

Have-Cliticisation in Child English: A Generative Account

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Abstract

The cliticisation of have onto a preceding word has been argued to be constrained by principles of Universal Grammar. In particular, have-cliticisation appears to be blocked when an empty T constituent that follows from Universal Grammar intervenes between have and its host provided that the host c-commands have and that the host ends with a vowel or diphthong. The study investigates knowledge of these constraints in child English. In particular, the study aims to see whether children learning English as a first language exhibit awareness of the generative constraints on have-cliticisation. The longitudinal transcripts from CHILDES of eight American and British children were used for data collection. An analysis of the occurrences of have-cliticisation in those transcripts shows that English-speaking children are sensitive to the generative constraints on have-cliticisation suggesting that their production of have-cliticisation is constrained by Universal Grammar.

Keywords: Have-cliticisation, Child English, Universal Grammar, Preference.

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ظاهرة اختزال الفعل (have) في لغة الأطفال من وجهة نظر نظرية القواعد العالمية

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ملخص

يفترض بعض اللغويين بأن ظاهرة اختزال الفعل المساعد (have) وذلك بإلصاقه بالكلمة التي تسبقه يعتمد على مقبيدات مصدرها القواعد العالمية للغة. على وجه الخصوص، يكون اختزال الفعل (have) غير جائز عندما يحيل بينه وبين الكلمة المضيفة له مكون زمني غير منطوق مصدره القواعد العالمية للغة. تبحث الدراسة في مدى معرفة الأطفال الذين يتعلمون اللغة الإنجليزية كلغة أم بهذه المقبيدات. اعتمدت الدراسة في جمع البيانات على الملفات الصوتية الطولية مصدرها الموقع الشهير (CHILDES) لثمانية أطفال يتعلمون اللهجة الإنجليزية الأمريكية واللهجة الإنجليزية البريطانية كلغة أم. دلت نتائج الدراسة على أن جميع استخدامات الفعل المساعد (have) الواردة في بيانات الأطفال التي تم دراستها تتسق مع فرضية أن إمكانية اختزال هذا الفعل من عدمها تعتمد على فيما إذا كان هناك مكون زمني منطوق أو غير منطوق يفصل بين الفعل (have) والكلمة المضيفة، وذلك بدوره يدل على هذا الاستخدام يقوده ويدل عليه القواعد العالمية في تعلم اللغة.

1. Introduction

1.1 Constraints on have-cliticisation

Radford (2009) provides a generative account for the production of have-cliticisation in English. He argues that have-cliticisation does not happen invariably. For example, while have-cliticisation is acceptable in (1), it is unacceptable in (2).

- (1) They've left
- (2) *They've their car serviced regularly

In spite of the fact that have is preceded by the same host in both the perfective have construction in (1) and the causative have construction in (2), have-cliticisation is licensed in (1) but not in (2).

Building on Chomsky's (1993, 1995, 1998, 2008) Minimalist Program, Radford (2009: 99) proposes the following condition on have-cliticisation:

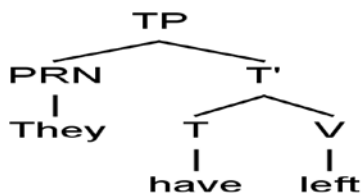
(3) Have-cliticisation:

Have can encliticise onto a word W ending in a vowel or diphthong provided that

- (i) W c-commands have and
- (ii) W is immediately adjacent to have

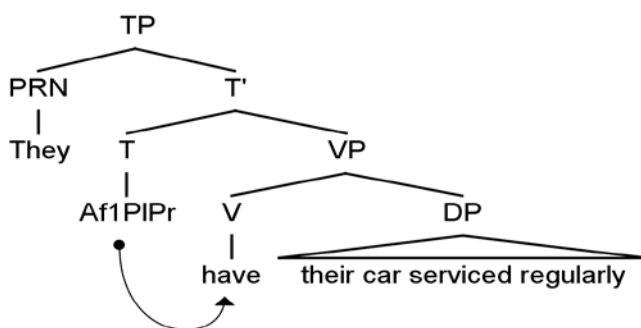
Accordingly, the perfective have construction in (1) above licenses have-cliticisation because the conditions on have-cliticisation are met: the host they ends with the vowel /e/, the host c-commands have, and the host is immediately adjacent to have as shown in the following structure:

(4)



The causative have construction in (2), on the other hand, disallows have-cliticisation as it violates the adjacency condition on have-cliticisation. In this construction, have is assumed to occupy the head V position of VP. More importantly, an abstract tense affix is assumed to occupy the head T position of TP that lowers onto the head V of VP by an Affix Hopping operation in the PF component of grammar as shown in the following structure (where Af is an abstract tense affix and the arrow marks the operation of Affix Hopping):

(5)



This structure shows that the adjacency condition on have-cliticisation is violated due to the presence of an empty tense category intervening between causative have and its host; hence, the ungrammaticality of have-cliticisation in such constructions.

Radford (2009: 112) argues that the empty tense category in constructions like (2) above follows from a principle of Universal Grammar (UG) which requires that “all finite and infinitival clauses contain a TP, and that T is overt in clauses containing a finite auxiliary or infinitival to, but is null elsewhere”. We shall refer to this principle as the TP Condition throughout:

(10) The TP Condition:

All finite and infinitival clauses contain a TP, and that T is overt in clauses containing a finite auxiliary or infinitival to, but is null elsewhere.

In addition to finite clauses with perfective have and auxiliariless finite clauses with causative have discussed above, the generative analysis presented here can account for the (un)grammaticality of have-cliticisation in a number of apparently unrelated phenomena. These include auxiliariless elliptical constructions (6), auxiliariless subjunctive clauses (7), auxiliariless indicative clauses (8), movement constructions such as polar questions (9), and bare infinitive clauses (10). (Here and throughout the rest of the paper, labeled bracketing is used to demonstrate those parts of the structure most significant to this study).

- (6) a. *He could have helped her, or she've helped him.
 b. He could have helped her, or [TP She [T ~~could~~] [AUXP [AUX have] [VP [v helped] him]]]
- (7) a. *She requested that he've a second chance.
 b. She requested that [TP he [T ~~should~~] [VP [v have] another chance]]]
- (8) a. *We've fun.
 b. [TP We [T Af_{3PIP}] [VP [v have] fun]]]
- (9) a. *Should they've called the police?
 b. [CP [C Should] [TP they [T ~~should~~] [AUXP [AUX have] [VP [v called] the police?]]]]↑
- (10) a. *I can't let you've my passport.
 b. I cannot let [TP you [T ~~to~~] [VP [v have] my passport]]]

In all of the constructions presented above, an empty tense category is assumed to intervene between have and its host blocking have-cliticisation. In (6), have occupies the head Auxiliary (AUX) position of an Auxiliary Phrase (AUXP) complement of an abstract finite T constituent containing a null variant of could that intervenes between have and the pronoun she. In (7), have is a main verb that occupies the head V position of a VP complement of an abstract finite T constituent containing a null variant of should that intervenes between have and the pronoun he. In (8), have is a main verb that occupies the head V position of a VP complement of an abstract finite T constituent that intervenes between have and the pronoun we. In (9), should has moved from the head T position of TP to the head C position of CP leaving behind a silent full copy of itself in its original position intervening between have and the pronoun he. In (10), have is a main verb complement of an abstract nonfinite T constituent containing a null variant of to that intervenes between have and the pronoun you.

Radford's generative account of have-cliticisation presented in this paper shows that in all of the constructions discussed above have-cliticisation is blocked due to an intervening empty category that occupies the head T position of TP. The source of this blocking empty category is UG, namely the TP Condition. Therefore, evidence for the awareness of language learners of the blocking effect of this empty category on have-cliticisation can be taken as evidence for the operation of UG in those learners. The aim of this paper is to test knowledge of this blocking empty tense category in child English. In particular, the paper aims to see whether children learning English as a first language exhibit awareness of the blocking effect of this empty tense category on have-cliticisation, and whether they are sensitive to the principles of UG.

1.2 Have-cliticisation and language learnability:

Proponents of UG as a theory of language acquisition have always linked the theory to the poverty-of-stimulus (PoS) argument as a testing ground: “How do we come to have such rich and specific knowledge, or such intricate systems of belief and understanding, when the evidence available to us is so meagre?” (Chomsky, 1987: 33). PoS maintains that children know complex aspects of grammar about their L1 when they are exposed to inadequate input. The environment where children learn their L1

underspecifies the subtle system of knowledge that children actually have. PoS emphasizes that children do not induce knowledge of their L1 from the input only; such knowledge comes from the children's minds. Children can correctly produce complex aspects of grammar without any kind of previous experience, explicit teaching or sufficient input which indicates that such knowledge is innately specified.

Cook (2003) asserts that the consequences of the PoS argument can be tested in any natural language. If a child knows an unlearnable aspect of L1, then this aspect must be innately specified in the mind of that child. In order to investigate whether any aspect of grammar is part of UG, this aspect must fit the PoS argument. Cook (2003: 202) proposes four requirements (i.e. steps) for any aspect of syntax to fit the PoS argument:

- A. demonstrating that a native speaker knows this aspect of syntax;
- B. showing that this aspect of syntax was not learnable from the language evidence typically available to all children;
- C. arguing that this aspect of syntax is not acquired from outside the mind, say by correction or explanation by the child's parents;
- D. concluding that this aspect of syntax is therefore built-in to the child's mind.

Step (A) requires that a native speaker must know a syntactic phenomenon which is related to the 'core' grammar of a language. Step (B) requires that this aspect of syntax could not have been acquired from either positive or negative evidence in the environment. Step (C) maintains that since this aspect of grammar is not derived from either positive or negative evidence in the environment, then it can be considered as an unlearnable aspect of grammar. This leads to assume that such an unlearnable aspect is present in the mind of the language speaker. Step (D) asserts that this aspect of syntax is built-in knowledge, and that it is part of UG.

A close look at have-cliticisation shows that it meets Cook's (2003) requirements for the PoS argument. If English children produce have-cliticisation correctly, then it can be concluded that they know this aspect of their native language (step A). It is also logical to assume that the constraints on have-cliticisation are underdetermined by the input. The complexity of the constraints on have-cliticisation pertains to two conditions

that Radford (2009) assumes to regulate the correct production of have-cliticisation. The first one is the c-command condition, which states that have can encliticise onto the host if this host c-commands have. This condition is about an abstract syntactic relationship between constituents known as c-command relationship. In fact, it is not easy even for adults who are not familiar with the field of syntax to guess what this term denotes. Therefore, we cannot expect that a young child induces this condition based on impoverished input. Even if this condition is explicitly introduced to children, it is not easy for children to grasp.

The second condition is the adjacency condition. This condition states that have can encliticise onto the host if this host is immediately adjacent to it. On the surface, this condition seems very simple and straightforward. However, the violation of this condition is not always explicit. Sometimes, the violation occurs because of the intrusion of a null argument between have and its host. This leads to conclude that it is very difficult for any adult other than linguists to guess how such condition is violated. Therefore, the task of recognizing the violation of the adjacency condition will be even more and more complicated for children. It is also impossible to teach young children such complex knowledge. Therefore, children are assumed to come up with the knowledge of the constraints on have-cliticisation in spite of the deficient input (i.e. the absence of both positive and negative evidence from the environment) (step B). This leads to establish that the constraints on have-cliticisation are unlearnable aspects of grammar (step C). Finally, it can safely be concluded that the constraints on have-cliticisation are built-in knowledge and that they are innately specified in the minds of the children (step D).

Several previous studies have investigated the theoretical conditions on have-cliticisation (see, for example, Kweon, 2000; Radford, 1997, 2009). However, few studies have examined the actual performance of either child or adult native speakers on have-cliticisation. An exception is the study of Alsarayreh and Alaqarbeh (2016) that experimentally investigates the performance of both adult native speakers and L2 learners on have-cliticisation. The study shows that both adult native speakers and adult L2 learners are aware of the constraints on have-cliticisation.

The purpose of the current study is to investigate knowledge of the constraints on have-cliticisation in child English. The study will examine the production of have-cliticisation in the language of eight English-speaking

children between the ages of 0;6.11 and 4;0.11 years old. Five of the children were learning American English as their L1, and the other three children were learning British English as their L1.

2. Research design

2.1. Research questions

The study investigated the following question:

I. Do English-speaking children know the TP Condition?

Therefore, the study made the following testable hypothesis: English-speaking children will reject sentences that violate the adjacency condition on have-cliticisation. Confirming this hypothesis would suggest that the TP Condition is operative in child English.

2.3 Materials

The data of this study were obtained from longitudinal transcripts from the database of CHILDES (Child Language Data Exchange System (MacWhinney, 2000)). CHILDES is an online website that provides real and spontaneous language data produced by children learning different languages as their first language. CHILDES provides the study with recordings of natural conversations between children and adults. CHILDES prevents the problems that might develop from applying certain types of tests to elicit children's language production, such as performance factors and other external effects that might distract children's language production. Therefore, this study was completely dependent on CHILDES transcripts.

Eight transcripts for eight children were selected since they contain a large number of files that would enrich the study with the sufficient data. CHILDES was more than enough in providing the study with the needed data to achieve the aim of investigation. Other types of tasks and experiments were unnecessary to approach the goal of investigation.

2.4 Subjects

This study included eight English-speaking children between the ages of 0;6.11 and 4;0.11 years old. Five of the children were learning American English as their L1, and the other three children were learning British English as their L1. Cameron, Julia, Laura, Nick and Trevor belong to the American group; whereas Ella, Thomas and Lara belong to the British one. Table (1) below provides demographic information about the informants of the study: their names, their ages, their varieties of English (American or British), and the number of their files in CHILDES.

Table (1) Demographic information about the subjects of the study

Child	Age	Amount of files	Language
Cameron	0;6.11-	51	American English
Julia	2;10.12	377	American English
Laura	1;2.20-3;1.3	154	American English
Nick	1;5.9- 4;2.11	46	American English
Trevor	0;9.19- 3;0.2	195	American English
Ella	1;0.1- 3;1.8	21	British English
Thomas	1;0.0- 3;5.0	239	British English
Lara	2;0.12- 3;0.3	91	British English
	1;9.13- 3;0.0		

The table shows that eight children were included in the study. Five of those children were Americans learning American English as their first language and three of them were British learning British English as their first language. The children were intentionally chosen to represent both American and British English so the results of the study can be generalized to both varieties of the language.

The table shows that the children whose transcript files were analyzed in this study were considerably young. The table also shows very clearly that

those children's ages varied from one child to another. Age is a very important factor for the analysis of the data. Specifying children's ages at the first time of producing the relevant language constructions can support the poverty-of-the-stimulus argument. This argument is the corner stone that will either support or refute the hypothesis of the study. If it turns out that the children produced the target constructions correctly at a very young age, this will support their lack of experience with those constructions which will, in turn, support the poverty-of-the-stimulus argument.

3. Results

The data show that have appeared in four different constructions in the productions of the children who were included in the study. These include perfective have, possessive have, have in movement constructions, and have in infinitive clauses. No examples were found for experiential have, causative have, have in subjunctive clauses, and have in elliptical constructions. It is worth noting here that these constructions were missing in the transcript files that were included for the analysis of the data because they are acquired at a later stage. For example, it might be the case that no instances of experiential have appeared in the productions of the children who were chosen for the data analysis because those children did not acquire this use of have at the age when their language productions were recorded.

3.1 Perfective 'have'

Radford (2009) argues that perfective have constructions allow have-cliticisation. In this construction, the two syntactic constraints on have-cliticisation (i.e. the adjacency and the c-command conditions) are met thus allowing have-cliticisation as discussed earlier. Perfective have is assumed to occupy the head T position of TP with no intervening categories between have and its c-commanding host as shown in the structure in (11) below.

(11) [TP They [T have] [VP [V left]]]

The files of the children who were included in the study contained a large number of instances of perfective have. The following table shows

some examples of these instances of perfective have that were produced by those children at different ages.

Table (2) Examples of perfective 'have' in the children's transcripts

Age	Child	Example
I've got ham	Julia	(2;0.4)
I have got my glasses.	Laura	(1;11.16)
I've got more	Laura	(2;2.26)
I've got it	Trevor	(2;1.0)
You've got two thirsty men there	Thomas	(2;2.15)
I have done it	Thomas	(2;8.23)
I've finished it	Ella	(2;3.0)
I have done more table	Lara	(1;10.18)
We've lost one.	Lara	(2;1.19)

This table shows that the informants of the study used have-cliticisation with perfective have constructions as the theory predicts. The sample sentences included in the table also show that none of these sentences violates any of the conditions on have-cliticisation; all of these sentences obey the c-command condition and the adjacency condition on have-cliticisation. This conclusion extends to all of the instances of perfective have constructions included in the data. We can interpret this to mean that the subjects of the study knew about those conditions as the theory predicts.

The table also shows that there is variation in using have-cliticisation by the subjects of the study. That is, they did not always use have-cliticisation when it was possible. For perfective have constructions, children had two choices: they could either encliticise have onto its host or keep have in its full form. Table (3) shows the number of utterances with perfective have in the children's transcripts and the number of utterances of the same construction where have-cliticisation was used.

Table (3) Number of utterances with contracted 'have' in the children's transcripts

Child	Age	# of instances of perfective have	# of instances of perfective have in its contracted form
Cameron	---	0	0
Julia	2;0.4	1	1
Laura	1;6.27- 3;6.28	48	23
Nick	---	0	0
Trevor	1;11.1- 2;9.18	5	5
Thomas	2;1.14- 3;0.2	133	32
Ella	1;3.0- 3;3.0	17	17
Lara	1;10.18- 3;0.0	371	302
Total		575	380

Children variably used have-cliticisation in perfective have constructions. Cameron and Nick were excluded from the analysis in this regard since they did not produce any example of perfective have. The rest of the children were divided into two groups according to their tendency. The first group had the tendency to use have-cliticisation. This group includes Lara, Ella, Trevor and Julia. While Lara used have-cliticisation 81.4% (302 out of 371) of the time; Ella, Trevor and Julia used have-cliticisation 100% of the time. So, for this group of children, the occurrences of perfective have that contained have-cliticisation outnumbered the occurrences of have in its full form. The other group includes Thomas. Thomas used have-cliticisation 24% (32 out of 133) of the time. Therefore, Thomas had the tendency to keep have in its full form. As for Laura, the

number of the instances of the contracted form of have in her analyzed files almost equaled the number of the instances where she avoided using have-cliticisation. Of the total of 48 utterances produced by Laura, 48% (23 out of 48) of those utterances contained have-cliticisation. Therefore, she seems to belong to the first group in having similar tendency to use have-cliticisation where it was possible.

Several studies attribute children's various tendencies towards certain phenomenon to a preference factor. The preference of the children in this study is supposed to account for the optionality in using have-cliticisation where it was possible. For example, Crain and Thornton (1998) found out that children's responses contained various tendencies towards wanna contraction where it was possible. Children hear adults contract want and to frequently. This leads children to favor using contraction. This is true for the cases in questions extracting from object position. This preference did not extend to subject extraction questions. As the children of their experiment exhibited a strong preference to use contraction in object extraction questions 88% of the time, those children avoided contraction where it is prohibited in subject extraction questions. Thus, the children's preference was abandoned in subject extraction questions. They conclude that children's preference plays an important role in determining their tendency to use or to avoid wanna-contraction in object extraction questions. This factor also shows the strong impact of children's innate knowledge of the Empty Category Principle. The children's responses show that 92% of the subject extraction questions had no contraction. The results suggest that UG constraints are the most powerful force that governs children's production of wanna-contraction in the case where the contraction is banned. Conversely, in the case where the constraints on wanna-contraction are not applicable, the preference factor governs children's tendency to use contraction.

Similarly, the children of this study exhibited various tendencies towards using have-cliticisation in the licensing case (i.e. perfective have constructions). It is logical to assume that the children have developed the preference to encliticise have onto the host by hearing adults using have-cliticisation frequently. This was clearly shown through the children's occurrences of have-cliticisation in the licensing case as table (3) demonstrates. However, this preference was completely thrown out in the non-licensing cases as the TP Condition prevents using have-cliticisation in such cases.

Looking at the children's ages when they first produced have-cliticisation supports the role of children's preference to use have-cliticisation. Table 4 shows the children's ages when they first produced the full form as well as the contracted form of have in perfective-have-constructions.

Table (4) Children's first production of perfective 'have' in its contracted form and its full form

Child	Children's ages at the time of the first instance of have in its contracted form	Children's ages at the time of the first instance of perfective have in its full form
Cameron	---	---
Julia	2;0.4	---
Laura	1;6.27	1;6.27
Nick	---	---
Trevor	1;11.1	---
Thomas	2;1.14	2;8.23
Ella	1;3.0	---
Lara	2;0.2	1;10.18

The role of the children's preference was clearly observed by considering their ages at the time when they started to produce perfective have in its two forms (i.e. have and 've). In this regard, Cameron and Nick were excluded because there were no instances of perfective have in their files. Analyzing the children's ages can only be logical if the ages of the children when they first produced perfective have in its two forms are determined. Ella and Trevor were also excluded from this analysis as their ages when they first produced the full form of perfective have are unknown. The ages of Thomas, Laura and Lara when they first produced perfective have in its full form and its contracted form are available in the data as shown in table (4) above.

For Thomas, as noted earlier, he had the tendency to produce *have* in its full form. He was familiar with *have*-cliticisation from the age of 2;1.14 onwards. He produced perfective *have* in its full form when he was 2;8.23. So, as his data show, he started to use *have*-cliticisation at an early age. In spite of this observation, he continued to produce *have* in its full form in perfective *have* constructions. Therefore, his limited use of *have*-cliticisation was not because of his lack of knowledge of this phenomenon; rather, he preferred to use *have* in its full form even when *have*-cliticisation was possible.

Laura and Lara, conversely, had the tendency to use *have*-cliticisation in perfective *have* constructions. This is clearly observed by their production of numerous utterances containing *have*-cliticisation. Regarding Laura, her production of utterances containing *have*-cliticisation in perfective *have* constructions coincided with her production of utterances containing the full form *have* in the same type of constructions. Laura was acquainted with *have*-cliticisation when she was 1;6.27 years old. From that age on, she progressed in producing *have*-cliticisation more than producing *have* in its full form in perfective *have* constructions. Therefore, Laura had a preference to use *have* in its contracted form than *have* in its full form in perfective *have* constructions.

Similarly, Lara began to produce *have*-cliticisation at 2;0.2 years old. Her files show that she produced perfective *have* constructions with *have* in its full form when she was 1;10.18. So, she became familiar with *have*-cliticisation at a later stage. However, Lara carried on producing a large number of perfective *have* structures containing *have*-cliticisation. That is, after she acquired *have*-cliticisation, she had a preference for using the contracted form of *have* than the full form of *have* when *have*-cliticisation was possible.

Returning back to the main concern of this subsection, children correctly used *have*-cliticisation in contexts where the two constraints are respected. Looking carefully at children's ages when they first produced *have*-cliticisation shows that they were acquainted with this phenomenon at a very early age. Children's ability to distinguish where *have*-cliticisation is allowed and where it is not must be governed by a built-in knowledge in their minds. The TP Condition is the innate force that drives children's correct use or avoidance of *have*-cliticisation as will be shown in the following subsections.

3.2 Possessive ‘have’

In possessive have constructions, have cannot appear in its contracted form (i.e. 've) even if it follows a c-commanding host ending with a vowel/diphthong. Have-cliticisation is banned in this case because have is assumed to occupy the head V position of VP. As the TP Condition predicts, an intervening null T constituent is assumed to exist between have and its host violating the adjacency condition on have-cliticisation as illustrated in the structure in (12) below.

(12) [TP We [T Af_{3Pr}] [VP [V have] fun]]

All of the transcript files for the children of the study were analyzed to see whether those children avoided have-cliticisation in possessive have constructions. There was a startling number of utterances with have in its possessive use in the children's transcripts. I found that none of these utterances included have-cliticisation. The following table includes some examples of these utterances.

Table (5) Examples of possessive ‘have’ in the children’s transcripts

Age	Child	Example
I have a picnic table	Cameron	(1;11.9)
I have dirty hands	Julia	(1;11.14)
you have rockie	Laura	(1;11.9)
You have a gum	Nick	(2;9.23)
I have a piece of gum	Trevor	(2;5.8)
They have a caravan	Thomas	(2;9.9)
then I have more cumpet	Ella	(2;6.0)
I have lollipop	Lara	(2;1.10)

None of the examples in this table contains have-cliticisation. This conclusion is true for all instances of possessive have in the children’s data. This observation can be accounted for by the generative account of have-cliticisation adopted in this study. The children seem to be aware of the violation of the adjacency condition on have-cliticisation in possessive have

constructions. The following table shows how many utterances the subjects of the study produced with possessive have.

Table (6) Number of possessive ‘have’ occurrences in the children’s transcripts

Child	Age	# of possessive have occurrences
Cameron	1;11.9- 2;10.12	11
Julia	1;9.20- 2;11.19	26
Laura	1;9.2- 3;11.17	52
Nick	2;9.23	1
Trevor	1;9.27- 3;1.6	14
Thomas	2;7.16- 3;0.3	22
Ella	2;6.0- 2;9.0	76
Lara	2;1.10- 2;11.10	204
Total		

The total number of the children’s productions that included possessive have is 204. None out of these 204 productions contained have-cliticisation. This is a strong indication that children did not use have-cliticisation here because of their awareness of the adjacency condition on have-cliticisation and of the TP Condition.

The previous table also shows the children's ages when they produced the first occurrences of possessive have: Cameron (1;11.9); Julia (1;9.20); Laura (1;9.2); Nick(2;9.23); Trevor (1;9.27); Ella (2;6.0) and Lara (2;1.10). It is very clear that the children started to produce possessive have constructions at a very young age. The children in this regard can be divided into two groups. The first group started to produce many utterances with possessive have from the age of 1;9 to 1;11. This group includes Julia, Laura, Trevor and Cameron. The other group consists of the rest of the children who produced possessive have at an older age. This group includes Nick, Thomas, Ella and Lara. These children started to produce possessive have from the age of 2;1 to 2;9.

It is very obvious that the two groups of children were aware of the violation of the adjacency condition in possessive have constructions. Their awareness of this intricate knowledge is supported by their total avoidance of have-cliticisation in possessive have constructions; none of the utterances that the children produced with possessive have included have-cliticisation. This conclusion is supported by comparing the children's ages when they first produced have-cliticisation in perfective have constructions where have-cliticisation is grammatical (see table 4), to their ages when they first produced possessive have where have-cliticisation is ungrammatical (see table 6). In other words, children did not avoid using have-cliticisation with possessive have constructions because they were unfamiliar with the phenomenon. Their avoidance to use have-cliticisation is due to the TP Condition that governs have-cliticisation.

In addition, those children had no previous experience with the constraints on have-cliticisation. On one hand, it is illogical to assume that the children became aware of this knowledge by positive evidence (i.e. grammatical occurrences of have-cliticisation in the input they received from the environment). On the other hand, those children could not have learned the constraints on have-cliticisation by negative evidence (i.e. knowledge about when have-cliticisation is possible and when it is not). Adults do not explain have-cliticisation to their children and they do not correct their ungrammatical use of have-cliticisation because children never produced ungrammatical cases of have-cliticisation and thus there is nothing to be corrected by adults. The absence of positive and negative evidence alongside the correct productions of have-cliticisation by the children are logical reasons to hypothesize that children are pre-equipped with the knowledge that allows have-cliticisation in perfective have constructions and disallows it in possessive have constructions.

3.3 'Have' in movement constructions

In these constructions, an element moves from the head T position of TP to another position leaving behind a null full copy of itself in its base position. This null copy of the moved element is assumed to intervene between have and its host violating the adjacency condition on have-cliticisation as shown in the structure in (13) below.

(13) [CP [C Should] [TP he [T should] [AUXP [AUX have] [VP [V called] the police?]]]]

None of the utterances in the transcript files that were analyzed for all of the informants of the study included have-cliticisation in movement constructions. This necessarily indicates that the children were aware of the violation of the adjacency condition in these constructions. The following table shows some illustrations produced by the children in different ages with have in movement constructions.

Table (7) Examples of ‘have’ in movement constructions in the children’s transcripts

Example	Child	Age
mom can I have some.	Cameron	(2;2.19)
please can I have that	Julia	(2;2.1)
can I have another bit ?	Laura	(1;7.21)
Can I have some?	Trevor	(1;9.19)
may I have little drink .	Thomas	(2;8.23)
can he have a little look in the car?	Ella	(3;0.0)
shall we have a sleep?	Lara	(2;2.5)

All utterances with have in movement constructions in the productions of the children did not include have-cliticisation. This observation supports the assumption that those children were aware of the violation of the adjacency condition in these constructions. Table (8) below shows the actual number of the children’s productions of have in movement constructions:

Table (8) Number of occurrences of ‘have’ in movement constructions in the children’s transcripts

Child	Age	# of instances with have in movement constructions
Cameron	2;2.19- 2;5.5	8
Julia	2;2.1- 2;6.10	5
Laura	1;7.21- 3;7.2	44
Nick	---	---
Trevor	1;9.19- 3;0.28	21
Thomas	2;6.8- 2;10.23	12
Ella	2;0.0- 3;0.0	6
Lara	2;2.5- 3;0.0	186
Total		282

The table shows that the total number of the children’s utterances that included have in movement constructions is 282. The table also shows that none of these utterances involved have-cliticisation. This table also provides the children's ages when they first produced have in movement constructions. These ages ranged from 1;7 to 2;6 years old. These ages also varied from one child to another as follows: Cameron (2;2.19); Julia (2;2.1); Laura (1;7.21); Trevor (1;9.19); Thomas (2;6.8); Ella (2;0.0) and Lara (2;2.5). The children can be divided into two groups accordingly. The younger group includes Laura and Trevor who aged from 1;7 to 1;9 years old when they first produced have in movement constructions. The elder group includes the rest of the children who aged from 2;0 to 2;6 years old when they first produced have in movement constructions. Nick was excluded from the analysis here because his data did not contain any instance of have in movement construction. Regardless of the variation among the children in their first productions of have in movement constructions, they all produced these constructions at a very early age range. This age range is very close to the age range when the same group of children produced have-cliticisation in perfective have constructions where

have-cliticisation is grammatical (see table 4 above). This is important because this shows that those children were familiar with have-cliticisation when they produced utterances with have in movement constructions. Therefore, children's total avoidance to encliticise have onto a preceding host in movement constructions was not random. They did not avoid have-cliticisation in these constructions because they did not know the phenomenon but because the phenomenon is determined by the TP Condition that is assumed to be innately specified in their minds.

To conclude this section, the children of the study never produced an utterance with have in movement constructions containing have-cliticisation. Those constructions also appeared in the transcripts of the children at a very early age. In addition, those children never heard correction from their parents on have-cliticisation in the relevant constructions; parents never explain such knowledge to their children. Children's early ages impose the impossibility of teaching them such intricate knowledge by adults. If it is assumed that children receive such knowledge from the input, then they admittedly will not comprehend such complex knowledge. It is also illegitimate to assume that the children induced why it is ungrammatical to use have-cliticisation in these constructions from the input. In sum, having such intricate knowledge alongside the lack of experience (i.e. positive and negative evidence) with this knowledge strongly support the argument that such knowledge is innately specified.

3.4 'Have' in infinitive clauses

These constructions are assumed to include a null variant of the infinitive particle *to* as the head T position of TP. This null variant of *to* is also assumed to intervene between have and its host rendering have-cliticisation ungrammatical as the structure in (14) below illustrates.

(14) I cannot let [TP you [T \emptyset] [VP [V have] my passport]]

Throughout the investigated transcripts, children produced several occurrences of have in infinitive clauses. None of those utterances contained have-cliticisation. Table (9) below shows some of these utterances.

Table (9) Some examples of 'have' in infinitival clauses in the children's transcripts

Example	Child	Age
let me have it.	Laura	(1;11.13)
hold it ; let me have it.	Trevor	(2;6.7)
let me have that all.	Lara	(2;6.16)

Children did not use have-cliticisation at all in this structure. This observation supports the assumption that children were aware of the violation of the adjacency condition in this construction. The following table demonstrates the number of the produced utterances with have in infinitive clauses in the children's transcript files.

Table (10) Number of the occurrences of 'have' in infinitive clauses in the children's transcripts

Child	Age	# of instances about have in infinitive clauses
Cameron	---	---
Julia	---	---
Laura	1;11.13- 2;4.11	3
Nick	---	---
Trevor	2;6.7	1
Thomas	---	---
Ella	---	---
Lara	2;6.16- 2;11.4	22
Total		26

Interestingly, of the 26 utterances with have in infinitive clauses produced by the children, no utterance contained have-cliticisation. As the previous table indicates, the data of Cameron, Julia, Nick, Thomas and Ella included no illustrations of have in infinitive clause. Therefore, they were

excluded from the analysis for this construction. The ages of the remaining children for the production of have in infinitive clauses ranged from 1;11 to 2;6 years old. Laura correctly produced have in infinitive clauses several times at a very early age. In all of her productions of have in infinitive clauses, have appeared in its full form. Similarly, Trevor and Lara succeeded in predicting the ungrammaticality of using have-cliticisation in this construction; their productions of have in infinitive clauses all appeared with have in its full form. Accordingly, the impossibility of using have-cliticisation in this construction is clearly present in the minds of the children when they produced such occurrences. This is the logical justification that can explain the children's correct productions of have in infinitive clauses at very early ages.

The ages of Laura, Trevor and Lara when they first produced have in infinitive clauses were (1;11.13); (2;6.7) and (2;6;16) respectively. This group of children started to correctly produce have-cliticisation in perfective have constructions at an early age (see table 4 above). Laura, Trevor and Lara produced utterances with have-cliticisation in perfective have constructions when they were (1;6.27); (1;11.1); (2;0.2) respectively. Their files show that they were aware of have-cliticisation phenomenon before they produced have in infinitive clauses. Therefore, their avoidance of have-cliticisation in constructions like have in infinitive clauses is not because they did not know about the phenomenon. Rather, the TP Condition was the reason behind the children's correct productions of have in this construction.

Children in those ages could not induce this complex knowledge about the constraints on have-cliticisation in infinitive clauses from the environment. In addition, adults never explained this type of knowledge to them; children would not be able to understand such explanations if we assume that they got this knowledge from outside their minds. Children also never received corrections regarding this construction because they correctly produced illustrations of the relevant construction. Therefore, the lack of any previous experience and the correct predictions of ungrammaticality of using have-cliticisation in this construction lead to assume that such knowledge is a built-in knowledge in the children's minds.

4. Summary and conclusion

The data presented in this study show that no child encliticised have onto its host in any of the non-licensing constructions. The children used

have-cliticisation only with perfective have constructions which the theory predicts to license have-cliticisation. It is clear that the children (American and British) were sensitive to the conditions on have-cliticisation. This is the plausible conclusion that justifies finding 0% of the produced utterances including have-cliticisation in the non-licensing constructions. This also justifies finding numerous utterances containing have-cliticisation in perfective have constructions which makes a possible context for have-cliticisation. Accordingly, this supports Radford's generative account for the conditions on have-cliticisation. Children are pre-equipped with the TP Condition. This principle necessarily governs children's productions of have in all of the previous constructions according to the analyzed data. Children's different environments do not provide them with the knowledge that they need in order to know the constraints on have-cliticisation. The TP Condition that governs the production of have in the previous constructions must be innately specified in the children's minds.

For the remainder of this section, we will demonstrate that the generative account of the acquisition of the constraints on have-cliticisation is plausible and that it meets previous arguments in the literature for what aspects of language can be considered as part of an innate capacity of language. For example, the generative account for the acquisition of the constraints on have-cliticisation presented in this study meets the following requirements that Cook (2003: 202) proposes for any aspect of syntax to meet the PoS argument and thus be determined by UG in L1 acquisition:

- A. demonstrating that a native speaker knows this aspect of syntax;
- B. showing that this aspect of syntax was not learnable from the language evidence typically available to all children;
- C. arguing that this aspect of syntax is not acquired from outside the mind, say by correction or explanation by the child's parents;
- D. concluding that this aspect of syntax is therefore built-in to the child's mind.

These requirements bring out a further channel by which investigating children's actual knowledge of the constraints on have-cliticisation can be approached. It is a way to investigate whether the acquisition of those constraints is subject to UG principles or not.

First, the children's data indicate that they were familiar with the phenomenon have-cliticisation at a very early age. The data also show that those children were aware of the constraints on have-cliticisation. This assumption is supported by the fact that the children of the study used have-cliticisation only in perfective have constructions and that they produced not a single instance of have-cliticisation in the other non-licensing constructions.

A careful look at the children's files shows that they used have-cliticisation only in contexts where the conditions on have-cliticisation are respected (i.e. perfective have constructions). Those children produced 380 utterances containing have-cliticisation in perfective have constructions. Children (except for Nick who did not produce any utterance of these constructions) were aware of the possibility of using have-cliticisation in these constructions. In addition, the same group of children was sensitive to the violation of the adjacency condition in cases where have-cliticisation is banned (i.e. possessive have constructions, have in movement constructions, and have in infinitive clauses). Children produced 204 instances of possessive have constructions, 282 instances of have in movement constructions, and 26 examples with have in infinitive clauses. 0% of those utterances contained have-cliticisation. Therefore, we can safely conclude that those children knew about the constraints (i.e. the adjacency condition) on have-cliticisation (Step A in Cook's argument).

Second, the constraints on have-cliticisation were not available to children from the primary linguistic data. Children never heard utterances violating the constraints on have-cliticisation by adults. They also never produced utterances containing violations for those constraints as the data show. So, adults did not correct children because there was nothing to be corrected with their productions of have-cliticisation. This leads to establish that negative evidence was not available in the children's environments. Parents also never explained such complex knowledge to their children. It is impossible to find a mother/father explaining the blocking effect of an empty category on have-cliticisation. This intricate knowledge is very incomprehensible to be explained to children. It is also very clear that the children could not have noticed that blocking effect from the input that they received from the environment. Empty categories are by their nature not audible and thus are never directly observable in the language data to which learners are exposed. This, in effect, ascertains the absence of both positive

and negative evidence from the children's environments and unlearnability of the constraints on have-cliticisation (Step B and C in Cook's argument).

Finally, that now it has been established that the children of the study knew the constraints on have-cliticisation and that those constraints could not have been learnt from outside the learners' minds, it can be safely concluded that those constraints must be built-in to the children's minds (Step D in Cook's argument).

To conclude, this study focused on analyzing the children's productions of have-cliticisation in its licensing and non-licensing contexts. The findings are very suggestive. The discussion of the children's knowledge of the constraints on have-cliticisation shows that such knowledge can be described as innate knowledge. The children's adherence to the constraints on have-cliticisation, as their files show, can best be captured by the generative account of have-cliticisation provided by Radford (2009). This kind of knowledge is independent of experience. Therefore, the children did not induce the restrictions on have-cliticisation from the input alone. As UG assumes, the constraints on have-cliticisation do not have to be learned. They are the consequence of a principle of UG; namely, the TP Condition. This principle is a built-in principle which does not have to be learned.

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