Verbs and Nouns: INFL and the Emergence of DP*

The Acquisition of Agreement Features

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1. Functional Parameterization

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. 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, [i] 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: viz., only instances of Accusative Case assignment (via default) should be notable at *prefunctional* stages of language development.

The following sections examine the acquisition of INFL(ection) along with the role that the DP system plays in the early development of English. In §1.1, I begin by examining the idea that a correlation exists between D and I. §1.2 presents the relevant Data as follows: DPs (§1.2.1), Case (§1.2.2) and Tense (§1.2.3).

(Preview) Regarding the early emergence of DPs found in the VP-stage (=DP>VP), we come to the conclusion (following Radford: 1990) 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--here, being triggered by the productive usage of the Possessive element *'s*. Regarding INFL, we conclude that a *Prefunctional-stage* exists (=Stage-1)--viz., a stage where all formal feature specifications are totally absent--before the onset of an (optional) *Underspecified-Functional-stage* (=Stage-2).

The material in this paper roughly corresponds to my Chapter 4 *INFL* (see Galasso Ph.D. Essex 1999). For all cited references, see Galasso *The Acquisition of Functional Categories* (2003 IULC Press).

1.1.1 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 (cf. Felix: 1990, Hoekstra et. al: 1996, 1996a,b,). The basic premise behind the correlations results in the following conditions in (1) (Hoekstra et al: 1996). (Nb. 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)).

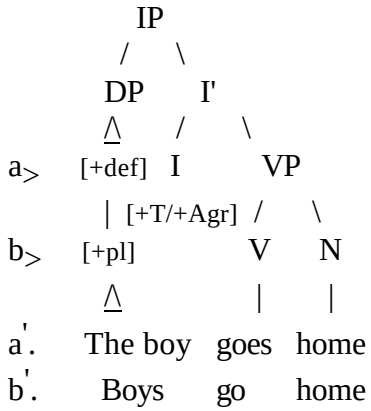
(1)

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 within IP, are to be assigned Nominative Abstract Case. This appropriate checking domain then allows for the checking of formal Agr(eement) *phi*-features of D (e.g. phi (ϕ)= person/number/gender) 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 underspecified 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 (say of underspecified IP), we forgo all meaningful operations to the correlation. It is precisely this observation which 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)):

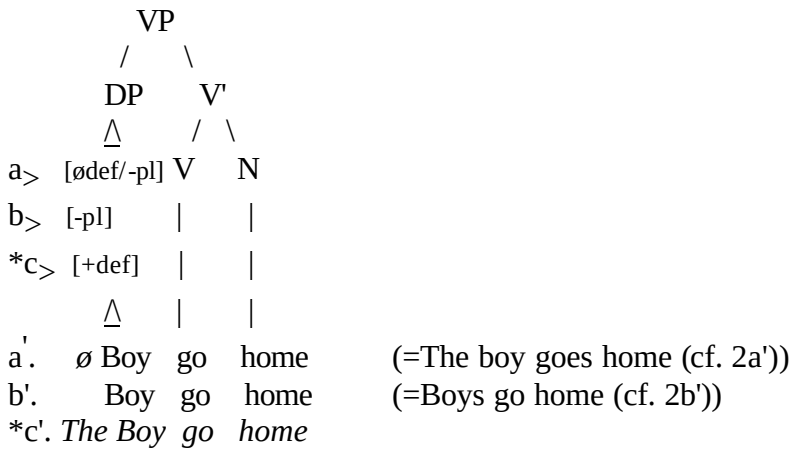
(2)



(Nb. 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) below:

(3)



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 *(in-situ*) 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 full-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: i.e., in addition to maintaining their traditional Functional-categorial role--a role which may indeed correlate D to I, DPs might also play a semantic Lexical-categorial role--a role which typically pertains to categories lower down from IP in the structural tree. A number of arguments might go 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, (e.g., DP>IP), they take-on those more formal aspects (i.e., 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 (presummably 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 chapters regarding literature review--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 (viz., IP and CP), as opposed to functional categories that host strictly nominal ones (viz., 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 awareness. In other words, language mixing/code-switching that incorporates such DPs violated all known functional constraints on mixing. (See Chapter 6 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--e.g., *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., 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 bost of being free of interpretable features: T, C, and D having 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) tend not to fall systematically into the *affixal* distinction (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).

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

Suppose (grammatical) phi-features are indeed [+Formal], though with an added

stipulation that they may also be [+/-Interpretable]. The most likely candidate for a possible (D) [+Interpretable] phi-feature would seem to be *Definiteness*: this is based on its more semantic-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]--hence, in need of checking. (Nb. caveat: At the moment there seems to be no straightforward consensus on which phi-features constitute as an interpretable feature--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 [+]Definitness--the "concrete-volition" *here-and-now*--way ahead of [-]Definiteness--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 further pursuing this notion that definiteness is [+Interpretable], we can begin to reconcile our ideas that some Determiners--those carrying only the [+Interpretable] definiteness 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.

1.2 The Data

1.2.1 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 on the scene 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 syntax--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 token Ds found in my corpus (while keeping in mind that, at the same stage, Ds are frequently optionally omitted):

(4) Files 2-7 (1;10-2;3)

<u>Overt Ds (+Def/-T, -Agr)</u>

a. *The dog* kick	*e. I want *the water* [vi]
b. All-done *the car* (VS)	f. *The dog* fall
c. *The door* broken	g. *The bottle* fall
d. *The car* fall	h. *The car* hurt

<u>Missing Ds (in required contexts)</u>

i. kick [*ø ball*]	*m. I want [*ø car*] (see n.6)
j. kick [*ø car*]	n. [*ø apple*] fall
k. [*ø dog*] kick (OV)	o. all-done [*ø apple*] (VS)
l. [*ø ball*] all-done	p. fall [*ø car*] (VS)

(5) Table 1.1

Use 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%

In-note

Status of IP: person, number, case (excluding use of copula *Be*).[vii] The features associated with (IP) are lacking in Files 2-7. However, one potential source of IP in my data is the use of ø 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 §1.3.2 below).

Regarding the feature specification of *The* in (4), it seems to be the case that only the definiteness features has been acquired--for instance, *number* and *case* don't appear in the early Files (2-7) as stated in the *in-note* above. (The first marking of plural *"s"* doesn't 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: e.g., *ARE* [Spec=Nom]. 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: e.g., **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 maintain 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) don't suffice. Taking the same sentence, the DP *The boys* must also carry [3Pnom] since the verb *are* indicates P(lurality): e.g., **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 don't naturally follow from out of 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*). However, interestingly, regarding 3person, there seems to be no other variable option for DPs (cf. **The boy am/are*) DPs are intrinsically 3person. In consideration of the lack of number and case features, *The* would seem to be underspecified both for phi-features and case--with the sole exception of the feature [+Definiteness]. Such a sweeping underspecification of phi-features and case 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) §1.1, restated here as 1-prime):

(1') (i) If *The* is underspecified for case and number, but specified for Def--
then DP is in Spec-VP, hence (DP>VP).
(ii) If *The* is fully specified for case, number and Def, etc.--
then DP is in Spec-IP, hence (DP>IP).

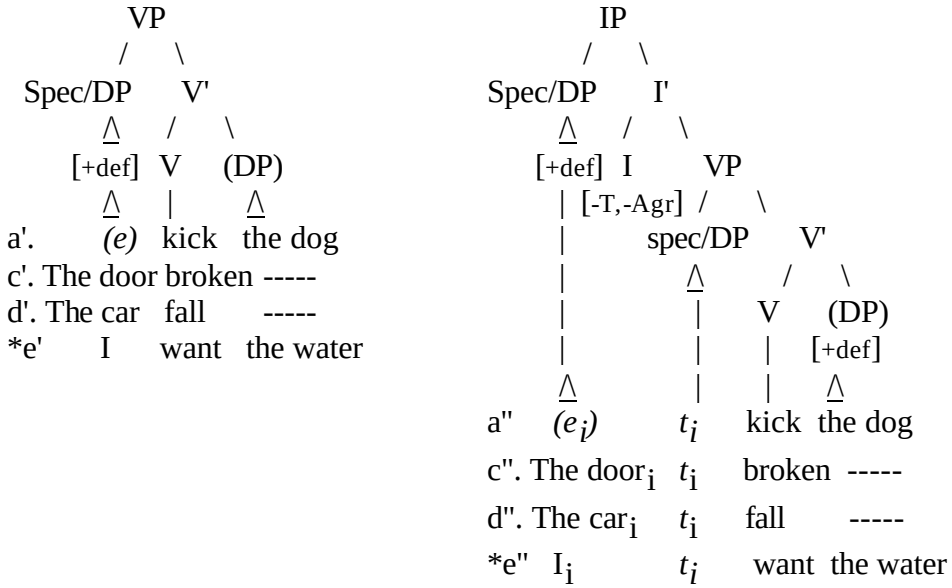
This amounts to saying that *The* always appears as a Specifier of DP in spite of all other underspecifications--dispensing with the alternative notion that *The* may remain in Spec of NP. The notion that Definiteness is well established relatively early in the child's development increasingly favors 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 count of [+Def] DPs numbers well into 100 tokens (starting with files 2-7).

(No Functional Categories) Though one might think that the No Functional Categories (=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 featural 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 ordinal categorial-features of D. In this sense, the ordinal phi-features of D resemble phi-features of N and don't 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 (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 of a DP with only its [+Def] features specified (cf. DP>VP). In light of this, the same debate arises in how to accommodate (i.e., keep with principles of Economy, etc.) a seemingly functional category (DP) stripped of its formal features. Demonstrating potential pitfalls, consider how such *inert-DP* constructions (ex. 4a-h) might be analyzed via the two hypotheses under consideration:

(4') Structural Deficit Hypothesis --*or*-- Featural Deficit Hypothesis



It is clear that a parsimonious VP-projection suffices in handling the lexical material in (4'a-e). Specifically, the VP analysis does not require the added (superfluous) stipulation that all clauses are obliged to project from a IP regardless of whether or not their Spec/Head has any lexical content. The above VP analysis of a DP [+def,-ϕ/-case] could be taken as having a Default Objective status (cf.§1.2)--paralleling the following structure where the DP carries the default/Objective case:

(6) a. [VP Daddy [V'[V seeing] DP *the boy*]]
a' [VP Daddy [V'[V seeing] DP *him/her/us/**He/*Her/*We]]

It is clear from (4 & 5) that (1b) cited earlier cannot stringently apply--this is taken from the above observations in (6), which demonstrate that specification of both Subject and/or Object DPs for Definiteness may endure even within 'underspecified-for-finite' environments. However, it must be clearly stated that in accordance with *Structural Uniformity*, once an IP-projection is acquired, we must take it for granted that IPs are henceforth always projecting--notwithstanding underspecifications pertaining to certain INFL-related features. This amounts to saying that the child should never exhibit a lexical VP-stage simultaneously with a functional IP-stage (in what had once been described in the literature as a sort of *bigrammaticality*): once IPs project, the "VP-stage" is left behind to dwindle. (But see Radford 1990: 290 for questions raised along these lines.)

However, a similar fundamental issue remains outstanding here. Specifically, how can we reconcile our VP approach here in light of recent remarks (Chomsky 1995: Ch.4) which suggest that all clauses are to be (minimally) assigned an abstract T(ense) via a T-operator (also see §1.2.2 below). This view was raised with respect to the notion that non-finite verbs in adult syntax are *tense-bound*--i.e., c-commanded by a T constituent. While *The Feature Deficit* proposal escapes such problems by claiming that the entire structure of the clause is available in theory--including a T-operator, *The Structural Deficit* proposal needs a further argument in its defense since all lexical VP-clauses certainly would lack an overt

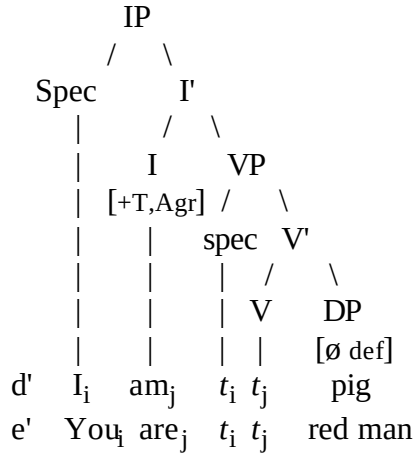
T-operator--otherwise, how would we account for the obvious empirical lack of tense in VP-clauses? In defense of the Structural Deficit view, one could arguably assert that *Functional Categories* are introduced into derivations *either by a PF merger operation or by an LF merger operation* (p.c. Radford). In other words, at the pre-functional/thematic VP-stage of language acquisition, the T-operator (or T(ense) P(hrase)) could be present and functioning at LF, but not at PF. (Wexler's OI-stage would then result due to variable TP alternations at LF and/or PF. Moreover, it is not implausible that the two halves of an IP may be split via truncation--with AGR_S being projected into PF and TP into LF. (Also see §1.2.2. for a treatment of a split INFL)).

(Null DPs) While the above section examines the early emergence of DP, it remains incumbent on us to account also for the apparent lack of DPs in required contexts. It was noted in (5) (Table 1.1) 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 Head features of Subject-D(P) and Spec of INFL. In accounting for Null DPs, the present model being envisioned here would maintain that D, similarly (and independent) to I, can undergo (autonomous) underspecification of its D features. Hence, as a consequence, erroneous Default/Objective Determiners (cf. §1.3.2 ex.14' 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 ø car] (file 7)
b. I want [DP ø plane] (file 8)
c. I want to close [DP ø door] (file 24)
d. I am [DP ø pig] (file 19)
e. You are [DP ø red man] (file 25)
f. She is [DP ø baby] (file 25)

(7')



The above analyses suggest that Def(initeness) is non-specified (ødef) (=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 Definiteness Paradigm involves a *Ternary* setting: *(i)* [+def] (*The boy*), *(ii)* [-def] (*A boy*), *(iii)* [ødef] (*boy*). (Longobardi (1994) has argued that predicative nominals--in the sense of (iii) [ødef]--can be NPs, contra the general DP-analysis as espoused above.) It is important to note here however that no consequential implications emerge out of analyzing such missing Ds as Null DPs (rather than simply analyzing them as bare Nouns/NPs). This follows from previous analyses (cf. §1.2) 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) or, alternatively, as a lexical category (whenever associated with VP). In this broader sense, nothing is theoretically lost by analyzing them as Null DPs, and, child-to-adult Continuity is achievable at no expense.

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/case/number/person/gender. However, unlike the adult syntax, in child syntax one or more of the feature specifications can remain underspecified. The lexical entry specifies the features which 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 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*= [-Def, 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--[+Def], being the sole feature of the child's lexical entry, will not identify with those features that remain underspecified within the 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 underspecification 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 underspecified for Def. For instance, when a child omits a determiner and says *I want car* (cf. 7a), *car* may only be marked for number. (The same distributions of feature specification would likewise hold true for the possessive *"s"* under the D node for genitive constructions (see below)).

1.2.2 Case

(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 *No-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: *a.* Nominative vs. *b.* Accusative *(default).*

(Stage-1) The main characteristic of *Stage-One* is the evident lack of any overt Case assigning Agreement (or Tense). Specifically speaking, all of the utterances found in files

1-7 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)* Tense Inflections (e.g., 3per/prs. *+s, ed*) are left omitted (see §1.2.3 for Table). Consider the following token examples taken from files 1-7:

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

Caseless		Semi-formulaic: *I want+N*	
a. Daddy go	(file 2 (1;10))	h. I want shoe	(file 6 (2;2))
b. *Daddy truck (=Gen)	(file 3 (1;11))	i. I want this	(file 6)
c. *Daddy shoe (=Gen)	(file 3)	j. I want car	(file 6)
d. Mommy kick	(file 5: 2;0)	k. I want ball	(file 6)
e. The car fall	(file 5)	(=IPA / ay:wa / +N)	
f. *(e)* kick ball	(file 2)		
g. *(e)* is a cat	(file 2)		

(8') Table 1.2

		Case Marking: Files 1-7						
		In Nom context			In Acc context			Gen
		Total Nom	Nom	Acc	Total Acc	Acc	Nom	
Age/	1;10	n= 0	0	0	n= 0	0	0	
	1;11	1	1	0	0	0	0	*2
	2;0	0	0	0	0	0	0	
	2;0	1	1	0	0	0	0	
	2;2	2	2	0	0	0	0	
	2;3	5	5	0	0	0	0	

*A total number of 9 Case (stereotypic) constructs were reported among Stage-1 files: 1-7 (1;9-2;3), all exclusively showing "correct" Nominative Case contra the relatively late emergence of Accusatives found in file: 11 (2;5) (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 somewhat from Radford's and Vainikka's findings (op.cit.), in that (with my data) no Genitives or Accusatives seemingly appear at stage-one (correctly or incorrectly). (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 infinitive stage) as described below.) The semi-formulaic strings of Nominative [*"I want" +"Noun"*] likewise remain inadequate for the determination of Case here. These frame-utterances seem to be *unanalyzable strings.* One very interesting correlation which seems to verify the formulaic make-up of such strings is the observation that no Accusative/Genitive Case errors are seen to emerge in this first stage (other than the two reported above with asterisks for File 3). The observation that

the stage is predominantly "error-free" increases the plausibility that, indeed, no real case system has yet been assimilated (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--numbering four in all) make-up formulaic Copula+Subj (VS) orderings and entirely lack any productivity. (see note 7).

Following, then, the notions previously laid out in Chapter 1 regarding e.g. *Principles of Economy of Representation* (Chomsky 1989), *Minimal Lexical Projection* (Grimshaw 1993a,b), etc.; the No Functional Category/Structural Deficit Approach (cf. Radford, Vainikka, Rizzi) 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 full-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 2-7) of Case development--eventually resorting to the Feature Deficit/Optional-Infinitive 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 6). In acknowledging such a stage, firstly, we can uphold the position that only lexical categories (e.g., Ns, Vs) project--with the added stipulation that DP>VPs may ensue as a lexical projection. Secondly, a Lexical/Prefunctional Stage-1 holds consequences for word orderings and parameterizations: viz., since no functional categories are present, movement operations are disallowed--thus, any variant word ordering must be derived via base-generation.

Let us be clear on one point, however, before moving on to Stage-2. It does not necessarily follow that in endorsing such a stage-1, we, in the process, falsify the Underspecification Hypothesis (represented here as stage-2). It is my understanding that the Feature-Underspecification 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 Underspecified Stage in any sense of the term being used here). The Structural Deficit Hypothesis, however, establishes that an early (multi-word) stage indeed exists--prior to Underspecification--where *Underprojection*s 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 demonstrated that the Subject had to be in Spec-VP. If we were correct in assuming the Optional/Underspecification stage

throughout, we would need to account for such Neg initial constructions. This observed stage-1 jibes with Radford's *Structure-Building* account that describes a *bottom-up* method 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).

(Stage-2) The frequency counts of the *Optional Infinitive Stage* (=OI) that consists of files 12-17 is presented below in (9) Table 1.3.[x]

(9) Table 1.3

		Case Marking: Files 12-17 (2;6-2;8)			
		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 (10'):

(10) Nominative Case [-T/+Agr]
- a. He cut the tree (=pres.) (file 21: 3;0)
- b. I play a water (=past) (file 23: 3,3)
- c. He get a bat (file 24: 3;4)
- d. He do it (file 25: 3;6)

Default Accusative Case [-T/-Agr]
- e. Me kick (file 13: 2;6)
- f. Eat me (VS) (file 17: 2;8)
- g. Me get it (file 21: 3;0)
- h. *[What] him doing? (3;6)
- i. Him gone (file 25: 3;6)
- j, Him eat (file 25: 3;6)

(10') IP *(IP-Utilization)* *(IP-Structure)* (IP) (= -Agr,-T)

```
        |    /     \                                  |     /     \
        |    I       VP                               |     I       VP
        | [+Agr,-T]  /    \                           | [-Agr,-T]  /    \
        |         spec    V'                          |         spec     V'
        |            |    /     \                     |            |      /     \
        |            |  V     N/DP                    |            |      V     N
```

a'.	He_i	t_i cut the tree (present)		e'.	$(ø)_i$	Me_i	kick---	
b'.	I_i	t_i play a water (past)		f'.	$(ø)_i$	Me_i	get	it
c'.	He_i	t_i get a bat	g'.	$(ø)_i$	Him_i	gone---		
d'.	He_i	t_i do it						

In (10'a-d), IP is both well *Structured* and *Utilized* due to the correct usage of abstract Nominative Case--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 to 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 stereotypic *"I+want+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. We can now tentatively conclude, by these observations alone, that stage-1 is without Case. The overriding questions *(i)* how the child *delearn*s this rote-learned Nominative and *(ii)* how she eventually obtains the proper Case-driven (Nominative) grammar can only hoped to be answered by first fuller understanding of the intrinsic modules of the brain which underpin these distinctions laid out between the two stages: (viz., thematic-lexicalism vs. functionalism for stage 1, 2 respectively). (Interestingly, the same question equally applies to adult grammars--e.g, how do *simple-form-meaning* constructs *differ* with respect to their formal categorial counterparts--recall, even adult grammars often make productive use of primitive constructs such as *Idiomatic* expressions *(Kick-the-bucket)*, *"Tourist"* foreign vocabulary rote-learnings (based purely on phonological-pragmatics) *(Arrivederci, It.)* etc. 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 constitute 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 PF), they henceforth must structurally project (at PF). Thus, by definition, the OI-stage must describe all projections (minimally) as IPs notwithstanding feature underspecifications having to do with IP itself. Moreover, a second issue remains outstanding here regarding the positioning of such underspecified Subjects at the OI-stage. In light of previous discussion concerning the Principles of Economy as well as with

tentative findings presented earlier (recapped here) regarding Neg initial constructs, we shall make do with the *null-hypothesis* and assume that such Subjects may remain within Spec-VP whenever possible (ex. 10 e-j).

(Neg Initial Recap: Insert) Let us digress a moment to review data on Neg initial constructions as presented earlier in--in recapping our findings, we may determine the plausibility of the Subject to alternate between (*in-situ*) Spec-VP and Spec-IP positions (at the OI/IP-stage). The findings, as a whole, suggested that Neg initial constructions could Head both lexical and functional projections: NegVP and NegIP respectively. The distributions were seen as follows:

(11) Files 21-24

Neg initial VP	Neg initial IP
a. No [VP me get it]	d. [IP_i...No [VP_i I got it]]
b. No[VP it broken]	e. [IP_i...No [VP_i He sleeps]]
c. No [VP baby do it]	f. [IP_i...No [VP_i it works]]

The token examples above suggest that even at the IP-stage, early Nominative Subjects may remain *in situ* in Spec-VP. Pierce (1989) cites a number of examples that suggest the same. She concludes that, at the early IP-stage, children may fail to raise the Subject from out of Spec-VP. She further suggests that the structural Nom Case appearing on the subject has been assigned under a government relation with IP (here indicated by the trace). However, there are a number of problems with this approach--two of which are most notable: first, the *Discontinuity* between child-adult grammars; and second, the notion that Neg escapes barrierhood status for Nom case marking (cf. Adjacency Condition) (see Radford: 1994ms for further discussion on this topic). However, such problems may become less costly if we can also find further evidence to support Pierce's claim--presumably, in examining whether or not the Aux(iliary)/M(odal) is restricted from such NegIP constructions. In other words, if Subjects (in Spec-VP) were to precede the Aux/M of such NegIP constructions, (e.g., *No I can go/No I do make*, etc.) then a case could be made (against Pierce) that Neg is, in fact, situated above IP within Comp (i.e., taking an IP as a complement (cf. Stromswold: ms1996, Laka: ibid)). However, this is not borne out in my data (nor is it extensively borne out in data elsewhere):[xii] all instances of Auxs/Ms are correctly positioned after the Subject and before the Neg (e.g., *I do no(t) know*...etc. (see (20) below for Aux-Do Insertions). The correct positioning demonstrates overt Subject raising into Spec-IP and rejects an alternative Neg-in-Comp analysis--favoring Pierce's account.

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 Underspecification model as mentioned above. E.g. proponents of *Structural Uniformity* would rightly argue if *some* clauses are IPs (at stage-2), then *all* must be (at least) potential IP-structured projections (at stage-2). However, owing to the dilemma faced here in assuming that the (Default/Acc-Cased) Subject originates and remains within Spec-VP, (since there is no

empirical evidence of its movement for purposes of checking), we are rather cornered with projecting a theoretical and abstract IP (indicated by (ø)) for Spec-IP). 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 PF) once they are acquired (*not mastered*) by the child. This follows from the fact that unlike a *weak* [-Agr]--which basically reduces to a *non-Agr* [øAgr], given Agr crucially and exclusively depends on strong feature for its existence--T essentially remains strong 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 has been projected at PF by the child, the category [T] must thereafter remain at PF. The fact that, at the OI-stage, the child may treat T as underspecified 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] (see §1.2.1. for [T] at the VP-stage). Hence, I make use here with a trace in Spec-IP for such cases only to capture this theoretical T-operation while, to 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 [ø/-UG-P] from the outset, awaiting further input). In short, there are implications here for how we can account for observed Subject VP-internal structures seemingly at the Optional-Underspecification IP-stage. Since a weak Agr has been selected (cf. 10'e,f,g) no morphological movement can be attracted to it. Firstly, *Agr can only exist when it has strong features* attracting only overt movement--Nb. Agr can't 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, the reduced VP-stage (as seen in stage-1) can't suffice. This is the crucial difference between my stage-1 (where no IPs were reported at all) and stage-2 (where the acquisition (albeit not the mastery) of IP was spotted. 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 (10 e-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 were 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 §1.2.3 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"* doesn't 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 not to project--much in the same manner as the finite particle *'to'* is assumed not to project. Consider such early examples of [-T/+Agr] SVV constructions with mostly ambiguous finite main verbs:

(12) Nominative SVV [+Agr/-T] with Infinitive *"to"* omission:

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

(Nb. There are no counter examples of an apparent Tense bound matrix clause without a *"to"* infinitive complement: *e.g., He wanted/wants go home*, etc., is not attested in my data. Such examples falsify my argument here that *"to"* has tense and binds tense to its matrix INFL-clause.)

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 alongside the *suffix "s"*. E.g., 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"* doesn't 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. +Marks Tense [xv] (Radford: lectures '97)
a. Him cries (-Agr)
b. I works (+Agr invisibly marked)

II. -Marks Agreement: (+Agr invisibly marked)
c. (He cry)
d He crie-s- ([+T], *"s"* doesn't mark Agr)

III. +Marks Tense (+Agr invisibly marked)
e. He cries

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. ø otherwise (perhaps as a universal default)

and, if we assume (contra 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)

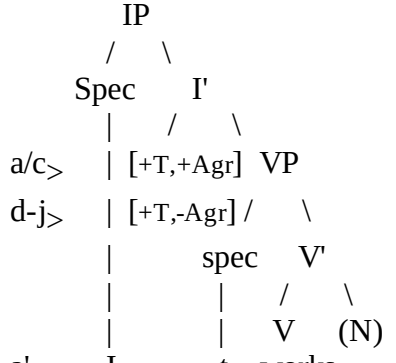
Noting in (13) above the phonological sameness of II and III with regards to *cries* (ex. d, e)--viz., it remains impossible to tell in English whether or not only Agreement projects (as opposed to both agreement and tense) regarding the suffix *"s"*. However, what we gain by postulating example (c) 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 made showing how a T feature (*"s"*) could go 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, *et 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 distinction 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 (Radford: lectures '97).

Similarly, examples of an *overgenerated/default* suffix *"s"*, may likewise be interpreted in ways which attribute *"s"* particularly to T only and not Agr (though Agr is correctly marked by the Nom Subject in ex. a-c) (p.c. Radford). 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)
b. I hurts (file 24: 3;3)
c. I makes (file 25: 3;6)
d. Him cries (file 25)
e. Him is hiding (file 25)
f. Him not (file 25)
g. Where is you? (cf. §1.2.3-Table 1.8)
h. Here is me (file 24)
i. You is done (file 24)
j. You is no nice (file 24)
k. This is your books (file 25)
l. Him is my friend (file 25)

(16')



a/c> d-j>

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 books (Non-Agreement for plural *"+s"*)

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 Plural Agreement--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 rendering an overgeneralization effect to that described above: specifically, while the suffix *"s"* doesn't project its proper person/number Agr-features--e.g., rendering instead an impermissible 1sg Nominative (cf. ex. a-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

[ø]. 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 adhere 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 then 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). 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 Tense and thus doesn't involve itself with the (invisible) Nominative assignment [+ Agr].

Recall at the end of (§1.1), we discussed the possibility that IP may split into two merger operations--merger at PF and merger at LF. The above analyses of *"s"* as a Tense feature here further adds empirical support to that notion: examples (cf. 10) a. *He cut the tree,* c. *He get a bat,* d. *He do it* all demonstrate an AGR_{sp} [=assigning Nom case] merging at PF while 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. As an interesting side-note (pointed out to me by Radford p.c.) these assumptions jibe nicely with what we know about *"South-Western British English"* which overgeneralizes the *suffix "s"* throughout the present-verbal paradigm: (cf. *I/We/You/She/They hates syntax* (Radford 1997ms ch. 10: p7)).

1.2.3 Possessive Structures

The following section is two-prong in nature. *(i)* Regarding a stage-1, I claim that this initial stage manifests no inflections whatsoever: contra Wexler, I find no clear evidence of Optionality. Following suit, I then compare and contrast the data (Tables 1.4 & 1.5)--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 empirical light on the generally held hypothesis that *No Correlation* necessarily holds between D and I outside the appropriate checking domain (e.g., there should be no correlation say between a lower Object-DP and INFL).

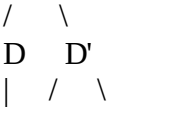
(Previews) Stage-1 (see *Data* section below) suggests a *Prefunctional Stage* (viz., an early stage which preexists underspecifications). N+N (=Genitive) constructions are used alongside sporadic usage of (non-verbal clause DPs) *My/Mine*. (The usage of the definite determiner *The* is fully productive from the earliest files (cf. §1.2.1)). Early usage of the determiners *My* and *Mine* may indicate that these Poss(essive) Nom(inals) are, in fact, *Analogous* to the robust early (file 1-7) usage of D(P) *The* (=*Analogical-The*)--i.e., they comprise of Default Case without their formal features of Genitive Case and don't incorporate verbal elements.[xix] Hence, all DPs (alike) at this stage would possibly mark for +Def(initeness) only. In this sense, the young child may freely alternate between *Analogical-The* and *My/Mine* for the following type of logical expression: e.g., [$_{DP}$ D [+Def] +N]; as in *The-My/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.) There is some preliminary evidence to suggest that the child's early (overgenerated) use of e.g., *Mine's* (found in my corpus and elsewhere in the literature) may indeed be accounted for in such a manner (cf. Radford 1990: 108ff) [$_{DP}$ Mine [D 's] N book]].[xx]

> In short, while *The-My/Mine* examples are attested early on, we would not predict the overt morphological marking of Possessive *'s* for this stage--whereas such marking would be a clear indication of the acquisition of Case/Agreement morphology. (Nb. This is empirically borne out--the first signs of the productive usage of possessive *'s* come in the very latest files. (See the section on Stage-2)

(Theory) Let's pick-up on Hoekstra et al's observation of a D-I correlation (cf. §1.1). 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/underspecification 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., [øAgr]) or the underspecified 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 [ø/-Agr]] book]

(17') DP Underspecification of Agr



b> | [+Agr] N
c> | [-Agr] |
| | |
b' John 's book
c' John ø book

We henceforth follow Chomsky (1995: 261) 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, Radford (p.c.) has come up with the interesting idea that *'s* must somehow check its *personless features* with the nominal in Spec. Since Nominals don't 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's 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. (all of which show *'s* to be in Head of D) is to say that the possessive *'s* can't attach to a Pronominal with +Agreement/Case. In other words, this amounts to saying that *'s* checks for Nominal (default) *personless-case* features (e.g. John [-Per/-Agr]) and is exclusively associated with non pronominals. In a paradoxical sense, +Agr (cf. 17b) might actually mean the formal checking-off of an -Agr *personless feature*.

We draw our attention here to the utterance *John book* (=Gen) (cf. 17c) regarding the prefunctional stage-1 below. In (17c), the Head of DP is vacuous. The above token example is taken from my stage-1 and typify this structure. The claim made here is that while early (nonspecified) 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 two fold in nature. *(i)* Firstly, (cf. §1.1) we wish to suggest a two tier class of DPs: a DP>VP (which has a lexical categorial status), and a DP>IP (which has a functional status). *(ii)* Secondly, the DP-analysis here jibes with the earlier observation that DPs may be initially miscategorized as having lexical category status (cf. Radford: 1990). Recall we were able to account for the overgeneralization of e.g., *Mine's book* etc. in this way (see note. 20). Furthermore, we may wish to take a hard stance (following Abney) and suggest that once the determiner *The* is acquired (cf. §1.2.1), a DP must project. Consider the following token examples taken from the prefunctional VP-stage found in my data (files 2-7):

(18) DP
/ \
Spec D'
| / \

| [øAgr/+Def] Comp

| | |

a. Daddy Ø truck => *N+N* (=Genitive) Det.

b. The truck => *The* Det.

c. My/Mine truck => *My/Mine* Poss Nom. Det

In the above structure, the Agr feature is [øAgr] absent altogether. However, since +Def projects (the feature being closely associated with Determinacy), the overall DP projects. Such default DPs at this VP-stage match--though for different reasons--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. Hence, categorial features along with +Interpretable nominal features (viz., semantically based ϕ-features) are immediately accessible to the child. Case properties [+Agr/-Intrepretable] on the other hand are out of limits for the child at the prefunctional 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:

(19)

Poss.Nom. Det		Default Case	Mis-specification	Example
a. *The*	=>	+Objective	-Nominative	*The truck* go.
b. *Daddy* (N+N)	=>	+Objective	-Genitive	*Daddy truck*...
c. *My/Mine*	=>	+Objective	-Genitive	*My truck*...
d. *Me*	=>	+Objective	-Genitive	*Me truck*...

e. *Him* => +Objective -Genitive *Him truck*...

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 effected by Hoekstra et al's D-I correlation (cf. §1.1) 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; (cf. 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 the data that *(i)* such asymmetries exist and *(ii)* that such asymmetries arise in nature from syntactic deficits. Recall that in §1.2.2.1, cf. Table 1.3, it was discussed 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)* infixed within a VP-projection of an otherwise underspecified 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--viz., only those +Def/phi-features apply--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 cited above, my data suggests there to be a prefunctional stage where only N+N (=Genitive) constructions and Caseless (clause fragment) *My/Mine* DPs appear. 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 (as in morphologically rich languages) or feature (as in English) associated with Case. An altered tactical approach to LDA would be to assume that although the child has indeed acquired the lexical entries for e.g., Possessive DPs e.g., *My/Mine,* such entries lack properties of case specification and, thus, are to be considered as completely different (lexical) entries altogether--as opposed to their +Agr case marked counterparts *My/Mine*: (similar to the DP>IP/VP distinctions of *The* drawn-on earlier in this chapter). (Though, of course, the two sets are homophonic, we shall take the latter [+Agr] to be case marked only when we have sufficient evidence--taken from other means--that Case has been acquired. The essential criterion for determining (Gen) case here is the acquisition of possessive *'s* coupled with other factors regarding the acquisition of e.g., Nom/Acc Case, etc.) 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 1.4) 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" criteria as mentioned above--never manifest at Stage-1 (§1.2.2.1-Table 1.2 for statistics on Nom/Acc Case). *Compare* and *Contrast* the Tables (cf. 1.4, 1.5 and 1.6) illustrating a bi-model pattern of *Inflectional Acquisition*:

(21) Table 1.4 *Stage-1* (files 2-8: 1;10-2;4)

Early Possessors: VP-Stage [-Agr]		Token Examples: Stage-1
a. N+N(Gen)	n.=86	a'. Daddy truck. Mama bottle. Nicolas turn.
b. Pron.Poss	n.=13	b'. My cat. Me turn. Me pen. Mine bottle.
**My/Mine*		*(My/Mine=restricted to clausal DPs)
c. Poss.*'s*	n.=0/86	(n. 86=obligatory contexts)
d. *His/Her*	n.=0/0	(no obligatory context: files 2-8)
e.. Det. *The*	n.=100+	e' (see §1.2.1 for examples)
(cf. *My/Mine= "Analogical-The"*)		

(21') Table 1.5 (files 12-25: 2;6-3;6)

Possessors: Frequency and Development for Obligatory Contexts

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			*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*	

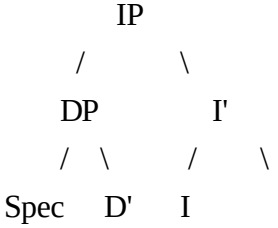
(21'') Token Examples (cf. Table 1.5 above)

a. I want me bottle. Where me Q-car? That me car. Have me show.
b. Mine pasta, My pasta, I want my key. It is my t.v. Where is my book?
c. No you train, It's you pen. It's you kite. It you house?
d. Where's your friend?, Close your eyes. It's your car? I got yours
e. I want to go in him house, Him bike is broken. It's him house.
f. What's his name (x3)

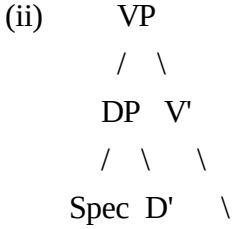
The Data drawn from these two tables (above) seem to suggest that Inflectional (Agreement) is gradually acquired until the *mastery* threshold establishes itself at around 3:0 years: (cf. R. Brown's 90% criteria). The distinction made here between early *"Analogous-The-My/Mine* constructs (cf. Table 1.4*)* and those herein above (Table 1.5) is that the early types never incorporate Verbal elements and are said to be analogous to the early spotted Determiner *The* (among the very first files)--both DPs *The* and *My/Mine* here mark for [+Def] only and are said to be unspecified for Agr. It is clear that at the later stage, where IPs are formed which incorporate Agreements, that *My/Mine* examples now do have access to proper Genitive Case.

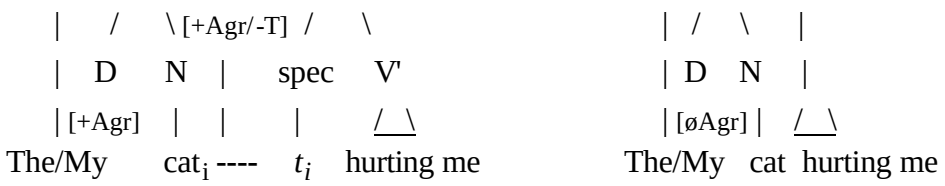
Regarding the early usage of *The* and *"Analogous-The"-My/Mine*, the two predominate schools-of-thought would characterize their typical structures based on the above examples as follows:

(22) Continuity Account

(i)


Structure-Building Account

(ii)




In (22i), the DP correlates both its Internal D-Spec feature [+Agr] (*My*= +Gen) and External I-Head feature as [+Agr] (*cat*= +Nom), whilst seemingly in the absence of any other overt specification for INFL. Tense is unspecified and Agreement may or may not be specified, depending on the account you accept here. (Whatever the case, no overt factors present themselves in such a way as to force a +Agr specification for (22i) outside of theory internal reasons.) We take it that the most parsimonious structure is clearly that of (22ii) where there is no overt need to project +Agr since the DP might just as well be considered as Objective [-Agr/+Def] (carrying the default case). In this sense, the DP is not +Gen though the two structures phonetically resemble each other (see note 20).

Our claim here is that stage-1--where there is no evidence otherwise for INFL--we follow in the spirit of Radford (ms1997) and suggest that overt DPs (in subject/object position alike) may be forced into taking default Acc case since there are no functional categories that could possibly host the moved element driven by checking. In the sense of (22ii), there is no established checking relation within DP just as there is no checking relation within IP: since Agr/T are inert, they have no need to enter into a checking relation. (In the words of Radford (1990: 103), *My/Mine* are imposters.) We take the Analogy (cf. 21c) that the Determiner *The* can equate to the pronominal possessive *My* as a natural extension, given the fact that they both seem to encode purely semantic/+Interpretable features at this stage-1. In the sense of (22ii), *The/My* pertain to +Interpretable (phi) features having to do with informal semantics of e.g., definiteness/determinacy, and have nothing whatsoever to do with more formal/abstract features such as Case. Hence, the distribution and inter-relation between overt (Pro)nominals can be summarized as follows (Radford: class lectures '97):

(23) 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* [ø/-Agr] (via default) otherwise (=> VP-Stage)

It is clear from this distribution that the early *The-My/Mine* examples above can't be considered as having true Genitive case since they are considered here as carrying the Default Objective case (cf. 23c).

(Interim Summary of Stage-1) One interesting observation that we can deduce from the data thus far is that a correlation, (pointed out to me by Andrew Radford), seems to hold regarding the general acquisition of a wider range of Inflection types. Radford (Radford & Galasso: ms.1998) makes 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-Prefunctional 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 (potentially all-at-once) all previously blocked formal aspects of grammar. In this sense, Radford's (1990) original thesis that claims for a functional correlation--i.e., that functional categories DP, IP/CP (as a whole) embody a qualitative kind and thus should be triggered to come "on-line" simultaneously, (in a given child), once those factors of maturation are in place--seems to ring true. For clarity, let's recap the general claims being made here:

(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 (where the subject, if case marked, acquires the *default* Accusative setting).
(ii) The Data shows a symmetry illustrating parallel development of +Agr/Inflections Possessive *'S* and Verbal (excluded here are potential stereo-type early Copula constructs (see §1.2.3 *copula*) 3sg-pres *+S*, restated in Table (1.6):

(24) Table 1.6
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 1.9--excluding the early 9 counts which were assumed to be of a stereo-typic nature. Poss. +S cf. Tables 1.4 & 1.5)

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 in unitary fashion for the child. 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 Infections (cited above) are *one-of-a-kind* and both pertaining to IP:

(25) a. [IP Pat [[+Agr nom] 's] cough] (=> [+Agr] Nominal)
b. [IP Pat [[+Agr verb] 's] coughing] (=> [+Agr] Verbal)
c. [D/P^0 [$_{IP}$ John ['s [car]]]] *(cf. Kayne 1994: 105)*

In this sense, Kayne reduces the generalities behind the two cases of Inflection to a common ancestral Agreement--viz., both inflections ultimately governed by IP (25c).

(Data: Stage-2) Insofar that we acknowledge an OI-Stage (Stage-2), we put aside

theoretical issues and focus rather on empirical content. This section examines if potential correlations emerge between *specified* vs. *undespecified* verbal IPs and relevant *agreement vs. nonagreements* (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 Spec-features, say within an Object-DP, are independent of Spec-features within IP regardless of underspecification. Namely, the assumed D-I correlation (Hoekstra et al.) is expected to hold configuration 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 underspecification--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 underspecified 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 labeling here are considered as mnemonic devices.) The purely hypothetical notion I am playing-on runs as follows: iff Agreement suffers a general deficit (i.e., [-Agr]) in one phrase of a sentence, say Object within VP, then the Subject within IP, *via extension*, likewise instantiates some deficit.

The examples below are merely geared to dispel any scenario for an inter-phrasal IP 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*.

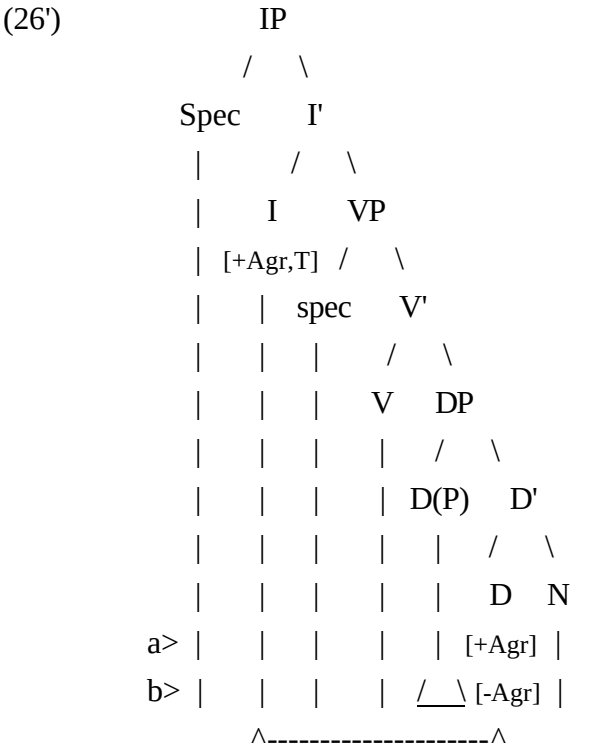
(Poss. Nominals with Copula) The first clear bit of evidence against any such wide-ranging Agr-based correlate comes from Possessives with Copula Verbs. This stage represents the onset of functional categories where IPs are seen to project at will. Table 1.7 below illustrates that the specifications 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 underspecified (independently) within an overall INFL-projection.

(26) Table 1.7

Poss. Noms with Copula Verb

IP constructions		Token Examples
a. Correct Case:	n.=190	a'. It is *my t.v*. It is *your "e"*. That's *your car*. It's *Nicolas'*. It is a *man's paper*. What's *his*-
b. Incorrect Case:	n.=40	b'. *Him eye* is broken. *Him bike* is broken. Where's *daddy bike*? It is a *boy bike.* It's-*dad turn*. *Daddy t.v*. is broken.What's *him*-

(26')



a.' It_i is_j t_i t_j a man 's paper
/my t.v.

b.' It_i is_j t_i t_j a boy bike (no Agr/I, Agr/D correlate)
/daddy turn

The ratio of incorrect-to-correct Possessive Case constructions within an IP Copula phrase is approx. 1:5 (respectively) with an overall 17% incorrect usage for required contexts. The percentage may not seem large at first sight, but keep in mind that our only task here is to dismiss any notion behind a wide-ranging Agr correlation--nothing more. In fact, the 17% usage of incorrect Poss. Noms. within IPs should by no means be cast as insignificant.

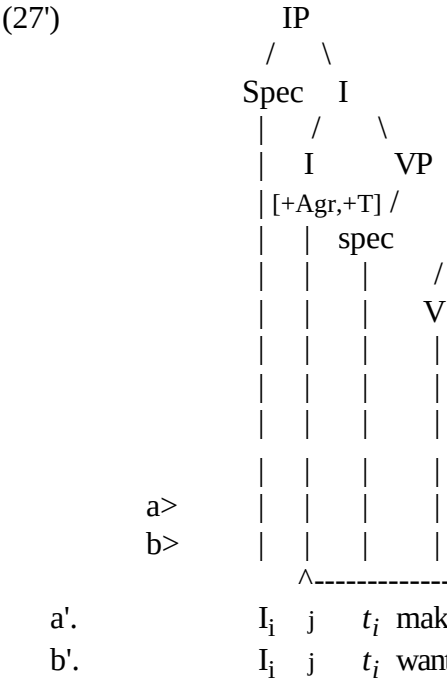
(Poss. Nominals with Nom Case) The second bit of evidence comes from Nom Case constructions.

(27) Table 1.8

Poss. Nominals with Nom Case		Token Examples
	Nom Subject	a'. I want *my apple*. I make a *car's home.*
		I get *your pants.* I am doing *your music*.
a. Correct Poss.	n.=76	I cut *baby's hair*.
b. Incorrect Poss.	n.=18	b'. I want *me money*. I got *baby car*. I broke-

daddy t.v. I want to go in *him house.*

(27')



The analysis of the data correctly supports the hypothesis that a lower Object DP can't be effected by a general D-I correlation. This sufficiently proves the notion that the correlation can only hold with respect to proper Adjacency principles, Spec-Head configurations and checking domains. A +Agr INFL in no way can impede upon the specification +Agr with regards to a lower D(P). (See §*Additional-Errors* below for relevant analyses of -Agr DPs).

Regarding Table 1.8, a slightly lower 1:5 ratio (approx) is stated with an overall 19% incorrect usage for required contexts. (Out of the entire corpus, only 7 examples of underspecified Acc Subjects (for stage-2) with correct Poss. case were attested.)

(Additional Errors) Notwithstanding the abundant usage of correct Genitive Case regarding the Optional Stage-2, three further types of errors continue to be reported. (28) gives some token examples:

(28)

Genitive Case Errors (Obj Prn in Genitive contexts)	Genitive Propositional Case Errors (Gen Prn in Nom Prn contexts)
a. Me car (=my) (file 14: 2;7)	j. My do it (=I) (file 22: 3;0)
b. Where me car? (=my) (file 16: 2;8)	k. My get it (=I) (file 21:3;0)
c. Me pasta (=my) (file 18: 2;9)	l. My wet (=I'm) (file 21)
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)	
Prenominal/Pronominal Gen Errors (files 18-19)	
g. Mine pasta (=my). h. Don't touch my! (=mine). i. It my (=mine)	

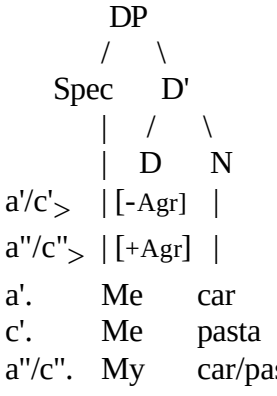
(*A small set of case errors were found to have Spec-final (N+D) orderings: their significance (albeit few in number) might be linked to a potential Spec-final option in the (preparameterized) grammar (UG)).

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

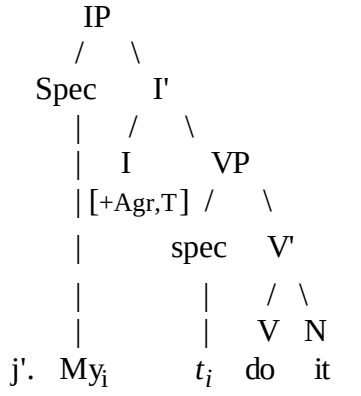
constructions. More specifically speaking, in maintaining that Nominative Case is assigned by a finite [+Agr] feature in I, we may similarly postulate that Genitive Case is assigned by a possessive [+Agr] feature in D.[xxii] Therefore, by extending the same conditions to DP as we do with respect to formal 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 tactic approach would be to state an underspecification 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:

(28')

<u>Genitive Case Errors</u>



<u>Gen *My Subject* Errors</u>
(*My*=Analogical Nominative)



(Regarding the instances of Prenominal/Pronominal Genitive errors (cf. 28g-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 certainly 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] The view that *My-Subjects* are Analogical Nominatives also accounts for the fact that they are rarely observed in the environment of 3sg Inflection. Examples such as e.g., *My does it* are unattested in my data. 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 (as in example (i) above), would simply be analyzed as a Nominative Subject--being checked by a [+Agr] feature in I.

1.2.4 Pro

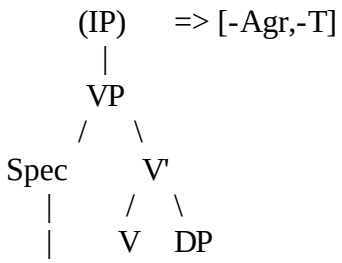
My data on Null Subjects (=Pros) further suggest a Wexlerian (Optional Infinitive)

approach: i.e., the distribution of null subjects seems to follow quite straightforwardly from the specification of I. Schütze (1997: 263) likewise concludes that the licensing of Pro is independent of the feature responsible for checking the case of the subject: Pros may be licensed upon the alteration of [+/-Agr]. While GENs and Pros share possible spell-out with [-Agr], NOMs and Pros share possible spell-out with [+Agr]. The unique spell-out of Pro itself, regardless of Agr, rather crucially depends on the absence of Tense contrasts [-Tense] specification in I (referred to as TP). Thus, according to Schütze, the combined specifications [-T,-/+Agr] may license a Pro.[xxiv] In unambiguous [+Agr,+T] environments in my data, null subjects don't seem to occur (Nb. Although I don't wish to discount the possibility that (pragmatically-based) *Topic/Diary-drop* structures may occur within finite main clauses).[xxv] Syntactically-based Pros, on the other hand, seem exclusively to occur among the total absence of I specification--i.e., the unspecification of Agr (having to do with phi-features) and T--resulting in [-Agr,-T]. (In fact, I have only one unambiguously Inflected main clause with a Pro in all of my corpus and it seems that it can be attributed to the Neg initial stage *No (Pro) works* (=Daddy doesn't work)). In a similar vein with Wexler et al. (1996a,b)--who attribute general Case assignment to the specification of Agr (within a finite I) and not Tense--Hyams (1994), Hyams et al (1996a) suggest that the following distributions of Pro may be accounted for in a straightforward way. That is, Pro is licensed by the apparent absence of an Agreement specification in I, and, in particular, the absence of the number feature in D. Hyams (et al.) would therefore predict that Pros occur within non-finite constructions only. This correlation between Pro and unspecification of I is borne out in my data.

(Pro in Spec-VP) One alternative way of interpreting such early [-Agr,-T] Pro constructions is to take the more parsimonious *Structural Deficit* view and propose that Pro, in fact, occupies the Spec of VP--having nothing whatsoever to do with a seemingly vacuous IP projection. Since we already assume that Subjects start out in Spec-VP, a feasible alternative to a Spec-IP structure would be to postulate that Pro simply doesn't raise from out of Spec of VP into the functional projection Spec of I. In adopting this stance, a clearer account can be offered of why and how the unspecifications of Agr and T do occur in early small clauses: mainly, the category that hosts the features simply doesn't project.[xxvi] Consider some token [-Agr,-T] examples of Pro found in my data.

(29)
a. Pro (=I) kick the dog (file 4)
b. Pro (=I) want car (file 9)
c. Pro (=He) eat a cake (file 19)
d. Pro (=You) hurt my eye (file 23)
e. Pro (=He) cook pasta (file 18)
f. Pro (=She) want bottle (file 10)
g. Pro (=I) baby kick ((OV) file 11)
h. Pro (=I) dog kick (OV) file 3)

(29')



| | | △
a' Pro kick the dog
c' Pro eat a cake

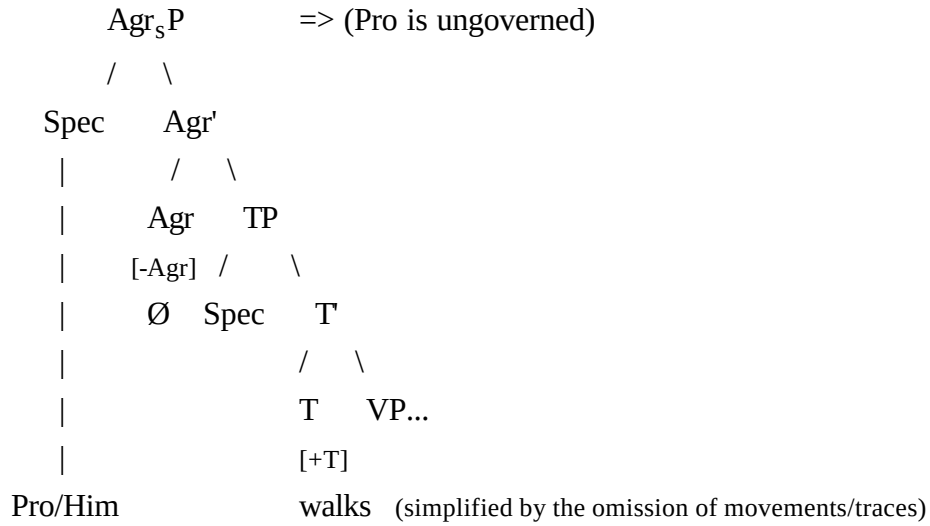
Moreover, the above VP-analysis is consistent with the view that (big) PRO in adult "*To*" infinitives is in Spec-VP and not in Spec-IP. This is deduced from the notion that the cliticized *wanna*--(=want to) in e.g., (*I wan-na* [VP (PRO) *see you*])--formation is not blocked by the *would be* intervening PRO in Spec-IP e.g. (**I wan*-(PRO)-*na* [VP *see you*]) (see Baltin 1995: 244 cf. Radford: ms1996). However, notwithstanding the given child-to-adult continuity here regarding Pro in Spec-VP, we must still develop a licensing mechanism for dealing with the checking of Pro--be it in Spec-IP or Spec-VP.

In fact, a dual licensing of types may be in order here. All missing arguments, including Null Subjects at the lexical/thematic VP-stage (Stage-1), could, in principle, be analyzed as *Lexically Saturated* items which are considered implicit and thus void of syntactic projection (Radford 1990: 198 ff). In the case of Pros at the small clause VP-stage, there are no (formal) syntactic conditions--hence, it is likely that Pros are freely licensed to occur in any given environment for this stage. Moreover, regarding the approximate target-grammar (Stage-2), we could still follow Schütze (op. cit) and claim that *Spec-VP-Pros* at the OI-stage are licensed by the outer IP (TP)--similar to what we find with *Exceptional Case Marking* (ECM). For the child here it may be much the same: although according to my account, Pro would be licensed via the underspecification of Agr and not T. Recall that in Schütze's model, T and Agr_S are fused under TP; hence, it becomes natural for Schütze to assume that Pro is licensed by TP since it also encompasses Agr_SP as well. In our revised model where T and Agr project (independently) their own Heads and perform separate tasks (viz., as witnessed by the unitary function of the suffix *"s"* marking T and not Agr (cf. 13)), we do not have the luxury of relying entirely on T as the unique Head Node of the Functional Phrase. Rather, for our purposes concerning a sole Pro licensing, we must consider Agr. For example, in eliciting an AGR as a potential licenser of *Spec-VP-Pros* (for the OI-stage), a natural inference might be that Pro here is checked by a weak case feature via attraction (and not movement) to the outside IP (=AGR), and that such checking would be done under a non-fused Agr (cf. 15). This might entail that a weak case feature (in AGR) licenses Pro just as it is responsible for the default Accusative case in [-Agr,+T] constructions e.g., *Pro/Him goes*, and [-Agr,-T] constructions e.g., *Pro/Him go*, (cf. 16) at the OI-stage). This differs with Schütze in that we now assume that Pro may, in theory, contain a [+T] alongside a [-Agr] specification (Nb. Although Schütze maintains that only the [-T] specification may actually trigger Pros, he nevertheless asserts that the [-Agr] specification is indeed a possible setting for its occurrence. Also, let us note here that such a non-fused T(ensed) P(hrase) which only utilizes a +Interpretable [+T] feature and none of the remaining formal Agreement features may be considered as [-finite] if we wish to define Finiteness as an Agreement relation (e.g., as in the checking of +NOM case with +Finite. See note 15).

The *Spec-IP-Pro* analysis, alternatively, would also be consistent with Chomsky's *Pro Theorem* (in 33 below) that stipulates that the Functional Head closest to the subject

position remain empty. Following Pollock's (1989) original model, in which T and AGR are projected as separated Heads (and not fused), we may still abide by the conditions of the Pro theorem by stating that if Tense is specified [+T], a [-Agr] specification could still elicit Pro--where the nearest Functional Head of Agr_sP is void of lexical content:

(30)



Drawing attention to the distinctions between a Pro in VP/IP, it is clear that the files presented above suggest that Pro occurs within the Optional-Stage-2. Thus, we are obliged (as discussed above) in projecting an *abstract IP* [-Agr,-T] (at least for those files starting after file 8 since we have established that the Optional-Stage-2 has begun by file 8). At this juncture, we have the option to either accommodate the *Pro-Spec-IP* or VP models--whereas only the *Spec-IP* version would seem to be in accordance with Chomsky's theorem in (33). This alternative licensing of *Pro-Spec-IP* might be equated with the child's treatment (in some instances) of the default Acc case. Consequentially, this would suggest the following remodeled AGR paradigm of Case for D and I:

(31)

	Feature Specification	Subject Case	Example
a.	[-Agr] Head of I (main clause)	=> Default ACC, Pro	*(Pro)/Him go-es*
b.	[+Agr] Head of I	=> NOM	*He go-es*
c.	[-Agr] Head of D	=> Default ACC	*Me car* (=My car)
d.	[+Agr] Head of D	=> GEN	*My car*

This also jibes with a study done by Hyams (1994) where 25% of the verbs used with Pro structures utilized a suffix *"s"* inflection and 56% utilized a past *"ed"*:

(32)

	Pro with suffix "s"	Pro with past *"ed"*	(ADAM 2;3-3;0).
e.g.	*Pro walks/is/am/are,* etc	*Pro walked/goed/dropped,* etc.	

Such findings go hand-in-hand with earlier discussions in this section that sought to define the suffix *"s"* as a Tense marker and not as an Agreement or dual Tense/Agreement marker. Hyams accounts for such Pros among verbal inflections by making the strong claim that

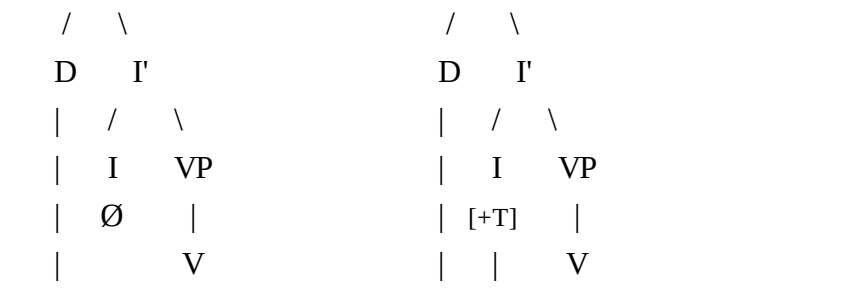
the suffixes *"s"* and *"ed"* in child syntax don't actually mark Tense, but rather are *Aspectual Participles* agreeing with their subjects (i.e., *"s"* and *"ed"* mark participial agreement (*"s"* marking number and not person). There seems to me to be no reason for such child-to-adult *Discontinuity* regarding the inflections *+s/+ed* other than, perhaps, to save the Pro theorem in (33):

(33) Pro Theorem
(a) Pro must be ungoverned (Chomsky: 1981)

(b) Pro requires Null Case--i.e., checked by a Minimal INFL
(Chomsky and Lasnik: 1992)

Hyams asserts that the problem with having a specified T alongside a Pro is that it breaks the condition in (33) shown in (34b) (Hyams here shows overt verb raising to I):

(34) a. IP (Pro ungoverned) b. IP (=TP) (Pro governed by T)



* Pro (Hyams 1994: 8)

However, if we were to adopt the *Spec-VP-Pro* analysis for (34a) as discussed above (cf. 29'), then the condition in (33) becomes rather meaningless and is thus no longer valid for the VP stage: i.e., such a Pro in Spec-VP can't be governed by a Functional Head in any case. In addition, if we assume the *Pro-Spec-IP* analysis (cf.30), the conditions in (33) remain upheld. Radford (contra Hyams) assumes here that such Pros (34b) are in fact null subjects (diary-drops) that can occur in finite clauses. This is deduced from the fact that children produce null subjects (in main clauses) with unambiguous past tense forms (i.e., forms which they don't use after *have*):

(35) e.g. a. Ø Gave it mummy (Jem 2;0) (Radford, classs lectures)
b Ø Broke it (Adam 2;2)
c. Ø Went to a theatre (Hannah 2;7)

In this sense, since null subjects are being produced with unambiguous [+T], there seems to be some evidence to suggest that the underspecification of Agr [-Agr] might be involved--irrespective of the Tense-feature specification. (As we shall see below, I attempt to expand the distribution of Pros to finite clauses as well (dispensing with the notion of diary drop for the OI-stage)--with the caveat that the clauses aren't really finite at all, but

are rather unspecified for Finiteness and merely [+Tense] (See note 15). This, in fact, attempts to unify the theory of Pro in child grammar: i.e., both at the OI and VP stages, null subjects may either occur in non-finite or finite (main clause) utterances: the former deriving Pro with the specifications [-T,-Agr], the latter with [-Agr,+T]. Hence, Non-Noms (e.g. Default Acc and Pros) may serve similar roles here: i.e., their spell outs follow from the design of the syntax itself in that forms lacking any case feature will be given the least specific member of that paradigm (cf. Halle & Marantz: 1993). (In a sense, if the child has, say retrieval problems with the selection of a proper case, she now has two escape paths at her disposal on which to fall back: *Acc* and *Pro*. This is not to say that Pro must always function in this default capacity (unlike Acc)--other syntactic factors, including semantic/pragmatics or contextual information, may play a part.).

No instances of ProNull subjects in Wh-Questions or Subordinate clauses with [-Agr] specification are borne out from this analysis. (However, see Roeper & Rohrbacher (1994) for reports of Null subjects in non-finite Wh-questions.[xxvii] Without further expanding on this comment, the rarity of Pros among [-Agr, +/-T] subordinate clauses (e.g. *I said *Pro/*him/he want-ed one*) could be accounted for in two ways. Firstly, the absence of Pros here could be taken as a sign of the case retrieval mastery by the child--simply speaking, by the time multi-constituent subordinate clauses are acquired, the more primitive *default* means of potential case spell out has long been abandoned. Furthermore, a notion could be devised whereas once AGR features are correctly specified in the main clause, all AGR specifications in the matrix clause ensue. Secondly, we could resort to the Topic-drop account that restricts Pros from occurring in clause medial positions. Since the distributions of Pro and default Acc. are mutually assigned by [-Agr], their manner of distribution becomes rather difficult to make precise. For instance, the fact that the default Acc shows more frequently than Pro may only demonstrates that the child is utilizing the default in a productive manner, resorting to Pro in exceptional cases.

In sum, what we are claiming here are two rather different accounts for the licensing of Pro:

(i) Firstly, following Radford (1990), we consider Pros that occur at the VP Stage-1 (the stage that manifest a total underspecification of I) to be lexically saturated Null NPs (*np*) which are not constrained by syntactic conditions. In this sense, Pro is free to occur within any environment--with the added stipulation that all crucial semantic information is restored at LF.

(ii) Secondly, at the Optional-Infinitive Stage-2 (with the onset of T/Agr underspecifications viz., starting from our file 8 onwards), Pros could be alternatively licensed by an empty or underspecified AGR--in accordance with (33b) which states that only a Minimal INFL can check Null Case (we take underspecification of Agr here as constituting a minimal INFL). This results in the possible pairing of Pro with an Inflected V for Tense. The notion that Pros could remain in Spec-VP throughout remains a topic of debate--nothing in my account seems to hinge on this distinction and so I leave it open to question.

1.2.5 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 manifest (as in (10') above demonstrating +Agr/-Tns). 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.

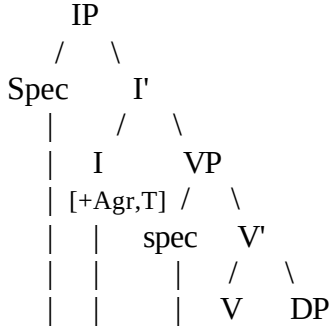
(3 sg suffix "s") Overt Tense *suffix "s"* appears productive (i.e., free from any semi-formulaic interpretation) late in my English Data (file 23: 3;2). Once we dispose of ambiguous finite utterance counts (e.g., *I go, I cry,* etc.) that may mark null [ø] tense, we are left with a seemingly small number of early Tensed *"s"* forms (recall that we considered it safe to regard ambiguous finite clauses as [-Tense] at least at the early stages). Token examples of later unambiguous 3sg/present [+finite] constructions are given in (36) below *(disregarding early *Is+N* constructions thought to be formulaic in nature (note 7) (restated from Table 1.6 above):

(36) Table 1.9

3sg/Pres +S: Obligatory Contexts	
Age	+S
2;3-3;1	*9/69 (0%) (restricted to copula *Is+N*)
3;2-3;6	72/168 (43%) (verbal *+s* begins)

Token Examples: +S (Files 24-25)
A man works a tree. Baby awakes.
That one works. Baby cries. It hurts
It rains. Elephant eats a monkey.
My Barney works. Nicolas no eats.

(36')



f'. Baby$_i$ t_i cries $\underline{\wedge}$
g'. Elephant$_i$ t_i eats a monkey

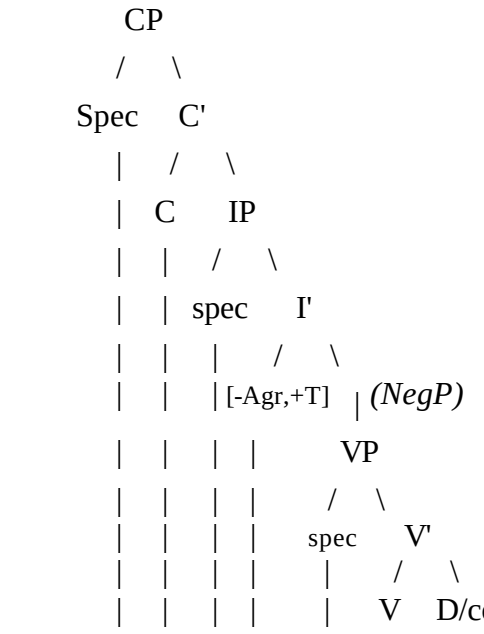
(Copulas) A second source of possible early Finite constructions appears in the form of Copula verbs. Examples include (37a-g) for Correct usage, and (37h-n) for Incorrect:

(37)

Correct Copula Use	Incorrect Copula Use
a. I am three (file 24)	h. Here are me (file 23)
b. I am a cowboy (file 24)	i. Where's you? (file 24)
c. I am not (file 24)	j. Here is me (file 24)
d. Here are you (file 23)	k. You is no nice (file 24)
e. Where are you? (file 24)	l. This is your books (file 25)
f. You are dead (file 25)	m. Here you am (file 25)
g. They are bad guys (file 25)	n. Where you is? (file 24)

All instances of correct Copula constructions (37a-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. Foremost, in examples (37i,j,n) the Pronouns and Wh-elements *Here* and *Where* might take on the role of 3sg *superficial* Subjects (the Wh-element either being base-generated or derived) resulting in the verb's 3sg inflection (with examples like 37h posing a potential problem).[xxviii] In addition, if *Is* marks present tense [+T], then *You* in examples *Where's you*? (i), *You is no nice* (k), *Where you is*? (n), would, theoretically, be Objective [-Agr]--on the grounds that if they were [+Agr] Nominative, we would expect the verb to inflect for agreement (and hence be *Are*):

(37')



k'	You$_j$ is *(no)* t_j	nice (V-to-I movement)
i'.	Where$_i$ is you$_j$ t_j	t_i (V-to-C movement
n'.	Where$_i$ you$_j$ t_j is	t_i (V-*in situ*)

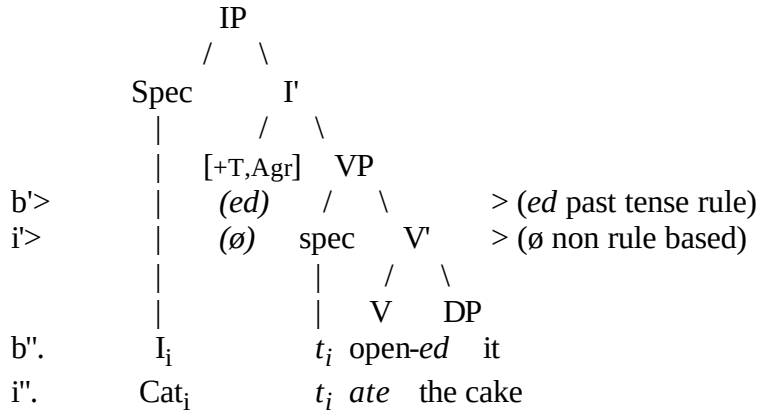
The resulting Incorrect Copula constructions seem to rely on a confusion between the feature matching of the [-Agr] Acc. Subject and the [+T] INFL--where Agr seems to be unspecified. Again, the observation that Nom Case is altogether absent from such constructions reinforces the Optional Stage Hypothesis.

(Past "ed" and irregulars) Use of *suffix "ed"* and *irregulars* was sporadic even up until the last recording. While irregulars started to be productively used at around File 12, it is not until File 23 that we record the first productive use of *"ed"*. The relatively late onset of the past tense rule *"add-ed"*, as compared to their irregular counterparts, favors the notion that the two processes may be stored very differently in the brain (see note 26). Consider the token examples below that indicate a [+T] specification:

(38)

Suffix "ed"	*Irregular past*
a. What happened the door? (file 23)	g. I did it (file 12)
b. I opened it (file 24)	h. I ate (file12)
c. I killed the bug (file 25)	i. Cat ate the cake (file 19)
d. I liked it (file 25)	j. I got it (file 19 [+past,-part])
e. I wanted it (file 25)	k.We came back (file 25)
f. I said no! (file 25)	

(38')



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 overgeneralized e.g., *I wented/goed/hitted*), it may require more time for the rule to assert itself into the morphosyntax. The Irregular forms however, being *non-ruled-based*, are pulled directly from out of the lexicon (in one chunk) and hence, have a scheduled *on-line* time similar to lexical items.[xxix] 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-insertion*s) no examples of *Do-insertions* appear.

(39) 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) (file16)
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 demonstrates that the child relies on a certain amount of semantics for verbal projection--since light verbs, aux/modals are formal categories which lack any real semantic material, the child at the early Lexical/OI-stages may choose to leave them unprojected (see Schütze 1997:) for a broader discussion on the topic where sufficient relevant data is used).

1.3 Final Remarks

In sum, a collective 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, is on the most part of a protracted nature. The data indicate that a two-stage developmental process of language acquisition is at hand: *(i) A Stage-1 Prefunctional 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 *(ii) A Stage-2 Optional Inflection/Infinitive stage*[xxx] (cf. Wexler's Hypothesized Optional-Infinitive stage) where we find the (unstable) emergence of the Functional Categories IP/CP, along with the characteristics of Underspecification/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 (ibid), the data presented in this chapter has 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--both constructions showed symmetric-chronological developmental patterning of Inflective markings for 3per/sg *+S* and possessive *'S* (respectively). Again, such data clearly indicated a 2-stage model of acquisition: *(i)* a *No-Inflection-Stage*-1, & *(ii)* a *Optional-Inflection-Stage-2* (*Stage-3* marking the complete mastery of the target grammar).

(Postscriptum) Though I am fully aware that some researchers may wish to analyze the proposed first stage of language development (=stage-1 of my data) as an obligatory *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 (see Stromswold in this chapter). Hence, reasons to collect a more exhaustive Data-Base are more important then 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 esteem toward *Strong Continuity* models of child and adult syntax.)

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 Cases. (See note 9).

[ii] Of course, one could equally assume underspecification (viz., 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.).

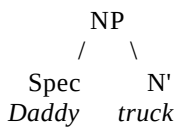
[v] The reasons why I chose to concentrate on definite Ds (*The*) here is incidental and doesn't affect the outcome of the overall analysis. Of course, the same arguments could apply of indefinite Ds (*A*)--e.g., if *A* is underspecified for case, it may be in Spec-NP, of which I have ample Data.

[vi] Instances of early use (files 1-7) of Nominative Case seem to suggest a semi-formulaic character: viz., 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+), *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

[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, 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 topic/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 for full discourse leading to this conclusion):



[x] A steady decline in the rate of case errors seems to begin at around File 18.

[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] But see Stromswold (ms1996) for a contrary opinion.

[xiii] 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 that aims to associate T with Subject Agreement differs with what we wish to propose here--mainly, 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 speaking, 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.

[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: 89). In this sense, the suffix *"s"* is used when items only carry tense (p.c Radford). 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 paves the way for a new PRO account regarding Inflected Vs.

[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 (and not 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 case (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. The former case represents the acquiring of Case while the latter usage of *My* (as default) suggests there to be no Case). In this sense, *Analogical The* along with Acc. *Me* and Poss. Nom. *My/Mine* similarly share the likes of having a default case setting.

[xx] Radford (ibid.) 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, the *The-to-My* 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 Inflective 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 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:

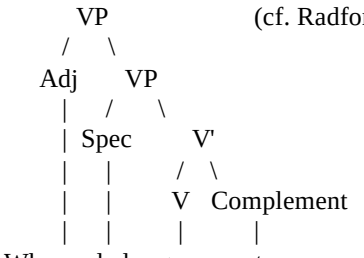
Me/My/I= /m+i/, /m+aI/, /ø+aI / so that the My subject is in fact a nominative I with an improper stem. This suggestion is however only one means to account for *My subjects* in child syntax. Another possibility would be that genitive case is checked by [+Agr] Head--either in D or I in the child syntax (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] Schütze (ibid: 188 fn.1) replaces Agr with an Accord relation here to clarify the meaning of [-Agr]--since nothing hinges on this distinction with respect to my own analysis, I have taken the liberty to continue using Agr for sake of continuity.

[xxv] One could make an argument that diary style speech (Diary drop) is pragmatically based and should not be analyzed in the same manner as syntactic PROs. In order for the child to create a diary drop structure, the child must have special awareness of the context and meaning of intent. It seems plausible to me that young children lack such awareness and that consequent null subjects generally fall in the class of PRO.

[xxvi] Again, the VP analysis here is not so straightforward. Recall our dilemma faced earlier (cf. 10e-g) regarding the reasoning behind projecting an abstract IP [-Agr,-T], etc.

[xxvii] Guilfoyle and Noonan (1988), Radford (1990: 132) have proposed a VP-Adj(unct) analysis for Wh-questions with PRO subjects. In this sense, the Spec of VP may be filled in by a Non-cased nominal, Default Acc, or PRO (a, b, c, respectively):



(cf. Radford: class lectures,'97)

a. Where$_i$ dad go t_i

b. Who$_i$ me tickle t_i

c. What$_i$ PRO say t_i

[xxviii] *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) Nom case can only be erased when the (-interpretable) Agr features of the subject match those of INFL.

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*).

[xxix] See Marcus, Clahsen et al. (1996) for their psychological studies that support the view that regular vs. irregular morphologies are stored quite differently in the brain.

[xxx] Radford (cf. ms Radford et 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.