bernstein, 1993; Valois, 1991; Montrul, 2004; Prévost, 2009). The intrinsic features of number and gender are encoded in the NumP, and the noun moves up to overtly check those features. Determiners and adjectives, on the other hand, are argued to have no intrinsic gender specifications (see for example Carstens, 2000; Prévost, 2009). Pesetsky and Torrego (2007) state “the gender feature of D and A is undervalued, and gets valued as a consequence of a syntactic process of agreement with the gender feature of N” (p. 263). They add that the process is most likely the same for number features.

2.7 The Adjective Phrase

Early literature on the DP generally placed APs in the specifier of the NP, as illustrated in (27) (see Laenzlinger, 2005 for a through discussion).

(27)
In the case of a phrase with a postnominal adjective, the noun would move into the empty SpecXP. However, there is cross-linguistic evidence – such as adjective hierarchy and the limited number of adjectives allowed in a single phrase – that suggests that each modifying adjective has its own projection within the tree. Moreover, examples such as (27) do not allow for such phenomena as demonstrative raising. Consequently, many syntacticians (Cinque, 1994; Giusti, 1997; Bouchard, 1998; Laenzlinger, 2005), have posited layers of agreement phrases (AgrP) or functional phrases (FP) between the DP and the noun that will give modifiers their proper projection and account for movement operations within the tree. Giusti (1997) illustrates the theory with structures containing multiple modifiers (APs and PPs) in both English (28) and Italian (29).

(28) 

(27) (the beautiful big red ball; the terrible Italian invasion of Albania)
We see that structures such as (28) or (29), with their layers of AgrPs, account for all functions and projections within the nominal phrase. A phrase such as *la bella grande palla rossa* ‘the beautiful big red ball’ includes multiple adjectival modifiers – both pre- and postnominal – as well as N-raising. Should the phrase contain a demonstrative (e.g. *questa bella grande palla rossa* ‘that beautiful big red ball’), it would be base-generated in an AgrP closest to the NP before moving up to SpecDP to check features. Therefore, layers of AgrPs or FPs explain multiple movement operations as well as feature checking. And as (28) and (29) illustrate, they also help to account for cross-linguistic adjective ordering.
2.8 Summary

In this chapter we have seen that the extended DP as it is discussed in the theoretical literature is a complex system. Acquisition of the extended DP, therefore, requires the development of an intricate system that allows for the projection of determiners and modifiers that vary substantially in term of their syntactic structure. The development of correct feature marking on all of these elements presents a further complication. These observations provide a foundation for this dissertation, which seeks to expand the simplified DP structures most often proposed in child language studies and present a more accurate picture of DP development.
CHAPTER 3
THE EARLY DP: THE EMERGENCE OF BARE NOUNS AND ARTICLES

3.1 Introduction

This chapter presents a survey of the children’s production of what I term early DP elements, namely, the emergence of nominal structures including bare noun phrases and the development of the article system. As was discussed in Chapter 1, this study is focused on a qualitative understanding of the underlying processes of DP acquisition rather than a quantitative analysis of the children’s utterances. Therefore, the presentation of the data in this chapter and the next will not focus on tables and statistical analyses (e.g. of how many tokens of each determiner are produced in each data set), but on key examples that elucidate the subjects’ development of the extended DP structure, including determiner type (articles, demonstratives, etc.) and features (gender, number).

It is important to remember that age is only somewhat related to the rate of acquisition of syntax. As will be illustrated in the data, the four children vary with respect to the age in which they begin using specific structures. Nevertheless, they all follow a similar path of development: bare nouns appear first, followed by articles, then the appearance of other DP elements. So, while each child has individual differences in acquisition, the overarching similarities make it useful to group their production into stages. This may also help us gain insight into a more general path of DP acquisition in French children.

This chapter and the following are thus organized into sections that attempt to delineate stages of acquisition of the French determiner phrase. The children’s ages are sometimes included only to provide a general viewpoint and to help organize the
chronology of individual development. It should be noted that the stages of DP development are not as clear-cut as they are often presented to be in studies of child language acquisition. It has been observed, for example, that in French children, the acquisition of number precedes gender (e.g. Clark, 1985), but that is not the case for all of the subjects in this study. Moreover, a child may produce utterances that indicate that he or she has ‘access’ to a more advanced stage (i.e. extended DP elements or features), but subsequent utterances (within the same or later data sets, and sometimes within a few lines) will show a ‘regression’ to an earlier stage. It is, therefore, important to keep in mind that any attempt to define ‘stages’ within the children’s speech must be approximate at best.

3.2 Early DPs: Bare Nouns, Definite, and Indefinite Articles

In this section, I present data that illustrates the earliest stages of the subjects’ DP development. I treat each child’s production one-by-one, providing key examples that help create an overall picture of individual and general development. I include explanations that help demonstrate the importance of the examples, but save discussion of the broader implications for the acquisition of syntactic structures for Chapter 5.

It may be noted that Madeleine’s data is discussed in slightly greater detail than that of the other three subjects. This is not because her data is more rich or varied, but simply that it is treated first. I therefore use it to establish a sort of baseline for explanation of the development of all four children.
3.2.1 Madeleine

The following table provides a brief summary of the initial appearance of bare nouns and definite and indefinite articles. Examples of each and discussion follow.

Table 2.1
Early DP Data: Madeleine

<table>
<thead>
<tr>
<th></th>
<th>Age of First Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bare Nouns</strong></td>
<td>1;06.04</td>
</tr>
<tr>
<td></td>
<td><strong>MASCULINE</strong></td>
</tr>
<tr>
<td></td>
<td><strong>FEMININE</strong></td>
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<tr>
<td></td>
<td><strong>PLURAL</strong></td>
</tr>
<tr>
<td><strong>Definite Articles</strong></td>
<td>1;06.04 1;07.15</td>
</tr>
<tr>
<td></td>
<td>1;07.15</td>
</tr>
<tr>
<td><strong>Indefinite Articles</strong></td>
<td>1;07.15</td>
</tr>
</tbody>
</table>

Madeleine’s first use of lexical nouns (that is beyond names such as *maman, papa* and sounds such as *broum broum*) begins at age 1;06.04. In this data set, she only uses a handful of different nouns, the vast majority of which are incorrectly bare, that is they require articles in adult speech.

(1) *bébé*
    baby

(2) *lait*
    milk

There are a few examples, however, of definite article use with these nouns, indicating that determiners may have simultaneously come ‘online’ in her speech. This would suggest the availability of a DP even in the earliest nominal utterances.

(3) *le bébé*
    DEF-M baby.M.SG

(4) *le lait*
    DEF-M milk.M.SG

There is no indication that these determiners encode definiteness features in any way, nor that they are necessarily used to mark gender or number features. Like many of the children in the acquisitional literature, she begins with use of the masculine singular
definite article *le*, though the words she uses do require that article, so it is not possible to tell whether or not she is using this as a default determiner.

Another indication that she may not initially understand the use of determiners is in her use of *l’eau* (‘water’), which is always ‘correct’ in article usage. However, due to the use of an agglutinated article *l(a)* with the noun *eau*, it is highly likely that Madeleine considers the word to be *leau* rather than *la+eau*, and does not associate *le/la/l’/les* with the encoding of any syntactic features.

Definite articles marked for gender and number and indefinite articles (examples of which are given below) all occur by the following month (1;07.15)

(5) *la* poule  
    DEF-F hen.F.SG

(6) *les* poussins  
    DEF-PL chicks.M.PL

(7) *un* pied  
    INDF-M foot.M.SG

(8) *une* autre  
    INDF-F other.F.SG

(9) *des* carottes  
    INDF-PL carrots.F.PL

As examples such as these are few and far between in Madeleine’s first few data sets, it is again difficult to establish how well she understands the use of determiners to encode definiteness, gender or number, especially since all occur in simple D+N phrases with no other indicators (e.g. verbs) to establish meaning. There is, however, one point of evidence for the acquisition of gender features in her use of properly gendered pronouns to refer back to nouns.
These examples also indicate the acquisition of a number feature, shown in agreement on the verb. Nouns as verbal objects begin to appear soon after, varyingly accompanied by articles.

(12) jouer flûte
    play flute.F.SG
    look for a book

(13) enlever barrette
    remove barrette.F.SG
    take off barrette

(14) chercher un livre
    look INDF-M book.M.SG
    look for a book

(15) ai vu un fantôme
    saw INDF-M ghost.M.SG
    (I) saw a ghost

(16) veux encore le fantôme
    want again DEF-M ghost.M.SG
    (I) want the ghost again

---

9 In this and subsequent examples containing multiple speakers CHI=child, MOT=mother, FAT=father, OBS=observer.
10 “yyy” in the transcript means the word or utterance was unable to be transcribed
Examples (15) and (16) show a nice juxtaposition of indefinite and definite articles with the same noun, and suggest that Madeleine is acquiring the semantic notion of definiteness.

While these examples give us important insight into the early acquisition of definite and indefinite articles and their features, it is important to understand that bare nouns still constitute the vast majority of Madeline’s utterances in these early months. Many examples in the first few data samples indicate she is unaware that determiners are required to introduce nouns. There are, for example, numerous instances where she does not repeat the article her interlocutor provides.

(17) MOT: un hamburger
     INDF-M hamburger.M.SG
     what’s that
CHI: hamburger
     hamburger.M.SG

(18) MOT: avec les brocolis
     with DEF-PL broccoli.M.PL
     with broccoli
CHI: non pas avec brocoli
     no NEG with broccoli.M.S

Questions of identification are also met with intermittent use of indefinite articles.

(19) MOT: ça c’est quoi?
     that CL is what
     what’s that
CHI: camion
     truck.M.SG
     truck

(20) MOT: c’est quoi ça?
     CL is what that
     what’s that
CHI: un cochon
     INDF-M pig.M.SG
     a pig
Furthermore, ‘incorrect’ or ‘non-adult’ bare noun usage continues throughout the data sets, gradually lessening throughout the period analyzed in this study. I address the contrast of bare noun vs. article use first since these elements are the first to appear, but the dichotomy persists throughout all ‘stages’ of determiner acquisition. The acquisition of articles and all determiners is very much a process, a gradual understanding and application over time. There is no cognitive ‘ah-ha’ moment for the child where she suddenly realizes that in the vast majority of cases French nouns require a determiner. There is no instantaneous parametric shift, or even a passing through well-defined stages step-by-step. Rather, input and practice over her early years allow her to gradually develop adult-like DPs.

Madeline’s data contains a few interesting examples of this acquisitional process. In (21), for instance, she seems to be analyzing or practicing article use.

(21) trou [//] un trou [//] trou [//] un trou [//]11
    hole... a hole... hole...a hole

We also find an overextension of the article in a few utterances, specifically when the noun is headed by both an article and a modifier.

(22) un autre un cochon
    INDF-M other INDF-M pig.M.SG
    another pig

(23) un autre un balai
    INDF-M other INDF-M broom.M.SG
    another broom

These utterances are followed by determinerless forms (autre cochon; autre balai) within the next few lines and exemplify the variation in determiners and DPs during this period.

11 [//] represents pauses in CHILDES transcription
of the child’s speech. This variation has significant implications for the availability of syntactic processes and structures in child language, an idea that I will address more in depth in Chapter 5.

The development of the DP features of definiteness, gender, and number take some time to acquire as well. The acquisition of definiteness is notoriously hard to gauge in children’s production (see Müller, 1994; Koehn, 1994; Prévost, 2009). While they do employ both definite and indefinite articles relatively early on, there is not much to indicate that they truly understand the specifying functions of articles. Nevertheless, examples such as (24) and (25) (repeated from [15] and [16]) do indicate an understanding of the identification and specification features that indefinites and definites encode.

(24) *ai vu un fantôme*  
    saw INDF-M ghost.M.SG  
    (I) saw a ghost

(25) *veux encore le fantôme*  
    want again DEF-M ghost.M.SG  
    (I) want the ghost again

The discourse calls for an indefinite article where Madeleine identifies the ghost she saw, and a definite article for reference back to that ghost, and that is indeed what she provides. There are, however, a few examples of hesitation where she seems unsure of which article is required.

(26) *le [//] un chapeau*  
    DEF-M INDF-M hat.M.SG  
    the... a hat
Nevertheless, these instances are quite rare in the data and the general picture does not indicate a great deal of difficulty acquiring definiteness features, as very few errors or even hesitations are made.

In general, the development of number and gender features do not seem to pose a great problem for Madeline. It has been observed in previous studies (Müller, 1994) that for children acquiring French, gender marking on the indefinite article is more problematic than on the definite article, but there is no evidence of that in Madeleine’s data set. She does, however, go through a brief period around the ages of 1;11.13-2;03.05 where some gender errors on articles are accounted for in the data.

(27) la coq
DEF-F rooster.M.SG
the rooster

(28) Madeleine est dans le photo?
Madeleine is in DEF-M photo.F.SG
is Madeleine in the photo?

(29) l’est où le partition
it is where DEF-M sheet-music.F.SG
where is the sheet music?

It should be noted that in this and subsequent sections in this chapter, gender feature errors focus solely on mismatches between articles and nouns. Erroneous gender features in DPs with adjectival modifiers, which are somewhat more common and persist for a longer period of time in the children’s speech, will be covered in Chapter 4.
3.2.2 Théophile

Table 2.2
Early DP Data: Théophile

<table>
<thead>
<tr>
<th></th>
<th>Bare Nouns</th>
<th>Age of First Use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1;11.07</td>
</tr>
<tr>
<td></td>
<td>MASCULINE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FEMININE</td>
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</tr>
<tr>
<td></td>
<td>PLURAL</td>
<td></td>
</tr>
<tr>
<td>Definite Articles</td>
<td>2;03.01</td>
<td>2;00.20</td>
</tr>
<tr>
<td>Indefinite Articles</td>
<td>2;02.08</td>
<td>2;04.29</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2;02.08</td>
</tr>
</tbody>
</table>

Théophile’s first data set, at age 1;10.00, contains a very limited set of utterances. Most of his utterances consist of one word, and are primarily made up of words such as *papa, maman,* and *non* and noises such as *vroum vroum.* By one month later, at 1;11.07, he begins using a few bare lexical nouns on his own (shown in [30] and [31]), although they are rare. In fact, Théophile speaks very little until the age of 2;00.20.

(30) eau
     water

(31) bateau
     boat

Contrary to Madeleine, Théophile seems not to have mis-analyzed the agglutinated article *l’* as part of the word *eau,* as he leaves it bare each of the four times he uses it in his earliest nominal utterances at age 1;11.07, and even after he begins using definite articles.

Definite articles, while still used very rarely, make an appearance by age 2;00.20. Interestingly, Théophile’s first instances of articles in the data are feminine and plural, with masculine definite articles not appearing in the data until three months later at 2;03.01. Just as we saw in Madeleine’s data, these same nouns also occur without any determiner, often within the next few lines.

(32) la clé
     DEF-F key.F.SG
As would be expected, indefinites are next to occur in Théophile’s production, beginning with both masculine and plural indefinites at age 2;02.08, with feminine indefinites appearing at 2;04.29.

Just as we saw in Madeleine’s data, these same nouns also occur without any determiner, often within the next few lines, as in (39). In fact, bare nouns are highly prevalent in Théophile’s nominal utterances until around age 2;11.28.

Questions for identification are met intermittently with bare nouns, as seen in (40) and, more rarely, determiners (41).

---

12 Child word used by Théophile for ‘scissors’ or ‘knife’, depending on context.
He will also often use bare nouns when repeating nouns that have just been provided with a correct determiner.

Théophile’s early DP production does not have clear evidence of a mismatch in gender features on definite or indefinite articles, as was found in Madeleine’s. Nor are there clear indications of the acquisition of definiteness features, with the exception of one possible example, where he responds with a definite article, rather than an indefinite one as we might expect, when introducing a new item into the discourse.
3.2.3 Olivier

Table 2.3
Early DP Data: Olivier

<table>
<thead>
<tr>
<th></th>
<th>Age of First Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bare Nouns</strong></td>
<td>1;10.05</td>
</tr>
<tr>
<td></td>
<td><strong>MASCULINE</strong></td>
</tr>
<tr>
<td><strong>Definite Articles</strong></td>
<td>1;10.05</td>
</tr>
<tr>
<td><strong>Indefinite Articles</strong></td>
<td>1;10.05</td>
</tr>
</tbody>
</table>

By his earliest available data set, at age 1;10.05, Olivier is using a variety of nominal utterances, most of which are single bare nouns.

(44) *balle*
    ball

(45) *chat*
    cat

(46) FAT: *y sont où tes chaussures?*
       CL are where 2P.PL shoes.F.PL
       where are your shoes?
    CHI: *chaussure*
       shoe.F.SG.

(47) FAT: *c'est quoi ça?*
       CL is what that?
       what's that?
    CHI: *baby*

There are, however, a few instances of D+N phrases with both definite articles, used in both masculine and feminine gender, and indefinite articles, which are masculine only. Note that these are the same items used as bare nouns above, showing variation between bare noun and determiner use within the same data set, as was found in the monolingual children’s data.

(48) *la balle*
    DEF-F ball.F.SG

(49) *le chat*
    DEF-M cat.M.SG
Nevertheless, although he has begun to include determiners with many nouns, Olivier is still learning the rules regarding determiner usage, as illustrated by examples such as (51), where he initially (correctly) assigns an indefinite article to the noun, but drops it in the subsequent utterance, even after his father repeats it with the article.

(51) FAT: c’est quoi ça ici?  
     CL is what that DEM?  
     what’s this here?  
CHI: un cancan  
     INDF-M [cancan]13  
     a [cancan]  
FAT: un quoi?  
     INDF-M what  
     a what?  
CHI: canard.  
     duck  
FAT: un canard.  
     INDF-M duck.M.SG  
     a duck  
CHI: canard.  
     duck

Plural definite and indefinite determiners follow soon after these initial determiners, appearing at 1;11.13.

(52) les dalmatiens  
     DEF-PL dalmatians.M.PL

(53) story des dalmatiens  
     story INDF-PL dalmatians.M.PL

However, in an interesting departure from what we find in the production of the two monolingual children, Olivier takes quite some time to acquire feminine indefinite articles, with the first usage appearing at 2;03.13. Before this, he either uses a bare noun

13 non-word
or the masculine indefinite article, which, in his case, we may assume he treats as a sort of default. He uses this default even when corrected and provided with the proper feminine form, as seen in (54).

(54) CHI:  
un bicyclette!  
INDF-M bicycle.F.SG  
a bicycle
FAT:  
c’est une bicyclette  
CL is INDF-F bicycle.F.SG  
it’s a bicycle
CHI:  
oui bicyclette!  
yes bicycle.F.SG
FAT:  
qu’est-ce que c’est?  
what is CL COMP CL is  
what is this?
CHI:  
moTo bicylette  
motorcycle.F.SG
FAT:  
eut motobicyclette  
INDF-F motorcycle.F.SG

In this same data set, Olivier vacillates between the use of the proper feminine form of the definite article (55) and an erroneous masculine form (56).

(55) où la bicyclette à Olivier?  
where DEF-F bicycle.F.SG to Olivier  
where is Olivier’s bicycle?

(56) là le bicyclette à Olivier?  
there DEF-M bicycle.F.SG to Olivier  
Is Olivier’s bicycle there?

He makes a similar error in the following example, this time correctly using the masculine indefinite article, but following it with a mismatched feminine definite.
While Olivier only makes occasional errors on article gender features, they are somewhat more prevalent than those discussed in Madeleine’s data. These errors, while rare, persist in his speech up until his last available data set, at 4;00.19, whereas Madeleine’s, as was noted above, cease around age 2;03.05. Moreover, there appear to be some gender mismatches that occur repeatedly and over the course of months with certain nouns (e.g. *un bicyclette ‘a bicycle’, *une helicoptère ‘a helicopter’, *la casse-tête), even though they are words he frequently uses. It is plausible, of course, that Olivier struggles with grammatical gender more than the monolingual children since his other first language, English, does not have grammatical gender, and could thus be ‘interfering’. However, since grammatical gender errors do occur even in the monolingual children, who have no other language to ‘interfere’ with gender acquisition, we cannot simply assume this to be the case.

### 3.2.4 Gene

<table>
<thead>
<tr>
<th></th>
<th>Age of First Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bare Nouns</strong></td>
<td>1;10.28</td>
</tr>
<tr>
<td></td>
<td>MASCULINE</td>
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<tr>
<td></td>
<td>FEMININE</td>
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<td></td>
<td>PLURAL</td>
</tr>
<tr>
<td><strong>Definite Articles</strong></td>
<td>1;10.28</td>
</tr>
<tr>
<td></td>
<td>1;10.28</td>
</tr>
<tr>
<td></td>
<td>1;10.28</td>
</tr>
<tr>
<td><strong>Indefinite Articles</strong></td>
<td>1;10.28</td>
</tr>
<tr>
<td></td>
<td>2;06.29</td>
</tr>
<tr>
<td></td>
<td>2;06.29</td>
</tr>
</tbody>
</table>

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“xxx” indicates the word could not be transcribed.
While his data indicate him to be English dominant, with the majority of his nominal utterances being in English, Gene also produces a number of definite and indefinite articles in his earliest available data set at age 1;10.28. Some of these articles are paired with French words, as in (58)-(60), while others, (61) and (62) pair French articles with English nouns. The only indefinites used at this stage of his acquisition are masculine gender and, interestingly, only paired with English nouns.

(58) le bébé
DEF-M baby.M.SG

(59) la porte
DEF-F door.F.SG

(60) les jeux
DEF-PL games.M.PL

(61) le phone
DEF-M phone

(62) un bag
INDF-M bag

Feminine and plural indefinite articles appear in the next available data set, when Gene is 2;06.29. Given his use of articles eight months earlier at age 1;10.28, however, it is likely they developed much earlier.

(63) des souris
INDF-PL mice.F.PL

(64) une pomme
INDF-F apple.F.SG

There are even a couple of examples where Gene provides the requisite French determiner in an otherwise English sentence where determiner use isn’t necessary.
there is *la fumée*
there is DEF-F smoke.F.SG
there’s smoke

this is *les culottes*
this is DEF-PL underpants.F.PL
these are underpants

Nonetheless, he continues to use bare nouns in many contexts, even when repeating nouns whose determiner has been provided by his interlocutor in the previous line, just as all three of the other children did.

We do song.

Shall we sing a song?

He also vacillates often between bare noun and determiner usage when asked to identify objects (which most of this data is comprised of).

He does not make any gender errors in his early data sets. However, contrary to what we found in the other three children’s production, he seems to have some difficulty acquiring number features, sometimes using plural determiners in reference to singular nouns.
Example (70) also indicates a possible definiteness mismatch, as Gene’s repetition of his father’s utterance replaces a singular definite article with an indefinite plural one. There is, however, not enough data to strongly make a case regarding his acquisition of definiteness features.

### 3.3 Summary of Results

Table 2.5 provides a brief summary of the all of the children’s acquisition of early DP elements and number and gender features, as well as the ages of acquisition each of these appears in the production. It should be noted that both of the bilingual children, Olivier and Gene, may have begun producing nouns and articles before their initial listed ages, as this analysis is limited to the first available data on CHILDES. The
same is true for Gene’s production of feminine and plural indefinites, given the 8-month jump in data collection.

Table 2.5
Summary of Early DP Data: All Subjects

<table>
<thead>
<tr>
<th></th>
<th>Bare Nouns</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Madeleine</td>
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<td>M</td>
<td>1;06.04</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>1;07.15</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PL</td>
<td>1;07.15</td>
<td>PL</td>
</tr>
<tr>
<td>Théophile</td>
<td>1;11.07</td>
<td>M</td>
<td>2;03.01</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>2;00.20</td>
<td>F</td>
</tr>
<tr>
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<td></td>
<td>PL</td>
<td>2;00.20</td>
<td>PL</td>
</tr>
<tr>
<td>Olivier</td>
<td>1;10.05</td>
<td>M</td>
<td>1;10.05</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>1;10.05</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PL</td>
<td>1;11.13</td>
<td>PL</td>
</tr>
<tr>
<td>Gene</td>
<td>1;10.28</td>
<td>M</td>
<td>1;10.28</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>1;10.28</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PL</td>
<td>1;10.28</td>
<td>PL</td>
</tr>
</tbody>
</table>

The data in this table match up with some of the previous studies made on DP development, but also differ in some respects. Regarding the similarities, this table reiterates the importance of not tying age to acquisition (in that regard Théophile is notably ‘behind’ the others). Secondly, the data produced by the monolingual children do indicate that, as is often argued in the literature, definite articles are likely to appear before indefinites (again, the bilingual data are problematic in that respect, due to their limited quantity).

Contrary to what is often argued in the literature, however, masculine articles are not always first to appear in each of the children’s speech. Théophile’s data includes multiple examples of feminine and plural definite articles over two months before the masculine article makes an appearance. Additionally, Madeleine’s development of the plural indefinite after the masculine and feminine and Gene’s apparent issues with differentiating between singular and plural items suggest that number features are not
necessarily set before gender features. Perhaps most importantly, we have seen that even the earliest DPs are more complicated and varied than is often proposed, an observation that will be further expounded upon in chapters 4 and 5.
CHAPTER 4

THE LATER DP: ADDITIONAL DETERMINERS AND MODIFIERS

4.1 Introduction

This chapter presents a survey of the children’s production of what I have termed later DP elements – determiners that, in general, appear after the development of articles as well as DP modifiers. These include possessives, demonstratives, quantifiers and pre- and post-nominal adjectives. The use of gender and number features with these determiners is also addressed, with particular focus on gender agreement in adjective phrases. Importantly, I also consider the development and use of what I term ‘correct’ bare noun phrases, that is, the use of bare nouns in those restricted cases where they are required in French. As in the previous chapter, the data are presented qualitatively, with key examples provided for each type of determiner.

4.2 Later DPs: Possessives, Demonstratives, Quantifiers and Adjectives

This chapter will follow a similar organization as the previous one. I begin with analysis of possessives and demonstratives, not because they are first to appear, but rather because they have full determiner status. I then move on to quantifiers and adjectives, which may be considered their own phrases embedded within the DP. Correct bare noun usage is considered both in the data on quantifiers and at the end of the individual sections. Each child’s development is individually examined, with the ages given as a point of reference. As before, I include analysis of each element and its corresponding features, but reserve in-depth discussion of the data as it applies to the syntactic derivation for Chapter 5.
It is important to note that, in contrast to the increasing and prevalent use of definite and indefinite articles in the children’s speech, all of the elements discussed in this chapter appear quite rarely in their production. However, this restricted use is not necessarily owing to the fact that the children have not acquired these features, as their use is rare even in the speech of their adult interlocutors. Furthermore, some of the elements do not occur at all in some of the children’s speech. This is particularly true of the bilingual children, Olivier and Gene. However, this gap in production is most likely not caused by any cross-linguistic influence or interference. Rather, it is simply a due to the bilingual children, and Gene in particular, having very limited data available on CHILDES.

4.2.1 Madeleine

Nearly all of the possible 15 possessive determiners occur in Madeleine’s production, although some appear only once. As there are a large number of different possessive determiners in French (owing to person, gender, and number features), I have summarized the first appearance of each, giving the example D+N phrase as well as the corresponding age, in Table 3.1.

As the table illustrates, Madeleine’s production begins with both first and third person singular possessives, with second person singular appearing within a couple months. Plural forms are seen some time later, and each occurs only once.
The use of all six forms of the first and third person singular in Madeleine’s first production of determiners indicates a few important things. First, it suggests a clear acquisition of possessives, which may owe itself to syntactic development or an understanding of the semantic functions of possession. Second, the use of masculine, feminine, and plural forms indicates the application of gender and number features to determiners beyond definite and indefinite articles.

There are, however, a few cases of gender mismatch or hesitation with possessives. These errors seem only to occur with inanimate nouns, whose gender is purely grammatical.

(1) *yyy enlever son botte?*

*yyy take off* 3P.M.SG boot.F.SG

*yyy take off his boot?*
(2) tu regardes ma // ma /// mon tablier?
you look at 1P.F.SG 1P.F.SG 1P.M.SG apron.M.SG
are you looking at my apron?

It is important to note that French possessives agree with the gender of the object being possessed, not with the possessor. In general, Madeleine seems to understand this and apply it in nearly all cases. Utterances such as (2), however, could possibly indicate a slight difficulty in connecting gender to the corresponding noun, rather than its possessor (the utterance takes place during a discussion about a male character, Le Petit Poucet), although there is no strong data to support this.

Demonstrative determiners are among the last DP elements to arise in Madeleine’s production data. It is important to note, however, that this is not due to her not understanding the function of deictics, as she uses both deictic adverbs and demonstrative pronouns before demonstrative determiners. The distal deictic adverb là ‘there’ appears as early as her first data set, at age 1;06.04.

(3) yyy (.) est là.
yyy is ADV[-PROX]
yyy is there

A few months later, at 1;11.13, she employs the proximal deictic adverb ici (‘here’) (4) as well as both masculine (5) and feminine (6) demonstrative pronouns. The surrounding discourse of (6) in particular highlights her understanding of the importance of deictics in communication.

(4) fait rien ici
does nothing ADV[+PROX]
that doesn’t do anything here

(5) pas celui-là
NEG DEM-PRN.M.SG ADV[-PROX]
not that one
(6) CHI: *non pas yyy*  
   no NEG yyy  
   no not yyy?  
MOT: *non?*  
   no?  
CHI: *yyy [=! pleurniche] celle-là*\(^{15}\)  
   yyy [whining] DEM-PRN.F.SG ADV[-PROX]  
   yyy [whining] that one

Demonstratives determiners do not appear until age 2;01.02, beginning with the masculine form (7).

(7) *elle rentre ce soir*  
   she returns DEM.M.SG evening.M.SG  
   she’s coming home this evening

Plural (8) and feminine (9) demonstratives are produced at 2;04.15 and 2;05.12, respectively, along with demonstratives used in combination with adjectives in expanded DP utterances (10). Note that, in (9), Madeleine starts to use the demonstrative pronoun *celle* before correcting it to the determiner *cette*, showing some hesitation with form.

(8) *glissent pas ces chaussures*  
   slip NEG DEM.PL shoes.F.PL  
   these shoes don’t slip

(9) *moi je prends celle [//] cette feuille là*  
   me I take DEM-PRN.F.SG DEM.F.SG paper.F.SG ADV[-PROX]  
   I’ll take that [piece of] paper there

(10) *et (.) ce petit ours il était bien gentil*  
   and DEM.M.SG little.ADJ.M.SG bear.M.SG he was really nice  
   and this little bear he was really nice

There is one particularly interesting example in Madeleine’s early production of demonstrative determiners (at age 2;03.05), where she uses the masculine demonstrative *ce* with the definite *l’* before her noun, a combination of determiners that are in

\(^{15}\) [=!] indicates paralinguistic material
complimentary distribution with each other in adult French grammar, and therefore cannot be used together. Although she continues to use the erroneous determiner combination after correction from her interlocutor, her repetition of the phrase indicates some hesitation and possible confusion.

\[(11)\] CHI: mo i je le verra ce l’après-midi\(^{16}\)
\[
\text{me I him will+see DEM.M.SG DEF-M afternoon.M.SG.}
\]
\[
\text{I’m going to see him this (*the) afternoon}
\]

OBS: cet après-midi?
\[
\text{DEM.M.SG afternoon.M.SG.}
\]
\[
\text{this afternoon?}
\]

CHI: mo i je le verra <ce l’après-midi> [/] ce l’après-midi\(^{17}\)
\[
\text{me I him will+see DEM.M.SG DEF-M afternoon.M.SG. [repeat]}
\]
\[
\text{I’m going to see him this (*the) afternoon [/] this (*the) afternoon}
\]

One explanation for this seemingly ungrammatical utterance is simply that Madeleine has misanalyzed the agglutinated article l’ as part of the word (i.e. she believes it to be *laprès-midi) and therefore does not, in her mind, use a doubling of determiners that is not allowed in French. One issue with this explanation, however, is that after her initial misanalysis of l’eau as a bare noun *leau at 1;06.04, discussed in the previous chapter, she seems to understand the use of the agglutinated article and uses it correctly. It is, therefore, possible that in this early development of demonstratives, she is still setting DP parameters and has not yet acquired this rule.

Three main types of quantificational elements occur in Madeleine’s data: numbers, forms of the quantifier tout, and expressions of quantity such as un peu de, beaucoup de, and plus de. It is important to consider all three of these types because each

\(^{16}\) This utterance is transcribed in the data as “se l’après+midi”, se being a homophone of ce. However, given that se is a pronoun that makes no sense in this utterance, and the observer’s correction to the demonstrative determiner cet (the masculine demonstrative used before vowels), it seems clear that Madeleine means to use ce.

\(^{17}\) “< ... >” is used by the transcribers to indicate repetitions of the same words or phrases.
requires the acquisition of a different syntactic structure. Numbers, which may be
considered determiners in their own right, are followed directly by nouns (e.g. *deux chats*
‘two cats). *Tout* (‘all’), which must agree in number and gender, is more of a modifying
quantifier than a strict determiner, and must be followed by a definite article (e.g. *tous les
chats*). Expressions such as *beaucoup* and *un peu* may also be considered modifying
quantifiers, but must be followed by the particle *de* and a bare noun. Interestingly, in
Madeleine’s case, all of the types of quantificational elements seem to “come online” at
the same time, at 2;01.02, although they are still rare at this age.

(12) *deux ans*
    NUM years.M.PL
two years

(13) *peux mettre un peu d’eau moi?*
    can put INDF-M Q PART water.F.SG me
can I put in a little water?

(14) *on reste tous les deux*
    we stay Q.M.PL DEF.M.PL two
    we’re both staying

We see from these examples that Madeleine understands the different syntactic
forms required with each type of element, and throughout her production, she adheres to
these rules. Numbers, for example, are never followed by articles, indicating she
identifies their determiner status and understands the two elements are in complimentary
distribution.

(15) *j’habite pas avec douze petites filles*
    I live NEG wit DET-NUM little.F.PL girls.F.PL
    I don’t live with twelve little girls
Furthermore, the forms of the quantifier *tout* are always followed by a determiner.

(16) *on a passé mais toute la journée au ski!*
    we spent but Q.F.SG DEF.F.SG day.F.PL at+DEF.M.SG ski.M.SG
    We spent all day skiing!

(17) *je prends tous les [[]] les champignons*
    I take Q.M.PL DEF.PL DEF.PL mushrooms.M.PL
    I’m taking all the mushrooms

(18) *faut gagner toutes les cartes*
    must win Q.F.PL DEF.PL cards.F.PL
    I’m taking all the mushrooms

She does, however, make a few errors regarding gender features on these quantifiers. In (20), for example, she uses the masculine *tous* with the feminine noun *couleur*, even though her mother has provided the correct form in the previous sentence.

(19) *il doit creuser tout la terre*
    he must dig Q.M.PL DEF.F.SG earth.F.SG
    he has to dig through the whole earth

(20) MOT: *ils sont de toutes les couleurs*
    they are PART Q.F.PL DEF.PL colors.F.PL
    they are all the colors
    CHI: *c’est tous [[] tous les couleurs]*
    CL is Q.M.PL Q.M.PL DEF.PL colors.F.PL
    it’s all the colors

Finally, there are no instances of quantifying elements such as *un peu de* or *beaucoup de* being followed by an article.

(21) *beaucoup de cartes hein!*
    Q PART cards.F.PL huh
    a lot of cards huh!

(22) *on prend un p(e)tit peu plus de bleu*
    we take INDF.M.SG little-ADJ.M.SG Q Q PART blue.M.SG
    we’ll take a little more blue
Although all of these quantificational elements are produced rarely, their target-like usage indicates a deep understanding of the variation in the required components of the DP.

True to Heinen and Kadow’s (1990) and Hulk’s (2004) observations, Madeleine’s earliest adjective usage appears by her second data set, at age 1;07.15. In this data set she uses two APs, one without a determiner (23) and one with an indefinite article (24). It should be noted that she and her mother have been reading a book about *petit(s) poussin(s)* ‘little chick(s)’ and that her mother has repeatedly used these structures (always accompanied by a determiner); however, neither are direct repetitions of her mother’s speech.

(23) *petits poussins*
    little-ADJ.M.PL chick.M.PL
    little chicks

(24) *un petit poussin*
    INDF.M.SG little-ADJ.M.SG chick.M.SG
    a little chick

Recall that both Heinen and Kadow (1990) and Hulk (2004) argue that, at these initial stages, the child has access to a limited syntactic structure that allows for either a D+N or an A+N structure, but not both. These data show that to not strictly be the case. However, as was noted in the indefinite section in the previous chapter, there are a few examples of Madeleine overextending the indefinite article in early adjective phrases, which may indicate initial difficulty or confusion with D+A+N phrases ((25) and (26), repeated from (22) and (23) in chapter 3).

(25) *un autre un cochon*
    INDF-M other INDF-M pig.M.SG
    another pig

(26) *un autre un balai*
Despite a couple examples of D+A+N structures, determinerless A+N phrases dominate within the first few months of usage. These consist solely of the adjectives *petit* (‘little’) or *autre* (‘other’) with a noun. A very interesting occurrence in the data, however, is Madeleine’s use of postnominal adjectives, which are always color words, during this time. At age 1;10.07, when determiners before adjective phrases are still rare, she uses not only a postnominal adjectival (N+A) structure (27), but even one phrase with both a pre- and postnominal adjective (A+N+A) (28).

(27) *canapé vert*
- couch.M.SG green-ADJ.M.SG
- green couch

(28) *petit chat noir*
- little-ADJ.M.SG cat.M.SG black-ADJ.M.SG
- little black cat

According to Heinen and Kadow (1990) and Hulk (2004), these are considered to be advanced, “Stage 4” structures, which are not available to the child until D+N and D+A+N phrases have been established in speech. Yet, these utterances, while rare, show this argument not to be entirely accurate, as Madeleine clearly has the necessary syntactic access to create them.

From the age of 2;01.02 onward, Madeleine uses a variety of both pre- and postnominal adjectival modifiers with nouns, the vast majority of which have the necessary determiner (particularly after 2;04.15).

(29) *les petits animaux*
- DEF.PL little-ADJ.M.PL animal.M.PL
- little animals
(30) des belles chaussures
    INDF.PL beautiful-ADJ.F.PL shoe.F.PL
    (some) beautiful shoes

(31) mon grand lit
    1P.M.SG big-ADJ.M.SG couch.M.SG
    my big bed

(32) ce petit ours
    DEM.M.SG little-ADJ.M.SG bear.M.SG
    this/that little bear

(33) une pantoufle douce
    INDF.F.SG slipper.F.SG soft-ADJ.F.SG
    a soft slipper

(34) des vaches charolaises
    INDF.PL cow.F.PL Charolais-ADJ.F.PL
    (some) Charolais [breed] cows

(35) un petit doudou orange
    INDF.M.SG little-ADJ.M.SG security-blanket.M.SG orange-ADJ.M.SG
    a little orange security blanket

We can see a few important things from these data. First, as discussed above, Madeleine clearly has the available syntactic structure for a variety of determiners (articles, demonstratives, possessives) as well as pre- and postnominal adjectives in her extended DPs. Second, she seems to have no difficulty assigning adjective type to syntactic position. In other words, there are no examples of prenominal adjectives being used postnominally or vice versa. Third, gender and number features are overwhelmingly correct on her adjectives, the only exceptions being in her earliest stages of use at 1;11.13, during the same time that she was having difficulty in gender agreement on determiners as well. These few errors seem more related to the acquisition of global gender features in the extended DP than adjective specific.
Finally, it is important to return to bare nouns in Madeleine’s speech, as they provide important evidence for DP development in two major ways. First, while the vast majority of nouns require determiners, the French-learning child must also acquire those cases in which a determiner is not permitted and the use of a bare noun is correct. Second, while the use of incorrect bare nouns wanes throughout the child’s acquisition, its persistence throughout the first few years of production shows that DP development is a much more gradual process than is usually implied.

While much focus has been placed on children’s incorrect usage of bare nouns in previous studies of the French DP (Chierchia et al., 1999; Heinen and Kadow, 1990; Kupisch, 2003; Radford, 1990 among many others), there is little to no attention paid to acquisition of correct determinerless DPs. In chapter 2, it was observed that, contrary to some claims, adult French does include a number of uses of null DPs, including in post-copular predication, in certain expressions of quantity, in negation, and after certain prepositions. The child must learn these rules as well, and it is important not to overlook them when analyzing DP development.

Correct bare noun usage begins around age 2;01.02. We saw in the discussion on quantifiers that Madeleine correctly analyzes that expressions such as *un peu de* or *plein de* do not take a requisite article before the noun, shown in (36). She also correctly uses a null DP with the preposition *en*, as seen in (37) and (38).

(36) *ils ont eu plein de petits marcassins*
they had Q PART little-ADJ.M.PL wild-pig.M.PL
they had a lot of little wild pigs

(37) *on va aller en vacances nous*
we going to-go PREP vacation.F.PL us
we’re going to go on vacation
It cannot be argued that these are simply examples of accidental article omission, as by this time she regularly includes determiners in prepositional phrases where they are required.

Null DPs also appear correctly in negative constructions. There are no instances of post-copular predication in the data.

As mentioned above, Madeleine’s use of incorrect bare nouns, while gradually tapering off, persists until her later data sets. After the age of 2;11.19, there is, however, a marked decline, with only a few errors in each data set. Finally, beginning at age 3;06.08 and continuing through the rest of her transcripts, Madeleine makes no errors in bare
noun usage. It should be noted that of the four subjects in the study, she is the only one who fully reaches this point of target-like DP construction.

### 4.2.2 Théophile

Table 3.2 summarizes Théophile’s production of possessive determiners.

#### Table 3.2
Possessives: Théophile

<table>
<thead>
<tr>
<th></th>
<th>SINGULAR</th>
<th>PLURAL</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>MASC</td>
<td>FEM</td>
</tr>
<tr>
<td>1P.SG</td>
<td>mon papy</td>
<td>ma moto</td>
</tr>
<tr>
<td></td>
<td>‘my dad’</td>
<td>‘my motorcycle’</td>
</tr>
<tr>
<td></td>
<td>2;04.05</td>
<td>2;04.05</td>
</tr>
<tr>
<td>2P.SG</td>
<td>ton nez</td>
<td>ta voiture</td>
</tr>
<tr>
<td></td>
<td>‘your nose’</td>
<td>‘your car’</td>
</tr>
<tr>
<td></td>
<td>3:04.10</td>
<td>2;10.28</td>
</tr>
<tr>
<td>3P.SG</td>
<td>son papa</td>
<td>sa maman</td>
</tr>
<tr>
<td></td>
<td>‘his dad’</td>
<td>‘his mom’</td>
</tr>
<tr>
<td></td>
<td>3:03.02</td>
<td>3:03.02</td>
</tr>
<tr>
<td>1P.PL</td>
<td>notre N/A</td>
<td>nos voitures</td>
</tr>
<tr>
<td></td>
<td>‘your cars’</td>
<td></td>
</tr>
<tr>
<td>2P.PL</td>
<td>votre N/A</td>
<td>vos N/A</td>
</tr>
<tr>
<td>3P.PL</td>
<td>leur N/A</td>
<td>leurs N/A</td>
</tr>
</tbody>
</table>

We see in this table that Théophile’s acquisition of possessives, in addition to occurring at a later age than Madeleine’s, is somewhat more varied than hers in terms of when different items are accounted for in the data. As the table illustrates, he begins with the singular first person plural possessive *mes*, followed a few months later with the first person singular encoded with masculine and feminine gender. There is some early gender variation used with nouns, for example with his child word for ‘dog’ *wouah wouah*, indicating he may have initial difficulty understanding the importance of making sure proper features are encoded in possessive determiners. It should be noted that his mother encodes *wouah wouah* with masculine gender.
The following interesting example shows him searching for the correct determiner he wants to use to express possession (versus his initial uses of indefinite and definite articles). Note that the correct gender features are marked on each of the three types of determiner.

Most of the second and third person singular possessives do not occur until he is well within his third year, although they are consistently used with the proper gender and number features. Only one example of the plural person possessive (47) exists in the entire data set. However, the use of the plural *nos* instead of the singular *notre* seems to be erroneous based on the context (note that in the discourse his mother is talking about herself, Théophile, and his baby brother, indicating that she is the only one driving a single car). This suggests that Théophile may have some difficulty understanding that the number feature on the possessive agrees with the object, and not the possessor.
(47) MOT: qu’est-ce qu’on va faire alors tous les trois là?  
what is CL COMP we go to-do then Q.M.PL DEF.PL three there and what are we three going to do there?  
CHI: euh on va aller dans nos voitures!  
uh we go to-go PREP 1P.PL cars.F.PL uh we’re going to go in our cars  
MOT: dans la voiture?  
PREP DEF.F.SG car.F.SG in the car?  

Just as we saw in Madeleine’s data, demonstrative determiners appear relatively late in Théophile’s production. He also begins indicating an understanding of deictic functions with the deictic adverbs là and ici, although even this usage does not appear until somewhat late in his speech (at 2;04.05). He too follows these with demonstrative pronouns celui-là and celle-là a few months later. The masculine form of the demonstrative determiner is used beginning at 2;10.01 and constitutes the vast majority of tokens in the data. Note the error in adjective agreement in (48) despite the correct application of masculine gender on both the possessive and demonstrative determiners.

(48) c’est mon poisson  
CL is POSS.1P.M.SG fish.M.SG that’s my fish  
grosse ce poisson  
big-ADJ.F.SG DEM.M.SG fish.M.SG big this fish

(49) c’est le monsieur il m’a donné ce canard  
CL is DEF.M.SG man.M.SG he me has given DEM.M.SG duck.M.SG that’s the man he gave me this duck

Plural and feminine demonstrative determiners appear towards the end of his data set, at 3;05.11 and 3;07.09, respectively. The feminine form is produced only once in all of his utterances.
(50) *ici veux ces puzzles*
ADV[+PROX] want DEM.PL puzzle.M.PL
*I want these puzzles here*

(51) *mais elle est où cette voiture*
but she is where DEM.F.SG car.F.SG
*but where is that car?*

Like Madeleine, Théophile’s production of quantifying elements begins with numbers at 2;09.07.

(52) *y a deux dessins*
there has NUM drawing.M.PL
*there are two drawings*

(53) *trois portes*
NUM door.F.PL
*three doors*

In this same data set, he also produces *beaucoup de* (‘a lot of’) plus a bare noun (54).

Théophile uses surprisingly few of this type of quantifying expression. Moreover, unlike Madeleine, Théophile does not seem to immediately set the parameter of following these expressions with a bare noun. In (55), we see him include a cliticized definite article after the expression *plein de* (‘a lot’); however, this is followed by correct bare noun usage a few lines later (56). Note that (55) and (56) are produced at the relatively late age of 3;04.10.

(54) *c’est beaucoup de xxx*
CL is Q PART xxx
*that is a lot of xxx*

(55) *tu as plein des voitures oui non?*
you have Q PART+DEF.PL car.F.PL yes no
*you have a lot of cars yes no?*

(56) *moi j’ai plein de voitures chez moi*
me I have Q PART car.F.PL PREP me
*I have a lot of cars at home*
Forms of *tout* (‘all’) appear at 2;10.28, although most occur after the age of 3;03.02. Nearly all of the tokens are the masculine plural *tous*, with a few instances of the masculine singular *tout*. There are no instances of the feminine forms *toute(s)*.

(57) *vais manger tout le jambon*  
go to-eat Q.M.SG DEF.M.SG ham.M.SG  
I’m going to eat all the ham

(58) *j’ai pris tous les cadeaux de elle*  
I have taken Q.M.PL DEF.PL gift.M.PL of her  
I took all her gifts

(59) *oui j’en fait tous les jours*  
yes I it do Q.M.PL DEF.PL day.M.PL  
yes I do it every day

While Théophile does not seem to have an issue acquiring the rule that forms of *tout* are followed by definite articles, he does seem to have trouble setting gender features on this quantifier. In (60) and (61) he uses the masculine forms with feminine nouns.

(60) *elle veut manger tout l’eau*  
she want to-eat Q.M.SG DEF.F.SG water.F.SG  
she wants to eat [drink] all the water

(61) *en plus tous les boîtes tous les jouets*  
in addition Q.M.PL DEF.PL box.F.PL Q.M.PL DEF.PL toy.M.PL  
and all the boxes all the toys

It should be noted that *tout* and *tous* are pronounced the exact same way. Therefore, it is likely that these quantifiers do not agree in gender or number in Théophile’s speech, but rather he is simply using a default, featureless form.

Adjectives phrases appear beginning at 2;04.29. As might be expected, the initial examples are followed by a bare noun. These are soon followed by D+A+N and D+N+A sequences at 2;07.04 and 2;07.28, respectively.
Despite these initial examples, A+N sequences persist in Théophile’s speech for quite some time, through the age of 3;06.10. Although his production of adjective phrases with determiners increases steadily during this time, there is a great deal of variation between the inclusion and exclusion of determiners, sometimes even with concurrent utterances, as in (66).

(66) y a un gros balle
there has INDF.M.SG big-ADJ.M.SG ball.F.SG
there is a big ball
oh y a gros balle là
oh there has big-ADJ.M.SG ball.F.SG ADV[-PROX]
oh there’s a big ball there

(67) gros ballon regardez [] regardez!
big.M.SG balloon.M.SG look look
big balloon, look look!

(68) hum un gros ballon!
hmm INDF.M.SG big.M.SG balloon.M.SG
hmm a big balloon!

Examples such as (66) also highlight Théophile’s trouble with marking correct gender features on his adjectives. Interestingly, however, this gender mismatch only happens with the adjective gros (‘big’) with feminine nouns ([69] and [70]), which, it should be noted, are otherwise used with correct gender marking on the determiner. This suggests
the issue may be localized to this one modifier. Even more noteworthy is that this use also always triggers gender mismatch on the article (when it is used). Other adjectives are correctly marked with feminine gender features, as shown in (71) and (72).

(69) un gros voiture
INDF.M.SG big-ADJ.M.SG car.F.SG
a big car

(70) un gros épée
INDF.M.SG big-ADJ.M.SG sword.F.SG
a big sword

(71) une petite bille
INDF.F.SG little-ADJ.F.SG marble.F.SG
a little marble

(72) on prend ça la grande raquette
we take that DEF.F.SG big-ADJ.F.SG racket.F.SG
we’ll take that, the big racket

One of the most interesting points in Théophile’s adjective data concerns his development of adjective placement. It has been observed (e.g., by Pannemann, 2006) that monolingual French children should not encounter any issues in understanding which adjectives occur prenominally and which occur postnominally (she compares this to possible cross-linguistic influence for bilingual learners of Germanic languages and French, who make occasional errors in adjective placement). Pannemann argues, for example, that once monolingual children have begun producing postnominal adjectives they do not ever misplace adjectives, and particularly she finds no evidence of postnominal adjectives appearing incorrectly in the prenominal position. Yet while he is a purely monolingual learner, Théophile produces two utterances with incorrect adjective placement – one with a classically prenominal adjective, petit ‘little’ being used
postnominally (73), and the other with an always postnominal color adjective, *bleu* (*‘blue’*) being used prenominally (74).

(73) \[là y a un fil petit\]
    \[ADV[-PROX]there has INDF.M.SG thread.F.SG little-ADJ.M.SG\]
    there is a little thread there

(74) \[ah y a des bleus hiboux\]
    \[ah there has INDF.PL blue-ADJ.M.PL owl.M.PL\]
    ah there are some blue owls

He has correctly used both of these adjectives before multiple times (for example in 63 and 65), so it is a curious development. However, both of these errors take place within a relatively short time frame, between the ages of 2;10.01 and 2;11.28, so it is reasonable to suppose that after initially acquiring both pre- and postnominal adjectives, he encounters a little difficulty in understanding the rules regarding placement.

Théophile’s development of correct bare noun usage is somewhat more complex than that of Madeleine. In certain cases, such as with negative constructions (illustrated in 75 and 76) and in post-copular predication (of which there is only one example, seen in 77), he seems to have no issue setting the null DP rule.

(75) \[y a plus de pâtes?\]
    \[there has NEG PART pasta.F.SG\]
    there’s no more pasta?

(76) \[normalement ça met pas de chapeau les canards\]
    \[normally that wears NEG PART hat.M.SG DEF.PL duck.M.PL\]
    usually ducks don’t wear hats

(77) \[alors maman elle est fan?\]
    \[so mama she is fan.F.SG\]
    so mama is a fan?
However, it was noted above that he does include incorrect usage of a determiner in the quantifying expression *plein de*, which is required to be followed by a null DP in grammatical French (repeated from (55)).

(78) *tu as plein des voitures oui non?*

you have _Q PART+DEF.PL car.F.PL yes no_

you have a lot of cars yes no?

Most significantly, Théophile goes through a phase around the ages of 3;03.02 to 3;04.10 where he begins using the preposition *en*, which must always be followed by a null DP, in place of other prepositions, particularly *dans*, which always requires a determiner. This is an interesting development because he had been using *dans* correctly beginning at age 2;04.05. Once *en* appears, however, it seems to completely replace *dans* for a time in his production, and, during this time, he consistently follows *en* with a D+N sequence.

(79) CHI: *il est en ma [//] pas en ma classe*

he is PREP 1P.F.SG... NEG PREP 1P.F.SG class.F.SG.

he is in my... not in my class

OBS: *il n’est pas dans ta classe?*

he NEG is NEG PREP 2P.F.SG class.F.SG.

he isn’t in your class?

(80) CHI: *yyy en [/] en l’ école*

yyy PREP [/] PREP DEF.F.SG school.F.SG.

yyy in... in school

OBS: *ils sont à l’ école?*

they are PREP DEF.F.SG school.F.SG.

they’re at school?

(81) *il va me mettre en ce bateau*

he go me to-put PREP DEM.M.SG boat.M.SG

he is in my... not in my class

There is also an example where Théophile incorrectly uses *en* (82) but repeats the same utterance a few lines later with *dans* (83). However, this, in turn, is once again followed
by the same phrase using *en*, showing clear variation in his production of the two prepositions at this age (3;04.10).

\[(82)\] elle a un bébé en son ventre
\[\text{she has INDF.M.SG baby.M.SG. PREP POSS.3P.M.SG tummy.F.SG.}\]
\[\text{she has a baby in her tummy}\]

\[(83)\] oui dans son ventre
\[\text{yes PREP POSS.3P.M.SG tummy.F.SG.}\]
\[\text{she has a baby in her tummy}\]

By 3;05.11, he seems to have understood the difference in usage of these two prepositions, and thereafter *en* is followed by a bare noun.

\[(84)\] et toi va te mettre en prison
\[\text{and you go you to-put PREP prison.F.SG.}\]
\[\text{and I’m going to put you in prison}\]

\[(85)\] il était déguisé en clown
\[\text{he was disguised PREP clown.F.SG.}\]
\[\text{he was dressed as a clown}\]

While there is a sharp decline in the use of incorrect bare noun phrases in Théophile’s speech after the age of 3;05.11, examples occur throughout his entire data set, although his final transcript at age 4;01.24 contains only one instance. As was seen with Madeleine, this indicates that he is still in the process of developing all the finer points of the French DP, once again suggesting gradual acquisition rather than the development of discrete stages.

**4.2.3 Olivier**

The following section describes Olivier’s production of extended DP elements. It is important to note that, because CHILDES provides much less data for him than were provided for the previous two monolingual subjects, instances of these elements are rare
or, in some cases, nonexistent. Gaps in production are therefore assumed to be due to limited data, rather than to his status as a bilingual learner.

Data illustrating Olivier’s production of possessive determiners are summarized in Table 3.3.

Table 3.3
Possessives: Olivier

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<td>FEM</td>
</tr>
<tr>
<td>1P.SG</td>
<td><em>mon papillon</em></td>
<td><em>ma maison</em></td>
</tr>
<tr>
<td></td>
<td>‘my butterfly’</td>
<td>‘my house’</td>
</tr>
<tr>
<td></td>
<td>2:03.13</td>
<td>2:03.13</td>
</tr>
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<td>2P.SG</td>
<td><em>ton tracteur</em></td>
<td><em>ta bicyclette</em></td>
</tr>
<tr>
<td></td>
<td>‘your tractor’</td>
<td>‘your bicycle’</td>
</tr>
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<td></td>
<td>2:11.15</td>
<td>4:00.19</td>
</tr>
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<td>3P.SG</td>
<td><em>son papa</em></td>
<td><em>sa maman</em></td>
</tr>
<tr>
<td></td>
<td>‘his dad’</td>
<td>‘his mom’</td>
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<tr>
<td></td>
<td>3:06.14</td>
<td>3:06.14</td>
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<td><em>notre</em></td>
<td><em>nos</em></td>
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<tr>
<td></td>
<td>N/A</td>
<td>‘our xxx’</td>
</tr>
<tr>
<td>2P.PL</td>
<td><em>votre</em></td>
<td><em>vos</em></td>
</tr>
<tr>
<td></td>
<td>N/A</td>
<td>N/A</td>
</tr>
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<td>3P.PL</td>
<td><em>leur</em></td>
<td><em>leurs</em></td>
</tr>
<tr>
<td></td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Due to the limited amount of data provided on CHILDES, many of these possessives are used only one or two times. As might be expected, possessives for the singular first person are the first to develop, with the remainder of the singular person possessives appearing over following months. There is only one example of a plural person possessive in the entire data set, and even this is somewhat problematic, as the noun itself could not be transcribed.

(86) *we go mettre nos xxx à le garage xxx ici.*

we go to-put 1P.PL XXX PREP DEF.M.SG garage.M.SG XXX ADV[-PROX] we go put our xxx in the garage xxx here
Overall, Olivier seems to have no problems encoding the proper gender and number features on his possessives. There is only one example of gender error on a possessive determiner in the whole data set. Surprisingly, it is a gender mismatch on an animate noun, frère (‘brother’). Moreover, this does not seem to be a misunderstanding that gender features are encoded for the possessed object rather than the possessor, as the context suggests the possessor is also male.

(87) il est [//] veut pas sa frère y conduire
he is [//] want NEG 3P.F.SG brother.M.SG there to-drive
he is... doesn’t want his brother to drive

Demonstratives and deictics are nearly nonexistent in Olivier’s data, and thus do not lend themselves to in-depth analysis. Like the other children, evidence of deictics begin with the distal and proximal adverbs là and ici. The masculine singular demonstrative determiner ce appears at 2;03.13; it is the only example of a demonstrative determiner in the whole of Olivier’s data (though it is repeated a few times during that conversation).

(88) c’est à qui ce papa?
CL is to who DEM.M.SG papa.M.SG
who’s papa is this?

Demonstrative pronouns occur only twice in his transcripts, with one masculine (89) and one feminine pronoun (90) being used. The feminine pronoun incorrectly appears without a deictic reinforcer –ci ‘here’ or –là ‘there’. Unlike what was found in the monolingual children’s production, the pronouns appear after usage of demonstrative determiners.

(89) celui-là
DEM-PRN.M.SG ADV[-PROX]
that one
Quantificational elements are also very limited in the data, with only one or two examples of each type. Nevertheless, Olivier seems to understand the determiner parameters for each element. The few instances of numbers and one instance of *beaucoup de*, shown in (91) and (92), respectively, are correctly followed by a bare noun, while the only occurrence of *tout* forms is followed by a definite article (93).

(91) *deux coqs*
    NUM rooster.M.PL
    two roosters

(92) *beaucoup de cheveux*
    Q PART hair.M.PL
    a lot of hair

(93) *je connais pas tous les mots*
    I know NEG Q.M.PL DEF.PL word.M.PL
    I don’t know all the words

Olivier’s earliest adjective phrases occur at age 1;11.13, during which he produces both A+N (94) and D+A+N (95) sequences.

(94) *beaux cheveux*
    beautiful-ADJ.M.PL hair.M.PL
    beautiful hair

(95) *un autre ver*
    INDF-M.SG other.SG worm.M.SG
    another worm

Interestingly, these initial examples are the only time he omits determiners in adjective phrases. In the rest of his data, a variety of adjectives, illustrated by (96)-(99), are consistently headed by the requisite determiner.
The majority of Olivier’s adjective phrases are correctly marked for gender from the beginning. There are, however, two instances of gender mismatch, seen in (100) and (101).

(100) un gros église
INDF-M.SG big-ADJ.M.SG church.F.SG
a big church

(101) le vilain soricère
DEF-M.SG wicked.M.SG witch.F.SG
the wicked witch

Olivier does not produce any D+N+A sequences in his data on his own, although there are two instances of him repeating them directly after his father, shown in (102). However, in his final data set, at age 4;00.19, he does misplace a canonically postnominal color adjective into prenominal position (103). It is possible that at this stage he has not yet set adjective placement parameters, although this gap in his DP development may simply be due to a lack of available data.
As with each of the other elements, there are only a few examples to consider when looking for evidence of correct null DPs in Olivier’s speech. Nevertheless, the few examples that exist suggest that he does not have difficulty acquiring these. His one example of beaucoup de, discussed above, was correctly followed by a bare noun, as are his few utterances containing the preposition en, such as (104). The other null DP types discussed with the previous two subjects, e.g. post-copular predication, are unavailable in his transcripts

(104) ou un chateau en neige?
or INDF.M.SG castle.M.SG PREP snow.F.SG.
or a castle made out of snow?

Regarding incorrect bare noun usage, he follows a pattern similar to the other two children. His production of these errors declines considerably around age 3;06.14, and, like Théophile, his last data set at 4;00.19 contains only one instance.

18 Transcriber is unsure of the word used
4.2.4 Gene

Due to there being only four transcripts available for Gene on CHILDES, the data available for analysis of extended DP elements is severely restricted, thus providing only limited insight into his development. Table 3.4 summarizes Gene’s production of possessive determiners, and is a clear illustration of the gaps in his data.

Table 3.4 Possessives:Gene

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</thead>
<tbody>
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<td>MASC</td>
<td>FEM</td>
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<tr>
<td>1P.SG</td>
<td>mon cadeau</td>
<td>ma maison</td>
</tr>
<tr>
<td></td>
<td>‘my present’</td>
<td>‘my house’</td>
</tr>
<tr>
<td></td>
<td>3:00.14</td>
<td>3:07.17</td>
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<td>sa N/A</td>
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<td>nos N/A</td>
</tr>
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<td>votre N/A</td>
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</tr>
<tr>
<td>3P.PL</td>
<td>leur N/A</td>
<td>leurs N/A</td>
</tr>
</tbody>
</table>

We see that only singular first person possessives can be accounted for in Gene’s data, and even of these there are relatively few. The large gaps in the production of each form are due to data being available only in 6-month intervals; it is unlikely that each one appeared only during the ages given. Although many of his possessives are correct, he does have a few instances of gender errors, as in (105) and (107). Examples (106) and (107), both produced at age 3;07.17, show variation in the form used with the same noun, *maison* (*‘house’*).
(105) **dans mon surprise**
PREP 1P.M.SG surprise.F.SG
in my surprise

(106) **I aime pas ça Youppie dans ma maison**
I like NEG that Youppie PREP 1P.F.SG house.F.SG
I don’t like that, Youppie [character] in my house

(107) **I aime ça pit+pit dans mon maison**
I like that birdie.M.SG PREP 1P.M.SG house.F.SG
I like that, birdie in my house

Gene produces only one demonstrative determiner in the entire data set, shown in (108), and no demonstrative pronouns, making it difficult to gauge the extent to which he has acquired these elements.

(108) **ramasse ces jouets**
pick up DEM.PL toy.M.PL
pick up these toys

Numbers, produced at age 3;00.14, constitute the only clear quantifiers in Gene’s data.

These are correctly followed by a bare noun.

(109) **trois ans**
NUM year.M.PL
three years

Furthermore, he produces only two adjective phrases, both of which lack a determiner, but are correct in assignment of gender features.

(110) **c’est gros broum-broum**
CL is big-ADJ.M.SG car.M.SG
it’s a big car

(111) **pourquoi ils s’en vont avec petit camion Père Noël?**
why they PRN go PREP little-ADJ.M.SG truck.M.SG Santa Claus
why are they leaving with Santa Claus’s little truck?

---

19 Child word for ‘car’. Both Gene and his father pair it with masculine features.
It is impossible to gauge the extent to which Gene understands the rules regarding correct bare noun usage. Of the different types of bare noun constructions discussed with the previous subjects, he produces only negatives, and of these just two examples. Moreover, the negative in (113) is followed by an English noun, making it a somewhat questionable example.

(112) *il va pas mange de biscuit*
    he go NEG eat PART cookie.F.SG
    he’s not going to eat the cookie

(113) *on veut pas de story*
    we want NEG PART story.F.SG
    we don’t want a story

While Gene still produces numerous examples of incorrect bare nouns in his final data set, at age 3;07.17, the greater part of his nominal utterances are accompanied by a determiner. This suggests that, despite the lack of extended DP elements identified in his data, he is nevertheless acquiring the rules of a target-like French DP.

4.3 Summary of Results

Table 3.5 provides a summary of the development of extended DP elements for all four of the subjects. The ages represent the initial appearance of each of these items.
### Table 3.5
Summary of Extended DP Data: All Subjects

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We see in this table that while the children’s ages of initial production vary, the patterns of acquisition are relatively similar. For example, all of the children’s first use of a possessive determiner is in the singular first person form. All subjects use numbers before other quantifiers. And, as suggested in child DP literature, the children’s adjectives follow a line of development from A+N to D+A+N to D+N+A, although, as discussed in the previous sections, the acquisition of this pattern is not as clear cut as is usually claimed.
CHAPTER 5

DISCUSSION

5.1 Introduction

The following chapter constitutes a data-driven analysis of the syntactic development of the four subjects of this dissertation. I attempt to elucidate the development of the DP through application of Minimalist theory (Abney, 1987; Adger, 2003; Chomsky, 1995; Giusti, 1997) to child production data. As was observed in chapter 1, this is a significant departure from many of the previous studies, which either focus on theory-based conjecture about acquisitional processes with very little data to support their claims, or focus on data description with little to no application to theory. In uniting the two approaches, I hope to provide a clearer view of the underlying processes of French DP development.

As has been made clear in the previous chapters, the process of acquiring determiner and setting parameters for their correct usage is a significantly more complicated process than most studies would suggest. The seemingly clear-cut stages set forth by Heinen and Kadow (1990) and Hulk (2004), for example, are indicated by my data to be oversimplified. The speech of the four children in this study is not found to move through discrete stages of development, although their acquisition and usage of DP elements and features can be seen to follow similar patterns. Their path of development does not seem to go step-by-step, e.g. from bare nouns, to articles, to adjectives, as studies such as Heinen and Kadow’s might suggest. Rather, it is a gradual process, more along the lines of putting together the pieces of a jigsaw puzzle. Once a child has ‘acquired’ a DP element or feature, in the sense that it is available in his or her speech, he
or she still has to fine-tune its application in the grammar. This is shown in the continuation of errors with elements after their initial development and in the variation of usage over an extended period of time.

Before continuing on to the discussion of the findings of this study, it is important to clarify the aims of the discussion that follows. Unlike the majority of studies on child language acquisition, this dissertation does not purport to make a claim in favor of either the Maturational Hypothesis (Borer and Wexler, 1987; Radford, 1990) or Continuity Theory (Clahsen, 1990/1991; Hyams, 1996; Lust, 1999). Any attempt to use my data to ‘prove’ whether the children’s DP structure has been available but underspecified (following Continuity) or whether the children have ‘matured’ into it would be, in my mind, erroneous (as, I would argue, are any such claims). Nonetheless, declining to participate in that debate does not undermine my findings or analysis in any way, as it is not pertinent to my arguments. In looking to the production data to create a picture of developmental patterns and syntactic processes, I rely on concrete utterances that appear in the children’s speech, and thus indicate that the structures under discussion are clearly accessible to them at that time. The extent to which these structures were available before appearing in the production is irrelevant.

5.2 The Argument for Null DPs

There is an interesting tendency for studies of (2)L1 determiner acquisition to overlook the Null DP hypothesis, despite its rather wide acceptance in DP theory (Adger, 2003; Radford, 2009). The general consensus among many researchers seems to be that absence of an element means absence of the functional phrase (e.g. Kupisch, 2005). Hulk (2004) and Prévost (2009) do acknowledge a Null DP in child language as a possibility,
but do not treat it in any depth. Thus, a French child’s use of a bare noun is generally represented by a simple NP, as in (1).

(1)

```
       NP
          |   
           N
            bébé
```

However, there is no particular data to support the argument for the absence of the functional layer of the DP when an overt determiner is not used over the presence of a null DP. Hyams (1996) provides a rare claim in favor of the presence of a functional layer regardless of whether an overt determiner is present. She argues that the omission of function words is due to the absence of pragmatic/semantic features in children’s early speech. In using a bare noun, for example, a child may not realize that the word must be marked for specificity. We can extend this argument to syntax by supposing that in addition to having to learn the importance of these pragmatic/semantic features, children do not initially understand that they must encode their nouns with grammatical features such as gender and number (this is particularly important in French where determiners are often the only indicators of nominal features). This can also help explain the persisting variation in use between bare nouns and determiners, as the children gradually come to learn all the finer points of determiner usage and set necessary parameters.

I propose, therefore, that the subjects of this study project a DP structure from their earliest nominal utterances. In addition to the arguments provided above, evidence from the previous chapters suggests availability of a DP structure from the onset of production of nominal phrases. In Madeleine’s speech, for example, the first lexical
nouns appear both with and without a determiner (e.g. bébé/le bébé ‘baby/the baby’).

There is no reason to assume that, when the determiner is produced, the DP suddenly appears and, when it is omitted, the utterance reverts back to an NP without a functional level. I therefore argue for the projection of a DP in both cases. In phrases with a determiner, the DP is overtly realized (3), while bare nouns are accompanied by a null DP (2).

(2) bébé

(3) le bébé

This argument is further corroborated by the sustained use of bare nouns throughout each of the children’s data sets. As was shown in Chapter 4, the subjects continue to use bare nominals long after they have begun producing all determiner elements and features. There is little evidence to suggest that their access to a DP layer would flicker on and off depending on whether a determiner is overtly realized in speech. Examples such as (4), reproduced from (39) in chapter 3, illustrate this observation.
Théophile repeats the same phrase consecutively, first including a determiner in front of the noun, then omitting it. The functional layer of the DP is available to him; he simply does not seem to have yet understood that a determiner is mandatory in such a phrase, not optional. The underlying DP structure of the two utterances, therefore, remains the same, as indicated in (5). The only difference between them lies in overt phonological realization of a determiner.

Perhaps an even clearer example is shown in (6), repeated from (21) in chapter 3, wherein we see the alternation of the bare noun and a determiner. Madeleine clearly has developed a DP that allows her to express the indefinite article in conjunction with the noun. In this utterance, she seems simply to be practicing application of the determiner (or perhaps practicing grammatical gender features).

```
(4) des clés
    INDF-F keys.F.SG
    clés
    keys.F.SG

(5)
```

```
(6) trou // un trou // trou // un trou //
    hole... a hole... hole...a hole
```
Lastly, the acquisition of correct bare nouns in the specific grammatical contexts where they are required suggests the availability of a null DP from the beginning of nominal use. Correct bare nouns appear somewhat late in the children’s production, after they have been producing a number of determiners. There is little evidence to suggest that they would begin with an initial NP structure with bare nouns, then develop a DP indicated by use of determiners, only to have to subsequently develop a null DP to use in particular bare noun constructions. It seems more likely that a null DP is available from the onset, and the children must gradually acquire the conditions of its proper use.

5.3 Articles and the Development of Gender and Number Features

Evidence for NumP, where gender and number features are argued to generate (Ritter, 1992), appears within the children’s earliest utterances. While some previous studies of DP acquisition (e.g. Koehn, 1994; Müller, 1994) suggest that the grammatical features of gender and number are not initially available, my data indicate otherwise. The children were found to use both grammatical genders as well as plural articles within their earliest nominal utterances, indicating that number and gender features are available at the same time. This concurrent availability of both features is to be expected if, as Ritter (1992) argues, both gender and number are generated in the same functional phrase. A noun phrase such as *le bébé* may therefore be more accurately represented by (7) than (3) given above, where the noun moves up to check features in the NumP.
It is difficult to ascertain whether or not the children’s earliest usage of definite articles are used to encode definiteness features, and lie in D⁰, or whether they simply mark the noun with features and are used in a generic interpretation, and therefore generate in AgrP. If Hyams (1996) is correct in her suggestion that children’s earliest utterances have a specifying, deictic interpretation, then we may posit that the children are using the articles to refer to specific rather than generic items. The rarity of definite articles in the initial data sets may bolster this idea, since the children do not necessarily view them as important feature bundles. It is therefore possible that DP development begins with the most basic of underlying structures, illustrated in the previous section, with an AgrP projecting only when the article begins to be used with generic statements, as in (8), abridged from Madeleine’s utterance *j’aime pas les araignées* ‘I don’t like spiders’.
We see then that even the children’s early DPs suggest a development beyond the simple structures generally provided in most studies of (2)L1 syntax. In producing grammatical features of gender, number, and definiteness, the children indicate an understanding of the more complex aspects of even the most basic nominal utterance.

5.4 SpecDP

The distinction between heads and specifiers in the DP is surprisingly absent in studies of child language acquisition. Prévost (2009) is unique in explicitly addressing the differences between them, although he does not extend his discussion to the possible implications it has for DP development. Recall that much of the theoretical literature on the DP (e.g. Giusti, 2002) posits that only articles may project in the head of the DP, $D^0$. 
All other determiner elements are argued to generate in the specifiers of functional phrases before moving to SpecDP to check features.

I would argue that this distinction between the syntax of the two types of determiners is significant for child language development. We have seen that the initial production of determiners in child language consists solely of elements that are DP heads, namely, articles. Subsequent elements such as demonstratives, possessives, and quantifiers, on the other hand, all constitute elements that generate in specifiers. It is possible, therefore, to suggest that access to specifier elements is developed later than that of head elements. Moreover, this proposal would provide a solid syntactic reasoning for the later occurrence of these items in child language.

Beyond their appearance in later stages of development, utterances such as (9) (repeated from (11) in chapter 4), from Madeleine’s production data, may lend additional support to the idea that the children must acquire specifier determiners independently of those in head DP. As explained in chapter 1, either Spec or Head DP may be occupied, but not both; this helps explain how demonstratives and articles can be in complementary distribution although they are in different positions on the tree (Giusti, 2002). Thus, fully formed adult grammar does not allow phrases such as (9). Madeleine, it appears, has not yet fully set her parameters regarding what elements may coincide in a phrase.

(9) moi je le verra ce l’après-midi
   me  I him will+see DEM.M.SG DEF-M afternoon.M.SG.
   I’m going to see him this (*the) afternoon

In general, however, the children seem to learn the rule of complementary distribution of SpecDP and HeadDP elements quite easily, and are able to produce structures with an overtly filled specifier. (10) provides a basic example of such
structures, using different phrases produced by my subjects (*mes clés* ‘my keys’, Théophile; *deux coqs* ‘two roosters’, Olivier; *ces jouets* ‘these toys’, Gene). It should be noted that these determiners are argued to generate in different phrases in the extended DP structure before moving up to Spec DP. As that discussion is not particularly relevant to this dissertation, I have collapsed the phrases into one functional layer, FP, between the DP and NP. Gender and number features for each determiner are also omitted for the sake of brevity.

(10)

Utterances using the quantifier *tout*, such as Olivier’s *tous les mots* ‘all the words’, require additional movement of the quantifier to a QP outside the DP, with the required definite article projecting into $D^0$.
5.5 The Adjective Phrase

Surprisingly, little attention has been given to the adjective phrase in research on the acquisition of the extended French DP. In their descriptions of proposed stages of DP development, Heinen and Kadow (1990) and Hulk (2004) provide a very brief outline of possible adjective development, wherein adjectives are argued to initially be used in complementary distribution with articles, both generating in $D^0$, as in (12) (repeated from (2) in chapter 1).

According to their arguments, subsequent stages see adjectives projecting phrases of their own in prenominal and then postnominal positions, with gender and number features appearing in the latest stage. There are, however, a few issues with Hulk’s and
Heinen and Kadow’s arguments. For one, they do not provide substantial data or analysis to support their claims; rather, the stages are somewhat taken as given based on a couple example phrases. Secondly, they do not account for examples that fall outside of these tidy boundaries, such as the usage of a bare noun with a postnominal adjective, as in Théophile’s utterance *tétine bleue* ‘blue pacifier’.

Given the rationale for the existence of a null DP in children’s determinerless utterances described in section 5.1, I propose that the initial adjectives used by the subjects in this dissertation do not generate in the DP, as supposed by the studies cited above, but rather in a functional phrase that lies between DP and NP. Thus a representation such as (13) would replace (12).

(13)

In addition to the evidence given for a null DP, examples such as (14), taken from the children’s production data, complicate Heinen and Kadow’s (1990) and Hulk’s (2004) seemingly straightforward stages. In (14), Théophile follows a D+A+N phrase with a direct repetition, only the latter lacks an overt determiner. As he clearly has access to the necessary syntactic structures to produce D+A+N sequences, there is little reason to assume that, in the determinerless phrase, he has suddenly lost access to it. I contend
that the underlying structure is the same for both phrases (represented in (15)). The only difference between them is the realization, or lack thereof, of a phonologically overt determiner.

\[(14) \quad y \quad a \quad un \quad gros \quad balle\]
there has INDF.M.SG big-ADJ.M.SG ball.F.SG
there is a big ball
\[oh \quad y \quad a \quad gros \quad balle \quad là\]
oh there has big-ADJ.M.SG ball.F.SG ADV[-PROX]

\[(15)\]

Examples such as Madeleine’s utterance *petit chat noir* ‘little black cat’ provide additional support for this argument. If we are to assume that she has access to a functional layer for the projection of postnominal adjectives, then there is little reason to assume that her prenominal adjective would occupy D. I would argue that this is, once again, an example of a null DP, followed by an A+N+A sequence, illustrated in (16), which also indicates NP movement to account for the position of the postnominal adjective.
Very little research goes beyond these general assumptions about stages of adjective development. The acquisition of placement of adjective types, in particular, has received almost no attention, as there seems to be a general assumption that children, and particularly monolingual children, will have no issues understanding which adjectives are used prenominally and which are used postnominally, and will set parameters almost automatically (see, for example, Pannemann, 2006). However, the data in this dissertation indicate this to be an oversimplification. Although misplaced adjectives are quite rare – there are only 3 such examples in all of the data – they do occur, suggesting that children do indeed have to acquire rules regarding proper adjective placement. Two of the children in this study – Théophile, a monolingual learner, and Olivier, a bilingual learner – make errors in adjective placement. Both Olivier (17) and Théophile (18) prepose a classically postnominal color adjective, bleu ‘blue’. The latter also postposes a prenominal adjective, petit ‘little’ (19).
There has been a disagreement.

These errors are particularly puzzling in the case of Théophile, as he has previously used both bleu and petit in their correct positions. However, both of these errors take place within a relatively short time frame, between the ages of 2;10.01 and 2;11.28, indicating that he may go through a period where he is trying to figure out the rules of correct adjective placement.

As for syntactic explanations of such errors, it is possible that they occur due to misanalysis of NP movement. In an erroneously postposed prenominal adjective phrase, the noun is may be moved to an FP between the DP and the FP that houses the adjective, as in (20) (this can be compared to the correct placement illustrated in (16) above).

(20)
Conversely, in the case of an incorrectly placed postnominal adjective, the noun is not moved high enough, resulting in a structure such as (21) instead of the target-like structure represented in (22).

\[
\text{(21)}
\]

\[
\begin{array}{c}
\text{DP} \\
\text{D} \\
\text{des} \\
\text{FP} \\
\text{AP} \\
\text{bleus} \\
\text{NP} \\
\text{hiboux}
\end{array}
\]

\[
\text{(22)}
\]

\[
\begin{array}{c}
\text{D} \\
\text{des} \\
\text{FP} \\
\text{NP} \\
\text{hiboux} \\
\text{X} \\
\text{N} \\
\text{AP} \\
\text{bleus} \\
\text{NP} \\
\text{FP} \\
\text{hiboux}
\end{array}
\]

Gender concord between nouns and adjectives is also largely overlooked in studies on child language acquisition. Heinen and Kadow (1990) and Hulk (2004) propose that this phenomenon is among the last to be acquired in development of the DP. As with all stages, they do not provide much data or analysis to back up this assertion. No significant work has been done to determine the conditions of errors in gender features on
adjectives. However, analysis of the production of the subjects in this study allows us to identify particular patterns and suggest a syntactic explanation for gender errors.

First, it should be noted that contrary to the proposed stages of adjectival development, the production of the children in this study does not indicate that target-like gender features are consistently attained after the structures for pre- and postnominal adjectives are set. Madeleine, for example, only produces gender errors on adjectives in her earliest stages of use at 1;11.13 (e.g. *petit table* ‘little table’). Furthermore, in her particular case, all errors in adjective-noun agreement occur in determinerless A+N phrases.

In analyzing the instances of errors in gender concord produced by Théophile and Olivier (Gene does not produce any incorrect phrases, although this is likely simply due to the dearth of data), we can identify a particular pattern. Consider the following examples (23 and 24 are produced by Théophile, and 25 by Olivier).

(23) *un* **gros** voiture
INDF.M.SG big-ADJ.M.SG car.F.SG
a big car

(24) *un* **gros** épée
INDF.M.SG big-ADJ.M.SG sword.F.SG
a big sword

(25) *le* **vilain** soricère
DEF-M.SG wicked.M.SG witch.F.SG
the wicked witch

It is immediately apparent that all of the errors occur with prenominal adjectives, and indeed this is the case throughout the data; no gender errors are observed on postnominal adjectives. Furthermore, the error in gender agreement is not only visible on the adjective, but on the determiner as well. Since these adjectival gender errors happen
at the same time that the children are still negotiating the aspects of gender marking in general, it can be proposed that they have not yet set the parameters of agreement marking, and thus do not project a NumP in such cases, resulting in a structure such as (26), where the features encoded on the noun are not checked. This may be compared to target-like feature checking on the phrase *une grosse bêtise* ‘a big mistake’ produced by Théophile at a later age, represented in (27).

\[(26)\]

\[(27)\]
We see, then, that close analysis of real child language data examples yields a wider view of adjectival acquisition, as well as a clearer understanding of the underlying processes that drive this development.

5.6 Chapter Summary

This chapter has presented a thorough overview of the DP development of the subjects in this study, using the Minimalist model as a method of analysis. Relying on the data produced by the children to drive my analysis, I have provided evidence for a significantly more complex underlying syntactic structure than has been suggested by previous studies. I have argued for the realization of a null DP in the earliest nominal utterances, and shown that even the most basic D+N combinations require development of an extended underlying structure that accounts for proper placement of elements and the checking of features.
CHAPTER 6

CONCLUSION

6.1 Introduction

This chapter provides concluding remarks, focusing on the ways in which this dissertation has contributed to the study of child language. In this section, I provide an overview of the approach of this study and consider how that has informed and affected the arguments put forth. Section 6.2 discusses specific contributions of the study, and section 6.3 suggests areas of future research.

In considering the longitudinal production of four children in a multiple-subject case study, this dissertation adds a significant amount of analyzed child data. The consideration of each child separately allows us to identify both individual differences and possible patterns shared among the learners.

Moreover, in conducting this study, I have performed a more in-depth analysis than has been typically done in previous studies of French DP development. Rather than casually mentioning limited examples of child language with the intent to establish vague stages, as is the practice in much of the literature, I carefully examined the 59 data sets selected for this study in order to let the children’s speech itself inform our understanding of DP development. The effect of this approach has been to create a much more detailed picture of French DP acquisition than exists in most previous studies. This, in turn, has led to the emergence of a few key points within this dissertation that constitute important contributions to the field.
6.2 Contributions

It has been well established in the previous chapters that, while the children do develop the DP in somewhat identifiable patterns, the stages generally proposed in the literature (e.g. Heinen & Kadow, 1990; Hulk, 2004) provide an overly simplified view of DP acquisition. Far from conforming to the discrete stages these studies suggest, the production of the children in this study consistently indicates an ongoing and somewhat convoluted process. Rather than moving smoothly, step-by-step through well-delineated stages, the children must gradually set parameters regarding the use and placement of DP elements and the inclusion of DP features.

As indicated earlier, this study allows for such a view of DP development because it considers a large quantity of child language data, which is then subjected to a significantly more thorough analysis. Previous studies such as Heinen and Kadow (1990) and Hulk (2004) tend to have an overly broad approach, generally focusing on D+N combinations, specifically article-noun combinations, and a vague view of how the use of an adjective affects or interacts with these utterances. This study makes the significant addition of including all DP elements and features in the analysis. Moreover, the analysis itself is rigorous and founded in syntactic theory, in an important departure from many previous studies. This has given rise to observations and arguments that constitute further contributions of this study.

First, I have argued for the existence of a null DP in the children’s earliest nominal utterances. While the null DP is usually ignored in child language studies, evidence from this dissertation suggests that the functional DP layer is available from the onset of noun use and that it remains available in utterances including incorrect bare
nouns. The difference in a bare noun utterance and that of an article+noun combination in the subjects’ early DPs is therefore not related to the underlying syntactic structure, but simply a matter of whether or not a determiner is overtly realized phonologically.

Secondly, the application of the Minimalist model to the children’s production suggests a possible syntactic interpretation of the identifiable stages of determiner development. In chapter 5, it was observed that elements that are traditionally presumed to project into the specifier of the DP appear later than those that project into $D^0$, suggesting that access to specifier elements is developed later than that of head elements.

Third, close analysis of adjectives in the extended DP gave rise to a couple of important points. It was shown that development of adjective placement parameters is not as straightforward as previous studies have indicated. Errors in both pre- and post-nominal adjective placement suggest once more a gradual understanding of underlying syntactic processes on the part of the children. Furthermore, it was observed that gender errors on adjective phrases may follow specific patterns and do not necessarily persist as long as studies such as Heinen and Kadow (1990) imply.

Lastly, although it is not directly related to DP development, this study provides a significant contribution to the overall study of (2)L1 acquisition of syntax in its critique of the Maturation vs. Continuity debate that has dominated, and, I would argue, ultimately stunted this area of study. As I have shown, one need not attempt to find proof of the extent to which children have always had or mature into access to functional structures in order to provide meaningful and significant arguments regarding their acquisition of syntax.
6.3 Limitations and Future Research

The restricted focus of this study on French determiner elements and features has been very useful in allowing for careful analysis of these items; however, it has also inevitably created some limitations that could be addressed in future research, which I will briefly outline here.

While the usage of demonstrative pronouns was briefly addressed in chapter 4, the focus of this study did not allow for a close examination of pronouns in general, as analysis of these complex items would constitute a study in its own right. Nevertheless, the addition of pronouns and investigation into their interaction with determiner forms during DP acquisition would potentially provide a more developed and nuanced view of the phenomenon.

Similarly, closer consideration of prepositions and the particles à ‘to’ and de ‘of’ may provide additional insight into DP development, particularly the development and use of cliticized articles with à and de, as it would help indicate the level to which the children understand the use of these functional items.

Lastly, the addition of the production of more subjects would provide further insights into the patterns delineated in this study. We have seen, for example, that some children might make errors that others do not (e.g. Théophile’s difficulties with adjective placement are not found in Madeleine’s data). Therefore, with each addition of a child’s data, we may find some new insight into the complex phenomenon of DP acquisition.
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