THE ACQUISITION OF FUNCTIONAL CATEGORIES IN TAMIL WITH SPECIAL REFERENCE TO NEGATION[1]

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0 Introduction

The absence of functional categories in early child language is well attested. Cross-linguistically, children first acquire lexical categories, and grammatical morphemes such as tense, agreement, auxiliaries or determiners are absent. Early theories of acquisition believed that since functional categories emerged later, they were a result of language 'development'. That is to say, functional categories are 'learnt' by the child, in some fashion. However, what kind of learning takes place is not obvious, since the forms of functional categories are phonetically weak, and they are not obviously meaningful. Gleitman is reported (in Crain and Lillo-Martin, 1999: 140) to have likened the jump required in the child's language learning capacities to that of a tadpole's maturation into a frog.

The "learning" of functional categories brings back "Plato's problem" into acquisition. The converse hypothesis is that functional categories are present in UG. Evidence has accumulated for a universal set and even order of functional projections (Cinque 1999). The absence of functional categories in early child language can be attributed to processing constraints. The Strong Continuity Hypothesis (Santelmann, Berk and Lust 2000) postulates that UG remains continuously available throughout the course of language acquisition to the child/learner. Thus, for as long as UG is being mapped onto specific language grammars, UG components are accessible.

This paper is concerned with the acquisition of the functional category of negation in Tamil, a major Dravidian language. Negation in Tamil poses *a priori* quite an interesting learning problem, because sentential negation in this language superficially assumes at least four different forms: one each for finite and non-finite clause negation; and forms for modal negation ("negative modals"). There is also a verb of negative existence. Superficially, negative clauses look quite different from affirmative clauses (they do not differ from affirmative clauses in simply including a Neg projection). We set out these facts in Section 1.

Our interest is in finding out how and when the child acquires these various negative forms of Tamil. Given the apparent complexity of the language data pertaining to negation,

[1] The data accessed here are from the CIEFL-MPI database created with funding from the Max Planck Institute, Nijmegen, The Netherlands. We thank Bhuvana Narasimhan for initiating this project and Gayathri Raman, Anu Kurien, Mini and R. Amritavalli whose efforts in creating this database made this research possible.

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we might expect errors in the course of acquisition, even if we assume the Strong Continuity Hypothesis. This is because in the mapping from UG to specific language grammars, there is sufficient latitude to accommodate all possible grammars (the problem of "parameter setting"). In fact, Santelmann, Berk and Lust (2000) document developmental errors in the marking of formal features (FFs) for Tense (and Agreement) in English, and show that these errors are all predicted by the various options allowed by UG for realizing FFs on the main verb and/or the auxiliary. I.e., UG allows these FFs to be realized on both, either or neither of the elements in the verb complex, and the errors that occur reflect these possibilities.

In the specific area of negation, studies in English, French and German show that children make errors in the placement as well as the selection of the negative. In English, *no* appears instead of *not*, and in German, *nein* instead of *nicht*. Consider the following examples in English (Deprez and Pierce 1993: 34):

i. No my play my puppet. Play my toys. (at 24 months)
ii. No dog stay in the room. Don't dog stay in the room. (at 25 months)

We shall show that, somewhat surprisingly, we find in Tamil no errors in the placement or position of the Neg, and none in the choice of the negative. The different types of sentential negation that Tamil shows are all mastered and in use by the age of 25 months (2;1 years). Section 2 of the paper presents and discusses the data.

In Section 3 we discuss the possible reasons for the apparent lack of errors in the acquisition of negatives in Tamil, as opposed to the errors documented in the acquisition of negatives in English, French and German.

1 The Grammar of Tamil Negation:

1.1 Main Clause Negation

Consider the Tamil verbs given below:

(1)

va- r- aan come nonpst 3sgm '(he) comes'	va- nd- aan come pst 3sgm '(he) came'	var- alle come inf neg 'did not/does not come'
poo- r- aan go nonpst 3sgm '(he) goes'	poo- n- aan go pst 3sgm '(he) went'	poo(ha)- alle go inf neg '(he) did not/does not go'
paarka- r- aan see nonpst 3sgm '(he) sees'	paa- tt- -aan see past 3sgm '(he) saw'	paark(a)- alle do inf neg '(he) did not/does not see'

We note that the affirmative verb forms are specified as past or non-past. The negative verb

forms are not. The forms *varalle*, etc. are used for both past and non-past negation. It is evident that there is no "tense" morpheme in the negative form of the verb, nor is there an agreement marker. Affirmative verbs inflect for person, number and gender.

This "knocking off" of agreement and "tense" in the negative verb form is not unique to Tamil. It has been documented by Amritavalli and Jayaseelan (2005) for Kannada. They argue that in Kannada and Malayalam, what appears to be Tense in the affirmative verb is actually Aspect, and that Finiteness is a property of MoodP. The MoodP can be occupied by any one of the three elements *agr*, *neg*, or modal.

We shall adopt their analysis here, with one modification. In Tamil, as in Kannada, the Neg *ille* takes as its complement an infinitival verb (often indistinguishable from the non-past verb stem). The infinitive forms in (2-3) may be compared with the negatives in (1).

(2) avan [PRO pooh-a] paa- tt- aan
he PRO go-inf. see perf asp 3msg

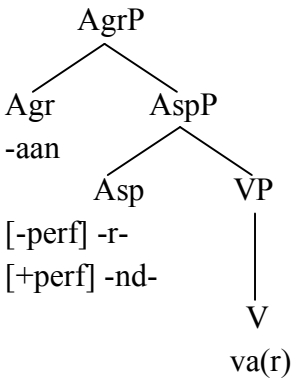
'He tried to go.'

(3) avan [PRO yenne paark-a] va- r- aan
he PRO I-acc. see-inf. come imperf. asp 3msg

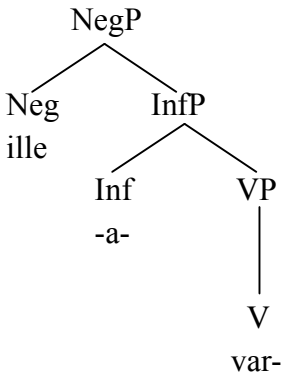
'He comes to see me.'

But unlike in Kannada, in Tamil the choice of a matrix infinitival verb does not vary according to the "tense" negated. That is, negation in Tamil does not encode "tense" in any way. Let us therefore assume the structures (4a) and (4b) for affirmative and negative clauses in Tamil. In these structures, as in earlier proposals, the finiteness feature lodges in AgrP in (4a) and NegP in (4b), both being realizations of MoodP. But unlike Amritavalli and Jayaseelan (2005), we do not postulate an Aspect Phrase complement to the NegP in (4b).

(4) a. Affirmative Clause



b. Negative Clause



The complement to both Agr and Neg is non-finite. This is obvious in the case of the infinitival complement to NegP. But the AspP complement to AgrP is also non-finite (i.e. it is not Tense). Therefore, although (4a) and (4b) look different in their clause structure, they are

essentially still similar: a finiteness head taking a non-finite complement. The learning problem for the child is to understand this clause structure, and (for Tamil) to understand that affirmative and negative clauses differ in the inclusion or exclusion of aspect: the affirmative clause has an aspectual complement to Agr, the negative clause has an infinitival complement to Neg which does not carry an aspectual specification.

1.2 Non-finite Clause Negation

Tamil, like the other Dravidian languages (and some other languages as well) has a different form of negation in non-finite clauses. Thus consider the negation of (2). This does not have the main clause negative form (5i), but the form (5ii).

(5) i. * avan [PRO poo(h)-alle] paattaan
he PRO go-inf. Neg see-pst 3msg

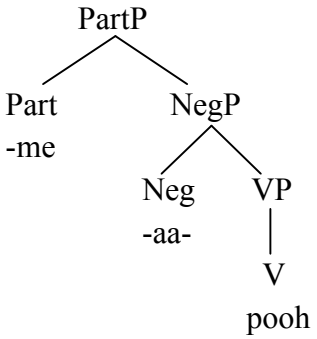
'He tried not to go.'

ii. avan [PRO pooh- aa- me irukk- a] paattaan
he PRO go- Neg- part. be- inf. see-pst 3msg

'He tried not to go.' (lit. 'he tried to be without going')

In (5ii), Neg occurs as a bound morpheme *-aa-* , the complement of participial morphology that appears on the verb 'go.' A verb 'be' appears as a dummy to carry the infinitival suffix. We represent the structure of the "negative participle" *poohaame* 'without going' in (6).

(6)



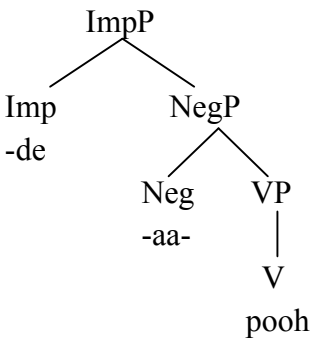
1.3 Non-finite Negation in Matrix Clauses

Since children do not readily produce subordinate clauses at the early stages (perhaps due to processing constraints), we do not expect to find sentences such as (5ii) in early acquisition data. But the non-finite Neg *-aa* occurs in certain matrix constructions as well. Indeed, there has been a tradition in linguistic theorization about learnability that there are no structures peculiar only to subordinate clauses; embedded clause phenomena are usually mirrored or signaled in the main clause in some way.

The non-finite negative, the bound morpheme *-aa*, occurs in the matrix clause if Neg

does not occupy the finiteness position in the clause: i.e. when the finiteness position is occupied by an element other than Neg. Consider first negative imperative sentences. These have the form (7), with Neg *-aa* rather than Neg *illa* (7ii):

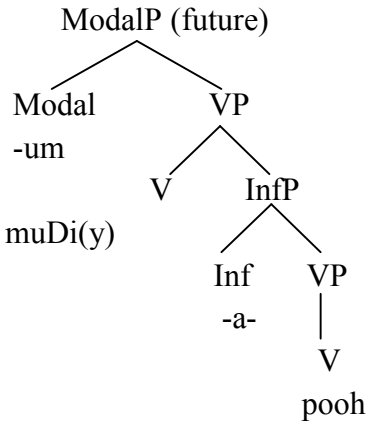
(7)	i.	pooh-	aa-	de		ii.	* pooh-	(de-)	ille
		go-	neg-	imperative			go-	(imp.)	neg
		‘don’t go’					‘don’t go’		



We assume that the Imperative mood occupies the finite position in the clause, the MoodP. (We have said that the MoodP can be occupied by any one of the three elements *agr*, *neg*, or modal, following Amritavalli and Jayaseelan 2005.) Since finiteness is already marked by mood, the finite Neg *ille* cannot occur in (7ii) in this position.

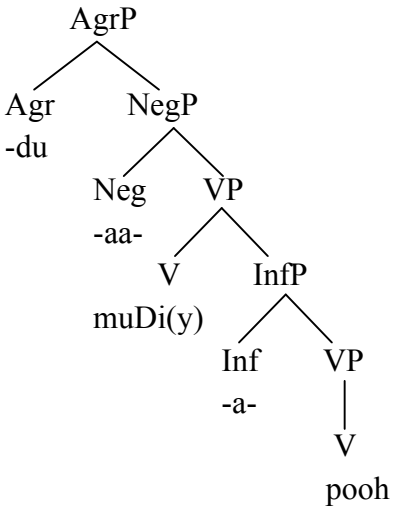
Consider next the modals. The modal of ability is *muDi*, which takes an infinitive complement. In affirmative clauses, this verb is itself the complement of the future morpheme *-um*, which has been argued by Hany Babu (1997) to be a modal ((8i)). If *-um* occupies the MoodP, Neg *illa* cannot occur ((8ii)). There then remain two possibilities for negating the modal: (8iii), where non-finite neg *-aa* is a complement to an *agr* that occurs in an invariant third person neuter singular form; or (8iv). In (8iv), the modal is a complement to Neg *illa*; but notice that the future morpheme *-um* does not occur here, contrasting with (8ii). (These two forms encode nonpast and past time reference respectively, in ways not entirely clear to us. In the data we present in the next section, the structures (8iii) and (8iv) are instantiated by the verb *teri-* ‘know’, which occurs in the three forms *teri-yum* ‘know’, *teri-aa-du* ‘don’t know’ and *teri-le* ‘didn’t/don’t know’, corresponding to (8i) and (8iii-iv).)

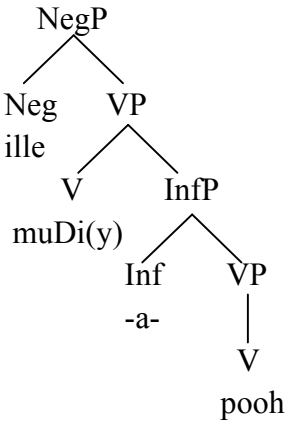
(8)	i.	pooh-	a-	muDiy-	um		ii.	* pooh-a-muDiy-		um	-ille
		go	inf.	can	fut.			go	inf. can	fut.	neg
		‘can go’						‘cannot go’			



iii. pooh- a- muDiy -aa -du
go inf. can neg 3nsg
'cannot go'

iv. pooh- a- muDiy -ille
go inf. can neg
'could not go'





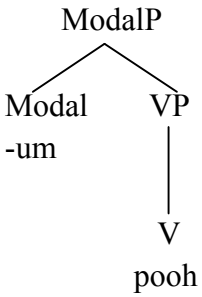
The modal of prohibition, *kuuD-aa-du* 'must not', is identical in structure with the negative of the modal of ability *muDiy-aa-du* in (8iii). The verb *kuuD-* occurs as a complement to Neg *-aa*, which is a complement to a "frozen" third person neuter agreement; and the whole complex takes an infinitive verb complement. This verb has no non-negative form **kuuD-* with the putative meaning 'must.'

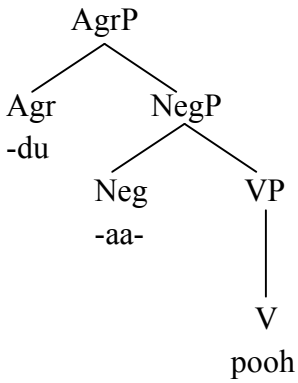
(9) pooh- a- kuuD- aa- du
go inf must neg agr

We have said that the future morpheme *-um* is analyzed as a modal. The negation of the future is again achieved by the non-finite Neg *-aa* with the MoodP occupied by the invariant third person neuter singular morpheme.

(10) i. pooh- um
go- fut
'will go'

ii. pooh- aa- du
go- neg agr
'will not go'





This morpheme *–um* also occurs in constructions of obligation and necessity, such as (11i) and (11ii).

(11) i. pooh-a- veeN- um
go inf want fut.
'ought (etc.) to go'

ii. pooh- a- N- um
go inf - fut.
'ought (etc.) to go'

We can reasonably surmise that the morpheme *-N-* in (11ii) is a remnant of the verb *veeN-* 'want' in (11i). The negative of (11 i-ii) is (11iii).

(11) iii. pooh- a- veeND- aa- m
go inf want neg fut.
'ought not (etc.) to go'

We must note that the verbs *veeN-um* and *veeND-aa-m* which in (11) occur as modals and take an infinitive verb complement, can also occur as main verbs with nominal arguments.

(12) i. ena-kku ice-cream veeN- um
I -dat ice cream want fut.

'I want ice cream'

ii. ena-kku ice-cream veeND- aa- m
I -dat ice cream want neg fut.

'I don't want ice cream'

There is also a main verb *ille*, a verb of negative existence. This observation was first made by Hany-Babu (1996) for Malayalam. Unlike Neg *ille*, which is a grammaticalized form of this verb, the main verb *ille* occurs with noun phrase arguments, rather than an infinitive verb complement:

(13) i. deivam ille
God neg-be

'God does not exist'

ii. enakku paNam ille
me-dat money neg-be

'I don't have money'

Summing up, the superficial wealth of negative forms in Tamil in (14) below can be analyzed as, or reduced to, finite and non-finite negative forms *ille* and *–aa* respectively. The non-finite form occurs of course in non-finite complements, but it also occurs in matrix clauses in non-finite positions, when the finiteness position is occupied by agreement. This happens in clauses with modals, which (as in Kannada) do not cooccur with the finite neg *ille*. But (unlike in Kannada) modals in Tamil appear to be verbs that need to be licensed by *agr*, albeit in an invariant form (the third person neuter singular). Two negative forms, *veeNDaam* and *ille* also occur as main verbs (cf. 12-13).

(14) i. pooh- (a)- alle
go inf neg 'does not/ did not go'

ii. pooh- aa- de
go- neg- imperative 'don't go'

iii. pooh- a- muDiy -aa -du
go inf. can neg 3nsg 'cannot go'

iv. pooh- a- muDiy -ille
go inf. can neg 'could not go'

v. pooh- a- kuuD- aa- du
go inf must neg agr 'must not go'

vi. pooh- aa- du
go- neg agr 'will not go'

vii. pooh- a- veeND- aa- m
go inf want neg fut. 'ought not (etc.) to go'

viii. ena-kku ice-cream veeND- aa- m
I -dat ice cream want neg fut.

'I don't want ice cream'

ix. enakku paNam ille
me-dat money neg-be

'I don't have money'

2 Acquisition of Tamil Negation

2.1 Database

The primary source for the data analyzed in this paper is the CIEFL-MPI database, created between 1999 and 2000 as a collaborative research project between Central Institute of English and Foreign Languages (CIEFL), Hyderabad, and Max Planck Institute (MPI), The Netherlands. The database consists of data from 4 children, two female, and two male, the starting ages ranging from 15 months to 32 months. The data are longitudinal, natural speech recordings (video as well as audio) collected at one- hour sessions recorded at weekly intervals for 52 weeks, or 1 year.

For the present work, we were looking to sample data from children between 18 months to 30 months. The negation data for English and French reported in Deprez and Pierce (1993) begin at 18 months and go up to 28 months. We had also noticed negation in Tamil in Sarma's (2002) data at the age of 18 months. Our choice of ages automatically excluded the eldest child (whose recordings began at 32 months). We had intended to sample data from one female and one male child. However, the excluded child was female; and the other female child's speech was very sparse and unclear. Hence, we have sampled data from the two male children. In total, 24 hours of data were sampled, 12 from each child, at fortnightly intervals.

The first child's (AC) data were available from the age of 15 months onwards. The negation data reported here begin at the age of 21 months and end at 27 months, because the earlier recordings revealed no linguistic data pertaining to negation. The second child's (AV) data begin at the age of 25 months and end at 31 months.

(15)

AC	Age (months)	21	22	23	24	25	26	27	Total
	No. of Rec.	1	2	2	2	2	2	1	**12**
AV	Age (months)	25	26	27	28	29	30	31	
	No. of Rec.	1	2	2	2	2	2	1	**12**
								Total	**24**

These data were supplemented by data from two sources:

(i) Vaidyanathan, R (1989). The data in this study are from two female children, ages 9 months to 33 months. Data from both children are longitudinal, collected fortnightly.

(ii) Sarma, Vaijayanthi M. (2002). The study was a cross-sectional recording of the natural speech of a group of ten children over one year of age, starting at 17 months. However the relevant data happen to be only from one female child.

All data from the primary source used for this paper were transcribed by the first author, while those from both secondary sources (i) and (ii) were already transcribed in the texts they were taken from.

2.2 Data

Exclusions:

Several exclusions had to be made, as is the standard practice in acquisition studies.

1. All instances of the free morpheme '*ille*' occurring as a one-word utterance have been excluded.

2. Repetitive utterances of the same negative have been counted as a single utterance.

3. Negatives that are not intended to negate a proposition, but to negate a prior utterance, have been excluded. In the literature, the latter are known as "anaphoric negation". Stromswold and Zimmermann (1999/2000: 107) give the example:

> "You have to go to bed now."
> "No, I want to stay up all night."

An example of anaphoric negation from our data is the following:

Mother:	acting daane?	
	acting only-wh.	'Isn't this only acting?'
AV:	ille… ille.	
	no… no	'No, no.'

Occurrences:

Though our database begins at 21 months, the earliest negatives that we consider here occur from 24 months onwards.[2] The first negatives are three instances of the main verb

[2] The negatives from AC between 21 and 24 months are single word utterances of either *maanaa*, the baby form of *veeNDaam* 'don't want' or *ille*. The *maanaa* negatives are anaphoric, as they simply deny a prior utterance or action. The *ille* negatives at 22 months are given below: (Res_1 and Res_2 are the researchers).

i. Child tries to walk. Falls down

Res_1:	aDi	paTTud	aa?	
	Hurt	experienced	Q	'Did you get hurt?'
	AC:	ille.		

veeNDaam 'don't want' from AC, at the age of 24 months.

(16) i. apple veeNDaã̃
apple don't want '(I) don't want apple'

ii. puu veeNDaam[3]
flower don't want '(I) don't want (the) flower'

iii. taataa veeNDaã̃
grandfather don't want '(I) don't want grandfather (here)'

AC also produces the verb of negative existence *ille* at the age of 25 months.

iv. (looking at a picture of the Pied Piper)
amma, piipii ille
mother wind instrument neg 'Mother, there is no pipe'

In AV's data, which begin at 25 months, we find a range of negation: non-finite and modal negatives, and neg *ille*. For example:

v. AV: adu… soll-aa-de Negative Imperative
that say-neg-imp 'Don't say that'

vi. AV: teriy-aa-du Non-finite matrix negation
know-neg-3sgn '(I) don't know'

vii. Mother: peeru teri- ili- yaa?
name know-neg-wh 'Don't (you) know (her) name'?
AV: teri -ila Neg *ille*
know-neg 'I don't know'

viii. AV: avinash (pause) kuuD-aa -du Modal of prohibition
avinash must -neg-3sgn 'Avinash (pause) must not'

Example (vii) is only apparently a one word utterance because it consists of a V(inf) complement to 'ille'. Notice also that it is not a repetition of the mother's utterance, as it omits the question marker '-aa'.

Res_2: maamaa irukk- aa- laa?
Uncle be non-pst agr Q 'Is uncle there?'
AC: iya… iya… iya.

[3] The two transcriptions *veeNDaã̃* and *veeNDaam*, represent the two pronunciations (free variants) of this form.

In any case, AC produces both the neg *ille* and the verb of negative existence *ille* at 26 months.

ix. AC: …adu ille
that not ‘(It’s) not that’

x. AC: aic kriim valla
ice cream come-not ‘Ice cream (van) didn’t come’

Given in Table (17) below, are the ages at which each negative appears for the *first* time[4] in each child, and the number of instances. These are only the first instances of occurrence of the negatives. Appendices (1) and (2) give the total number of negatives, and all the negatives produced.

(17)

Age	Child	Number of first instances of								
		Neg Main Verbs		Vinf + Neg		Neg aa				muDi/teri + **ille**
		Main V **veeND aam**	Main V **ille**	Vinf + **ille**	Vinf + **veeND aam**	kuuD - **aa**- du	muDiy- /teriy- **aa**-du	Vinf + **aa** + fut	Vinf + **aa** + imp	
24	AC	3								
25	AC		1							
	AV					1	1		4	1
26	AC			2	2					
	AV			1	1			3		
28										

In Table (17), we see an occurrence of all nine of the forms mentioned in our description of Tamil negation. These forms have all appeared between 24 and 28 months. They appear to have been acquired more or less at the same time. There are no errors in either the choice or the placement of the negative.[5]

[4] Deprez and Pierce (1993) consider a negative form only if they find more than two uses of that form in a transcript. As the many kinds of negatives are collapsed into one form in their data, we can easily meet this criterion in ours, since we differentiate the many kinds of negatives.

[5] The only potential error we noted is a hesitation in the use of (and an avoidance in the use of) a lexical negative *maaT*. This form translates to ‘I refuse to’ or ‘I will not’. Just like the English ‘will not’, *maaT* can indicate a refusal as well as a promise not to do something. In the following excerpt, AV refrains from using the negative *maaT* in the meaning ‘I promise not to’ and is corrected by his mother.

Mother : sollu-vi-yaa tiruppii adu maadri?
say –fut-Q again that like ‘Will you say that again?’

Since our database begins only at 21 months, and we had data only from male children, we turned to secondary sources, instantiating female children, to see if we could find any instances of negation prior to 24 –25 months.

Although Vaidyanathan's (1989) database begins at 9 months, the first instance of negation is only at 24 months, which fits in very well with our findings. The negatives which occur before this age are, like the ones in our database, anaphoric utterances of *maanaã̃*. The first instance of negation found at 24 months is Neg *ille* with an infinitive complement:

(18) liyaana inikki var- a- la
liyaana today come-inf neg 'Liyaana didn't come today'

However, the interesting data comes from Sarma (2002). Though she reports data from a mixed group of ten children, there are only two instances of negation, both from the same child, a female, as early as 18 months.

(19) eekku naanaam
me-dat don't want 'I don't want'

(20) amma aZaada
mother, cry-neg-imp 'Mother, don't cry'.

Notice the occurrence of a dative experiencer in (19), and the negative imperative in (20). As in our data, we notice different negative forms appearing at the same time, and without any error.

3 Conclusion

The apparent absence of error in the acquisition of a variety of negative forms in Tamil needs an explanation. These data contrast strongly with the data in Deprez and Pierce (1993)

AV : soll-a- lle. soll-a- lle. 'Not say'
Say-inf- neg say-inf- neg
Mother : enna? 'What?'
What?
AV : soll-a- lle. 'Not say'
Say-inf-neg
Mother : soll-a- maaTT-een na sollu.
say-inf-will not-agr that say 'Say 'I will not say'.'
AV : soll-a- maaTT- een
Say-inf-will not-agr 'I will not say'

We do not consider *maaT* as an instance of negation, as it behaves like any regular verb in the language, taking appropriate agreement markings. Insofar as it contains the sequence *-aa-*, this possibly negative morpheme seems to be lexically fused into the root.

for the acquisition of negation in English, German and French.[6] Let us first inquire whether the differences might be attributable to the databases themselves. Do errors occur in the English data (for example) because they are from children younger than our subjects? We think not. In the first place, we chose to investigate an age range comparable to the ages for which data are reported in the literature on the acquisition of negation. Thus neg-initial utterances in English occur throughout the period under consideration here, i.e. 18 - 28 months (cf. Deprez and Pierce 1993: 35, Table 2). Secondly, the data from Sarma (2002) show a correct use of negatives in Tamil as early as at 18 months. Hence, age does not seem to be a factor.

Nor does the size of the database appear a particularly promising site for the difference, although it is possible that errors in acquisition, like slip-of-the-tongue production data, occur infrequently enough to require more extensive documentation than we have undertaken.

Assuming that the databases are comparable, the explanation for freedom from error in the acquisition of negative forms in Tamil must be that the mapping from UG to the particular grammar of Tamil is in some way minimal. Insofar as this mapping requires a knowledge of the position of finiteness in the clause (which is required for Neg to be instantiated as different forms in finite and non-finite positions), there is ample evidence that this knowledge comes for free to the child. Thus Wexler (1994:331-334) maintains that even at the Optional Infinitive (OI) stage – a stage where children use infinitive verbs instead of tensed verbs in main clauses, in seven languages (English, French, German, Dutch, Swedish, Danish and Norwegian) – the clause positions that finite and nonfinite verbs appear in, are correctly distinguished (i.e. the child demonstrates knowledge of verb movement to Infl).

The evidence for verb raising to Infl during the OI stage in fact comes largely from the correct placement of Neg with respect to finite and non-finite verbs. In French, we find parallel data from the same child at the same age (Philippe, 2-1-3, in Deprez and Pierce 1993:40) showing the negative *pas* occurring, correctly, before a matrix infinitive but after a finite verb:

(21) i. pas chercher les voitures
not look for the cars
ii. Ca tourne pas.
this turns not

The French child does not go wrong in the choice of the form of Neg (anaphoric *non* is never substituted for non-anaphoric *pas*), and does not always place Neg sentence-initially (unlike the English child). The error that does occur is an optionality in the marking of tense (the OI phenomenon). A possible explanation for this that Wexler briefly entertains is that

[6] In this paper, we will not consider the German data, both because we lack knowledge of German, and because of Stromswold and Zimmermann's (1999/2000) disagreement with the Deprez and Pierce analysis.

matrix infinitives in early child language are licensed by an empty dummy modal, "an empty version of the dummy modal *do* in English." (The modal has to be pleonastic, because the non-finite verbs are "used to describe real activity.") As noted in Amritavalli and Jayaseelan (2005:216, n.21), all Wexler's facts fall into place if children start out with a MoodP, as we posit for Dravidian, and not a TenseP. The pleonastic modal is our finiteness feature. There is no dummy *do* in English negatives in the OI phase, suggesting that Tense is absent. Agreement, however, *is* present at this stage in the languages that require it.

This suggests that errors in negation are a result of the ongoing acquisition of Tense. The acquisition of tense in English appears to be a longer process than in French, perhaps because of the absence of verb-raising. Deprez and Pierce (1993) explain the surface misplacement of the English Neg (in neg-initial utterances) in terms of the optionality of (the VP-internal) subject raising out of the VP in child grammars. But they do not explain the choice of 'no' instead of 'not' in children's non-anaphoric negatives in English. Suppose we assume, contrary to Deprez and Pierce, that the natural position of sentential operators such as Neg and Finiteness/Tense is in the C-system; that utterance-initial Neg is in its unmarked position in UG, and that *no* (unlike *not*) incorporates finiteness. Then, Neg "lowering" and the change of *no* to *not* would be a consequence of the development of Tense and Tense-lowering from C–to-I (a movement suggested in the history of English by Platzack(1995)), assuming that Neg needs to be in the domain of Tense. We thus agree with Deprez and Pierce that initial Neg is in its "correct" position in English children's utterances, but differ in the account of how the adult grammar is attained.

Finally, the various negations in Tamil suggest that there may be a variety of neg elements in UG that are collapsed into the single English negative *not*; and this may be part of the acquisition problem.[7] Gillian Ramchand (2004:63), in an analysis of the two negatives *na* and *ni* in Bangla, suggests that "natural language negation does not correspond to a pure logical propositional operator, but is a cover term for a number of selective negative binders …" In Bangla, we find a familiar difference between finite and non-finite negation: *ni* is

[7] The data below (from Deprez and Pierce 1993: 26, 35; their numbering) show child utterances with *no* corresponding to negation with *ille* as well as to negation "with intended meaning of denial or rejection", expressed in Tamil by *veeNDaam* 'don't want'.

No I see truck = I didn't see the truck (Ta. *paark-ille*: Vinf –Neg)

(9a) No my play my puppet. Play my toys. (24 months)
(uttered after the puppet is thrown on the floor)
= I don't want to … (Ta. *puppet ooDe veLayaaDa veeNDaam*

(9b) No mommy doing. David turn.
= I don't want Mommy to do this
(not ='Mommy's not doing', as Deprez and Pierce suggest)

(9c-d) No lamb have it. No lamb have it.
"You don't want the lamb to have it either?"
No lamb have a chair either.

specified "for both tense and aspect features," and cannot be used in non-finite clauses. It differs in syntactic position and in its semantics from *na*, a "pure negation marker" that co-occurs with explicit tense marking. Ramchand analyzes *ni* as binding a time variable but *na* as binding an event variable; and speculates that these two different logical types of negation head functional projections that are at different levels in the phrase structure.

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Appendices

APPENDIX 1: TOTAL NUMBER OF NON-ANAPHORIC NEGATIVE UTTERANCES

AGE (MONTHS)	CHILD	MAIN VERB		VINF +		NEG aa				muDi/teri + ille
		veeNDaam	ille	veeNDaam	ille	muDiy/teriy-aadu	kuuDaadu	Vinf+aa+du	Vinf+aa+de	
24	AC	3								
25	AC	1	1							
	AV					1	1		4	1
26	AC		1	2	2					
	AV			1						3
27	AC	1								
	AV	6	1	1	5	1	2	4	3	
28	AV		1		8	1		2		4
29	AV	1			1	2	4	4	1	
30	AV	1	1							
31	AV		4	1	8	1		1	3	3

APPENDIX 2.1: ALL INSTANCES OF NEGATIVES 1: NEG MAIN VERBS AND VINF + NEG

AGE (MONTHS)	CHILD	NEGATIVE MAIN VERBS		VINF + NEG	
		MAIN VERB **veeNDaam**	MAIN VERB **ille**	Vinf + **ille**	Vinf + **veeNDaam**
24	AC	*apple* veeNDaa□ apple don't want '(I) don't want apple'			
		puu veeNDaam flower don't want '(I) don't want flower'			
		taataa veeNDaa□ grandfather don't want '(I) don't want grandfather (here)'			
25	AC	*animals* veeNDaam	amma, piipii ille		

APPENDIX 2.2: ALL INSTANCES OF NEGATIVES 2: NEG -aa- AND MODAL + ille

AGE (MONTHS)	CHILD	NEG –aa-				muDi/teri + ille
		Vinf + muDiy/teriy- aadu	Vinf + kuuDaadu	Vinf + aa + du	Vinf + aa + imperative	
25	AV	teri- yaa- du know-neg-agr '(I) don't know'	avinash (ta) avinash (name) (to) (peesa) kuuD-aa-du (speak) mod-neg-agr 'Must not speak to avinash'		Adu (pause) soll-aa-de that say-neg-imp 'Don't say that'	Mother: peeru teriya- li- ya? Name know-neg-Q 'Don't you know (her) name?' AV: teri- ila know- neg '(I) don't know'
					amma! aDikk- aa- de! mother! h it- neg-imp Mother! Don't hit!	
					kaTTi naa (en)kuuDa 'katti' (the word) m eans with me pees -aa- de spead neg imp	
					nii to D -aa -de you touch-neg –imp 'You don't touch'	
26	AV					*water* kiiZa in - du- du. water bottom be pst agr 'Water was at the bottom' kuuca-muDi-ila. drink able n eg '(It) wasn't able to drink'
						teri- ila know neg '(I) don't know'
						M: paaTTi enna sonn-aa? grandmother what said-Q 'what did G randmother say?' C: onnum teri- lla anything know '(she) doesn't know anything.'
27	AV	adu teri - yaa -du that know-neg-agr enakku me-dat 'I don't know that'	ToDa-kuuD-aadu! touch-mod-neg-agr 'Must not touch the mike'	onnum aa h -aa - du anything happen-neg agr 'Nothing will happen'	kaDik-aa- de bite neg imp 'Don't bite'	
			mikiTTa mike-near poo-kuuD-aa-du go-mod-neg-agr 'Must not go near the mike'	nikk- aa- daa? stand-neg- Q 'Won't it stand?'	mikiTTa pooh-aa-de! mike-near go- neg –imp 'Don't go near the mike'	
				inda *catch* piDik-aa- du this catch like-neg –agr '(I) don't like this catch'	kuupD-aa- de n ii! call -neg -imp you 'You don't call'	