

## Aspects of Some Adjuncts

Masashi NAGAI

*Department of Foreign Languages*

(Received September 2, 1993)

The present paper attempts to elucidate a few properties of adjunct constructions by examining data that have hitherto been virtually inaccessible. Alternatives will be explored, where necessary, to properly accommodate the relevant data, and several configurations will be presented as the discussion proceeds.

### 0. Introduction

A great deal has been argued in the linguistic literature for and against the null operator movement analysis of infinitival purposive adjuncts often referred to as purpose clauses. Very few works, however, have ever come forward with any detailed analysis of longitudinal data that would surely have much to say in determining the correct representation of the relevant constructions. Nishigauchi and Roeper (1987) present themselves as an outstanding exception with longitudinal data that no linguist of any persuasion has ever dreamed of coming up with. This paper, with its own configurations, will review the data and exposition they put forth and then seek to contribute its share toward a better understanding of the constructions.

### 1. Data and Discussion

In children's utterances sentences that are almost identical with purpose clauses in adult grammar are not rare. We provide below the data Nishigauchi and Roeper (1987) give in the course of their discussion — in a full range so that the reader can enjoy a complete inspection :

- 1 . Toys are for to play with.
- 2 . These buttons are for to sew on you.
- 3 . This milk is for to drink.
- 4 . You can have a pocket for to put them in, Dad.
- 5 . Let's bring a bench for to jump in.
- 6 . I have a place for to put my girls, right here.
- 7 . You can have a pocket for to put them in, Dad.
- 8 . (What do you want to get in there for?) For to eat.

- 9 . I can draw something, but I need a pencil for to.
10. There's one for Mom for to brush he's, too.
11. Vitamin C is for to grow.

Longitudinal studies reveal that the above sentences are preceded, in children's utterances, by sentences such as those listed below :

12. I forgot my pants to pull up.
13. I want my something to drink to hold.
14. Mommy, will you help me with my brocoli to eat?
15. I want something to eat on the way to bring.
16. I'm making some for you to pull (= to pull you).
17. Let's make a list ice cream to get.

Unlike the sentences 1-11 the sentences 12-17 are only remotely similar to purpose clauses in adult grammar and disappear when sentences such as 1-11 are firmly incorporated in children's grammar. It is therefore quite reasonable to assume that the sentences such as 12-17 have eventually developed into sentences such as 1-11, and it is the aim of this paper to present a rough picture of how the process has taken place.

Let us first settle the problem of how sentences such as 12-17 are represented in configurational terms.

12. I forgot my pants to pull up.
13. I want my something to drink to hold.

What children mean by 12 and 13, for example, are 12' and 13', respectively :

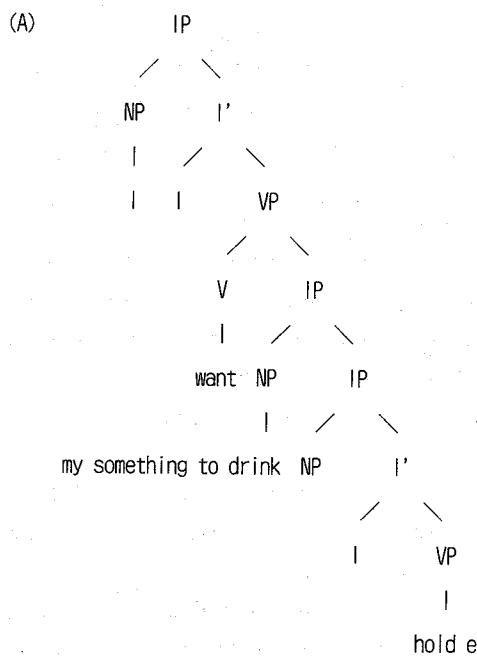
- 12'. I forgot to pull up my pants.
- 13'. I want to hold my something to drink.

The following representations, therefore, suggest themselves :

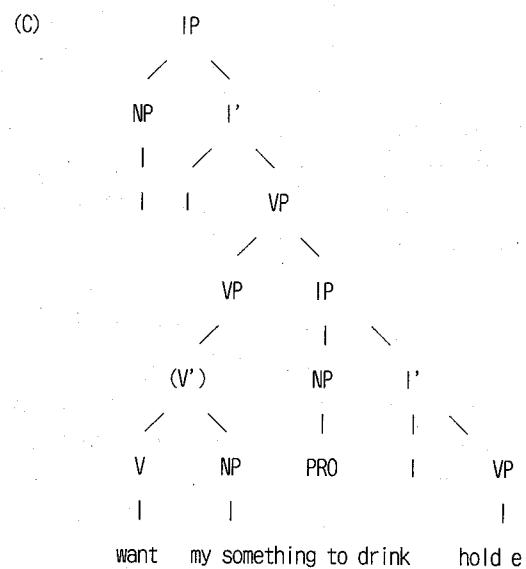
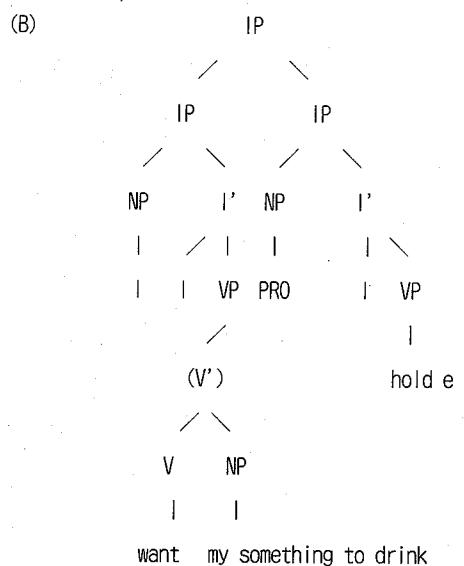
12". I forgot [[my pants]<sub>i</sub> [PRO to pull  $e_i$  up]].

13". I want [[my something to drink]<sub>i</sub> [PRO to hold  $e_i$ ]].

Let us examine what the correct landing sites of *my pants* and *my something to drink* would be. We cannot maintain here that the landing sites are in COMPs, because it is most likely that children do not make use of S' node (= CP node in Chomsky (1986))(cf. Phinney (1981a) and Phinney (1981b)). We are thus led to the assumption that *my pants* and *my something to drink* are both adjoined to S nodes (= IP nodes).



Another possibility can be explored by taking advantage of "free adjunction" available in children's grammar (which presumably is to be replaced by subcategorization in adult grammar). The following are two possible configurations :



The configuration (B) illustrates IP adjunction of [PRO to hold  $e$ ], the configuration (C) VP adjunction of the same constituent. It should be kept in mind that no movement is involved in (B) and (C) and that the constituent [PRO to hold  $e$ ] is base-generated, as a result of free adjunction available in children's grammar.

Nishigauchi and Roeper (1987) seem to be non-committal about these free adjunction options, but in order to see if they are indeed viable options we need to look closely at the above representations. As mentioned earlier no movement is assumed to have taken place in (B) and (C), so presumably we have to ensure that the empty categories ( $e$ s) be controlled by appropriate controllers. The configuration (C) would present us no problem, but in (B) *my something to drink* fails to c-command the empty

category *e* and it is not entirely clear whether control relation can obtain between these two. Let us therefore discard the (B) option. Notice here that the (C) option is similar, in configurational terms, to purpose clauses in adult grammar. We will depart from the analysis offered in Nishigauchi and Roeper (1987) from this point on and assume that they are indeed one of the configurations that children would have in mind when confronted with the task of appropriately processing the example 13. In defiance of the technique of good mystery writing we present at this point what we believe to be the correct picture of the developmental stages that start with 13:

I want my something to drink to hold.



(C) reading (A) reading



(purpose clauses such as ↓) I want to hold my  
You can have a pocket for something to drink.  
to put them in, Dad.



You can have a pocket to  
put them in, Dad.

One problem stands out for the configuration (C); (C) (and (B) for that matter) deviate(s) from the representation 13" in that the verb *want* does not take the proposition [PRO to hold my something to drink] at any point in the derivation. The verb takes just the NP *my something to drink* as its object. This is problematic if Chomsky and others are correct in assuming that the Projection Principle (cf. Chomsky (1981)) (or the Extended Projection Principle (cf. Chomsky (1982))) is a constraint on language acquisition (indeed we have tacitly assumed the Projection Principle in presenting the representation 13"). However, we see no particular reason why the configuration (C), which is derived from "free adjunction," cannot coexist in children's grammar with (A), which lives up to the letter and spirit of the Projection Principle. In effect we are saying that children, faced with data such as 13, have two options in mind; one taking a propositional IP as object (in conformity with the Projection Principle) and the other taking an NP as object.

Our speculation about language acquisition process naturally leaves us two things in need of explanation,

that is, we have to characterize and explain what is happening in (D) and (E):

(D) (C) reading (E) (A) reading



(purpose clauses such as ↓)  
4. You can have a pocket for  
to put them in, Dad.



I want to hold my  
something to drink.

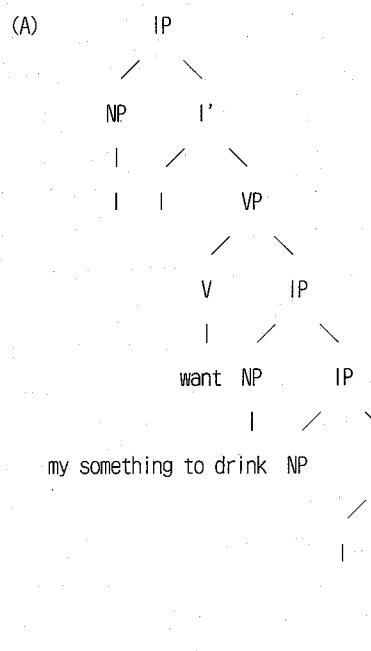
Before we take up that topic, it would be worthwhile to check what empty categories there are in the *e* slots in (A) and (C). Let us consider the configuration (C) first. The *e* cannot be a trace, since no movement is assumed to have taken place in (C) (furthermore *my something to drink*, which would fix the value of the *e*, is in A-position and it is generally assumed that children initially do not have Move NP, until the maturation of A-chain (cf. Borer and Wexler (1987)). The *e* cannot be PRO, either, so the only choice that remains is pro. Although this state of affairs may sound rather odd at first, notice that it accords well with the recently advanced claim that children start with pro (cf. Hyams (1987)). This also fits nicely with the positioning of the work by Nishigauchi and Roeper (1987) in the overall picture of language acquisition. The major theoretical contribution of Nishigauchi and Roeper (1987) is considered to be the elucidation of "grammar narrowing" process, and it is quite reasonable and in fact desirable to assume that children start with pro and then move on to the other empty categories (traces, PRO). Although it disappears in adult grammar (in the case of English), pro, which is [+ pronominal] and therefore has a definite reference that can be fixed contextually, should be the first to be acquired by children (even in English-speaking environments) when their grammars are confined to "reference" module. After their grammars go through grammatical steps and enter "grammatical" modules, children acquire traces and PRO as empty categories. Manzini and Wexler (1987) report on the same transition (reference module → grammatical module) concerning data that are relevant to the binding theory. When they are operating within reference module, children are not aware of the Principle B of the binding theory and hold pronouns to be coreferential with just about everything as long as they are contextually plausible. Later on children learn the subtle grammatical requirement concerning the legitimate occurrence of pro-

nouns and produce grammatical sentences. The reason we call this transition "grammar narrowing" is that its main function is to correct overgeneration, filtering out illegitimate proliferations of the empty category pro virtually anywhere and illegitimate occurrences of pronouns that do not conform to the Principle B of the binding theory.

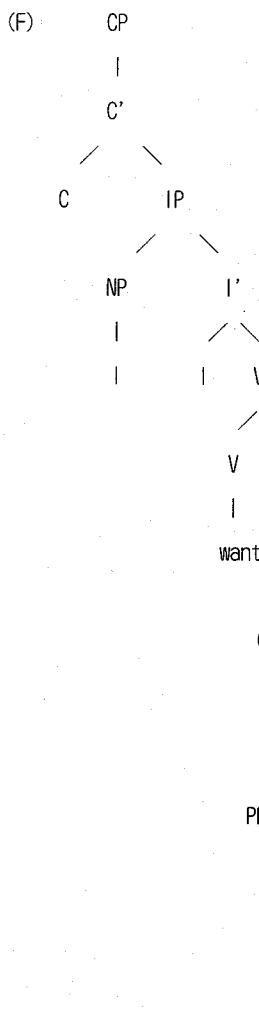
Turning to the configuration (A) the empty category *e* is bound by the NP *my something to drink* and that NP is in A'-position. The empty category then should be a variable. This assumption is not unreasonable since children are thought to have Move *Wh* before they learn Move NP. However, we note as a safe measure that there might be a possibility that the empty category is in fact pro. As noted before pro is the prime candidate as an empty category in the early stage of language acquisition (cf. Hyams (1987)) and the idea of A'-bound pro is not something that can be dismissed right away. We leave this question open.

Let us then consider how the transition (E) illustrated previously takes place in children's grammar (We will discuss the transition (D) later on). First we provide below, for ease of reference, the correct configuration (F) (in adult grammar) for the sentence *I want to hold my something to drink*, together with the configuration (A), which we have chosen as one of the possible representations (in children's grammar) for the sentence 13, *I want my something to drink to hold*:

*I want my something to drink to hold.*



*I want to hold my something to drink.*



What we have to explain is why the preposed NP *my something to drink* in children's grammar should be where it is in adult grammar (F). In explaining, in the Government and Binding terms, why such and such movements have to take place, one can usually find a reason pertaining to Case assignment consideration, so let us here explore that avenue. As noted earlier it is quite reasonable to assume that children are not aware of CP(S') node in their early stage of language acquisition (and that is precisely what makes the configuration (A) as it is). If we pay attention to the Case assignment of the NP *my something to drink*, we notice that the lack of a CP (and C') node dominating the IP node that immediately dominates that NP allows the verb *want* to assign Case to the NP. The NP *my something to drink* is thereby licensed. With the emergence of adult grammar extensive use of CP(S') node becomes possible and in the (adult grammar) con-

figuration (F) we find that the assignment of Case from the verb *want* to the NP *my something to drink* is blocked by the existence of a CP node intervening between *want* and *my something to drink*. The only place the NP can get Case and thereby be licensed is in the sister of the verb *hold*, so the NP moves to where it is in (F) — a desirable outcome. We assume that this picture of the transition (E) is basically correct. We note, however, that there is one problem inherent in the above argumentation. In the foregoing we assumed rather innocently that the NP *my something to drink* gets its Case from the verb *want*, but we have to remind ourselves of the fact that we have originally motivated the configuration (A) as a representation in which IP(S) adjunction (movement) has taken place. The NP *my something to drink* inherits Case from the empty category *e* and the NP ends up being assigned two Cases simultaneously, from the verb *want* and from the verb *hold*. This is clearly undesirable, so we need to block either the Case assignment from the verb *want* or the Case assignment from the verb *hold*. We do not see any viable way to block the Case assignment from the verb *want*, but it is worthwhile to give a careful thought to the A'-chain composed of the NP *my something to drink* and the empty category *e*. We noted earlier that children start with pro as the first empty category available to them and further that, in the case of the configuration (A), the empty category *e* might in fact be pro. We suggest adopting the idea of the empty category being pro in (A). Then no problem of doubly assigned Case would haunt our analysis. The idea suggested above seems to be highly plausible, but we concede that the idea is not wholly compatible with our initial assumption that a movement has taken place in the configuration (A). We now have an A'-chain composed of an NP and pro, but it is doubtful whether we can view this chain as derived from movement. The above idea then would nearly undermine the very assumption on which we have derived the configuration (A) and point to an analysis in which no resort is made to a syntactic movement (that is, the empty category in question is base-generated). As we see no insightful way to collapse in an analysis all of the following at this point, we leave this topic open here; a syntactic movement (IP(S) adjunction) of the NP *my something to drink*, absence of CP(S') node in children's grammar, prohibition against assigning two Cases to one NP.

Turning to (D) we believe that the transition can be easily accounted for (at least in configurational terms). As

briefly noted earlier (C) is similar, configuration-wise, to what we believe to be the correct configuration of purpose clause and we see no special reason why the configuration (C) cannot be viewed as the precursor of purpose clause in adult grammar. We thus go ahead and suppose that purpose clauses in adult grammar have originated from those sentences that have configurations of the (C) type.

We must mention at this point that our account of the transition (D) leaves one salient fact unexplained. In the precursors of purpose clauses (such as (C)) a whole array of verbs allow infinitival clauses in question to adjoin to the verb phrases that they head, but as has been noted by a number of linguists (cf. Faraci (1974), Bach (1982), Nishigauchi (1984), Browning (1987), etc.) there is a rather severe restriction on the kind of verbs that take purpose clauses. Children obviously must learn to distinguish the subtle semantic factors that characterize purpose clause-taking verbs, but accounting for the process is no easy job. This is so because children are generally thought to rely, at their initial stage of language acquisition, on semantic properties of words and then learn grammatical principles (e.g. categorization) and finally cease to depend on crude semantic properties. What we are facing then is the opposite kind of problem (i.e. accounting for the gradual growth of a semantic restriction on a set of verbs) and we have no definite answer to offer at present, although there will surely be avenues to explore the matter.

## References

- Bach, E. (1982) "Purpose Clauses and Control," in P. I. Jacobson and G. K. Pullum, eds. (1982).
- Borer, H. and K. Wexler (1987) "The Maturation of Syntax," in T. Roeper and E. Williams, eds. (1987).
- Browning, M. (1987) *Null Operator Constructions*, Doctoral dissertation, MIT, Cambridge, Massachusetts.
- Chae, H. (1990) "Gap Licensing in Tough- and Similar Constructions," in A. L. Halpern, ed. (1990).
- Chomsky, N. (1981) *Lectures on Government and Binding*, Foris, Dordrecht.
- Chomsky, N. (1982) *Some Concepts and Consequences of the Theory of Government and Binding*, MIT Press, Cambridge, Massachusetts.
- Chomsky, N. (1986) *Barriers*, MIT Press, Cambridge, Massachusetts.
- Declerck, R. (1991) *A Comprehensive Descriptive Grammar*

- of English, Kaitakusha, Tokyo.
- Faraci, R. (1974) *Aspects of the Grammar of Infinitives and For Phrases*, Doctoral dissertation, MIT, Cambridge, Massachusetts.
- Halpern, A. L. ed. (1990) *Proceedings of the Ninth West Coast Conference on Formal Linguistics*, University of Chicago Press, Chicago.
- Hyams, N. (1987) "The Theory of Parameters and Syntactic Development," in T. Roeper and E. Williams, eds. (1987).
- Jacobson, P. I. and G. K. Pullum, eds. (1982) *The Nature of Syntactic Representation*, D. Reidel, Dordrecht.
- Jones, C. (1990) "Decapitation (of Some So-Called Null Operator Constructions)," in A. L. Halpern, ed. (1990).
- Jones, C. (1991) *Purpose Clauses*, Kluwer Academic, Dordrecht.
- Mair, C. (1990) *Infinitival Complement Clauses in English*, CUP, Cambridge.
- Manzini, M. R. and K. Wexler (1987) "Parameters and Learnability in Binding Theory," in T. Roeper and E. Williams, eds. (1987).
- Nishigauchi, T. and T. Roeper (1987) "Deductive Parameters and the Growth of Empty Categories," in T. Roeper and E. Williams, eds. (1987).
- Phinney, M. (1981a) "Markedness and the Development of COMP," in *University of Massachusetts Occasional Papers in Linguistics 6*, University of Massachusetts, Amherst.
- Phinney, M. (1981b) *Syntactic Constraints and the Acquisition of Embedded Sentential Complements*, Doctoral dissertation, University of Massachusetts, Amherst.
- Roeper, T. and E. Williams, eds. (1987) *Parameter Setting*, D. Reidel, Dordrecht.