

# Elicited Production of Past Tense Affirmative and Negative Sentences in Young Children

Rosalind Thornton, Elena D’Onofrio, and Kelly Rombough

## 1. Introduction

This study investigates the productions of past tense sentences in both affirmative and negative contexts in 2- 3-year-old children (mean age 3;1). The main goal of the study was to compare the extent to which children use finite forms in their affirmative and negative productions, and to chart the range of forms children use.

Our interest in comparing children’s affirmative and negative sentence productions is motivated by a theoretical proposal by Zanuttini (1991, 1996) that suggests that a NegP selects for TP; that is, if there is a NegP in the phrase structure then there will necessarily be a TP. In addition, empirical findings from Thornton & Rombough (2015) provide suggestive evidence that negative sentences may trigger a higher use of verbal morphology than in affirmative ones, but the finding is open to question because this was not controlled experimentally. In the present experiment, therefore, our goal is threefold. Holding the experimental context constant, we first chart the range of forms children at this age use to express affirmative and negative past tense sentences. We compare our experimental findings with previous findings from Thornton & Rombough (2015) which elicited negative sentences using present tense morphology in order to see if children are adopting similar (non-adult) structures. In that study, children produced some proportion of utterances with inflection ‘high’ such as *It’s not fit* and with inflection ‘low’ such as *It not fits*, where the inflection is realized as an affix on the main verb. We wanted to know if children would produce similar structures with the morphology ‘high’ and ‘low’ when producing past tense negative sentences. That is, would children produce utterances such as *He’d not jump* or *He did not jump* when *He didn’t jump* was the expected colloquial form? And would children also produce *He not jumped* with the past tense affix ‘low’ in the same context? Of course, we could also ask if the misplaced inflection shows up in affirmative contexts as well. This brings

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\*Rosalind Thornton, Macquarie University, rosalind.thornton@mq.edu.au. Elena D’Onofrio, elena.d@live.ca. Kelly Rombough, Macquarie University, kelly.rombough@mq.edu.au. This research was supported by the ARC Centre of Excellence in Cognition and its Disorders (CE110001021).

us to the third goal which is to ascertain whether children provide (or omit) past tense morphology at similar rates in affirmative and negative sentences.

### 1.1. Provision of tense in the Optional Infinitive stage

Children in the 2- 3-year old age range are generally said to be in the ‘optional infinitive stage.’ At this stage the verbal morphology that expresses tense is used optionally in contexts in which it would be obligatory for adults (cf. Wexler, 1994; 1998). Figures for the provision of verbal morphology differ to some extent across individuals and investigations. Here we present the figures from Rice & Wexler (1996) for 3-year-old children typically-developing children as representative for children’s use of verbal morphology in affirmative sentences. These figures from R&W were averaged across two different studies, each with 20 children, with a mean age of 3;0 years. The studies found that the children provided 3<sup>rd</sup> person present tense ‘s’ morphology 61% of the time in their spontaneous speech, and 44% of the time in response to an experimental probe using pictures. The same children provided past tense morphology 48% of the time in their spontaneous speech and 44% when tested using the experimental task. Roughly speaking, we can say that children omitted the verbal morphology about half the time in these studies.

The only study in the literature that examines children’s provision of tense in both affirmative and negative sentences is by Harris & Wexler (1996). This study reports finiteness rates from spontaneous production data in 10 children in the CHILDES database, ages ranging 1;6 to 4;1<sup>1</sup>. Harris & Wexler examined inflection in sentences with 3<sup>rd</sup> person subjects. As a background assumption, Harris & Wexler take use of *do* to be linked to use of tense in the sentence representation. Notice, like Schütze (2010), this means they take children’s use of non-agreeing *don’t* also to express tense. Given that Harris & Wexler expect children to use tense optionally, they hypothesize that “the child’s propensity to add inflection in affirmatives ought to be more or less the same as his propensity to add inflection in negated sentences” (H&W, p. 20). This is calculated over files in which there are instances of medial negation utterances with *no* or *not* and a 3<sup>rd</sup> person subject but no inflection present. In the older group of children (age 2;7 to 4;1) the proportion of sentences negated with some form of *do* was 73% as compared with 61% of inflected verbs in affirmative sentences. Across both the younger and older group of children, the proportion of inflection was 56% in negative sentences and 43% in affirmative sentences.

A different finding emerged from Thornton & Rombough’s (2015) experiment eliciting sentential negation from children. They tested 25 children with a mean age of 2;11 years. They found that children who were a similar age to the children in the Rice & Wexler (1996) study (that is, mean age 2;11) omitted the verbal morphology considerably less often in negative sentences

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<sup>1</sup> The corpora used are Brown (Adam, Eve, Sarah); L.Bloom (Peter); Suppes (Nina); Kuczaj (Abe); Sachs (Naomi); Clark (Shem); Higginson (April) and Snow (Nathaniel).

than is generally reported for affirmative sentences<sup>2</sup>. This study elicited negative sentences with 3<sup>rd</sup> person subjects in contexts in which children tested properties of items. For example, children tested which ones out of a collection of boxes opened, which pens and markers worked, which characters fit through the door of a bus and so on. The data from Thornton & Rombough's elicited production task are reproduced in Table 1. This table shows the entire set of productions produced by the children in the experimental context. If the utterances with bare verbs and the ones with non-agreeing *don't* are taken to be lacking in tense, then the tenseless utterances amount to 15.9% of the total data set<sup>3</sup>. If the utterances with modals *can't*, and *won't* are removed from the productions under consideration, however, this number increases to 18.8% of the total utterances, which is still considerably lower than anticipated by Harris & Wexler (1996).

Notice that in the Thornton & Rombough (2015) study, in addition to the utterances with bare verbs and non-agreeing *don't*, there were other nonadult productions, but these were all ones in which a tense morpheme was present. Some of the children also produced negative sentences in which the 3<sup>rd</sup> person morphology (3SGS) was present, but misplaced. Some children produced it 'high,' producing utterances like *It's not fit*, whilst others affixed the 3<sup>rd</sup> person 's' to the main verb, as in *It not fits*. There were 117 such 'non-target' utterances forming about 20% of the data set, clearly too many to be considered performance errors. Productions with inflection in the non-adult position are not reported in Harris & Wexler (1996), for example, but we can assume this is because H&W report spontaneous production data. In elicited production experiments, children are doing the best they can to come up with a production that is consistent with the context, and in many cases, this may be a structure for which they have little experience, hence the non-adult forms.

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<sup>2</sup> Affirmative utterances were evoked during the course of Thornton & Rombough's (2015) experiment eliciting sentential negation, but the authors were concerned that they were not a good measure of neutral affirmative productions, given that they were elicited in contrastive contexts and could have potentially been emphatic in form. As they note, several children produced some affirmative utterances with *do*.

<sup>3</sup> There is some debate in the literature over whether *don't*, when used with a 3<sup>rd</sup> person subject, as in *Daddy don't like milk*, is used as an unanalysed form, or whether the presence of *do* implies tense (cf. Harris & Wexler, 1996; Schütze 2010). Thornton & Rombough (2015) agree with Bellugi (1967) that it is an unanalysed form, on the basis of utterances in which the 3<sup>rd</sup> person present tense 's' shows up on the main verb, as in *Daddy don't likes milk*. If *n't* were analysed as a separate head in *don't*, it should block the 's' from appearing on the main verb.

| Range of Full Negative Sentence Productions              | Percent of Total (No. of Utterances) |
|--|--------------------------------------|
| Bare verb ( <i>It not fit, No it fit</i> )               | 9.2% (54)                            |
| Non-agreeing <i>don't</i>                                | 6.7% (39)                            |
| Adult <i>doesn't</i>                                     | 39.7% (232)                          |
| Non-target 3SGS (e.g. <i>It's not fit, It not fits</i> ) | 20% (117)                            |
| Past tense <i>didn't</i>                                 | 5.3% (31)                            |
| Modal <i>can't</i>                                       | 15.4% (90)                           |
| Modal <i>won't</i>                                       | 0% (1)                               |
| Progressive <i>-ing</i>                                  | 3.6% (21)                            |
| Total  | 585                                  |

Table 1: Types of negative sentences produced by child participants ( $N=25$ )

## 1.2. Sentential negation

Based on her in-depth study of sentential negation in Romance, Zanuttini (1996) proposes that the use of negation is parasitic on the presence of tense<sup>4</sup>. According to Zanuttini, a NegP projection requires a TP projection; NegP selects TP as its complement. Turning to English, Zanuttini (1996) proposes that the negative marker *n't* is positioned in the head of NegP, and therefore requires TP. The negative marker *not*, on the other hand, is either adjoined as an adverb to some XP in the phrase structure or potentially positioned in the specifier of the NegP projection. As an adverb, *not* does not require the presence of a TP projection. As evidence that *not* can occur in the absence of tense in English, Zanuttini notes that sentences that take an embedded subjunctive clause such as *I insist that she not stay* do not express the 3<sup>rd</sup> person singular present tense 's' on the verb, despite the 3<sup>rd</sup> person subject NP.

We use Zanuttini's proposal to motivate our own hypothesis about children's use of tense in negative sentences. This will require us to depart from certain details of Zanuttini's (1996) proposal. First, we will depart from Zanuttini in assuming 2 NegP projections either side of TP. Following much research since Pollock (1989), we will assume that TP is higher than NegP in English. In her proposal, Zanuttini is not explicit about how *not* relates to use of tense when it is positioned in SpecNegP rather than adjoined as an adverb. In

<sup>4</sup> Zanuttini (1991) proposes that in Romance there are, in fact, two NegP projections, one above TP and one below. The higher NegP selects TP as its complement; this NegP cannot appear without TP. The lower NegP is not sensitive to tense. This proposal from Romance is extended to English. It is proposed that *n't* sits in the head of the higher NegP and the lower NegP contains *not*. It is left open whether or not *not* occupies the head of specifier position of the lower NegP. We will not assume there are two NegP projections in this paper, but we take up the spirit of Zanuttini's proposal that NegP requires TP.

this paper we will assume that since a NegP is generated when *not* is in SpecNegP, a TP projection must be present in the phrase structure<sup>5</sup>.

Early in acquisition, children use *not* (or sometimes *no*) until they acquire *n't* which is a later development (Bellugi, 1967; Thornton & Tesan, 2013; Thornton & Rombough, 2015). If *not* is generated as an adverb, then children can readily produce sentential negation without a TP projection in their sentence representation. This would explain why children's negative optional infinitive productions are with *not*. In other words, it is expected that when they use *not*, finiteness marking may be omitted. We will assume that if *not* is generated in SpecNegP, however, the presence of the NegP will force a TP to be generated. As a clitic, *n't* always requires a host in the form of *do* or a modal, so it is hardly surprising that utterances with *n't* should co-occur with a morpheme for tense. However, it is the case that *don't*, when used with a subject NP that is in the 3rd person, has been argued to be an unanalysed form (e.g. Bellugi, 1967). Others such as Schütze (2010) have argued against this. Schütze proposes that children at this age prefer *n't* as their form of negation, and use *do* to support it. Such an analysis would suggest that children know the individual morphemes that make up *don't*. This view is not supported by productions observed by Thornton & Tesan (2013) and Thornton & Rombough (2015). On the basis of utterances such as *It don't fits* in 2- 3-year olds' productions, they argue that (at least some) children treat *don't* as some kind of transitional adverbial form, given that affixation on the main verb is not blocked as would be anticipated, if *n't* were serving as the head of NegP. Although it has been proposed that 'non-agreeing' *don't* is used by children as an unanalysed form, this proposal has not been made for *didn't*. However, in principle, a child could default to *didn't* as their transitional adverb. The data from the experiment presented in section 2 suggest this may be the case for some children.

## 2. Experiment

### 2.1. Participants

Nineteen children between the ages of 2;10 and 3;6 participated in the study. We initially hoped to recruit younger children, but we ended up excluding 20 children, 16 of whom were under 3 years (age range of excluded children was 2;6 to 3;2). These children were either unable to pay attention or understand the task ( $n=10$ ), were too shy to produce sufficient data ( $n=7$ ), or did not return to the lab to complete the second session ( $n=3$ ). The 19 children who participated in the task were all monolingual speakers of English, with a mean age of 3;1 years of age.

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<sup>5</sup> We are aware that, technically, NegP cannot be said to 'select' TP since TP is higher in the phrase structure. We will leave this technical difficulty aside, and simply propose that when NegP is present, TP must be generated, and cannot be omitted.

## 2.2. Method

Children participated in two experimental sessions using elicited production methodology (Crain & Thornton, 1998; Thornton, 1996). The two sessions used the same task; in the first session, affirmative sentences in the past were elicited, and in the second session, we elicited negative sentences.

The task was to have the child participant watch various characters carry out actions such as jumping over a fence, lifting boxes etc. These actions took place on a stage, behind a curtain. The child was able to see what was taking place on the stage, but the puppet's view of the action was blocked by the curtain. The puppet wore a bandana covering his eyes to reinforce that he couldn't see the events on the stage. The child interacted with the puppet who asked questions about what was happening, since he was unable to see. In the affirmative scenario, several characters took turns in carrying out some action, jumping over a fence, for example. By having 4 or 5 characters carry out the action, one scenario could be used to elicit multiple tokens of a particular verb. The last character to perform kept the action (such as jumping) going while the blindfolded puppet inquired about what was happening. The puppet inquired about the actions by using a question in the progressive aspect in order to avoid modelling any use of past tense, i.e., *What's X doing?* In the follow up questions asking about the characters who had already completed the action, the puppet used *What about X?*, thus avoiding any use of a past tense verb. If the child did not respond to the puppet's first inquiry, the experimenters probed further: *Is he V-ing right now?* or *Really, right now?* The protocol was as follows:

- Puppet: What's Cookie Monster doing?  
 Child: He's jumping  
 Puppet: What about Mickey Mouse?  
 Child: He already jumped over the fence  
 Puppet: And what about Big Bird?  
 Child: He jumped over it too  
 Puppet: And what about Crocodile?  
 ....

The set up for negative sentences was identical, except that while some characters performed the action, others refrained. The first character always carried out the action so that when negative sentences were elicited, there was a proposition to refute. The affirmative utterances from this second session were not counted or used in any calculations because they were produced in a context in which they were contrasted with negative ones, and, potentially, they could have been emphatic. That is, children might have produced *He DID jump* instead of *He jumped*. In the negative scenario, those characters who refrained from carrying out the action did not give a detailed explanation of their reason for not doing it. If they had, the child could have used this information to answer

*What about X?* For example, if Spiderman had explained he didn't need to jump over the fence because he could easily fly over it, the child might have answered *He could fly* or some similar utterance. Instead, the characters who refrained from carrying out the action just produced interjections such as *Ooof*, *hard!* or *No!* and so on. This encouraged children to give a description of the event using the verb that was targeted in the scenario (e.g. *He didn't jump*).

Each session began with 2 practice scenarios, to familiarise the child with the game. These practice scenarios used the irregular verbs *eat* and *drink*. The remainder of the verbs used in the elicitation procedure were regular verbs: *kick*, *jump*, *lift*, *clean*, *paint* and *cover*. All of these verbs are found in the vocabularies of children between 24 and 35 months in the CHILDES database (Bååth, 2010)<sup>6</sup>.

### 2.3. Results

Children's productions were transcribed and categorised and the mean percentage for each category calculated. Here we chart the range of children's affirmative and negative sentence productions.

Beginning with children's affirmative sentences, the striking finding was that children provided a wide range of different utterance types in the context designed to elicit affirmative sentences in the past tense.

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<sup>6</sup> A search using the ChildFreq tool (Bååth, 2010) for children between the ages of 24 and 35 months yields the following frequencies per million words for the verbs used in our investigation. The frequency is calculated over a total of 1,426,080 words used in this 24 to 35 month timeframe: *eat* 1831, *drink* 647, *kick* 114, *jump* 380, *lift* 53, *clean* 248, *paint* 173, *cover* 135.

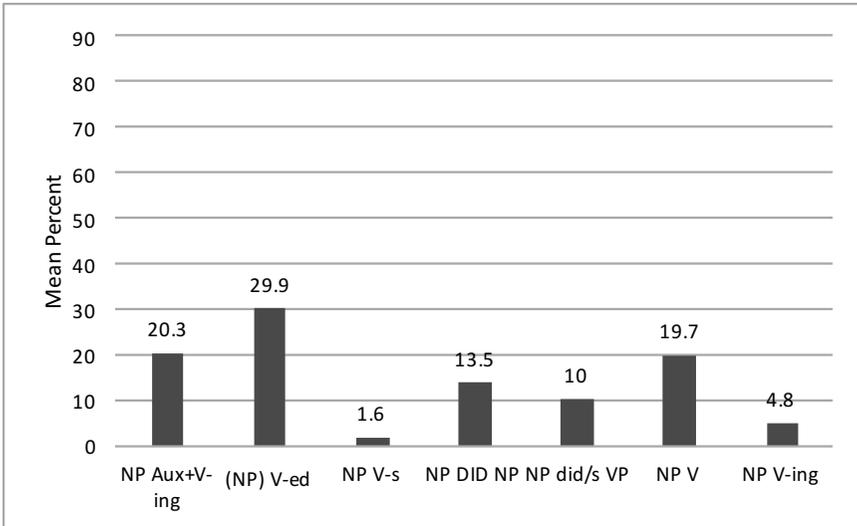


Figure 1: Children's productions produced in context for elicitation of affirmative past tense ( $N=19$ )

First, productions with the past tense 'ed' affix on the main verb comprised only 29.9% of the total productions. Another 20.3% of the productions were in the progressive, usually utterances like "*He was jumping*". This is perhaps not surprising, given that the elicitation technique relied on using the progressive as part of the discourse to set up elicitation of past tense utterances. Since the elicitation technique was the same for both affirmative and negative productions, we reasoned that if the progressive utterances were due to the methodology, we should see the same 20% or so productions using the progressive in children's negative sentences also. However, this was not the case, as we will see shortly.

As expected, there were also productions in which the stem form of the verb was used; these numbered 19.7%. In addition, 4.8% of the productions used a progressive, but the auxiliary verb was missing. Taken together, then, 24.5% of the productions did not have any kind of realization of tense. The remaining 25% or so of utterances were made up of various kinds. Interestingly, 10% of the productions were of the form '*He did jump*' (4%) or '*He's jump*' (6%) when '*He jumped*' was intended. Another 13.5% of the productions used *do* as a main verb; these were utterances like '*He did this one*' or '*They all did it.*' Finally, 1.6% of the productions used the 3<sup>rd</sup> person present tense 's' marker.

In striking contrast to the children's affirmative productions, children's negative past tense sentences were much more uniform, as shown in Figure 2.

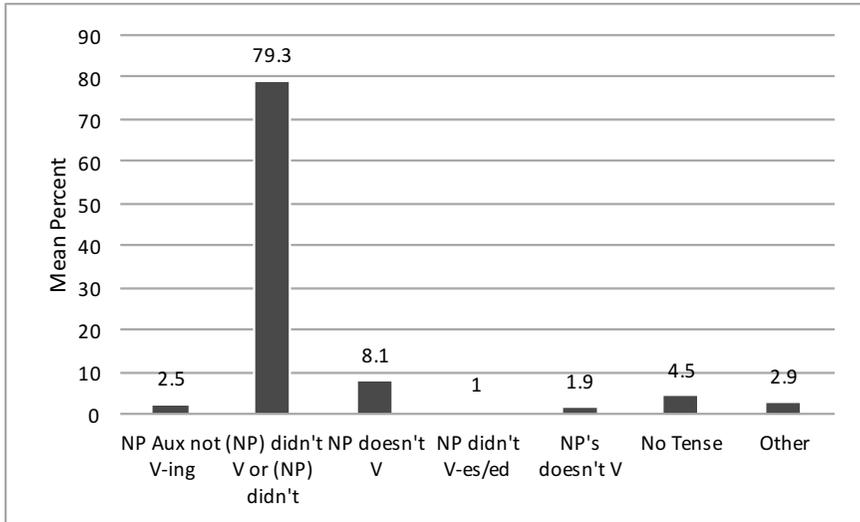


Figure 2: Children's productions produced in context for elicitation of past tense negation ( $N=19$ )

As many as 79.3% of the children's past tense productions were negated using the auxiliary verb *didn't*. This percentage includes a few utterances which had a null subject, and some with ellipsis of the verb, which was appropriate in the context. For the most part, children did not have any difficulty coming up with the auxiliary verb *didn't* to negate their sentences although there were 8.1% negative productions using the present tense form, *doesn't*. It was noted that in the affirmative, about 20% of the children's productions were in the progressive, and the suggestion was that if this were an experimental artefact, we should find roughly the same percentage of affirmative and negative productions, given that the elicitation technique was the same. However, in eliciting negative sentences, only 2.5% of the total number of productions were in the progressive, and of the form "*He was not jumping*". This suggests the affirmative uses of the progressive may have been a strategy to avoid using past tense morphology. Finally, our last observation is that in the affirmative, 24.5% of the productions had no tense marker. By contrast, in the negative, only 4.5% of the productions omitted any kind of tense marker. This is an extremely low number of tense omissions for children with a mean age of 3;1 years.

If we consider the individual subject data, of the 19 children who participated in the study, 3 children showed no change from affirmative to negative because these 3 children already were showing 100% finiteness across both sentence types. Of the other 16 children, 13 children showed fewer non-finite utterances in the negative condition, and 3 children had more non-finite utterances in the negative condition. Using McNemar's test for significance of

changes, the increase in the degree of non-finiteness in negative sentences is highly significant ( $\chi^2 = 7.56$ ,  $p < .005$ ,  $df = 1$ ).

In children's productions of past tense negative sentences there were few productions in which the tense marker was misplaced. In principle, we could have found sentences such as *He'd not jump* or *He did not jump* (past tense inflection 'high' and hosted by *do*) when *He didn't jump* was intended, but neither of these forms occurred. There were, however, 1.9% of the children's productions that were mixed, with a high 3<sup>rd</sup> person 's' marker and *doesn't*. We also hypothesized that children might produce utterances with the inflection 'low' such as *He not jumped* but these did not occur either. The data included 1% of productions of the form *NP didn't V-s/ed* in which inflection appeared 'low' in addition to use of the form *didn't*, but these are so few that they can be regarded as performance errors.

### 3. Discussion

We know from Rice & Wexler (1996) that children at age 3 provide past tense in their affirmative productions 48% of the time in their spontaneous productions and 44% of the time in an experimental context. These rates differ considerably from the present experiment. The children in our experiment produced past tense morphology 29.9% of the time. However, they also produced many other kinds of utterances, many of which had some form of tense morphology. If these are summed, then 75.3% of the utterances expressed tense. Nevertheless, one might ask why the children found it so difficult to produce past tense morphology, and why they used so many alternative structures.

Turning to negative sentences, 79.3% of the children's productions were the adult-form with *didn't*, and if the other forms with some kind of tense are added to these, 92.8% of the utterances expressed finiteness (although they were not necessarily adult-like). Only 4.5% of the children's negative sentence productions had no tense. All of these were negative sentences with *not*. Thus, these productions with no realization of tense are consistent with Zanuttini's proposal, given that *not*, as an adverb, does not force a NegP to be present in the structure, and therefore does not require a TP to be generated. Why did the present experiment elicit rates of finiteness that were so much higher than previous experiments? One possibility is due to the way in which the data were categorised. Our data include the rate of finiteness in all of the sentences produced by the children in the past tense context. It is possible that other studies would have excluded any 'alternative' structures that the children may have produced, if they occurred. Even so, our experimental contexts elicited very high numbers of tensed utterances for children with a mean age of 2;11 years.

The data provide suggestive evidence for our experimental hypothesis that negative sentences would evoke higher uses of tense than affirmative ones because NegP requires a TP projection. This finding must also be approached

with caution, however. The use of *didn't* by children doesn't necessarily signal knowledge of the internal morphemes involved. So, while some of children's uses of *didn't* may indicate knowledge of *did+n't*, and be true indications of *tense+negation*, other children may be using *didn't* as an unanalysed form, much as *don't* is used as an unanalysed form. They may know that it is a word that is used in past tense contexts, but not know that it is divisible into morphemes<sup>7</sup>. If this were the case, then such instances of *didn't* would not necessarily sit in NegP; they could be represented as adverbs in the sentence structure. Unfortunately, there is no way to know what proportion represent true linguistic knowledge that *didn't* represents past tense *did+n't*, and what proportion fail to recognize the morphemic status of *n't*.

Another research question addressed in this study was whether children would produce what Thornton & Rombough (2015) called non-target utterances with 'high' or 'low' inflection. In the affirmative context, we found that children produced 10% of their past tense utterances with the form *He did jump* (4%) or *He's jump* (6%). In the case of the *He did jump* utterances, this appears to be a form of 'high' inflection in which the past tense morphology is supported by *do*. The context in which these utterances were produced was designed to be not contrastive, and therefore emphatic *do* was not appropriate, and not a potential explanation of these data. Therefore, we conclude that the auxiliary verb *did* is a realization of 'high' inflection in these utterances.

Summarizing the past tense negative sentences, although as much as 20% of the children's data in the present tense negative context in the Thornton & Rombough (2015) experiment featured such misplaced inflection, there were fewer productions in the past tense context that represented 'high' or 'low' inflection. In principle, children could have produced *He'd not jump* or *He did not jump* with *not* instead of the head form of negation *n't*, just as they produce *He's not jump* but such forms did not occur. As shown in Figure 2, children produced NP's *doesn't V* productions, with 'high' inflection 1.9%, but these have 's' in the high position, not the past tense 'ed'. Children also produced NP *didn't V-es/-ed* productions with 'low' inflection 1% of the time but these also incorporated *didn't*. However, no child produced the NP *not V-ed* type of sentence. This differs from the present tense context, where many NP *not V-s* productions occur, as reported by Thornton & Tesan (2007, 2013) and Thornton & Rombough (2015).

Overall the data show that in past tense contexts, 'high' inflection occurs, but it is not frequent. This can be seen in affirmative sentences such as *He did jump*, since Infl is not the usual position to realize inflection in affirmative sentences. However, in negative sentences, 'low' inflection did not occur with *not* (i.e., *He not jumped*), unlike in present tense contexts where children allow an inflected main verb (i.e., *He not jumps*). Why did utterances like *He not jumped* fail to ever occur? Given that the children in the present study have a mean age only 2 months older than in the Thornton & Rombough study that

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<sup>7</sup> Thanks to Matthew Rispoli for this suggestion.

elicited present tense negation, it seems unlikely that they failed to occur because children had outgrown this structure. This brings us to the question: Are such utterances not allowed by the grammar, or are they permitted by the child's grammar at this stage of development but absent simply because children settle on the item *didn't* early in acquisition? If such utterances are not allowed by the grammar, then it would be necessary to say why *He not jumps* is permissible while *He not jumped* is not allowed at this stage. The alternative is that the form *didn't* is just easier than *doesn't*, and children find it earlier. Without a comparison of present and past tense negation in individual children, it is difficult to know, but given the large number of negative sentences with *didn't* in children's productions, it seems quite likely that children find this form easy as compared with *doesn't*. This would not be surprising, given that it is composed of two morphemes (*did+n't*) rather than three (*do+s+n't*).

#### 4. Conclusion

Our study elicited negative sentences in past tense contexts, and these data were compared with the negative sentence data from Thornton & Rombough (2015) elicited in present tense contexts. The data do not look similar. Children appear to have much more difficulty producing adult-like sentences with *doesn't* than they do with past tense sentences using *didn't*. The data suggest that children acquire and use *didn't*, potentially before they understand its morphemic make-up. This appears not to be the case for *doesn't*, which is not used until children have figured out that it is composed of 3 morphemes including *n't*.

In the future, it would be useful to elicit both affirmative and negative sentences in the present tense and ones in the past tense from the same individual children. Then, if children are able to produce *doesn't*, we can take their productions of *didn't* to show knowledge of *tense+n't*. And, if children are not able to produce *doesn't* (and instead produce 'high' or 'low' negation with *not*), this would tell us that their productions with *didn't* do not represent *tense+n't*. This would enable us to get a more accurate figure for use of finiteness in negative sentences, and give further insight into the development of negation in English-speaking children's grammars.

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