

Verbs and Nouns: INFL and the Emergence of DP The Acquisition of Agreement Features¹

Joseph Galasso 1999 (2003)
California State University, Northridge

5.0 Introduction

The study of the acquisition of IP and of the Determiner Phrase (DP) can help determine whether or not Functional Parameterization has taken place in the child's syntax—consequently, affecting notions previously put forward in Chapter 2 concerning language-specific awareness (viz., The Single System Hypothesis (SSH)). Under the current Minimalist Program, formal syntax provides a mechanism for 'Checking' morphological features within specific functional (local) domains, triggering movement operations either at 'post-Spell-out' (covert) LF, or 'pre-Spell-out' (overt) PF levels of representation. For instance, if we assume that abstract Nom(inative) Case assignment is checked under a Spec-Head AGR(eement) relation within IP, Gen(itive) Case is checked via a Spec-Head relation within DP,¹ and Acc(usative) either under a Verb-internal (Head-Comp) relation or via Default, then, a central prediction might be made concerning any possible absence of the functional categories IP and DP in early child clause structure: only instances of Accusative Case assignment (via default) should be notable at pre-functional stages of language development.

The following sections examine the acquisition of INFL(ection) along with the role the DP system plays in the early development of English. In §5.1, I begin by examining the idea that a correlation exists between D and I. §5.2 presents the relevant Data as follows: DPs (§5.2.1), Case (§5.2.2) and Tense (§5.2.3).

Preview. Regarding the early emergence of DPs found in the VP-stage (DP>VP), I come to the conclusion that they represent for the child a miscategorized lexical category: i.e., they function in the same manner as their more primitive NP counterparts. For instance, owing to this miscategorization, Case features that are typically associated with Poss(essive) DPs are postponed until the fully-fledged, well formed DP (DP>IP) has been acquired (stage-2, files 8+)—here, being initially triggered by a 'Me/My' contrast, and culminating in a productive usage of the Possessive element 'S' (cf. files 24-25). Regarding INFL, we conclude that an initial Non-INFL stage-1 exists (a stage excluding formal feature specifications) before the onset of an Optional-INFL stage-2.

5.1 Correlation Between D and I

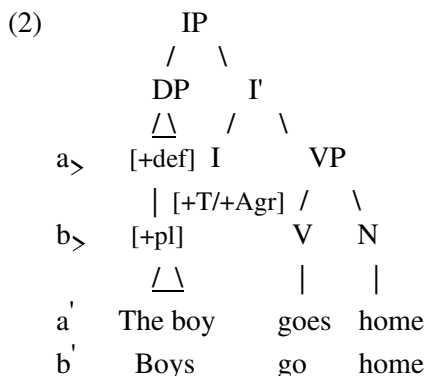
Recent arguments have been put forward suggesting there to be a feature correlation between the Head features of D(P)s and the Spec features of INFL (Felix 1990, Hoekstra *et al.* 1996, 1996a,b.). The basic premise behind the correlations results in the following conditions in (1) (overleaf) (Hoekstra *et al.* 1996). (N.B. An alternative and less constrained version of the condition has emerged stating that non-finite clauses may in fact opt for either specified or non-specified subjects (Hyams 1997)):

¹ Chapter 5 of Ph.D. Dissertation 'The Acquisition of Functional Categories' (Joseph Galasso, Essex University: 1999). Published 2003, Indiana University, IULC Publications
https://www.academia.edu/43939141/The_Acquisition_of_Functional_Categories_A_Case_Study

- (1) (a) When a D(P) subject is ‘underspecified’ for Definiteness/Agreement—
 then I will also be underspecified for T(ense)/AGR(eement).
 (b) When a D(P) subject is ‘specified’ for Definiteness/Agreement—
 then I will likewise be specified for T(ense)/AGR(eement).

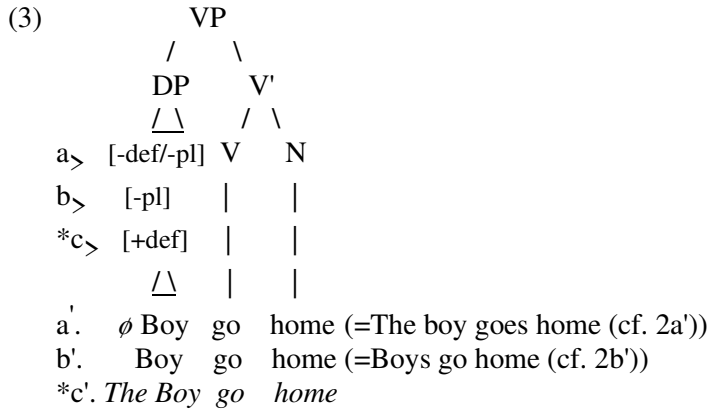
The reasoning behind the posited correlation has to do with conventional notions that claim that Subject Pronouns/(DPs), when within a Spec-Head agreement configuration with IP, are to be assigned abstract Nominative Case. This appropriate checking domain then allows for the checking of formal AGR(eement) phi-features of D (e.g. phi (ϕ)= person/number) to occur between D and I. The conditions in (1) would therefore account for the fact that e.g., the 3sg copula ‘is’ requires a 3sg Subject ‘She’. The correlation holds owing to the stipulation that all ‘Uninterpretable Features’ (in this case, being the 3sg feature) must be checked-off. However, the correlation does not hold indiscriminately—that is, the correlation only holds where it would otherwise result in an uninterpretable feature remaining unchecked (thus resulting in a crashed derivation). For example, consider a D(P) 3sg Subject which lacks a Gender feature with the 3sg number property along with all other phi-features remaining present. In this case, there is nothing in the correlation that would predict IP to be under-specified for 3sg number Agreement as a result of the DP’s lack of a gender property—the remaining uninterpretable features may proceed to be checked and erased (only gender fails to manifest itself). Furthermore, one might wish to extend the above observation regarding an indiscriminate correlation, and predict that a D(P), in principle, could appear within a VP (a non checking domain) projection. In such cases, intrinsic feature(s) of D(P)—presumably those more semantically oriented (e.g., Definiteness)—would be permitted to go unchecked possibly due to the default setting of D itself. In extending this potential default DP to Subject position (e.g., to under-specified IP), we forego all meaning to the correlation. It is precisely this observation that begs the question of a correlation in general.

The above correlations predict e.g., that Subjects of Finite clauses should be overtly marked for Agreement/Definiteness: i.e., Finite verbs, I specified for T/AGR, should trigger Plural Nominals (e.g., if the verb is plural) or Nominals with overt D as in (2a,b) below (Radford 1997ms (simplified by ignoring Spec-VP)):



(N.B. Henceforth, conflated trees should be read as follows: the arrowed-letter (e.g. a_>) indicates the exact feature involved, while the primed-letter counterpart (e.g. a') represents the token example expressing that feature).

In contrast to (2), Subjects of non-finite clauses should have bare nominals without their counterpart Determiner and Number specifications as in (3 a,b) (overleaf):



The absence of the determiner with a singular count noun (cf. 3a) might be analyzed in two different manners: (i) it may either indicate the failure to mark number; or rather, (ii) it might indicate the failure to mark definiteness.

One interesting thing to note here, and something I wish to emphasize, is the notion that a DP containing an overt Det (specified for definiteness as in *3c) might be potentially analyzed as the Specifier *insitu* of a Lexical VP (a somewhat demoted analysis given that the child's acquisition of DP is commonly viewed as marking the Functional-Stage of language development). In this sense, theoretical correlations which place the acquisition of D(P) Subjects with that of IP, need not necessarily apply (compromising 1b above). Radford (op.cit) invokes such a principle by suggesting that a Determiner, when seemingly associated with a vacuous/non-specified IP (e.g. -T/ -AGR), might simply take-on a 'default' Objective Case status.ⁱⁱ In addition, if checking were involved, the DP could possibly be assigned Objective/Accusative Case via a Structural relation with the Verb (VP-internally). The possibility of a Default Determiner, however, complicates issues surrounding the classification of DP: typically speaking, DPs are considered to be a functional category (cf. Fukui 1986; Abney 1987). It is in this vein that a correlation with IP is naturally intuitive. However, the above default analysis of Subject DPs rather undercuts the issue of classification and leaves open the question of whether or not a (straightforward) correlation necessarily holds between D and I. In other words, all aspects of the correlation may hinge entirely upon whether or not D(P) is in Spec of IP (DP>IP) or Spec of VP (DP>VP), so complicating matters.

On Empirical grounds, the relatively early emergence of D (as seen in my data and in various data in the literature) as opposed to the protracted emergence of the fully-fledged IP, can be accounted for in quite independent manners—an observation strongly favoring the opinion that no necessary correlation exists.

On Theoretical grounds, there traditionally exists a handful of differentiating characteristics found amongst Functional and Lexical elements (see Abney 1987:64f).

Abney, among others, has suggested that there might be some reason to speculate on a dual status for DP's function. In addition to maintaining their traditional Functional-categorical role, a role that may indeed correlate D to I, DPs might also play a semantic Lexical-categorical role, a role that typically pertains to categories lower down from IP in the structural tree. A number of arguments might run as follows:

(i) Generally speaking, since Ds are typically associated with Nouns or NPs (i.e., they tend to form maximal projections of substantive elements), their referential properties might likewise be substantive/semantically motivated.

(ii) When an overt DP appears within Functional projections, (DP>IP), they take-on those

more formal aspects (features of agreement) typically associated with Functional categories.

- (iii) However, when an overt DP appears solely within Lexical projections, (e.g., DP>VP), they might simply take on those relative substantive properties having to do with the Lexical-Thematic Verb and VP.ⁱⁱⁱ

Regarding this possible distributional asymmetry of D, Chomsky's claim here would suggest that under the more formal D-feature account (DP>IP), substantive references of Ds must continue to be supplied nevertheless, in some other manner in the semantics (presumably at (or even above) LF). This amounts to saying that after any checking-off and deletion of formal D-features, the reference of D itself must remain visible at LF for reasons having to do with its substantive/semantic nature (Chomsky 1995:279). This leaves opening the question of whether or not [+Def] may nonetheless be active in a (DP>VP). (See below for an expanded treatment of this regarding [-/+Interpretable] D-features.)

The above arguments are tantamount to readdressing outstanding issues regarding the analysis of D. Firstly, if we assume the DP-analysis (cf. Abney), it remains unclear whether or not a determiner (e.g., *The*) should be analyzed as the Head (D) or Specifier of a DP. Secondly, an NP analysis for D still remains an option. An example of a similar dilemma is illustrated in Radford (1990:68ff) who claims that early possessors, like determiners, are in Spec-NP (e.g., *Mommy car*, *Dolly hat*, etc.) and not in Spec-DP. This analysis gives him a readily available account for the lack of Case (genitive 's) for such examples—i.e. the Case Filter was seen as being inoperative due to the lack of the case-marking functional category D. Attempts to redefine the nature of DP via its maximal projection and not by its inherent properties have been recently reported in Language Acquisition literature. In fact, two independent bodies of investigation, out of a small handful cited in the previous literature review chapters, claim such an interpretation for DP on both empirical and theoretical grounds. Theoretically speaking, Meisel (1994, 1995), while writing on Language Mixing, states that only those functional categories that universally host verbal elements (IP and CP), as opposed to functional categories that host strictly nominal ones (DP) obey 'Functional Constraints' on Mixing. Meisel goes on to give empirical evidence that DPs (within VP environments) have nothing whatsoever to do with language specific (tacit) knowledge. In other words, language mixing/code-switching that incorporates such DPs violates all known functional constraints on mixing. (See Chapter 7 on Code-Switching for a full discussion). Hence, DPs might not function in such a strict manner typically associated with Functional Categories. Paradis *et al.* (1996) likewise have claimed recently that the Definite DP system emerges relatively early in their data, coupled with the complete lack of any other type of functional projection. They give ample evidence to suggest that DPs and IPs are acquired independently of each other—'a Det could be omitted in a finite utterance and a nonfinite utterance could contain a Det' (op.cit:25).

In sum, Abney's (1986, 1987 op.cit.) important observation stating that functional categories generally tend to have 'affixal' natures—i.e., they tend to be bound morphemes which are attached to other categories (mostly lexical)—might be reexamined in the light of recent reports of the distribution of DP. In addition, Chomsky (1995:349) makes clear the notion that among the functional categories (T, C, D, and AGR), it is only AGR which can claim to be free of interpretable features: T, C, and D have semantic-based interpretable features which provide instructions at interface levels. In this broadest sense, Agreement, encompassing all notions of Case, is the formal category *par excellence*. Specifically speaking, English DPs (CPs as well: see §6.3.1) tend not to fall systematically into the affixal class (owing to their quasi-substantive make-up)^{iv} and, as a result, might well be classified as having a dual status: (i) a lexical-category status (i.e., having an objective/default value) when projected from a Spec of VP (=DP>VP); (ii) a functional-category status when projected from a Spec of IP (=DP>IP). More concretely, the above observation regarding the grammatical properties of DPs—i.e., the grammatical features which play a role in the syntax of a Spec-Head Agreement relation between the Subject and the Verb—might be further expanded into

notions of an asymmetry found between phi-features and Case (Chomsky 1995:278). (Determiners resemble adjectives in many languages and so could be taken to be adjectival at the prefunctional stage, thus forming a separate category of Determiner only at the point at which they acquire functional features (e.g. Case.))

Suppose Case differs from phi-features in that Case is always [-Interpretable]/ [+Formal], and hence in need of checking.

Suppose (grammatical) phi-features are indeed [+Formal (Functional)], though with an added stipulation that they may also be [+/-Interpretable] (See Chomsky 1995:277ff). The most likely candidate for a possible (D) [+Interpretable] phi-feature would seem to be ‘Definiteness’: this is based on its more ‘semantico-pragmatic’ referential properties. In principle, this may leave the remaining (D) phi-features (e.g., gender and to a lesser degree person/number) as possibly deriving the features: [+Formal/-Interpretable], and hence in need of checking. (Caveat: At the moment there seems to be no straightforward consensus on which phi-features constitute as interpretable features, just as there equally seems to be no consensus on which formal features have semantic properties. Nonetheless, we shall consider here Definiteness as foremost in pertaining to such intrinsic semantic properties. This judgment is based on data which tend to show that children universally acquire [+]Definiteness (features), such as the ostensive concrete-volition ‘here-and-now’, well before they acquire [-]Definiteness (features), correlating to the abstract ‘there-and-then’. Furthermore, the latter phi-features, unlike +Def, may very well consist of feature-properties that have to be checked on the corresponding functional Verb.) By pursuing this notion that definiteness is [+Interpretable], one can begin to reconcile ideas that some Determiners (those carrying only the [+Interpretable] +Def(initeness) feature and no other phi-feature) may be reduced to having an objective and/or default status: the idea being that such Ds might maintain some sort of inherent case given by a thematic V is also viable.

5.2 The Data

5.2.1 DPs

Empirical support for the above analyses of Definite Subject/Object DPs is widely borne out in my own data.^v The Determiner system for Definiteness is reported to emerge in the very earliest Files (starting with file 2: 1;10). The fact that they emerge way ahead of any unambiguous Finite INFL(ection) suggests there to be no correlation between the emergence/acquisition of Subject D(P)s and IP (See Data: Stage-2 below for arguments against any possible correlation between Object DPs and INFL). The findings suggest that children come to realize that the case-feature of D can be optionally applied in the syntax (morphology)—when it lacks Case, it is spelled-out as a Default Case form (in either Subject or Object position)—with no other phi-feature being specified. Consider some of the earliest Ds found in my corpus. (N.B. Ds are optionally omitted at this stage):

(4) Overt Ds (+Def/-T, -Agr) (Files 2-7 (1;10-2;3))

- | | |
|---------------------------------|--|
| a. <i>The dog</i> kick | *e. <u>I want</u> <i>the water</i> ^{vi} |
| b. All-done <i>the car</i> (VS) | f. <i>The dog</i> fall |
| c. <i>The door</i> broken | g. <i>The bottle</i> fall |
| d. <i>The car</i> fall | h. <i>The car</i> hurt |

Missing Ds (in required contexts)

- | | |
|---|--|
| i. kick [\emptyset <i>ball</i>] | *m. <u>I want</u> [\emptyset <i>car</i>] (see n.6) |
| j. kick [\emptyset <i>car</i>] | n. [\emptyset <i>apple</i>] fall |
| k. [\emptyset <i>dog</i>] kick (OV) | o. all-done [\emptyset <i>apple</i>] (VS) |
| l. [\emptyset <i>ball</i>] all-done | p. fall [\emptyset <i>car</i>] (VS) |

(5) Table 5.1Use of Ds in Required Context

(n.=100+ at VP-stage)

File 2 (1;10) 33%

File 3 (1;11) 83%

File 4 (2;0) 78%

File 5 (2;0) 91%

File 6 (2;2) 86%

File 7 (2;3) 78%

Status of IP: person, number, case(excluding use of copula *Be*)^{vii}

The features associated with (IP) are lacking in Files 1-7. However, one potential source of IP in my data is the use of \emptyset 1 prs/sg verbs, though ambiguously finite. Therefore, the use of Case is crucial and should be applied in determining the presence of IP (see §4.3.2 below).

Regarding the feature specification of ‘The’ in (4), it seems to be the case that only the definiteness feature has been acquired—for instance, Number and Case do not appear in the early Files (2-7) as stated in the in-note above. (The first marking of plural {s} does not emerge until well into the later Files).

Firstly, consider the feature Case. The most natural way to determine if Case had been properly assigned to ‘The’ (Spec of DP) would be to examine if the Head V(erb) is correctly spelled-out for its Spec features. For example, consider the following sentence: *The boys are reading the books*. The Spec-features of the Head V(erb) ‘are’ requires a Nominative specifier for its subject: ‘are’ [Spec=Nom]. (Schütze & Wexler 1997 (§5.2.2.1) claim that Nom case correlates with [+AGR]). In this sense, it is clear that the DP *The boys* must carry Nominative case—if it were to carry Objective case, the derivation would crash: **Them are reading the books*. Hence, it remains a feature of the Head (V) to determine if the case requirements of a Spec (D) are being met. The token examples in (4) cannot show whether or not case is specified in the above sense: all forms of verbs taken here are non-specified in all the crucial areas (i.e. the Spec features of the Head Verbs in question do not contain the relevant feature specification).

Secondly, consider the features Number and Person. They too rely on the Head V(erb) to determine the features; again, examples in (4) do not suffice. Taking the same sentence, the DP *The boys* must also carry [3Pnom] since the verb ‘are’ indicates P(lurality): **The boys is...* The 3person/plurality can be easily demonstrated via the binding of an anaphoric reflexive: *The boys read themselves / *ourselves / yourselves to sleep*.

Although the above analyses seem innocent enough, they do not naturally follow from the intrinsic make-up of DP itself: DPs can variably consist of either Nom or Obj Case (cf. *The boys read* vs. *I read to the boys*) singular or plural (cf. *The boys* vs. *The boy*). (Interestingly, regarding 3person, there seems to be no other variable option for DPs (cf. **The boy am/are*) DPs are intrinsically 3person: e.g., Kayne (1989) claims that only first/second person Pronouns carry person features, all others being personless. Also see Pollock 1997 for similar views). In consideration of the lack of Case features, ‘The’ would seem to be under-specified for case with the sole exception of the feature [+Definiteness]. Such a sweeping under-specification of Case (and possibly some phi-features) brings us to the question of how to analyze such structures. Suppose we are correct in stating that only the [+Def] feature appears on the early Ds in question. We then could run the two possible stories alluded to earlier, suggesting the following (taken from (1) §5.1, restated here as 1’):

- (1) (a) If ‘The’ is underspecified for Case, but specified for Def,
 then DP is in Spec-VP, hence (DP>VP).
 (b) If ‘The’ is fully specified for Case, and Def, etc.,
 then DP is in Spec-IP, hence (DP>IP).

(Thus, if functional categories are categories that encode uninterpretable features, Case looks to be the crucial feature which such items must show before they can be classified as functors/determiners.)

This amounts to saying that ‘The’ always appears as a Specifier of DP in spite of all other under-specifications—dispensing with the alternative notion that ‘The’ may remain in Spec of NP. The notion that Definiteness is well established relatively early in the child’s development increasingly favors the notion that Interpretable features of items come on-line at the onset of the early two-word/multi-word stage. Tense and Agreement Inflections on Verbs/Aux emerge around File 8 (2;4). The total counts of [+Def] DPs number well into 100 tokens (files 2-7). (See Nom Elements Table 2 in Appendix-1).

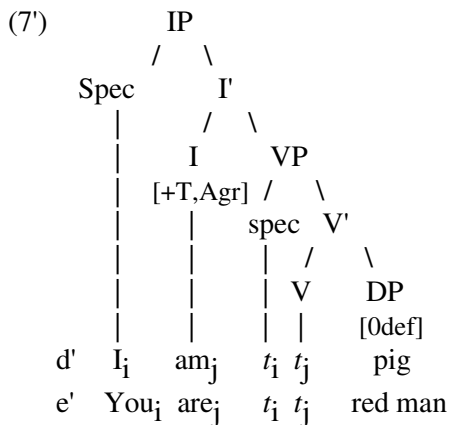
No Functional Categories. Though one might think that the No Functional Categories or Structural Deficit approach would analyze examples (4i-p) as simple VP-projections (since no functional categories are visible), examples (4a-h) could, however, be potentially analyzed as IPs owing to the presence of D(P). (Though recall that the very few early nominative constructions here (cf. *e) were considered as ‘semi-formulaic’ in nature: e.g., *‘I want+N’* (see note 6)). Based on an extreme and highly oversimplified view of the correlation, one could build a case, appealing to the Featural Deficit approach, suggesting that all clauses containing a D(P) must be considered as potential IPs, notwithstanding some feature non-specification of I, since functional categories (here being D) have come on the scene.

Such views, I believe, rely on a confusion that all types of Ds, regardless of their feature specification, must involve movement to a Spec-Head configuration within a Functional Category, be it I or AGR-S, AGR-O.^{viii} Chomsky (1995:262), however, is clear on this point regarding the biuniqueness of the phi-features of DP: regarding movement, although it is the case that all formal features of D(P) must involve movement into a functional domain (for checking purposes), such movements do not necessarily apply ‘across-the-board’ with respect to those categorial-features of D. In this sense, the phi-features of D resemble phi-features of N and do not require checking. Though Chomsky asserts that a sort of ‘pied-piping’ applies activating the entire DP to move along with one or a number of its formal phi-features (again, presumably Case is the leading motivation for movement), such pied-piping of the category works only when a formal feature of the category is obliged to move in the first place. In other words, nothing should force a ‘default’ or ‘inherent-cased’ DP to move, since none of its formal features are present requiring checking. This, in fact, is the case for a DP with only its [+Def] features specified (cf. DP>VP). In light of this, the same debate arises about how to accommodate (i.e., keep with principles of Economy, etc.) a seemingly functional category (DP) stripped of its formal Uninterpretable-features. Demonstrating potential pitfalls, consider how such inert-DP constructions (ex. 4a-d) might be analyzed via the two hypotheses under consideration:

Null DPs. While the above section examines the early emergence of DP, it remains incumbent on me to account also for the apparent lack of DPs in required contexts. It was noted in (5) (Table 5.1) that e.g., (file 7) had 78% correct overt Determiners—this obviously translates into the fact that 22% were also omitted. Moreover, the fact that Null/Non-specified DPs occasionally do co-occur within the overall (unambiguous) IP phrase (e.g. with Nom Case, Finite Verbs (cf. 7d-f), I think, lends additional support to the notion that no general correlation exists between the Case features of Subject-D(P) and AGR features of INFL. In accounting for Null DPs, the present model being envisioned here would maintain that D, similarly (and independent) to I, could undergo (autonomous) under-specification of its D features. Hence, as a consequence, erroneous Default/Objective Determiners (cf. §5.2.2.2 (17') for genitives) as well as a total omission of D itself may ensue. Consider the following token examples that show Null DPs:

(7) Null DPs

- | | |
|--|---|
| a. I want [DP \emptyset car] (file 7) | d. I am [DP \emptyset pig] (file 19) |
| b. I want [DP \emptyset plane] (file 8) | e. You are [DP \emptyset red man] (file 25) |
| c. I want to close [DP \emptyset door] (file 24) | f. She is [DP \emptyset baby] (file 25) |



The above analyses suggest that Def(initeness) is non-specified (0def) (viz., having no specific definiteness properties (Radford: class lectures)). This was taken as a natural extension of Hyams' account that sought to formalize the feature specification of D. The argument follows from the observation that the full Definiteness Paradigm involves a Ternary setting: (i) [+def] (e.g., *The boy*), (ii) [-def] (e.g., *A boy*), (iii) [0def] (e.g., *boy*). (Longobardi (1994) has argued that predicative nominals in the sense of (iii) [0def] can be NPs, contra the general DP-analysis espoused above.)

It is important to note here however that no consequential implications emerge out of analyzing such missing Ds as DPs with null heads (rather than simply analyzing them as bare Nouns/NPs). This follows from previous analyses (cf. §5.2) which suggest that no general correlation holds between IP and DP: that is, DPs could be equally analyzed as a functional category (whenever associated with IP via Case) or, alternatively, as a lexical category (whenever associated with VP via default). Again, as stated above, this account suggests that a DP becomes a functional category only at the point when it contains an uninterpretable feature that has to be checked by INFL (Case being the most likely candidate).

A number of complications arise from the above cited non-correlation. For instance, as in the adult syntax, the child's syntax can generate those specific features that fall under the D node: e.g., definiteness/number/person/gender. However, unlike the adult syntax, in child syntax one or more of the feature specifications can remain under-specified. The lexical entry specifies the features that

items can carry—for instance, suppose ‘The’ = [+Definite]. This amounts to saying that whenever the lexical entry ‘The’ is inserted under the D node, only the ‘definite feature’ will necessarily be present: i.e., the +Def feature will manifest irrespective of number (plural or singular), gender (masculine or feminine), or case (subjective or objective). (I leave open here the issue of whether or not ‘The/A’ carry inherent third person or is personless. Similarly, although $A = [-\text{Def}, \text{singular}]$ its distribution of features would remain similar to ‘The’ as stated above.) In the above sense, ‘The’ strictly means ‘presence of definiteness’, but may tell you nothing of the specification of other possible features: namely, [+Def], being the sole feature of the child’s lexical entry, will not identify with features that remain under-specified within a D node.

The above notion of feature specification should lead to a number of predictions.

First, the absence of the child’s Determiner (*The*) should always mean the under-specification of Def. Conversely, its presence should always indicate Def.

Second, regarding the specification of number, as it is related to D, count nouns may carry number while still being under-specified for Def. For instance, when a child omits a determiner and says e.g., *I want car* (cf. 7a), *car* might, in theory, only be marked for number (Sing). (The same distributions of feature specification would likewise hold true for the possessive ‘S’ under the D node for genitive constructions (see below)).

5.2.2 Case

5.2.2.1 Nominative/Accusative Structures

Distribution of Nominative/Accusative Case. INFL/Case reports taken from my Data-base suggest there to be Two Developmental Stages of Case assignment: (i) an early, predominantly Non-INFLection/Caseless-Stage where mostly nominal elements are used and (ii) an Optional-INFLection/Case-Stage where Case assignment is seen as fluctuating between two usages: Nominative vs. Accusative (default).

Stage-1. The main characteristic of ‘Non-INFL Stage-1’ is the evident lack of any overt Case assigning Agreement (or Tense). Specifically speaking, all of the utterances found between files 1-7 (age 1;9-2;3) use either (i) Caseless Nominals, [N+N] Genitives (cf. ex. b,c),^{ix} or demonstrate some sort of Semi-formulaic Nominative construction (see note 6); while (ii) Inflections (e.g., 3per/prs. +S, Past Tense *-ed*, and Possessive ‘S’) are left omitted (see §5.2.3 for Tables). Consider the following token examples taken from files 1-7:

(8) Case: Files 1-7 (1:10-2;3)

Caseless

- a. Daddy go (file 2 (1;10))
- b. Daddy truck (Gen) (file 3 (1;11))
- c. Daddy shoe (Gen) (file 3)
- d. Mommy kick (file 5 (2;0))
- e. The car fall (file 5)
- f. (*e*) kick ball (file 2)
- g. (*e*) is a cat (file 2)

Semi-formulaic: *Iwant+N*

- h. *Iwant* shoe (file 6 (2;2))
 - i. *Iwant* this (file 6)
 - j. *Iwant* car (file 6)
 - k. *Iwant* ball (file 6)
- (=IPA / ay:wa / +N)

(8') Table 5.2 Subject, Object, Gen. Case Marking: Files 1-7 (cf. Appendix-1 Table 5a)

<u>Age/</u>		<u>In Nom context</u>		<u>In Acc context</u>			<u>Gen</u>		(N+N)
		<u>Total #Nom</u>	<u>Nom</u>	<u>Acc</u>	<u>Total #Acc</u>	<u>Acc</u>	<u>Nom</u>		
1;10	n=	0	0	0	n=	0	0	0	
1;11		1	1	0	0	0	0	0	2
2;0		0	0	0	0	0	0	0	
2;0		1	1	0	0	0	0	0	
2;2		2	2	0	0	0	0	0	6
2;3		5	5	0	0	0	0	0	

A total of 9 Case (stereotype) constructs were reported among Stage-1 files: 1-7 (1;9-2;3), all exclusively showing 'correct' Nominative *I* contra the relatively late emergence of Accusatives *Me* found in file: 11 (2;5). (But see note 6). (Acc Case typically is the first case realized by the English speaking child.)

In examining the data, it is indeed very difficult to determine whether or not the child has developed any sort of Case System at all in these early files. It is however interesting to note that the data differ from Radford's and Vainikka's findings (op.cit.), in that (with my data) no overt Genitive or Accusative markings seem to appear at stage-one (correctly or incorrectly). The examples of early (N+N) Genitives are not marked (cf. 8b,c). (Recalling that Radford reports the first emergence of Case to be predominantly Objective/Accusative with some sporadic incorrect usage of Genitives; I might liken such a stage to my Stage-2 (Optional-INFL stage) as described below.) The semi-formulaic strings of Nominative '*I*want+Noun' likewise remain inadequate for the determination of formal Case here. Since '*I*' specifically combines only with '*Want*', it may be that a lexical-thematic property of '*Want*' assigns a Nominative Case Experiencer θ -role to its external argument (in Spec-VP) (cf. Budwig 1995). (See note 6). One very interesting correlation which may verify the formulaic make-up of such strings is the observation that no Case errors or overgeneralizations are seen to emerge in this first stage (files 1-7). The observation that the stage is predominantly 'error-free' increases the likelihood that, indeed, no real productive case system has yet been developed. (The fact that abundant case errors emerge with File 8, I think, eventually signals the real onset of a formal case system for the child). Similarly, the emergence of what otherwise seems to be evidence for an IP warrants some scrutiny. All instances of the early Copula '*Is*' (cf. 8g) may make-up formulaic Copula+Subj (VS) strings and entirely lack any productivity (see §3.4). (See note 7).

Following, then, the notions previously laid out in Chapter 1 regarding 'Principles of Economy of Representation' (Chomsky 1989), 'Minimal Lexical Projection' (Grimshaw 1993a,b), etc.; the No Functional Category/Structural Deficit Approach (cf. Radford, Vainikka) seems to be the most plausible alternative in describing such an initial Caseless stage. Otherwise, we would be forced into making a number of unwanted assumptions: most notably, given a fully-fledged Case system is attributed to IP, the unwanted assumption would be that all phrases (IP, and possibly CP) would equally project regardless of whether or not their Heads are lexically (or vacuously) filled.

It is at this juncture, and for the above stated reasons of Economy, that we adopt the 'No Functional Categories Hypothesis' for describing our very earliest Stage-1 (files 1-7) as it pertains to INFL and Case development, eventually resorting to the Feature Deficit/Optional-INFL approach in order to account for the later files which make-up our Stage-2 (files 8+).

The benefits of acknowledging such an early Stage-1 are two-fold and will become clearer as we move on—as it holds important consequences for how we will later deal with the questions of Bilingual Language Separation (Chapter 7). In acknowledging such a stage, firstly, we can uphold the position that only lexical categories (Ns, Vs) project with the added stipulation that DP>VPs may occur as a lexical projection. Secondly, a Non-INFL/Pre-functional Stage-1 holds consequences for word orderings and parameterizations (cf. §3): since no functional categories are present, movement operations are disallowed. Thus, any variant word ordering must be derived via base-generation.

Let me be clear on one point, however, before moving on to Stage-2. It does not necessarily follow that in endorsing such a stage-1, I, in the process, falsify the Under-specification Hypothesis (represented here as stage-2). It is my understanding that the Feature-Under-specification Stage (i.e., Optional-Infinitive stage, cf. Wexler) is meant to capture the notion of optionality of feature projection. In order for an OI-stage to exist, by definition, the particular feature has to have at least emerged at some point within the general clausal development of the child. In other words, where the ‘acquisition’ of a certain feature has taken place but perhaps where the ‘mastery’ of the feature projection/realization has not yet been achieved by the child. (In the above sense, the one-word stage, with no syntax or manifestation of features of which to speak, most certainly could not be described as an Optional or Under-specified Stage in any sense of the term being applied here). The Structural Deficit Hypothesis, however, establishes that an early (multi-word) stage indeed exists prior to Under-specification where Under-projections of Features/Categories manifest. I believe my stage-1 represents such a stage. Furthermore, clear evidence has been given to suggest the validity of a Subject VP-internal Stage-1: evidence taken from the early placement of Negation (§4) demonstrated that the Subject had to be in Spec-VP. If we were correct in assuming the Optional/Under-specification stage throughout, we would need to account for such Neg initial constructions. This observed Non-INFL stage-1 might be described as the first phase in a Structure-Building model of language acquisition:

[C]hildren’s initial clauses are VPs; later they form extended projections of VP into IP (resulting in IP>VP structures); still later they form a further extended projection of VP into CP (resulting in CP>IP>VP structures. When extended projections are first formed, they are optional: hence, children in the early IP stage alternate between IP>VP and VP (Radford: class lectures, '97). (See 6.2. for an alternative CP>VP stage-1 phase).

Stage-2. The frequency counts of the ‘Optional-Infinitive Stage’ (OI) that mainly consists of files 12-17 is presented below in (9) Table 5.3.^x

(9) Table 5.3

Subject, Object, Gen Case Marking: Files 12-17 (2;6-2;8) (Appendix-1, Table 5a)						
		In Nom contexts:		In Acc contexts:		
		Nom Case	Acc Case	Acc Case	Nom Case	
Files:	12	n= 33	9	n= 2	0	
	13	52	20	13	0	
	14	48	8	9	0	
	15	39	15	9	0	
	16	45	9	14	0	
	17	51	19	20	0	

The widely reported Subject/Object asymmetry, as evident in the literature, is likewise borne out in my data. As the far right column points out, there are no reported instances of Nominative Case being wrongly assigned in Accusative contexts. However, the converse is evident. In all but one of the Accusative Case error examples, the verb is either ambiguously marked for finiteness (e.g., *Me work*) or is overtly nonfinite.^{xi} Some token examples of (9) are given here in (10), and are analyzed accordingly in (11):

- | (10) <u>Nominative Case [-T/+Agr]</u> | <u>Default Accusative Case [-T/-Agr]</u> |
|--|--|
| a. He cut the tree (=pres.) (file 21: 3;0) | e. Me kick (file 13: 2;6) |
| b. I play a water (=past) (file 23: 3;3) | f. Me eat (file 17: 2;8) |
| c. He get a bat (file 24: 3;4) | g. Me get it (file 21: 3;0) |
| d. He do it (file 25: 3;6) | h. *[What] him doing? (3;6) |
| | i. Him gone (file 25: 3;6) |
| | j. Him eat (file 25: 3;6) |
- (*see ch.6 for a CP>VP analysis)

(11)	IP (IP-Utilization)	(IP-Structure) (IP) (= -AGR,-T)	
	/ \ Spec I' / \ I VP [+Agr,-T] / \ spec V' / \ V D(P)	/ \ Spec I' / \ I VP [-Agr,-T] / \ spec V' / \ V D(P)	
a.	He _i t _i cut the tree (present)	e.	Me _i t _i kick ---
b.	I _i t _i play a water (past)	g.	Me _i t _i get it
c.	He _i t _i get a bat	i.	Him _i t _i gone ---

In (11a-c), IP is both well ‘Structured’ and ‘Utilized’ due to the correct usage of abstract Nominative Case (contra (11e-i)), an assignment that typically is done via movement into a Spec-Head relation with INFL (but see Pierce (*ibid*) for an alternative account). The Subject is seen as moving out of Spec-VP in order to check-off its Strong AGR-Case features (presumably its strong D-feature in accordance with EPP). It must be said that the Nominatives/Accusatives reported here at stage-2 are fully productive, i.e. the Nom paradigm *I/You/He-She* is complete along with its optional agreements, unlike what was seen in stage-1 where only a sampling of the stereotype ‘*Iwant+N*’ along with no Accusative Case markings were reported. Moreover, unlike stage-1, the correct distributions of Nominative and Accusative Subjects in stage-2 surely suggest that the Case system has emerged. One can now tentatively conclude, by these observations alone, that stage-1 is without Case. The overriding questions (i) how the child unlearns this rote-learned Nominative and (ii) how she eventually obtains the proper Case-driven (Nominative) grammar can only hope to be answered by a fuller understanding of the intrinsic modules of the brain which underpin these distinctions between the two stages (*viz.*, thematic-lexicalism vs. functionalism for stage 1, 2 respectively)—questions that go to the heart of the dual mechanism model introduced in Chapter 1. Let it suffice to say that though we have no clear picture (to-date) of how the child initially processes her language (be it by semantic bootstrapping or by other cognitive means), we can, I think, nonetheless say that the child (by stage-2) has now seemingly ‘turned-on’ her formal grammar much in the same manner as the adult.

Of course, the typical debate ensues regarding whether or not Default Accusative Case constructions without Tense ([-Agr,-T] cf. 10e-j) should be analyzed as an IP (with Tense and Agreement unspecified). It is apparent that at stage-1 they do not. However, conditions placed on Structural Uniformity would lead one to suppose that once a functional category has been acquired (at LF), they henceforth must structurally project (at LF). (Structural uniformity however may not hold at PF where, as discussed above, partial structures may split with one half projecting at PF, the other at LF). Thus, by definition, the OI-stage describes all projections (minimally) as IPs (at least at LF) notwithstanding feature under-specifications having to do with IP itself. Moreover, a second issue remains outstanding here regarding the exact positioning of such under-specified Subjects at the OI-stage (see discussion below).

In maintaining an IP-Structure contra a full IP-Utilization—since default case is assumed for examples (10e-j)—we keep within the spirit of the Under-specification model as mentioned above. Proponents of Structural Uniformity would rightly argue that if some clauses are IPs (at stage-2), then all must be (at least) potential IP-structured projections (at stage-2). However, we are faced with the dilemma in how to reconcile our decision that the (Default/Acc-Cased) Subject moves into Spec-IP/TP, (since there is clearly no movement for purposes of checking). One important implication here, regarding an abstract IP, is that there may be some motivating factors having to do with an IP-driven

T(ense) operator (Chomsky 1995). Speaking directly to the uniformity condition (as mentioned above), some support is gaining in favor of positing that IPs must always project (at LF/PF) once IPs are acquired (but not necessarily mastered) by the child (at LF/PF). This follows from the fact that unlike a weak [-Agr], which basically reduces to a non-Agr [0Agr], AGR crucially and exclusively depends on strong features for its existence—the D-feature of T essentially remains strong (once initiated) throughout a given derivation. (This distinction of permissible strength variance between T and AGR may be due to the nature of EPP, as well as with the semantic nature of T itself.) In other words, T elicits and obliges its Spec position [Spec-T] to be filled by a strong D-feature. Chomsky (ibid:282) notes that while the EPP may be divorced from Case, all values of T (weak or strong) induce the EPP in English—i.e., TP can project ‘infinitival’ as well as ‘null-cased’ clauses.^{xiii} Arguably, once a Spec-T/IP has been projected at LF/PF by the child, the category [T] must thereafter remain at LF/PF. The fact that, at the OI-stage, the child may treat T as under-specified only refers to its feature strength; the functional category [TP] however remains intact within the phrasal projection (e.g., TP>VP) with its feature labeled as [T-weak]. Hence, I show subject movement out of Spec-VP to capture this theoretical strong D-feature operation while, for all intents and purposes, not committing myself on any further real utilization *per se* for the IP. Moreover, in support of the abstract IP analysis for stage-2 here, it has been suggested in the literature that children may not initially set feature strengths correctly at the OI-stage: i.e., whereas, if in the target grammar the relevant feature is strong, children may initially set the relevant feature as weak or optionally strong: (alternatively, a default mechanism may initially set all UG-P(arameterized) feature values as non-specified or weak [0/-UG-P] from the outset, awaiting further input). In short, there may be implications here for how we could account for observed Subject VP-internal structures seemingly at the Optional-Under-specification IP-stage. Since a weak AGR has been selected (cf. 11e,f,g) morphological movement might not be attracted to it. Firstly, *AGR can only exist when it has strong features* attracting only overt movement—AGR cannot attract covert movement (cf. Chomsky op.cit:351). Secondly, however, since Tense is obliged to project regardless (at PF or LF), the Subject may covertly raise at LF (within Spec-T as seen at the VP-stage) where T may or may not maintain a strong nominal D-feature.

Regardless of the convoluted pondering over covert/overt operations concerning the Subject here (e.g., AGR-S, Spec-TP, Mult-Spec, etc.), the overall structure nonetheless must project a partially-fledged IP (via TP). In other words, since the T component of IP (in the Pollockian sense) has already been established at this stage-2, a reduced VP-stage (as seen in stage-1) cannot suffice. This is the crucial distinction between my stage-1 (where no IPs were reported at all) and my stage-2 (where the acquisition, albeit not the mastery of IP was postulated). In sum, this has the flavor of saying that although all feature operations may have their initial locus at LF—only in the sense that ‘procrastinate’ seems to prefer covert operations to overt ones—there is an added stipulation which states that once an IP projects overtly at PF, creating a functional checking domain, all subsequent clauses thereafter must theoretically project an IP (albeit minimally via TP). Again, if AGR were to have no strong features at LF, PF considerations would give no reason for it to be present at all (Chomsky op.cit:351). Therefore, the stipulation of T suffices to force us into projecting an IP for (10e-j), even though the relevant features/categories of the clause seemingly project a VP. The distinction of duty between overt and covert movements may be expressed by the fact that overt movements need to carry along whole categories for PF convergence (i.e., there is no sense describing a covert PF as there is no feature strength distinction having to do with phonological features), while in covert movement features raise alone. Hence, once an XP has been acquired (at PF) by the onset of the category <x> being carried, the established XP is in place and avoids vacuous projections at all expense.

The Roles of AGR vs. T. The roles between AGR and T can be further reduced. Recall that the majority of early Nominative Case usages found are among ambiguously marked finite/nonfinite structures. Among such early constructs, a minus-Tense/nonfinite interpretation makes the most sense. There are two clear reasons for this. Firstly, at the onset of verbal 3sg Nom Case constructions, the present tense marker +S is left out (as in 10). (See §5.2.3 for Tense). Secondly, in Double-Verb (SVV) constructions, e.g., Infinitive constructions with a Nom Case, the infinitive particle ‘to’ (which arguably has anaphoric/infinitival tense and is matrix-bound by INFL) is always missing. In fact, the infinitive particle ‘to’ does not seem to emerge until late in File 23 (3;2); however, when it is used, the matrix clause shows proper tense. An argument can be made that when there is no ‘to’, there must also be no tense in the matrix INFL to bind T in the complement clause. In other words, although AGR(eement) is realized on the Nom subject of these Double-Verb constructions, the main verb’s T(ense) is assumed to be under-specified [-T]: much in the same manner as the infinitive particle ‘to’ is assumed not to project. Consider such early examples of [-T/+Agr] SVV constructions:

(12) Nominative SVV [+Agr/-T] with Infinitive ‘to’ omission:^{xiii}

- | | | | |
|-------------------------------------|----------------|---------------------------------------|----------------|
| a. I want \emptyset kick | (file 8: 2;4) | d. She going \emptyset touch my man | (file 23: 3;2) |
| b. I want \emptyset cook | (file 14: 2;7) | e. You want \emptyset help me? | (file 22: 3;0) |
| c. He want \emptyset hit a spider | (file 22: 3;0) | f. I want \emptyset write | (file 24: 3;4) |

Let us embark on Schütze and Wexler’s (1996), Schütze’s (1997) discussion that seeks to analyze *inter alia* the Present Tense +S suffix as unambiguously signaling the presence of tense and agreement. Such a description would predict Accusative subjects never to occur with the suffix {+s}. For example, Wexler points out that the combination *Him cries* is unattested. However, in my own data, and in a wide array of literature found elsewhere (e.g., Huxley (1970), Aldridge (1989), among others), such combinations are in fact reported. One interesting way, though, in which we could save Wexler’s elaborate paradigm would be to suggest that the English suffix+*s* does not mutually signal T and AGR, but rather exclusively signals Tense. The suffix+*s* would then have no overt bearing on Agreement at all (i.e., AGR simply remains indifferent to the suffix+*s* due to the nature of an ‘invisible agreement assigning mechanism’ in English (e.g., *He/She cry* [+Agr, -T], Schütze *et al.* op.cit:9), though it may coincidentally sit among the presence of the Tense marker *suffix+*s** for 3sg.^{xiv} Consider the revised *suffix +s* paradigm below:

- (13) Suffix +S=>
- | | | |
|------|-----------------------------------|-------------------------|
| I. | <u>+Marks Tense</u> ^{xv} | (Radford: lectures '97) |
| a. | Him cries | (-Agr) |
| b. | I works | (+Agr invisibly marked) |
| II. | <u>-Marks Agreement</u> | |
| c. | (He cry) | (+Agr invisibly marked) |
| d. | He cries ([+T], | (+s doesn’t mark Agr) |
| III. | <u>+Marks Tense</u> | |
| e. | He cries | (+Agr invisibly marked) |

Furthermore, following Radford, if we assume that some children have the following entries for subsequent inflections:

- (14) a. +*d* if past tense
 b. +*s* if present tense
 c. \emptyset otherwise (perhaps as a universal default)

and, if we assume (*pace* Schütze 1997) that T and AGR are not fused together and optionally projected at PF, we would then expect to find the following paradigm of early utterance types (features in brackets are those features carried by the Verb/INFL):

(15) Non-Fused T/Agr Paradigm

- | | |
|----------------------------|--|
| a. I/He cried =>[+T,+Agr] | e. Me/Him cried =>[+T,-Agr] |
| b. I cry => [-T*, +Agr] | f. Me/Him cries =>[+T,-Agr] ^{xvi} |
| c. Me cry => [-T*, -Agr] | |
| d. I/He cries =>[+T, +Agr] | |
- (* no indication of Tense--used both in past/present contexts)

Noting in (13) above the phonological sameness of II and III with regards to *cries* (ex. d, e), it remains impossible to tell in English whether or not only Agreement projects (as opposed to both agreement and tense) regarding the suffix *+s*. However, what we gain by postulating example (c) in II (illustrating no potential correlation between the suffix *+s* and +AGR) is an added feature in I which now can indicate a potential T(ense) without AGR(eement). In treating the suffix *+s* in such a restrictive manner, a feasible account can now be developed showing how a T feature (*+s*) could be omitted, whilst Nominative Case via invisible Agreement is maintained [-T, + Agr]: e.g., *He get a bat, He do it, etc.* (cf. (10) above). (Here, Agr-features on I are checked by the Nominative Subject, and vice versa). Theoretically speaking, the converse then holds with respect to utterances containing [+T, -Agr]: e.g., *Him goes, Him cries, Him is hiding, me walked, me broke, etc.*^{xvii}, all violating the D-I correction (cf. 1a), though Wexler argues against this. (Wexler makes the claim that only the {*+s*} suffix, and not the {*+ed*} suffix, is associated with person/number features as well as tense.) Nevertheless, we may wish to claim here that while the {*+s*}, {*+ed*} specifically mark Tense, they fail to signal any Agreement, prompting rather a Default Agreement marker.

Similarly, examples of an over-generated/default suffix *+s* may likewise be interpreted in ways which attribute {*+s*} particularly to Tense only and not Agreement: (though AGR is correctly marked by the Nom Subject in 16a-c). Consider the following token examples of the first emergence of {*+S*} (file 23) found in my Data:^{xviii}

- | | |
|--------------------------------|---|
| (16) a. I works (file 23: 3;2) | g. Where is you? (see Table 5.6 and §5.2.3) |
| b. I hurts (file 24: 3;3) | h. Here is me (file 24) |
| c. I makes (file 25: 3;6) | i. You is done (file 24) |
| d. Him cries (file 25) | j. You is no nice (file 24) |
| e. Him is hiding (file 25) | k. This is your books (file 25) |
| f. Him not (file 25) | l. Him is my friend (file 25) |

- (16')
- | | | | | |
|------|-------------------|---------------------|--------|--|
| | IP | | | |
| | / | \ | | |
| | Spec | I' | | |
| | | / | \ | |
| a/c> | [+T,+Agr] | VP | | |
| d-j> | [+T,-Agr] | / | \ | |
| | | spec | V' | |
| | | | / | \ |
| | | | V | (N) |
| a'. | I _i | t _i | works | --- |
| c'. | I _i | t _i | makes | --- |
| d'. | Him _i | t _i | cries | --- |
| e'. | Him _i | (is) t _i | hiding | --- |
| h'. | You _i | (is) t _i | done | --- |
| k'. | This _i | (is) t _i | your | <u>books</u> (Non-Agreement for plural { <i>s</i> }) |

An additional point to make here (giving further empirical support to the above claim) is that we observe {+s} as only marking T and not number AGR—i.e., the plural marking {s} on the Noun (*book*) escapes verbal Agreement (*are*) (cf. 16'k). The suffix {+s} in such examples (albeit few in number) might be interpreted as described above: specifically, while the suffix {+s} does not project its proper person/number AGR-features—e.g., resulting instead in an impermissible 1sg Nominative (cf. 16a-c) (in ways similar to e.g., *Him cries*)—it does however project a sort of default present tense. An overgeneralization of the {+s} may be construed in the light that the present tense suffixes on 1,2sg/1,2,3pl main verbs must be represented by a null constituent [∅]. The fact that Nominative Case is assigned nevertheless under such a confused state, I think, goes to the heart of the issue that the suffix {+s} plays only an overt unitary role and not a dual role for the child (i.e., it exclusively marks tense)—with the assumption that Agreement may be marked incidentally by an invisible agreement mechanism (in English): (e.g., *I/You/She/He/We/They hate syntax*).

In sum, it is clear at this stage that the child has acquired the +Interpretable Tense feature of {+s}, so [S] is used whenever INFL has [+T present]. (Unlike the adult specification that calls for {+s} iff +3Per-Sing-Pres, the child's entry of [s] only refers to the feature present tense and may not initially relate to person.) But INFL may optionally project AGR features as well. Whether or not INFL projects an Agreement feature [present +AGR] or [present -AGR], {+s} will continue to be used regardless of AGR. The fact that the child may have access to AGR, as signaled by the case of the subject, speaks only to the notion of the Agreement mechanism itself as cited above. Moreover, the earlier observation that certain aspects of Tense may actually be acquired earlier than AGR, I think, reinforces the previous notion put forward that children may first acquire (semantic) +Interpretable features (Tense) of the suffix {+s} and only later do they come to acquire its -Interpretable features (Agreement). (See §6.3.1 for discussion of +/-Interpretable features alongside Merger Theory). This Discontinuity between the child-adult grammars may stem from this notion that only +Interpretable features come on-line at the earliest OI-stage. In this sense, the improper +s in (16') is restricted to T and therefore does not involve itself with the (invisible) Nominative assignment mechanism [+AGR].

Recall at the end of (§5.2.1), we discussed the possibility that IP may split into two merger operations, merger at PF and merger at LF. The above analysis of {+s} as a Tense feature here further adds empirical support to that notion: examples in (10) a. *He cut the tree*, c. *He get a bat*, d. *He do it* demonstrate an AGR-SP [assigning Nom case] merging at PF while (the root) TP [Tense operator] is covertly functioning at LF. Again, one crucial advantage for categorizing +S here as strictly a Tense feature (and not a hybrid of T&AGR) is that we can achieve clear-cut derivations of T and AGR merger operations at either level of PF/LF (assuming TP to be super-ordinate to AGRSP in accordance to Chomsky's position that any LF merger operation would occur at the root).

As an interesting side-note (pointed out to me by Radford p.c.), these assumptions are consistent with what we know about 'South-Western British English' which over-generalizes the {suffix +s} throughout the present-verbal paradigm: (cf. *I/We/You/She/They hates syntax* (Radford 1997ms Ch. 10: p7)).

5.2.2.2 Possessive Structures

The following section is organized as follows. (i) Regarding a Stage-1, I claim that this initial stage manifests No INFlections whatsoever: contra Wexler, I find no clear evidence of Optionality. I then proceed to compare and contrast the data (presented in Tables 5.4 & 5.5 below), serving as a means to illustrate this Non-INFlectional Stage-1 vs. an Optional INFlectional Stage-2. (ii) In acknowledging a Wexlerian Optional-Stage for our second stage, I put aside general issues of Optionality and proceed to shed further empirical light on a generally accepted hypothesis that No Correlation necessarily holds between D and I outside the appropriate checking domain: (e.g., no correlation should hold between a lower Object-DP and INFL).

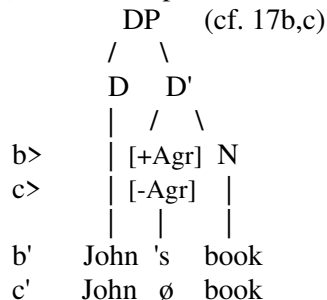
Previews. Stage-1 (Files 1-7: ages 1;9-2;3) (see *Data* section below) suggests a Pre-functional Stage (an early stage which preexists under-specifications). Only N+N (Genitive) constructions are used to indicate possession. The emergence of a very small set of (non-verbal sentence fragment) *Me/Mine* DPs starts with Stage-2 (file 8: age 2;4). (However, the usage of the definite determiner *The* is fully productive from the earliest files (cf. §5.2.1)). The early variant usages of *Me/Mine* as pronominal genitive possessives (e.g., *me car*, *mine car* (my car), file 8) may indicate that (i) these early Poss(essive) Nom(inals) are analogous (in respect to feature deficits) to the robust early usage of Accusative Determiner *The* (files 1-7) (i.e., they comprise of Default Case without their formal features of Genitive Case); or (ii) that they indeed indicate the first instances of the acquisition of case (particularly with the early use of contrasting *my*) since they do appear in the very beginning of Stage-2 (file 8).^{xix} In considering (i) above, a ‘cross-the-board’ classification of all DPs (generically) at this stage would possibly mark for +Def(initeness) only. In this sense, the young child may freely alternate between *The* & ‘Analogical-*The*’ *Me/Mine* Ds for the following type of logical expression: e.g., [DP D [+Def] +N]; as in *The-Me/Mine book*, etc. (This amounts to saying that there is no clear-cut distinction or reference of Possession for the child at this initial stage-1.) The above analysis suggests that while the earliest type of genitive nominals may be bare forms (as in *me/my*), the notion of Case may not be acquired by the child until a correct *Me/My* contrast is achieved. It is in this sense that the child may await tactic separation of the two forms (occurring at file 8), and both may equally constitute as defaults. There is some preliminary evidence to suggest that the child’s early (over-generated) use of e.g., *Mine’s* (found in my corpus) may indeed be accounted for in such a manner [DP Mine [D 's] [N book]].^{xx}

In short, while *Me/Mine* & *My* examples may be attested at the very onset of our Stage-2 (file 8), we may not expect the overt morphological marking of Possessive ‘S’ to occur in such an early pivotal file, whereas such marking would be a clear indication of the acquisition of Case/Agreement morphology. (This is empirically borne out: the first signs of the productive usage of possessive {‘s} come in the very latest files. See Stage-2).

Theory. Let us pick-up on Hoekstra *et al.*’s observation of a D-I correlation (cf. §5.1). Although Hoekstra *et al.* take the ‘Definiteness Feature’ of the Subject as the specific feature deficit responsible for the unspecification of DP (Number being utilized as the main deficit of D leading to null subjects/under-specification of IP), we can naturally expand this notion of Definiteness to the +Agreement feature in Pronominal Possessive D(P)s. This extension is made feasible by Abney’s (1987) seminal work which argues that possessive nominals are in fact DPs Headed by a null determiner which carries the formal Uninterpretable/+AGR(eement) property. Thus, following Radford (class lectures 1997), (and keeping with the spirit of Abney (*ibid.*)) a specified DP phrase in (17) below could have one of the following two structures (17a/b) (17c illustrating either the non-functional VP-stage (i.e., [0Agr]) or the under-specified IP-stage (i.e., [-Agr]):

- (17) (a) [DP John’s [D [+Agr]] book]^{xxi} (cf. Radford 1997)
 (b) [DP John [D ‘s [+Agr]] book]
 (c) [DP John [D Ø [-Agr]] book]

(17’) DP Underspecification of AGR



I henceforth follow Chomsky (1995:263) and favor the structure in (17b) over (17a) where the possessive 'S positions within the Head of D where it checks its Agreement properties. In fact, the checking of possessive {'s} here is an anomaly of sorts. For instance, the idea is that {'s} must somehow check its lack-of-person features with the nominal in Spec. Since Nominals do not typically carry case (cf. the non-contrast of John_a, John_b and John_c potentially deriving Nominative_a, Accusative_b and Genitive_c respectively) it is not at all straightforward what kind of case we are considering here. Well, suppose that one way of accounting for the ungrammaticality of e.g., **My's book/Him's book/Her's book* etc. is to say that (i) possessive {'s} cannot have a specifier with person properties and (ii) {'s} must mark agreement with a DP rather than simply a D: (The latter stipulation may account for the following contrasts: **Your's behaviour was bad* (Spec=D), and *You three men's behavior was bad* (Spec=DP). In other words, this amounts to saying that {'s} first checks for Nominal (default) personless-case feature (e.g. John [-Per]) and is exclusively associated with non-pronominals. Only when this personless feature is checked will the Specifier carry genitive case. (Hence, in structures such as e.g., *Daddy \emptyset car, John \emptyset book* (cited below), it is said that the Spec does not carry Gen Case, dispensing with the notion that a bare case may be involved.) In a paradoxical sense, +AGR (cf. 17b) might actually mean the formal checking-off of a minus AGR-personless feature [-Agr].

We draw our attention here to the utterance *John book* (Gen) (cf. 17c) regarding the pre-functional stage-1 below. In (17c), the Head of DP is vacuous. The above token example is taken from my stage-1 and typifies this structure. The claim made here is that while early (non-specified) DPs contain a Specifier and a Complement, their Heads can be void of any morphological material. The reasoning behind the claim that a DP projects here, as opposed to the more traditional NP-analysis for N+N (Gen) constructions at this stage, is twofold in nature. Firstly, (cf. §5.1) I argue for a two tier class of DPs: a DP>VP (which has a lexical categorial status), and a DP>IP (which has a functional status). Secondly, the DP-analysis here is consistent with the earlier observation that early Determiners may be initially miscategorized as having lexical category status (cf Radford 1990). In addition, as cited above, we might account for the overgeneralization of e.g., *Mine's book* in exactly this way. Moreover, I shall take the hard stance (following Abney) and suggest that once the Determiner *The* is acquired (cf. §5.2.1), at least a [+Def] DP must project (albeit with feature deficits). Hence, consider the token examples below taken from the pre-functional stage-1 (files 1-7/8):

- (18)
- | | | | | |
|----|---------|-------------|-------|--|
| | | DP | | |
| | | / \ | | |
| | Spec | | D' | |
| | | | / \ | |
| | | [-Agr/+Def] | | Comp |
| a. | Daddy | \emptyset | truck | => N+N (Genitive) Det. (zero marked) |
| b. | ----- | The | truck | => The Det. |
| c. | Me/Mine | \emptyset | truck | => Me/Mine Poss Nom. Det (zero marked) |

In the above structure, the AGR feature [-AGR] is absent altogether from the [F]unctional Head. However, since +Def projects (the feature being closely associated with Determinacy), the overall DP projects. Such default DPs at this VP-stage have the same default case properties (though for different reasons) as their counterpart DPs within adult small clauses, where the Verb in the matrix clause formally assigns Objective Case (via ECM):

- (18') a. I consider [*sc=daddy's truck* a safe vehicle]
 b. She doesn't want [*sc=the truck* in the garage]
 c. I'll have [*sc=my truck/mine* looking clean]
 d. I believe [*sc=*he/him* worthy of the post]

The above amounts to saying that although the child, at the VP-stage, matches the adult skeletal structure of DPs, she fails to realize any of the formal (-Interpretable/Case) feature specifications of the Head (see note 20). This claim suggests that DPs (i.e., Determinacy) may emerge on the scene at the very earliest stage of language development, triggered by the +Definiteness feature (or the marking of a zero marked possession relation. Hence, categorial features along with +Interpretable nominal features (viz., semantically based ϕ -features) are immediately accessible to the child. Case properties [+AGR/-Interpretable] on the other hand are out of limits for the child at the pre-functional stage: Case can only emerge once the functional IP-stage has been acquired carrying along with it the likes of formal/abstract properties. We are claiming that Subject/Object DPs indeed emerge as an adult skeletal structure at the VP-stage, but that there are no specific formal properties attached to the Head D that have to do with checking *per se*. None of the Determiners in (18) contain their appropriate Case; all of their claims on (Objective) Case are similarly derived via Default.

To summarize, the cited Possessive Nominals (DP>VP) are specified as follows (see Tables below):

(19) <u>Poss.Nom. Det</u>	=>	<u>Default Case:</u>	<u>Example</u>
a. <i>The</i>	=>	+Objective -Nominative	<i>The truck go.</i>
b. <i>Daddy</i> (N+N)=>	=>	+Objective -Genitive	<i>Daddy truck...</i>
c. <i>Me/Mine</i>	=>	+Objective -Genitive	<i>Me truck...</i>

We can recapitulate the above distribution of Objective case by addressing the intrinsic asymmetry found between Subjects and Objects. The notion that only the Subject is affected by Hoekstra *et al's* D-I correlation (cf. §5.1) adds further support to this asymmetry found between Subjects and Objects, namely, the clausal positioning of these two DPs seems to be of some relevance. This has prompted me to reconsider the idea that apparent Accusative DPs (in Object position) do not necessarily abide by the same constraints as their Subject/Nominative DP counterparts. For instance, Chomsky has suggested that the case of a given Expletive (e.g., *there*) would depend on its counterpart associate DP within the given clause, e.g., expletive *there* in the sentences:

- (20) a. *There* is a book on the shelf; (Chomsky 1995:288)
 b. *There* arrived yesterday a visitor from England;
 c. I expected [*there* to be a book on the table]...

would take on its appropriate Case via its associated DP within the respective clause:

- (20') a'. DP is...(DP=Nominative);
 b'. DP arrived...(DP=Nominative);
 c'. I expected [DP to be...] (DP=Accusative).

There is clear evidence in my data that (i) such asymmetries exist and (ii) that such asymmetries arise from syntactic deficits. Recall that in §5.2.2.1, cf. Table 5.3, it was shown that Accusative Subjects (via default) were acquired much earlier than their Nominative counterpart. The above observations could be expanded to say that a DP in Object position is of a very different category (regarding aspects of features) than say a DP in Subject position, even though the lexical entry is apparently the same. I take this difference to be of a lexical vs. formal kind respectively, the difference having nothing to do with the lexical item *per se* but rather having everything to do with the item's feature specification. Specifically speaking, a DP—(i) either at a given VP-stage or (ii) positioned within a VP-projection of an otherwise under-specified IP-stage—could theoretically exist without its formal Agreement features being intact, and carry only Objective case (via default). Hence, at the VP-stage, a Subject D(P) may theoretically hold exactly those same feature specifications as its Object D(P) counterpart, making it difficult to tell whether the D-I Correlation is even operative. (The notion of an Objective DP in Subject position eventually leads to the complete breakdown of the correlation regarding Subj/Obj-DPs in relation to INFL.)

Data: Stage-1. As seen above, my data suggest there to be a pre-functional Non-INFL Stage-1 where only N+N (Genitive) constructions appear. (In addition, sentence fragment *Me/Mine* DPs, appearing early at Stage-2 (file 8), may also be to some extent ‘caseless’. See note 19). This first stage, more generally, preexists any form of (Under)-specification regarding an IP (i.e., Tense and/or Agreement): there is in all actuality No IP-projection. One means of describing this stage is to call on the notion of The ‘Lexical Deficit Analysis’ (LDA) (cf. Schütze 1997). The LDA basically states that at an early stage of language development, the child may entirely miss out on e.g., Case markings, Inflections, Agreements simply due to the fact that the child has yet to acquire the specific lexical entry or feature associated with Case. In dealing with the initial onset of *Me/Mine* as early possessive DPs, starting with early Stage-2 of file 8 (see 23 below for examples), an altered tactical approach to LDA might be to assume that although the child has indeed acquired the lexical entry for the Pronominal Possessive DPs e.g., *Mine bottle*, such entries may lack properties of Case specification so early on, and, thus, would be considered as a completely different (lexical) entry altogether, as opposed to their later acquired +AGR case marked counterparts: (similar to the DP>IP, DP>VP distinctions of *The* drawn-on earlier in this chapter). (Though, of course, the two sets will be homophonic (e.g., *Mine* [-AGR] vs. *Mine* [+AGR]), we, in theory, could only consider the latter to be case marked when we would have sufficient evidence, taken from other means, that proper Case has rightly been acquired by the child. Following this, we take it that the essential criterion for determining (Gen) Case here is the acquisition of INFL marker possessive ‘S’ coupled with other determining factors regarding the acquisition of e.g., Nom/Acc Case, etc.) (N.B. Having said this, however, by file 8 we do take it that a Stage-2 Functional IP exists. Hence, such constructs may, in fact, show the first examples of Case.) This amounts to the important observation that lexical entries are defined by their bundle-of-features (some features being acquired later than others). The DPs cited below (Table 5.4) mark Head features as [-AGR/+Def] and never fluctuate between [+/-AGR]. Evidence in support of the [-Agr] deficit comes from the observation that Agreements associated with Nominative Subjects, Possessive ‘S’, and Finite Verb constructions +S (forming the ‘benchmark’ criterion as mentioned above) do not manifest at Stage-1 (§5.2.2.1-Table 5.2 for statistics on Nom/Acc Case). Compare and Contrast the Tables (cf. 5.4, 5.5 and 5.6) illustrating a bi-model pattern of Inflectional Acquisition:

(21) Table 5.4 Early Possessors: (files 1-7: 1;10-2;3)

	VP Stage-1 [-AGR]	Token Examples: Stage-1
a. N+N(Gen)	n.=8	a'. Daddy truck. Mama bottle. Nicolas turn.
b. Pron.Poss	n.=0	Mama bottle, No car mommy (Comp-initial)
c. Poss.'S	n.=0/8	
d. His/Her	n.=0/0	

(22) Table 5.5 Possessors: Frequency/Development for Obligatory Contexts (files 12-25)

Age	a.Obj Me vs.	b.Gen My/Mine	c.You vs.	d>Your	e.Him	f.His	g. Poss 'S
2;6-2;8	53/55 (96%)	2/55 (4%)	---	---	---	---	(total n=
2;9	11/25 (44%)	14/25 (56%)	---	---	---	---	0/86)
2;10	4/14 (29%)	14/25 (56%)	---	---	---	---	---
2;11	5/24 (21%)	19/24 (79%)	---	---	---	---	---
3;0	4/54 (7%)	50/54 (93%)	---	---	---	---	---
3;2-3;6	6/231 (3%)	225/231 (97%)	---	---	---	---	14/60
3;2-3;4 (ages broken down)		14/16 (88%)	2/16 (12%)	---	---	---	---
3;5		7/34 (21%)	27/34 (79%)	---	---	---	---
3;6		2/29 (7%)	27/29 (93%)	10/13	3/13	---	---

(22') Stage-2 Token Examples (cf. Table 5.5 above)

- a. *I want me bottle. Where me Q-car? That me car. Have me show.* (2;6-2;8)
 b. *Mine pasta, My pasta, I want my key. It is my t.v. Where is my book?* (3;0)
 c. *No you train, It's you pen. It's you kite. It you house?* (3;2)

- d. *Where's your friend?, Close your eyes. It's your car? I got yours* (3;4)
 e. *I want to go in him house, Him bike is broken. It's him house.*
 f. *What's his name (x3)* (3;6)

(23) Emergence of Stage-2 Token Example: *Me/Mine* Possessive DPs (file 8)

- a. *Me turn. Me cat. Me pen.* (2;4)
 b. *Mine banana. Mine bottle. Mine car. Mine apple. Mine house.* (2;4)
 c. *My car (x3).*(2;4)

The Data drawn from these tables (above) seem to suggest that Inflectional (Agreement) is gradually acquired until the mastery threshold establishes itself at around 3:0 years: (cf. R. Brown's 90% criterion). In sum, considering both stages 1-2, we may examine how the checking relation might work in more general terms, keeping in mind that the *Me/Mine* examples (above) may not actually specify for agreement (cf. Radford 1997):

- (24) a. Nominative if in a checking relation to [+AGR] I (= > IP-Stage)
 b. Genitive if in a checking relation to [+AGR] D (= > IP-Stage)
 c. Objective [-AGR] (via default) otherwise (= > VP-Stage)

Interim Summary of Stage-1. One interesting observation that can be deduce from the data thus far is that a correlation seems to hold regarding the general acquisition of a wider range of Inflection types. Radford & Galasso (1998) make the observation that a (previously unreported) symmetry holds between (i) the development of 'Subject-Verb' structures on the one hand and (ii) 'Possessive Nominal' structures on the other. That is, the data seem to describe an initial (Stage-1) grammar purely based on a Non-Inflectional-Pre-functional Paradigm. The nature of the correlation, (a correlate which clearly speaks to the protracted nature of Inflectional acquisition), could be claimed as being governed-programmed by maturational factors, i.e., functional categories (in this case INFL) are acquired (somewhat) simultaneously given that once the brain can perceive and generalize such formal categories, the *pandora's box* of functionalism opens thus letting in previously blocked formal aspects of grammar. In this sense, Radford's (1990) original thesis which claims for a functional correlation seems to ring true—i.e., that functional categories DP, IP/CP (as a whole) embody a qualitative kind and thus could be triggered to come 'on-line' simultaneously, (in a given child), once those factors of maturation are in place. For clarity, let us recap the general claims being made thus far:

- (i) The Data suggest an initial Stage-1 showing *inter alia* no signs of the 'Inflection' +S on the 3Pr/Sg Verb, no signs of 'Possessive' 'S' on the Nominal Possessor, and, more generally, no Subject-Agreement. (The subject may acquire a default Accusative setting).
 (ii) The Data shows a symmetry illustrating parallel development of +AGR/Inflection Possessive {'S} and Verbal (excluded here are potential stereo-type early Copula constructs (see §5.2.3 'copula') 3sg-pres {+S}), restated here in Table (5.6):

(25) Table 5.6 Development of Inflection: Occurrence in Obligatory Contexts

Age	3sg-pres +S*	Poss 'S	
2;3-3;1	0/69 (0%)	0/118 (0%)	(=> VP: Stage-1)
3;2-3;6	72/168 (43%)	14/60 (23%)	(=> IP/Optional: Stage-2)

(* 0 of 69 (3sg-pers +S) indicates true copula/verbal counts cf. Table 5.9, excluding the early 9 counts which were assumed to be of a stereo-typic nature. Poss. +S cf. Tables 5.4 & 5.5)

I believe an underlying and central idea behind Radford's claim can be proposed: specifically being, that a more general composition of Agreement (acting in either Nominal or Verbal domains) seems to be acquired via an unitary mechanism (though asymmetries seem to develop regarding the actual realization of those particular features pertaining to specific lexical entries). In other words, the child's realization of [+AGR] for the two utterance types: e.g. (i) *Pat's cough* and (ii) *Pat's coughing* might be identically encoded by the child as +AGR, independent of whether the Agreement mechanism itself is functioning nominally or verbally (respectively). Radford utilizes Kayne (1994:105) to suggest that the formal aspects of the two Inflections (cited above) are 'one-of-a-kind' and both pertaining to IP:

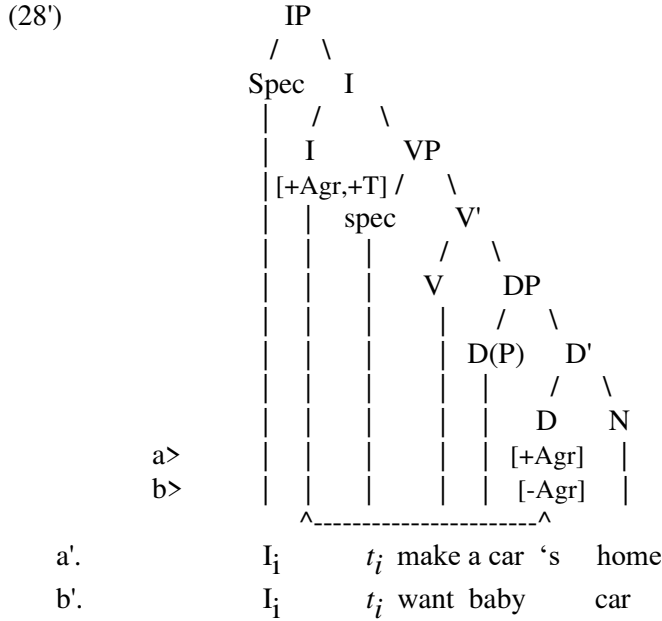
- (26) a. [IP Pat [[+Agr nom] 's] cough] (=> [+Agr] Nominal)
 b. [IP Pat [[+Agr verb] 's] coughing] (=> [+Agr] Verbal)
 c. [D/P⁰ [IP John ['s [car]]]] (cf. Kayne 1994: 105)

Kayne reduces the generalities behind the two cases of INFL to a common ancestral AGR: both inflections ultimately derive via IP (26c). Thus, we may rework the notion of a checking relation given earlier in (24) by claiming a unitary IP is responsible for both verbal and nominal inflections:

- (26') An overt (pro)nominal is:
 a. Nominative if in an agreement relation with a verbal INFL (IP)
 b. Genitive if in an agreement relation with a nominal INFL (DP)
 c. Objective otherwise (by default).

Data: Stage-2. Insofar that we acknowledge an OI-Stage-2, we shall put aside theoretical issues and focus rather on empirical content. This section examines if potential correlations emerge between 'specified vs. under-specified' verbal IPs and relevant 'agreement vs. non-agreements' (respectively) regarding Subject/Object D(P)s. The interest lies in seeing if this 'Developmental Symmetry' (as reported above) holds any further correlates for the OI-Stage. Intuitively, one would expect that features, say within an Object-DP, are independent of Spec-features within IP regardless of under-specification. Namely, any assumed D-I correlation would be expected to hold only between the Head-features of a (Subject) D(P) and that of its Specifier-features of INFL. However, as witnessed in Kayne's treatment of an overriding IP-based Inflection for Verbs and Nouns alike, and coupled with Radford's observation above linking the two relevant inflections to a single 'onset-time' in acquisition, matters surrounding configurational dependencies may not be so entirely straightforward. For instance, overall residual effects of under-specification, given that AGR-O and AGR-S are, in theory, essentially composed of the same formal material [+AGR], might conceivably be spotted 'up-and-down' an under-specified tree structure. (Chomsky 1995:174) asserts that formal phi-features of AGR equally pertain to Agr-O/Agr-S since distinctions between Subject-S/Object-O labelling here are considered as mnemonic devices.) The purely hypothetical notion I am playing-on runs as follows: Stipulation—if Agreement suffers a general deficit e.g., (minus agreement) [-Agr] in one phrase of a sentence, say the verbal +s of Verbs within INFL, then any possessive {'s} of a possessed object within VP, via extension, likewise must instantiate some deficit. The examples below attempt to dispel the above stipulation for an inter-phrasal IP [AGR] correlate: showing Kayne's AGR-based accounts of Verb/Nominal S-Inflection don't invalidate traditional hypotheses for independency of Spec vs. Head feature specification.

Poss. Nominals with Copula. The first clear bit of evidence against any such wide-ranging AGR-based correlate comes from Possessives with Copula Verbs. This stage represents the onset of functional categories where IPs are seen to project at will. Table 5.7 below illustrates that the specifications of 'lower Object-DPs' are independent of the 'upper-INFL': i.e., both (higher) Subject/Gen D(P)s and (lower) Object/Gen D(P)s can go either specified or under-specified (independently) within an overall INFL-projection.



The crucial notion behind a possible correlate is as follows. Assuming (as we do) that a possessive 'S is a Head, one might expect to see a Subject-INFL correlation (and not an Object-INFL correlation), depending on the crucial assumption that {'s} also encodes [+Def] as well as possession. Hence, this hypothetical correlate might hold between Definiteness and the Finite properties of INFL. The analysis correctly supports the hypothesis that a lower Object DP cannot be affected by a general D-I correlation. The data show that any hypothetical correlation would only hold with respect to proper adjacency principles. i.e., Spec-Head configurations and checking domains. An +AGR INFL does not impede upon the specification +AGR with regards to a lower D(P). (See 'Additional Errors' below for analyses regarding -AGR DPs.) Regarding Table 5.8, a slightly lower 1:5 ratio is stated with an overall 19% incorrect usage for required contexts. (Out of the entire corpus, only 7 under-specified Acc subjects with correct Poss. case were attested).

Additional Errors. Notwithstanding the abundant usage of correct Genitive Case in the Optional Stage-2 (see Appendix-1 Table 5a for relevant counts), three further types of errors continue to be reported. (29) gives some token examples:

(29) Genitive Case Errors

(Obj Prn in Genitive contexts)

- a. Me car (my) (file 14: 2;7)
- b. Where me car? (my) (file 16: 2;8)
- c. Me pasta (my) (file 18: 2;9)
- d. It's him hat (his)(file 25: 3;6)
- e. Help him legs (his) (file 25: 3;6)
- f. Nose me (N+D =my) (file 19: 2;10)*

Genitive Propositional Case Errors

(Gen Prn in Nom Prn contexts)

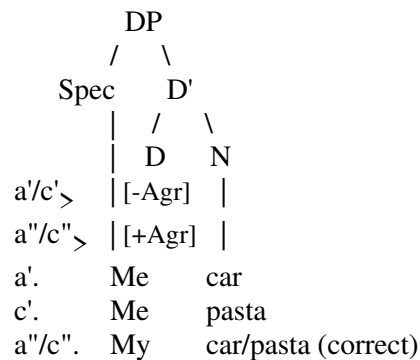
- j. My do it (I) (file 22: 3;0)
- k. My get it (I) (file 21:3;0)
- l. My wet (I'm) (file 21)

Prenominal/Pronominal Gen Errors (files 18-19)

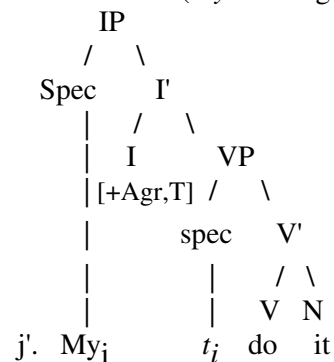
- g. Mine pasta (=my). h. Don't touch my! (=mine). i. It my (=mine)

* (A small set of case errors were found to have Spec-final (N+D) orderings: their significance (albeit few in number) might be linked to a potential Spec-final option in the (pre-parameterized) grammar (UG), as discussed earlier in Chapter 3 referring to Kayne's weakened model of a universal Spec-Head-Comp ordering (see §3.1.2 for a possible syntactic analysis of such structures).

Similar to what happened regarding feature deficits in IPs, such feature deficits within DPs can equally result in erroneous case assignments with regards to Genitive DP constructions. More specifically speaking, in maintaining that Nominative Case is assigned by a finite [+AGR] feature in I, we may similarly postulate that Genitive Case is assigned by a possessive [+AGR] feature in D.^{xxii} Therefore, by extending the same conditions to DP as we do with respect to formal features of IP, we can assert that D must check-off its formal features (if strong). In examples where correct Genitive Case constructions are only optionally projected (as in the Optional-stage), a possible approach would be to posit an under-specification for that formal D-feature concerned (cf. Radford: class lectures, '97). Consider the following DPs, some of which are Headed by an 'Agreement-less' Determiner:

(29') Genitive Case ErrorsGen My Subject Errors

(My=Analogical Nominative)



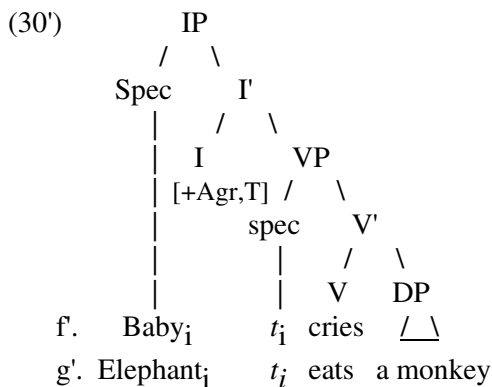
Regarding the instances of Prenominal/Pronominal Genitive errors (cf. 29g-i), it seems likely that all the child is doing here is wrongly extending the Pronominal version of Gen case (mine) to Prenominal positions (e.g., *Mine pasta* vs. *It my*, etc). Since both long/short versions are arguably Genitive, there is nothing more to say. Turning to Genitive 'My-Subject' errors, Radford (class lectures) suggests that 'My-Subjects' could be interpreted as 'Analogical Nominatives'. That is to say, they share the same feature checking processes (i.e., [+AGR] of I) as do their Nominative 'I-subject' counterparts.^{xxiii} Without going into details here, the basic premise of his proposal amounts to saying the following: since the overall majority of Genitive Subjects produced by children take the forms of either *My* or *Her* (instances of productive use of all other forms e.g., **Our do it* remain largely unattested), a conclusion could be drawn that they are not Genitives at all, but are rather Analogical Subjects (in the case of *My*), and Objective Subjects (in the case of *Her*). In light of Radford's position on 'My- subjects', all instances of 'My-subjects' (such as in example (i) above) would simply be analyzed as a Nominative Subject being checked by a [+AGR] feature in I.

5.2.3 Tense Revisited

The features of INFL, as already mentioned above, are intricately connected to Case via Agreement resulting in a myriad of possible hybrid sentences depending upon which specific INFL feature manifests (as in (11) above demonstrating +AGR/-T). The main issues regarding INFL seem to me to be centered around notions of Language Specifics as opposed to Language Universals (e.g., Chomsky 1995). Almost all researchers agree (upon one thing that is) that the emergence of INFL—particularly Tense since AGR may be invisibly marked for English—is paramount in importance for those attempting to locate and/or describe early language separation among bilinguals (cf. Meisel). Whereas the former section was mainly devoted to Agreement (having to do with Case assignment), this section is particularly devoted to looking at the sole distribution of Tense.

3 sg suffix +S. The overt Tense suffix +S appears productive (i.e., free from any semi-formulaic interpretation) late in my English Data (file 23: 3;2). Once we dispose of ambiguous finite utterance counts (e.g., *I go, I cry*, etc.) that may mark no tense, we are left with a seemingly small number of early Tensed {+s} forms (recall, that we have now considered it safe to regard ambiguous Finite Clauses as [-Tense] at least at the early pre-functional stage). Token examples of later unambiguous 3sg/present [+finite] constructions are given in (30) below *(disregarding very early ‘/Izð/+N’ (*Izacar> is a car*) formulaic constructions (see note 7). (Restated from Table 5.6 above):

(30) Table 5.9: 3sg/Pres +S Obligatory Contexts		Token Examples: +S (files 24-25)
<u>Age</u>	<u>+S</u>	
2;3-3;1	*9/69 (0%) (restricted to copula <i>Is+N</i>)	That one works. Baby cries. It hurts. It rains. Elephant eats a monkey.
3;2-3;6	72/168 (43%) (productive verbal +s)	My Barney works. Nicolas no eats. A man works a tree. Baby awakes.



Copulas. A second source of possible early Finite constructions appears in the form of Copula verbs. Examples include (31a-g) for Correct usage, and (31h-n) for Incorrect:

All instances of correct Copula constructions (31a-g) are to be analyzed as in (7') above, where Aux/Copula verbs are initially generated under a VP (for thematic purposes) and involve (V-to-I) raising to the Head of IP. However, one interesting note about the structures in which copulas show incorrect subject-agreement is that they appear to have Objective/Acc(usative) Subjects. That is, not one token example of Incorrect Copula constructions was found to occur with a Nominative Subject. This might be interpreted in a number of ways. For example, in (31i,n) the ‘wh’-elements *Where* might take on the role of a 3sg superficial Subjects—overgeneralizing the Spec-Head agreement with CP (cf. In Fletcher *et al.* (eds) Radford 1995: 506)—resulting in the verb’s 3sg inflection (with examples like 31h posing a potential problem).^{xxiv}

(31) Correct Copula Use

- a. I am three (file 24)
- b. I am a cowboy (file 24)
- c. I am not (file 24)
- d. Here are you (file 23)
- e. Where are you? (file 24)
- f. You are dead (file 25)
- g. They are bad guys (file 25)

Incorrect Copula Use

- h. Here are me (file 23)
- i. Where’s you? (file 24)
- j. Here is me (file 24)
- k. You is no nice (file 24)
- l. This is your books (file25)
- m. Here you am (file 25)
- n. Where you is? (file 24)

These findings could be interpreted to suggest that the suffix {ed} comes on-line extremely late in the data owing to its ‘rule-based’ nature. More specifically, since the {ed} past tense is a result of a morphological rule (which can often be over-generalized e.g., *I wented/goed/hitted/tooked*), it may require more time for the rule to insert itself into the morphosyntax. The irregular forms however, being ‘non-rule’ based, are pulled directly from out of the lexicon (in one chunk) and hence, have a scheduled on-line time similar to lexical items.^{xxv} In this sense, one may very well find at the one/two-word lexical stage utterances containing irregulars: e.g., *Daddy did, Me done, All-done, (np) ate*, etc.

Aux/ ‘Dummy Do’ Insertion. A brief look at the INFL data on Aux/Dummy ‘Do-insertions’ suggests that semantically ‘light-verbs’ (such as a raised *Do*) are acquired fairly late in the data with no instances of aux/modals *can, may, will, need, have* in the total corpus. In early examples of Negative constructions, (which are unambiguous instances of obliged Do-insertions) no examples of Do-insertions appear (see §4.3.2 for Negative constructions/Do-insertion, and §6.1 for ‘wh’-questions/Do-insertion):

(33) Non Do-Insertion

- a. I ∅ know (=I don't know x8) (file 8)
- b. No cook (=I don't cook) (file 12)
- c. No cut the train (=Don't cut the train) (file 16)
- d. What you want? (file 24)
- e. I no have glasses (file 24)
- f. All little boys no like me (file 24)
- g. You eat? (file 24)

The lack of light-verbs raising here may demonstrate that the child is sensitive to having a certain amount of semantics for verbal projection, since light verbs and auxiliaries are formal categories which lack any substantive value, the child at the early Lexical/OI-stages may choose to leave them unprojected. (See Schütze (1997) for a broader discussion on the topic).

5.3 Final Remarks

In sum, a picture begins to emerge supporting the notion that unambiguous Finites and Inflection, both being properties of a projected IP, appear fairly late in the data. More specifically, the overall conclusion which the findings reported lead to favors the notion that aspects of INFLectional-Morphology, in Language Acquisition, are for the most part of a protracted nature. The findings in this chapter, when coupled with previous material on Word Order and Negation (§§3, 4), thus far, indicate that a two-stage developmental process of language acquisition is at hand: (i) A Stage-1 Non-INFL Stage (keeping to Radford’s original Thesis, cf. Radford 1990) where No-Functional Categories are present ultimately resulting in the observed errors found with respect to Case, Agreement/Tense, and Word Order; and (ii) A Stage-2 Optional INFLection/Infinitive stage^{xxvi} (cf. Wexler’s Hypothesized Optional-Infinitive stage) where we find the (unstable) emergence of the Functional Category IP, along with the characteristics of Under-specification/Optionality. Moreover, the early emergence of DP (within the VP-stage) was analyzed as having Objective (default) case. This strained any attempt toward maintaining a general D-I correlation.

Following Radford & Galasso (1998), the data presented in this chapter have pointed to an interesting (and previously unreported) symmetry between the general developments of Inflective properties: viz., ‘Subject+Verb’ constructions on the one hand and ‘Possessive+Nouns’ constructions on the other. Both constructions showed symmetric-chronological developments of Inflectional markings for 3per/sg +S and possessive ‘S’ (respectively). Again, such data clearly indicated a dual-stage model of acquisition: (i) a Non-Inflection-Stage-1, & (ii) a Optional-Inflection-Stage-2 (Stage-3 marking the complete mastery of the target grammar).

Dual Mechanism Model. The protracted emergence of an inflectional computational process adds to the ever-increasing body of common knowledge suggesting that (abstract) grammatical relations are frequency a problem for language acquisition systems. One possible consequence of this is to suggest that children do not start to manipulate language based on a system of rules, but rather, that very young children just entering into their multi-word stage of development first grapple with the linguistic input by gathering and constructing a variety of lexical-thematic frames (cf., Tomasello, Pine *et al.*, among others). As a consequence, the whole of language until that point is predominately without abstract functional forms of language (i.e., without INFL). The slightly later stage of optionality of inflection might also be viewed as a sign that the child is now basing rules on specific lexical words (non-abstract) and not generating the rule (abstract) across the paradigm—again, general symptoms of lexical-rule based learning. One interpretation of optionality is viewed in this way since either you know a rule (and properly apply it across the board) or you don't. Hence, there is some room here to speculate on the existence of a dual mechanism of computational processes: where the very early Non-Inflectional stage-1 more-or-less signals a learning strategy highly based on the frequency and association of specific lexical verbs, and where the inflectional stage-2 begins the optionality of a rule based process. The lack of syntactic complexity leading to child-adult discontinuity is believed to be tethered to maturational factors that are related in some way to modular higher brain functions (cf. Wakefield & Wilcox 1995). In sum, the above data could be recast within a working 'converging theories model' (Pinker 1999, Clahsen 1999).

Postscriptum. Though I am fully aware that some researchers may wish to analyze the proposed first stage of language development (= stage-1, files 1-7 of my data) as an *Optional Infinitive* stage (albeit a first stage where the features of INFL are always present but never specified), I believe, this is hastily concluded. The data thus far presented in this chapter, as well as the previous chapter, when taken as a whole, clearly point to a Two-Stage linguistic development, indicating distinctions between Lexical vs. Functional classifications of language acquisition. It goes without saying that the majority of data used by those working in developmental linguistics today largely come from the same R. Brown studies (1973) taken from the compilation of The CHILDES data-base, a collection of corpora which would seem to cast a favorable light on an initial (stage-1) OI-stage. Hence, reasons to collect a more exhaustive database are more important than ever, as we continue to grapple with all the complexities that language acquisition has to offer. I believe that this corpus has reiterated the classic points initially made by the Maturation/Structure-Building School, and, in so doing, has rightly returned the burden of proof to those who uphold 'Strong Continuity' models of child syntax. (See §6.4.).

Chapter 5 Notes

ⁱ See Radford (1997: ms) for an alternative analysis suggesting that Genitive Case (e.g., *My* subjects) are actually Analogical Nominatives, i.e., the child taking the /m/ genitive stem prefix and adjoining it to the nominative form /aI/ yielding /maI/ (my). Radford (pc) thus believes that Early Child English Grammar really only makes use of Nominative and Accusative Subjects. (See note 9).

ⁱⁱ Of course, one could equally assume underspecification (IP) by claiming the following: (i) Det is specified for Def/Case but not for Number; (ii) Det is specified for Def/Number but not for Case.

ⁱⁱⁱ This observation matches that of Wexler's (1996) who similarly proposes that D-features of DPs are optionally [-Interpretable] during the OI-stage. Wexler notes that such a D-feature may be entirely non-syntactic, alluding to the notion that such Ds are consistent with child DPs and resemble substantive properties much like N (cf. Schütze 1997:261).

^{iv} CPs might be viewed as having semantic properties based on the idea that their Specs can host a variety of semantic features (e.g. Question operators/quantifiers, Scope operators, etc.).

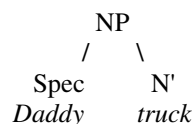
^v The reasons why I chose to concentrate on definite Ds (*The*) here is incidental and doesn't affect the outcome of the overall analysis. Of course, the same arguments could apply of indefinite Ds (*A*)—e.g., if *A* is underspecified for case, it may be in Spec-NP.

^{vi} Instances of early use (files 1-7) of Nominative Case seem to suggest a semi-formulaic character. They tend to be all 1pers-sg constructions combining '*I want+noun*'. Only 9 examples of early nominatives were found between Files 1-7. They include: *I want—the car/the water/the bottle/this/that/down*. Productive use of Nominatives begins at around File 8 where a wider selection of verbs enter into the construction: e.g., *I know* (file 8+, age 2;4+), *I throw, I cut, I eat*, etc., etc. One idea is that the string *I-want* is based on a Piaget type volition stage-I of cognition and is actually representing a single lexical item at PF and at LF. Budwig (1990) has come to consider the possibility that some verbs may select a specific type of subject (e.g., NomSubj+V/AccSubj+V) depending on the verb's lexical-thematic properties, etc. In this sense, the verb *want* may only select a Nom subject and all checking is done internally in Spec-VP. More recently, Budwig (1995) has claimed that the verb *want* (for a VP-stage) may require an external Experiencer argument with nominative case. This means that the nominative subject of *Want* is in Spec-VP (since nominative case is tied up with assignment of the Experiencer theta-role to the subject/external argument of *Want* in spec-VP). Hence, following Budwig (op.cit), we might suggest that case-marking in early child grammars may correlate directly with theta-role assignments. The Nom subject of *want* therefore receives inherent nominative case. Overt subjects of other predicates receive objective case by default.

^{vii} Similar to what we find in note 6, the early emergence of copula *Be* complicates the issue of whether or not this signals the emergence of IP. The few constructions found follow a schematic routine [*'Is+N'*] and hence could be considered as formulaic in nature: *Is* perhaps being interpreted and used by the child as a element of locative focus (e.g., '*This place+N*'). Furthermore, in (§3.4), we came to the conclusion that such early copula constructions projected semi-formulaic VS orderings: this was concluded on the bases that the Nouns in such VN constructions were taken to be real Subjects in light of two considerations: (i) no evidence was found for expletives e.g., *It/there* (either in null or overt form); and (ii) the fact that children typically ground their language around concrete topic-comment themes, further suggests that the nouns used in these VN constructions are indeed topical subjects.

^{viii} The CP>IP>VP framework being utilized here does not represent the entire scheme, put forward by recent minimalist accounts (cf Chomsky 1995:Ch4), of all possible movement operations motivated by purposes of checking, etc.

^{ix} Such caseless possessive forms might suggest a simple NP-analysis where *Daddy* in (*Daddy truck*) is in Spec-NP being that there is no case to check. This would be consistent with our more general *No Functional Category* analysis of stage-I (see Radford 1990):



^x A steady decline in the rate of case errors seems to begin at around File 18 (see Case-Table 5a in Appendix-1).

^{xi} The sole example of Acc with main verb is: ‘Him cries’ (File 25:3;6). Three other examples of Acc with Copula V surface in File 25/diary: *Him is big*, *Him is my friend*, *Him is hiding.*)

^{xii} Schütze (1997:203), following Wexler, presents Tense as being associated with Subject (Agreement) by having the following features: [+/-finite], [+/-past], ([1p/2p/3p]), [+/-plural], selects V (-participle). In this sense, it is not clear what the absence of T would mean in child grammar. Schütze assumes that children may only omit the past features while keeping to [-finite].

Schütze’s approach which aims to associate T with Subject Agreement differs with what we wish to propose here, namely, that T (as manifesting in the 3sg +s) is only to be associated with the features of T and not AGR. An overriding advantage with keeping to a Disassociated T/AGR is that, otherwise, children would need to learn (at an extremely early age) that T and AGR_s are fused together in English. If this were not learned early on, we might expect to find simultaneous past tense-*ed* (T) and 3sg-*s* (AGR) errors (* e.g. daddy walk-ed-s) to occur. Such errors never occur even in the earliest of data.

^{xiii} There are no counter examples of an apparent +Tense bound matrix clause without a *to*-infinitive complement: e.g., *He wanted/wants ϕ go home*, etc. are unattested in my data. Such examples would falsify my argument here that *to* has Tense and is bound by its matrix INFL-clause.

^{xiv} The reason why the suffix {+s} only appears with 3sg may have something to do with the notion that 3sg is a default without person or number features (cf. Kayne 1989). In this sense, the suffix {+s} is used when items only carry tense (Radford p.c).

This goes against the notion (cf. note 12) that T and AGR may be fused together in English (cf. Schütze: *ibid*) thus elevating any inherent problems having to do with a fused T/AGR projection.

^{xv} This suffix {+s} +Interpretable Tense feature may be anchored in semantics and have nothing to do with finiteness (as normally assumed). One possibility could be to assign [+/-] Finiteness to Agreement and not Tense in these early cases:

Tense => [+/-past]
Agreement => [+/- Finite], [1p,2p,3p], [-+/-plural],

This may pave the way for a new pro account regarding Inflected Vs (pro is not discussed in this thesis).

^{xvi} This is consistent with Radford’s position (Radford 1990) which maintains that *Me* subjects are Caseless so will occur as subjects only when INFL is [-Agr], other uninterpretable Agr-features of I remain at LF.

^{xvii} I have only two example of [+T, -Agr] with an Objective Case/Main verb (other than copula Is) in my entire corpus: *Him cries* (File 25) and *Me broke* (File 25). But see Huxley (1970), Aldridge (1988), Rispoli (1994c) for such examples.

See also note 18 below.

^{xviii} Out of a total of 82 unambiguous finite verbs (copulas) marked by the suffix {s}, 12 showed Acc subjects (cf. Files 12-25).

^{xix} It is noteworthy to point out that early distributional contrast of *Me* vs. *My* for Subjects might suggest that indeed some Case has been acquired for *My*. It is crucial here to distinguish the use of *My* as an analogical Nominative (see section on genitive errors below) from the use of *My* as a Possessive Pronominal. *Analogical-The* along with Acc. *Me* and Poss. Nom. *Me/Mine* may similarly share the likes of having a default case setting (cf. Radford class lectures). Alternatively, since all examples of *my/mine* indeed start with file 8 (an established benchmark for stage 2) we may equally appeal to the idea that these constructs, in fact, have Case.

^{xx} Radford (1990:108.) citing Abney (1987) suggests that the utterance *My tiger book* likewise might have the following adult structure: [DP My/Mine [D e/ * ‘s][NP tiger book]] where there is an empty allomorph of the determiner {‘s} (phonetically null) which assigns Genitive Case. In the child’s utterance (cf 17c) the allomorph would be grammatically null-hence, a possible *The-My/Mine* analogy (viz., both possibly indicating +Def only). The overgeneralization would then stem from the empty allomorph being phonetically realized (as cited above e.g., *Mine’s..). Radford adds that such seemingly DPs as *My/Mine* in early child speech are in fact *imposters*--i.e., though they look like adult versions of Possessives (acting as a Spec of DP), they in fact function as simple Specifiers of NP and haven’t the same allomorph of Genitive Case {‘s} as granted in the adult structure.

^{xxi} An outstanding problem with the above DP-analysis is that it would not account for Italian possessives like *La mia macchina* (=The my car) where the possessive can’t be in Spec-DP but must be lower than DP (say e.g., PossP) (p.c. Radford). Such problems however might be overcome if we adopt Longobardi’s analysis that *mia* here is adjectival in nature. Moreover, the above DP model (albeit problematic) suffices as an explanatory aid to

the account on offer.

Alternatively, Kayne (1994:105) suggests that the Inflectional properties of (case agreeing) possessives should be more properly analyzed as IPs (and not DPs): e.g., *John's car* = [D/P^o [IP John [^s [car]]]].

^{xxii} This ties-up with the notion that all formal/functional categories, whether it be IP, DP, or CP, are defined in relation to their strong vs weak features—substantive items (lexical Verbs, Nouns, Adj. etc.) cannot be defined in such a manner: it is rather meaningless to speak of lexical categories as having strong vs weak features.

^{xxiii} Radford considers the idea that the 1st per Pronoun is of the form Stem+affix:

Me/My/I= /m+i/, /m+aI/, / \emptyset +aI / so that the My subject is in fact a nominative I with an improper stem. This suggestion is however only one means to account for *My subjects* in child syntax. Another possibility would be that genitive case is checked by [+AGR] Head—either in D or I in the child syntax (unlike in adult syntax where Genitive must be checked by a Nom [+AGR] Head. In this alternative sense, the child wrongly assumes that only a [+AGR] is needed to check Genitive case, regardless of the Head type. The adult syntax is specific: (i) [+AGR] by a Nominal (D) Head checks Genitive; (ii) [+AGR] by a INFL Head checks Nominative case.

^{xxiv} *Here are me* raises the question of what specification *Are* carries. If we assume that it simply specifies [+T], then we have two entries for [+T] (*Is, Are*) causing overlap contra principles of Economy. Radford (pc) has devised a story which suggests that, in the case that an (+Interpretable) default Acc case subject (subject-first person) is used with an (-Interpretable) INFL (verb-second person), the child creates an *anti-crash* strategy whereby she only erases the (-Interpretable) INFL features, leaving the Acc subject feature to survive the derivation even though the INFL features are mis-matched. In the example of *I are*, the child cannot repair the mis-match since the (-Interpretable) Nominative case can only be erased when the (-Interpretable) AGR features of the subject match those of INFL. This example is the only one of its kind which shows a copula inversion.

The example *Here you am* (m) (=you (+Nom)) eludes such a story and may only be accounted for by resorting to Pronoun switching (cf. Chiat) whereby the child switches the intended pronoun with that of the interlocutor-- (e.g., *Here you am=Here I am*).

^{xxv} See Marcus, Clahsen *et al.* (1996) for psycholinguistic studies which support the view that regular vs. irregular morphologies are stored quite differently in the brain.

^{xxvi} Radford (cf. ms Radford & Galasso) makes reference to this observed optional stage-2 as an Optional-Inflection stage, whereas, contra Wexler, OIs refer to tense/finiteness, the term here applies to Inflection.