

No As a Determiner in Child English: A Summary of Categorical Evidence

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Abstract: This paper summarizes the results of a descriptive syntactic category analysis of child English *no* which reveals that young children use and represent *no* as a determiner and negatives like *no pen* as NPs, contra standard analyses.

1. Two Hypotheses Regarding Child English *No*¹

Negation has been a central topic in child language research for decades. However, the categorial status of child English *no* in syntactic combinations like *no pen*, *no more flour in there*, and *no more* has never been determined. Descriptive studies either report few syntactic uses of *no* (Valian 1986) or discuss only the semantic or pragmatic aspects of *no* negation (e.g., Volterra & Antinucci 1979; Choi 1988). Theoretical syntactic analyses have traditionally analysed *no* in such constructions as an early ungrammatical negative auxiliary in combination with a reduced sentence (e.g., Klima & Bellugi 1966/1973; Bloom 1970/1991). I call this the NEGATIVE AUXILIARY HYPOTHESIS (NAH). More recent analyses simply ignore these constructions altogether (e.g., Deprez & Pierce 1993; Harris & Wexler 1996).

In this paper, I summarize the results of a categorial analysis of the uses of *no* in the spontaneous speech of 10 child English speakers which supports the alternative DETERMINER HYPOTHESIS (DH) that children, like adults, represent *no* as a determiner and build negative noun phrases (NNPs) by combining determiner *no* with common noun (phrases)(CN(P)s).

2. Determiner *No* and NNPs in English

The DH begins with the assumption that children's uses of *no* and negative constituents are modelled on both standard and colloquial uses of negation in the input. In **Standard English**, *no* occurs perhaps most often as a determiner in NNPs. As NPs, NNPs appear in the major positions for NPs in English, including subject, object, indirect object, and copular predicate position. Like all other determiners, *no* occurs in all NNPs types (e.g., *no more champagne*, *no champagne in the glass*, *no French champagne sitting on the table*, *no champagne that arrived yesterday*, etc.). As opposed to determiners like *every*, *no* occurs with all CN

¹ See Drozd (1997) available from the author for detailed semantic/developmental analyses of the data presented here

subclasses (csg (=count singular), cpl (=count plural), mssg (=mass singular), mspl (=mass plural)).

No appears in **Colloquial English** in a variety of elliptical expressions (e.g., *no good*, *no longer*) but perhaps most often as a determiner in "bare" NNP utterances like *no champagne*. Bare NNPs are categorized here using Quirk, Greenbaum, Leech, and Svartvik's (1985)(henceforth, QGLS) gradable criteria for grammatical SITUATIONAL ELLIPSIS (SE).² In QGLS's system (pp. 883-90), an elliptical utterance is a clear instance of SE if it satisfies the following three criteria: (1) the missing expressions (typically subject (pronoun) + copula) must be precisely recoverable from previous context, (2) the elliptical construction should be grammatically "defective" (i.e., missing obligatory (in Standard English) words or phrases) and (3), the insertion of the missing expressions should result in a grammatical sentence with the same meaning as the elliptical utterance. *Afraid not* is an instance of SE in this system, since it is missing an obligatory, uniquely recoverable, subject pronoun and copula (*I'm*) which, when added to the original utterance, creates a grammatical sentence which preserves and does not add to the meaning of the original utterance.

Other cases of SE which can be classified as "weak" situational ellipsis (QGLS, p.890) include cases where the choice of omitted item(s) is restricted to a small set of alternatives in each context, e.g., (Are you/Are we) *happy?* and (He/She/ They/John . . .) *Can't play at all*.

Excluded as cases of SE are cases where there "is no clear-cut choice between one verbalization and another" (Quirk et al. 1985:884), e.g., *The door opened and (then, after, afterwards, after that, thereupon, etc.) Mary entered*. Also excluded are NONSENTENCES (QGLS, p. 849-51), which are typically NPs which have no clear elliptical clause analysis. These include requests like *the envelope, please* and ambiguous commands like *the door!*³

Children typically use elliptical negatives to express discourse functions including prohibition, rejection, and existential denial (see definitions below). QGLS (p.851) suggest that requests like *the champagne, please* (and by inference, rejections like *no champagne, thank you*),

² See QGLS for a typology of elliptical utterances.

³ QGLS give no clear criteria for nonsentences. However, they suggest that signs like *Exit* (analyzed as defective NPs) should not be considered elliptical subject complements because they do not occur with interrogative tags (?(The) *Exit, isn't it/isn't there?*) and have ambiguous grammatical functional status (*Here is the exit, the exit is here*), contra SE criterion (1).

existential denials like *no news*, and prohibitions like *no smoking!* be analyzed as nonsentences with little discussion. I suggest instead that they are all examples of “weak” predicate nominal SE. Existential denial and prohibition NNPs occur with existential interrogative tags (*No smoking/news, is there?*) (see fn.3). Moreover, the choice of omitted items is limited to a small number of existential paraphrases, e.g., Prohibition: (There (is (to be))(must be) *No smoking*). NNP rejections do not occur with (existential) interrogative tags (*??No champagne, will I do Iis there?*). However, the omitted items minimally characterizing the rejection meaning seem to be limited to a small set of predicates (e.g., I want, I would like, I like, I prefer) all of which, like existential *be*, occur with predicate nominal complements, (Stowell 1978), e.g., *I want no champagne sitting on this table*. I suggest that rejection NNPs are SE versions of such sentences.

Interrogative bare NNPs categorized as instances of weak SE include recapitulatory echo questions (A: *Roman found no champagne*. B: (Did {you/she/...} say) *No champagne?*, and echoic exclamations (B: (Did you /she/... say) *No champagne! You're/She's... joking!*).

In contrast to existential denial, sentence denials involving nonexpletive subjects (referred to as RELATIONAL CLAUSES below) can be expressed by bare NNPs only in restricted contexts. The NNP *no champagne* can be used to assert denial in sentences like *That is no champagne, Chantal drinks no champagne on Sunday*, or *No champagne is produced in Greenland*. However, it generally cannot be used alone to convey these meanings (*?. (No champagne) is produced . . .*). Exceptional cases seem to be limited to e.g., echoic confirmations (A: *Chantal drinks no champagne on Sunday*. B: *No champagne* (that's right)), contrastive negation with deictic support (A: (That's) *Champagne* (pointing to champagne), (That's) *No champagne*. (pointing to soda)), and certain marked cases ((Tom had) *No luck*). This result can be derived, in part, from the nature of SE: ⁴ Recoverable items must be semantically “light”, like expletives and copula verbs, if their addition to an elliptical utterance is not to add to the meaning of that utterance.

If children are modelling their *no* uses on the input, then we would expect them to use *no* in a majority of cases as a determiner in (bare) NNPs. In particular, their uses of bare NNPs should be consistent with (weak) SE analyses.

3. The Determiner *No* Study

The goal of this study is to determine whether children's *no* negatives provide evidence that they represent *no* as a determiner and utterances like *no pen* as NNPs, following the DH.

SUBJECTS AND METHOD: To get an idea of how

⁴ Other factors include topic/focus structure

children use *no* in syntactic combinations, I extracted the *no* utterances from the CHILDES transcripts of 10 English-speaking children, beginning with a child's first transcript and ending with the child's final transcript at age 3;4 (when available) (Child/Corpus/ Age;Month: Abe/Kuczaj/ 2;4-3;3, Adam /Brown/2;3-3;4, Eve/Brown/1;6-2;3, Naomi/ Sachs/1;2-2;3, Nath' /Snow/2;5-3;4, Nina/Suppes/1;11-3;3, Peter/Bloom/ 1;10-3;1, Ross/MacWhinney/2;6-3;4, Sarah/Brown/2;3-3;4, Shem/Clark/ 2;2-3;1).

The 10 children produced a total of 183,261 utterances in this time window. 5% (8590) were negatives consisting of or containing the word *no*. Excluded from this set were single word uses of *no*, immediate repetitions, negatives including unintelligible speech, negatives found in songs, etc.. Also excluded were negatives which were unanalyzable (no semantical analysis possible given the context). This left a total of 384 analyzable syntactic uses of *no*. I then performed a preliminary assignment of words to adult categories which revealed that 65% (251) of the *nos* occurred in DETERMINER POSITION, (_ (+ADJ) +CN(P)). The remaining tokens occurred in preverbal (*no have it*)(13%), presentential, (*No the sun shining*) (5%) “reported speech” (*He said no*)(8%), and “other” (e.g., *no good*)(9%) positions. I then investigated whether the *nos* in determiner position satisfied categorial criteria for determiners.

SYNTACTIC CATEGORY ASSIGNMENT: The fact that children produce *no* in preverbal and presentential position, in particular, has led previous researchers to hypothesize that *no* occurs across the board as an early negative auxiliary in combination with (reduced) sentences, e.g., nouns, verbs, adjective, etc. (What I called the NAH above). Under the DH, we take the alternative view that children, like adults, have different categorial representations for *no*, one of which is as a determiner.⁵ However, simply showing that children's uses of *no* in constructions like *no pen* satisfy syntactic criteria for determiners is not sufficient to argue against the NAH. It is also necessary to show (1) that the complement to *no* in this position is a CN(P) rather than a reduced sentence, and (2) that (elliptical) utterances like *no pen* function as NNPs in child English.

To this end, I conducted a categorial analysis of the 251 analyzable negatives in which *no* appeared in determiner position using four categorial criteria. (Henceforth, TERM = any constituent whose categorial status has not been confirmed by criterial test).

The first three criteria are based on Valian's (1986:564-65) general categorial criteria. THE DISTRIBUTION CRITERION says that a term is a member of a particular category if it observes the occurrence and precedence properties typical of members of that

⁵ For arguments that *no* in preverbal, presentential, and determiner position are represented differently in child English, see Drozd (1995,1997).

category. *No* can be assigned to the determiner category only if it (1) occurs in determiner position in NP (see above), (2) does not occur preceding or following other determiners or NPs in NP (**No I*, **No every girl*) and (3) does not occur alone (**no*). NNP terms are assigned to the NP category if they appear in all of the major NP positions in Standard English relational and copular sentences (see Section 2).

The MULTIPLE APPEARANCES CRITERION tells us to expect to see syntactic variation characteristic of a category across syntactic positions. Thus, we expect to see NNP terms occur in expected NNP subtypes, e.g., [*no*+CN], [*no*+*more*], [*no*+ADJ+CN+PP], etc. in all of the major syntactic positions for NPs.

Valian's (1986:565) DETERMINER CRITERION is adopted here to test for nounhood. CNs occur in four subclasses (e.g., *csg*, *cpl*, *mssg*, *mspl* (see above)) in head of NP position in NNPs. Children who represent the CN category should use NNPs in which the CN head exhibits CN subclass variation.⁶

The SITUATIONAL ELLIPSIS (SE) CRITERION repeats the criteria for SEs above. If children are using bare NNP terms like adults, we should be able to assign them felicitous paraphrases which consist of the bare NNP together with the (presumed) omitted items, e.g., (There is) *No champagne*. This criterion is an important constraint on the kinds of constituents one can reasonably assume are missing from a child's elliptical utterances. Even though one may show a child's *no pen* is an NP consisting of a determiner and CN, another might still argue that such a negative is an ungrammatical reduced version of some more complex string such as *I bought no pen for my sister* or *No pen can replace my old ballpoint*. However, the finding that a child's bare NNPs satisfy the SE Criterion would be rather strong evidence that these NNPs are grammatical elliptical negatives, although compatible with an infinite variety of more elaborate paraphrases.

RESULTS: NNPs: By the Distribution and Multiple Appearances Criteria, children's NNP terms can be categorized as NPs if they occur (1) in all of the major positions for NPs and (2) in syntactic variation characteristic of NPs in those positions.

Table 1 shows that the children's NNPs overall meet both of these criteria. Children's NNP terms consisted of 8 different NNP subtypes which distribute to 5 different NP positions (bare NNP is also considered a syntactic position here)⁷

⁶ Satisfaction of this criterion also provides indirect evidence of determiner category representations. A finding that children combined *no* with CN subclasses can be taken as evidence that they are able to represent the abstract syntactic connection between determiner and CN complement.

⁷ NNPs appearing inside WH-questions (*Why no Adam in the bath tub?*) (N=3) were also categorized as bare NNPs in this study

NNP Type	NNP Position			Totals
	Relational Clause SBJ / OBJ / OBL	CopPred	Bare NNP	
<i>No</i> +CN	3 / 20 / 1	16	62	102
<i>No</i> + <i>more</i> *	1 / 1 / 0	6	25	33
<i>No</i> +ADJ+CN	1 / 2 / 0	9	39	51
<i>No</i> +CN+PP(+LOC)		15	37	52
<i>No</i> + <i>more</i> +PP		1	1	2
<i>No</i> +ADJ+CN+PP		3	4	7
<i>No</i> +CN+VP _{GER} /VP _{INF}		2		2
<i>No</i> +CN+ADV		1	1	2
Totals	5 / 23 / 1	53	169	251

SBJ=subject position, OBJ=direct object position, OBL=oblique object position, CopPred=Copular predicate position, LOC=prolocative, ADV=adverb, VP_{GER}=gerundive verb (phrase), VP_{INF}=infinitival verb (phrase)

**more* mentioned separately only when it occurs as a deadjectival noun

Table 1. Distribution of analysable NNPs by NNP type and (syntactic) position

NNPs appeared in all major NP positions at least once across children, satisfying the Distribution Criterion for NNPs. NNPs appeared most often as bare NNPs (67%) and next most often in copular predicate position (21%) and in SBJ, OBJ, and OBL positions in relational clauses (12%).⁸ NNPs occurred as bare NNPs at least once in the speech of all 10 children, at least once in relational sentences in the speech of 8/10 children, and at least once in copular predicate position in the speech of 7/10 children. The relative frequency of NNPs in relational, copular predicate, and bare NNP positions does not significantly differ across the 6 children who used NNPs in all 3 positions (Kendall's $W = .57$).

Table 1 also shows that children used a variety of NNP types across syntactic positions, satisfying the Multiple Appearances Criterion. Type [*no*+CN] occurred most often (41%) followed by the more complex [*No*+ADJ+CN] (20%) and [*No*+CN+PP (+LOC)] (20%) types. More NNP type variation was found in positions with higher NNP frequency, as expected. All children used at least 3 different NNP subtypes as bare NNPs and 4 children used 5 different NNPs as bare NNPs.

NO IN DETERMINER POSITION: The preliminary word to category assignment makes all 251 analyzable determiner *no* tokens consistent with the Distribution Criterion for determinerhood. However, a number of potential counterexamples exist outside this set.

No occurred with an ADJ other than *more* in [*No*+ADJ] combinations in 16 cases. 9 of these are grammatical examples of *no good* which occurred

⁸ The relative frequency of NNPs across syntactic positions reflects the relative frequency found in the input (Drozd 1977).

either as adjectival copular predicates (*This is no good*) or as elliptical negatives, e.g., Adam: *No* (taking pencil back from Ursula). *No good* (☞ That one's no good) (Adam, 2;5). One case, *No sunny outside* (Adam, 2;3), is interpreted as metalinguistic exclamative negation (Drozd 1995)(☞ No way it's sunny outside!) where *no* combines with an echoic copy of a previous utterance the speaker is objecting to (the mother's *Is it sunny outside?*) rather than the adjective to its right. The remaining 7 cases appear to be instances where *no* suppletes preadjectival *not* and hence do not count as NNPs, e.g., *no ready yet* (☞ not ready yet)(Eve, 1;11), *This is no sharp* (☞ This is not sharp)(Shem, 2;9).

No never preceded another determiner or NP in NNP. *No* preceded a determiner in 3 cases of presentential negation, e.g., *No the sun shining* (Adam, 2;4), in which *no* combines with the following clause rather than a determiner or subject NP (Drozd 1995), and one case of apparent *not* suppletion, *There's no any water in here* (Abe 2;9). *No* also occurred preceding a pronominal, proper name, or demonstrative NP in 14 cases, consisting of 13 presentential negations (e.g., *No I see truck* (Adam, 2;3) and one *not* suppletion, *because there is no someone in the house* (Shem, 2;5).

No never followed a determiner, a CN, or an ADJ in NNP. *No* did follow a CN in two cases of preverbal (rather than NNP) negation, *man no taste it?* (Eve, 1;6) and *Does the needle no working?* (Nina, 3;2).⁹ *No* followed a proper name or pronominal NP in 22 cases. 17 of these occur in elliptical copular sentences, e.g., *There no country* (Peter 2;2). These were cases in which *no* combined with CN to form a copular predicate NNP, e.g., Adam: *Dat no Mommy* (☞ That's no Mommy) *Dat Mommy*. Mother: *That's Mommy*. (Adam 2;5)¹⁰ Of the remaining 5 cases, 4 are preverbal (*I no want go home* (Peter, 2;2) and one post-demonstrative (*that no?* (Naomi 2;1))(= counter-example).

No never occurred alone as an NP. It did occur alone 31 times as an instance of reported speech (e.g., *He said no*) and once as a quote (*No is a bad word* (Ross)). These are all grammatical uses.

These results reveals that children make very few errors in constructing NNPs with *no*, strongly supporting the DH.

CNs in NNPs: By the Determiner Criterion, we expect CN terms to exhibit CN subclass variation across NNP type and NP position. Table 2 (see Table 1 for legend)

shows that three CN subclasses¹¹ distribute to the 6 NNP types of Table 1 which include CNs over 3 NP positions (SBJ, OBJ, OBL conflated under relational clause).

NNP Type	NNP Position								
	Relational Clause			CopPred			Bare NNP		
	csg	cpl	mssg	csg	cpl	mssg	csg	cpl	mssg
<i>No</i> +CN	11	12	1	8	6	2	37	13	12
<i>No</i> +ADJ+CN	1	1	1	1	6	2	13	19	7
<i>No</i> +CN+PP (+LOC)				7	2	6	15	12	10
<i>No</i> +ADJ+CN+PP				2		1		1	3
<i>No</i> +CN+VP _{GLX} /VP _{INI}					1	1			
<i>No</i> +CN+ADV							1		1
Totals	12	13	2	18	15	13	65	46	32

Table 2. Occurrence of CN subclasses across NNP type and syntactic position (N=216)

As the data suggest, the children use all three CN subclasses productively, satisfying the criterion.

An additional test was performed to check if the children's sentential negatives exhibited obligatory number agreement between subject and verb (e.g., *There (are/*is) no pens, No champagne (is/*are) coming*). If children know that it is CNs (rather than reduced sentences) that combine with determiner *no*, they should consistently produce number agreement between CN and verb when appropriate. To test this, I compiled all of the negative sentences containing either (1) an uncontracted copular verb followed by an NNP, or (2) a relational clause with an NNP subject and an inflected (finite) verb. Only clauses with unreduced or reduced plural ('*re*) copular verbs are relevant to the test since the contracted copula ('*s*) is unspecified for number. I collected 5 such copular negatives from four children, *There were no cars coming* (Abe, 3;1), *They're no dogs in their yard* (Nina 2;5), *There was no more candy in this egg* (Ross 3;3), *There is no mouth* (Shem 2;7), and **There isn't no babies* (Shem 3;0), and 2 relational clauses, *No recipe calls for anything* (Abe 2;10), and *No wheels are going around* (Shem 2;7). Correct number agreement occurred in the two singular existentials and in 2/3 plural existentials. Both relational sentences show correct number agreement.

These results suggest that the children represent CN terms in NNPs as CNs. This result is unexpected under the NAH, but strongly supports the DH.

BARE NNPs: Due to their elliptical character, typical short length, presumed simple syntactic structure, and early emergence in child languages, bare NNPs like *no pen* in child English are often assumed to be ungrammatical elliptical expressions. However, if

¹¹ Not unexpectedly, the mspl subclass (*no waters*), which is rare in the input, does not appear in the children's NNPs

⁹ I take *man no taste it* as a possible counterexample, since it is impossible to tell from context whether the first negative isn't an ungrammatical version of *No man taste it?*

¹⁰ One might argue that negatives like *Dat no Mommy* are to be modelled as Standard English *That is not Mommy*. However, the *no* versions are often productive in the input (Drozd 1997). For example, Adam's mother often uses (ungrammatical) negatives like *That's no ladder for that* (Adam 2;3).

these negatives satisfy the SE Criterion, we have evidence that they may be grammatical instances of (weak) SE, as expected under the DH.

The children's bare NNPs typically occurred as assertions, directives, and interrogatives. The interrogatives were separated out and directly interpreted using the SE Criterion. To check if the others satisfy the SE Criterion, I first performed a preliminary assignment of NNPs to discourse functional categories to get an idea of what kinds of items, if any, might have been omitted from these utterances. An NNP was categorized as an EXISTENTIAL DENIAL if the existence of the denotation of the CN(P) in context was negated. An NNP was categorized as a RELATIONAL DENIAL if the NNP could be interpreted as a sentential argument (i.e., subject, object) in a negative sentence with a nonexpletive subject, e.g., (That is) *No champagne*, (Chantal drinks) *No champagne*, or *No champagne* (is produced in Greenland). Existential and relational bare NNP denials were kept separate because they have different occurrence restrictions in discourse, as discussed above. An NNP was assigned to the REJECTION category if the denotation of the CN(P) was not desired by the speaker, to the PROHIBITION category if the addressee was dissuaded from interacting with the denotation of the CN(P), and to the EXCLAMATIVE OBJECTION category if the NNP was used to object to the meaning of a previous utterance which the speaker finds offensive or inappropriate (All of these were cases of *No way!*).

The preliminary assignment exhausted all of the noninterrogative analyzable bare NNPs in the sample: Existential denial (64%), rejection (11%), prohibition (7%), relational denial (5%), metalinguistic exclamative negation (2%). Interrogatives constituted 10% of the sample, and reported speech 1%.¹²

EXISTENTIAL DENIAL, REJECTION, PROHIBITION: All of the existential denials, rejections, and prohibitions could be interpreted as elliptical predicate nominal instances of (weak) SE.

Representative examples are in (1)-(3) with paraphrases (☞) showing assumed missing items.

- (1) Existential Denial: Nina (2;4) Mother: *Are there many monkeys hanging there?* Nina: *Uhhuh. No more monkeys.* (☞ *There are no more monkeys*) Mother: *No more. Where are they?*
- (2) Prohibition: Nina (3;0) Mother: *Do you want me to jump? Here, let me have it.* Nina: *No. No jump rope out here.* (☞ *There is/ There will be no jump rope out here!*).
- (3) Rejection: Peter (2;8): Pat: *That's the kind you want isn't it?* Peter: *No hard board on it.* (☞ *I want no hard board on it*). Pat: *Oh, you just want plain?*

¹² The metalinguistic (*no way!*) and reported speech tokens e.g., *Do you know why she says "No way. Jose?"* (Ross, 3;3) are all grammatical uses of *no* (Drozdz 1997).

Peter: *Yeah.*

Like all of the other examples, the negatives in (1)-(3) can be naturally interpreted as missing an obligatory subject and (copular) verb, which, when added to the utterance, creates a grammatical sentence which does not add to the intended meaning of the original utterance, as required by the SE Criterion. Furthermore, all of the glosses are felicitous in context.

This analysis makes an added prediction about "complex" bare NNPs with PP, gerundive, and infinitival complements expressing existential denial (e.g., *no more flour in there*). One might argue that these NNPs are not bare NNP instances of SE ((There is) *no more flour in there*) at all but ungrammatical utterances missing a copula in medial position, e.g., *No more flour (is) in there*. I call this the MISSING MEDIAL COPULA (MMC) analysis,

Of the bare NNP existential denials, 30% were complex bare NNPs. Though all of these satisfied the SE criteria, 91% were also compatible with a MMC analysis as well, due to the large number of such NNPs with locative adjuncts. These are consistent with either analysis (as shown just above). However, two pieces of evidence support the SE analysis. The first that only the SE analysis covers ALL of the analyzable nonexistence bare NNPs. NNPs with benefactive PP or infinitival complements, which are only compatible with the SE analysis, also appear several times in this sample: e.g., *No place for the dolly* (Nina, 2;4) (☞ *There is no place for the dolly.* *☞ *No place is for the dolly.*)

Secondly, MMC paraphrases are typically awkward in context when locative adjuncts are present, as in (4).

- (4) Abe (2;9) Abe: *Mom please I want my squirt gun.* Mother: *Ok, here you go, don't squirt me any more, ok?* Abe: *My squirt gun! I can't get water in it, help me please, I can't get water in it. No water in here, Daddy.* (☞ *There is no water in here, ??No water is in here.*)

A felicitous context for a SE or "presentative" paraphrase is one like (4) "in which the event is introduced within a situation where no preparation has been made for it" (e.g., Bolinger 1977:94). A felicitous context for the MMC paraphrase would be one in which the (non)existence of water in the gun was already topicalized in context. But this condition is missing in (4). Hence, the MMC paraphrase is awkward.

I conclude that the complex NNPs expressing existential denial are also grammatical instances of SE.

RELATIONAL DENIAL: 5% (9/169) of the bare NNPs conveyed relational denial. 2 of these are ungrammatical, because the omitted items appear to be non-expletive subjects and predicates (see Section 2), e.g., Richard: *Looks like a square. Is it a square?*

Adam: *No square, is clown* (☞ That's. It's no square. That's/It's a clown)(Adam (2;8).

Of the remaining 7, 3 are echoic confirmations (see above), 1 is an echoic response to a Y/N question., 2 are contrastive denials with deictic support, as in (5), and 1 is a grammatical response to an information question, as in (6). All of these are interpreted as grammatical instances of SE.

(5) Naomi (1;10) Mother: *Nomi, which baby has no clothes on?* Naomi: *No clothes on.* (☞ That baby (deictic gesture) has no clothes on). Mother: *Yes, that's the right baby. That has no clothes on.*

(6) Ross (2;10) Father: *You're a little baby and you get pajamas and you get a bottle, and what else?* Ross: *And a bottle.* Father: *And what else?* Ross: *And no baby food* (☞ And you get no baby food)

Of these, perhaps my analysis of (5) is the most debatable. I would argue that the mother's remark could not have been made unless Naomi made some gesture telling her which was the "right" baby. This makes the "deictic" SE analysis felicitous.

In sum, these results suggest that children, rather surprisingly, obey the strict constraints on using bare NNPs to express relational denial in the vast majority of cases.

INTERROGATIVES: 10% (16) of the bare NNPs occurred as interrogatives. Of these, 9 are recapitulatory echo questions, as in (7), and 4 are Y/N existential questions, as in (8).

(7) Peter (2;0) Lois: *I just put them in there for no reason at all.* Peter: *No reason at all?* (☞ For no reason at all you put them in there?)

(8) Nina (3;3) Mother: *Ok, Let me go see if I have any oranges.* Uhoh (= trouble). Nina: *No oranges?* (☞ Are there no oranges?)

The remaining 3 cases are ungrammatical (echoic) *why* nonexistence questions, e.g., *Why no peanuts in it?* (☞ Why are there no peanuts in it?)(Nathaniel, 3;0) and are considered counterexamples.

Thus, 81% (13/16) of the NNP interrogatives can be considered grammatical examples of SE.

In summary, the children's bare NNPs, with few exceptions, can be analyzed as grammatical instances of SE. Like the previous results, this result strongly supports the DH but is unexpected under the NAH.

4. Summary

I have presented evidence here that children's uses of *no* in determiner position are legitimate, grammatical uses of determiner *no*, and that children's negatives like *no pen* are grammatical NPs, even when they occur as elliptical negatives. This supports the hypothesis that the CN and NP categories and at least some determiner categories are established early in child English. These findings undermine the Negative Auxiliary Hypothesis which

claims that child English *no* in negatives like *no pen* is an early auxiliary sentence negation marker in combination with a reduced sentence. This hypothesis is still applicable to the preverbal and presentential *no* negatives. However, these examples only comprise 18% of the data. These findings also argue against the hypothesis that early child languages lack functional categories (Radford 1990). Rather, these findings introduce the interesting possibility that "weak" (existential, cardinal) determiner systems may emerge in child languages early, perhaps before the emergence of "strong" or presuppositional determiner systems (Drozd 1997).

5. References

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