

What does the acquisition of the involuntary state construction in Serbo-Croatian have to tell us about the ability to represent A-Chains in 3-year-olds?

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1. Introduction

The involuntary state construction is a challenging construction for linguistic theory both with respect to its structure, and its meaning. To illustrate, it requires an agentive verb, and yet a) shows properties of an unaccusative state, b) occurs with a dative-marked argument which is clearly not an agent, and c) denotes a modal necessity meaning that has no obvious morphological or lexical expression, and therefore seems entirely unmotivated (1).

- (1) Meni se jedu keksi.
I.DAT SE IMPERF.eat.PRS.3.PL cookies.NOM.PL
'I have a craving for some cookies.'

In addition to positing a challenge for analysis, this construction is of a particular interest for the area of language acquisition, as it provides an ideal testing ground for the maturational account of language development, specifically the *A-Chain Deficit Hypothesis* (Borer & Wexler, 1987; 1992), and the *Universal Phase Requirement* (Wexler, 2004; Hirsch & Wexler, 2004). According to the A-Chain Deficit Hypothesis (ACDH), children younger than 5 lack the ability to represent A-chains between the internal argument position and the subject position, and consequently have difficulties assigning the correct theta-role to the displaced internal argument. Similar claims, restated within recent minimalist proposals relying on the concept of "derivation by phase", are made by the Universal Phase Requirement (UPR). According to ACDH and the UPR, young children's deficiency in syntactic knowledge is apparent both in the cases of overt and covert A-movement (Babyonyshev et al., 2001). Only after age 5, when the ability to represent A-chains biologically matures, does children's performance on the constructions requiring A-chain formation start to improve.

The involuntary state construction occurs with a covert A-movement of the post-verbal nominative NP (the evidence for this movement is presented in section 3). Based on this property alone, both the ACDH and the UPR hypotheses predict a delayed and problematic acquisition of the involuntary state construction. However, these predictions do not come to bearing. The results of this study demonstrate an early and productive knowledge of the involuntary state construction at the age 3. In the absence of a *syntactic-homophone* that would provide a way to bridge the purported gap in children's syntactic knowledge, we conclude that the early production of the involuntary state construction reflects unproblematic representation of A-chains resulting from covert movement of internal arguments.

This paper is organized as follows. Basic description of the involuntary state construction is presented in section 2, and evidence for covert A-movement of the nominative theme NP in section 3. In section 4., I present a brief overview of the issues related to the acquisition of verbal passives, and then focus on the findings related to representation of covert movement (Babyonyshev et al., 2001). In section 5, I provide rationale behind this study, and then describe the study, and present the results with the discussion in section 6. I conclude in section 7.

2. The involuntary state construction in Serbo-Croatian¹

The involuntary state construction is a stative unaccusative construction used to express necessity to participate in the event denoted by the predicate (2), although other readings, such as craving (1), and desire (3), are also possible. This necessity results from the factors internal to the dative-marked participant.²

- (2) Marku se piski.
Mark.DAT SE IMPERF.pee.PRS.3.SG
'Mark needs to pee.'
- (3) Marku se citaju stripovi.
Mark.DAT SE IMPERF.read.PRS.3.PL comics.NOM.PL
'Mark is in the comics-reading mood.'

In general, modalities expressing participant-internal necessity refer to events that have not yet been actualized (Palmer, 2001). The involuntary state construction clearly illustrates this point, as it remains non-actualized even when it occurs with the past tense markers (4).

- (4) Marku su se citali stripovi.
Mark.DAT AUX SE IMPERF.play.PST.MASC.PL comics.NOM.PL
'Mark was in the comics-reading mood.'
*'Mark read comics.'

Non-actuality of the involuntary state construction arises compositionally, through merger of an agentive verb, i.e. verb that requires an agentive *v*, and the deagentivizing clitic *se* in the [Spec, *v*P] position.³ The deagentivizing *se* blocks the external argument, and thereby prevents the predicated event from being initiated. Since agentive events cannot be actualized unless they are initiated, the main condition for derivation of the modal necessity meaning is created (for more details, see Ilic, 2007).⁴

In addition to interpretational modifications, merger of the deagentivizing *se* also causes change in the inherent aspectual value, as well as syntactic properties of the predicate. With respect to the former, lack of initiation point creates stativity of the predicate. As a result, the involuntary state construction is incompatible with perfective prefixes, which mark inherent endpoints of the predicated events (5).

- (5) *Marku se popila kafa.
Mark.DAT SE PERF-drink.PST.FEM.SG coffee.NOM.FEM.SG
'Mark was craving/was in the mood to have drunk the coffee up.'

¹ This paper adopts the analysis proposed in Ilic (2007). For alternative proposals, see Franks (1995), Rivero (2003), Marusic & Zaucer (2005), and Kallulli (2004).

² Participant-internal modalities are usually labeled as *dynamic* (Palmer, 2001).

³ The deagentivizing function of the clitic pronoun *se* is supported by the following fact. When the agentive reading of the clitic pronoun *se* is forced, predicated event automatically becomes interpreted as actualized, and the modal necessity meaning disappears. On this interpretation, sentence (3) is understood as 'Someone is reading comics to Mark' or 'People read comics to Mark'.

⁴ In being non-actualized, these deagentivized predicates resemble nonfinite verbal forms, such as infinitives, participles, and gerunds, which are known to produce modal meanings in particular aspectual and syntactic configurations.

With respect to the latter, lack of the agent-initiator results in unaccusativity of the predicate, i.e. absence of accusative case. The theme NP, therefore, bears nominative case and triggers verb agreement, but nevertheless remains *in situ*. However, even though the theme NP does not move overtly for the purpose of feature checking, independent evidence concerning negative concord shows that this constituent undergoes covert A-movement to the subject position. This evidence is presented below.

3. Evidence for covert A-movement of the theme NP

Negative concord refers to multiple occurrences of negative elements that are interpreted together as a single negation (6).

- (6) Marko nije video ništa.
 Mark.NOM **neg**-AUX see.PST.MASC.SG **nothing**.ACC
 'Mark did not see anything.'

As demonstrated in Babyonyshev et al. (2001), this phenomenon can be used as a diagnostics for covert A-movement. The argument is based on the fact that negative concord elements in Russian must be licensed by an m-commanding clausal negation.

Licensing of negative concord elements in Serbo-Croatian is governed by the same conditions. Thus, when both negative element and negation occur in the same clause, the sentence is grammatical (7). However, when the negation occurs in the lower clause, and the negative element in the higher, ungrammaticality arises (8).

- (7) *Negation in the upper clause (m-command obtained):*
 Niko ne zeli [PRO citati Rat i Mir].
no-one **NEG** want.3.SG read-INF War and Peace
 'No one wants to read War and Peace.'

- (8) *Negation in the lower clause (m-command not obtained):*
 *Niko zeli [PRO ne citati Rat i Mir].
no-one want.3.SG **NEG** read-INF War and Peace
 'No one wants to read War and Peace.'

Furthermore, when no movement of the negative element occurs, as it is the case with negated objects of embedded infinitival clauses, the same m-commanding rule applies, yielding grammaticality of both (9) and (10).

- (9) *Negation in the upper clause (m-command obtained):*
 Ja nisam duzna [otkrivati nikakve tajne].
 I **neg**-AUX obligated disclose-INF **neg-kind** secret.ACC.SG
 'I am not obligated to disclose any kind of secrets.'

- (10) *Negation in the lower clause (m-command obtained):*
 Ja sam duzna [ne otkrivati nikakve tajne].
 I AUX obligated **NEG** disclose-INF **neg-kind** secret.ACC.PL
 'I am obligated not to disclose any secrets.'

On the other hand, when the negative element undergoes A-movement, as in subject-to-subject raising illustrated in the following two examples, m-commanding has to exist with the head of the chain (11), rather than its trace (12), for the negative element to be licensed.

- (11) *Negation in the upper clause (m-command):*
 Niko_i nije počeo [_{t_i} citati ovaj članak].
no-one neg- AUX started read-INF this article. ACC.SG
 ‘No one has started reading this article.’

- (12) *Negation in the lower clause (m-command not-obtained):*
 *Niko_i je počeo [_{t_i} ne citati ovaj članak].
no-one AUX started **NEG** read-INF this article.ACC.SG
 ‘No one has to read this article.’

When the same diagnostics for covert movement is applied to the involuntary state construction embedded under a raising verb, the following is observed. When negation occurs in the upper clause, m-commanding condition on licensing of negative elements applies as expected, and the sentence is grammatical (13). However, when both negation and the negative element, i.e. the nominative theme NP, occur in the lower clause, ungrammaticality arises (14).

- (13) *Negation in the upper clause (m-command):*
 Nisu mi se počeli [jesti nikakvi slatkisi].
neg-AUX me.DAT SE began [eat-INF **neg-kind** candies.NOM
 ‘No candies started putting me in the eating mood.’

- (14) *Negation in the lower clause (m-command should be obtained, yet ungrammatical):*
 *Počeli su mi se [ne jesti nikakvi slatkisi].
 began AUX me.DAT SE [**NEG** eat-INF **neg-kind** candies.NOM
 ‘I started not being in the eating mood for any kind of candies.’

This ungrammaticality is surprising, since there is no evidence for the overt movement of the negative element. However, if we assume that this movement occurs covertly (15), the ungrammaticality is accounted for. Under this assumption, the negation in the lower clause m-commands the trace, rather than the head of the A-chain created by the covert movement of the negated element, i.e. the nominative theme NP, and the conditions for licensing of negative concord are not met (15).

- (15) *nikakvi slatkisi_i su mi se počeli [ne jesti _{t_i}]
neg-kind candies.NOM_i AUX me.DAT SE began [**NEG** eat-INF _{t_i}]

We therefore conclude that the negative concord diagnostics provide evidence for covert movement of the theme argument of the involuntary state construction.⁵

Bearing this in mind, I will now turn to the details of language acquisition. In the following section, I provide a brief overview of the issues related to the acquisition of verbal passives, and discuss them in the spirit of the ACDH and UPR hypothesis. This introduction is followed by a

⁵ This movement is probably motivated by feature-checking operations, and involves only a particular set of features (*feature movement*, Chomsky, 1995), rather than the entire NP. One reason for this assumption is the fact that the subject [Spec, TP] position of the involuntary state construction is already occupied by the dative-marked NP, which undergoes overt A-movement from its merging position below *v*P, and checks EPP feature on T. Alternatively, we could assume multiple [Spec, TP] positions.

more detailed description of the findings reported in Babyonyshev et al. (2001), which provide evidence for a problematic and delayed representation of A-chains resulting from covert movement.

4. Acquisition of passive and unaccusativity

Young children's difficulty related to understanding and production of the verbal passive constructions has been well documented in many languages, such as English (Bever, 1970; Gordon & Chafetz, 1990; Fox & Grozdinsky, 1998; Hirsch & Wexler, 2004, among many others), Spanish (Pierce, 1992), Japanese (Sugisaki, 1998; Sano, 2000), Russian (Babyonyshev & Brun, 2003), etc. Elicited production data shows that children younger than 7 hardly ever produce long passives, i.e. passives that occur with the *by*-phrase (Horgan, 1978). Poor performance on long passives compared to short passives (i.e. passives without the *by*-phrase) was also observed in comprehension tasks (Baldie, 1976; Fox & Grozdinsky, 1998). Furthermore, this early difficulty with passives seems to be affected by the verb's semantics (Maratsos et al., 1985). It has been repeatedly shown that children score much lower on sentences involving psychological verbs, while their performance on actional verbs, especially those occurring with short passives, tends to be much better (Fox & Grozdinsky, 1998; Gordon & Chafetz, 1990; Hirsch & Wexler, 2004).

In order to explain these data, Borer & Wexler (1987; 1992) proposed that young children's general difficulty with passives results from their inability to assign adult-like representation to these constructions. Specifically, children younger than 5 lack the ability to represent A-chains between the underlying object and the subject position, and consequently cannot assign the correct theta-role to the displaced objects (the ACDH). According to Borer and Wexler, children's relatively good performance on short passives with activity verbs is actually deceiving, and can be explained as follows. Since activity verbs make "good adjectives", these passives are easily misanalyzed as instances of adjectival passives, which are homophonous with short verbal passives, but do not require A-chain formation in their syntactic representation.⁶ Children's performance on short passives with activity verbs is consequently relatively good. On the other hand, psychological verbs make "poor adjectives", and therefore do not provide the same possibility for misanalysis. Consequently, children's lack of the relevant syntactic knowledge is revealed.

The ACDH makes two strong predictions with respect to other constructions involving A-chain. First, it predicts that all constructions involving A-chain formation will be acquired late due to a deficient syntactic knowledge. Second, this deficiency will become apparent only in the cases when a syntactic homophone, that could provide an alternative analysis not requiring A-chain formation, is not available. The strongest confirmation of these predictions comes from the study on acquisition of unaccusatives with 'genitive of negation' in Russian (Babyonyshev et al., 2001). Crucially for the present discussion, this construction occurs with covert A-movement of the theme argument, and therefore also provides evidence for a problematic representation of A-chains even when the effects of the movement are not visible. This study is presented in greater detail below.

4.1. Covert A-movement in child language: acquisition of Russian unaccusatives with 'genitive of negation' (Babyonyshev et al., 2001)

In Russian, non-specific theme arguments of negated transitive and unaccusative verbs occur with genitive, rather than accusative case-marking, as illustrated in (16) and (17). In addition,

⁶ The ACDH adopts a lexicalist analysis of the adjectival passives which claims that these forms are derived in the lexicon and therefore do not require an A-Chain formation (Wasow, 1977).

theme arguments of a small class of ‘bleached’ unaccusative verbs, such as existential *be*, require genitive case regardless of their specificity (18). This construction is referred to as ‘genitive of negation’. Importantly, ‘genitive of negation’ does not apply to agent arguments, and is therefore never found with unergative verbs (19) (all examples are taken from Babyonyshev et al., 2001).⁷

- (16) Ja ne polucil (nikakix) pisem.
I not received (no-kind- GEN.PL letter-GEN.PL
‘I did not receive any letters.’
- (17) Ne rasstajalo ni odnoj snezinki.
not melted-NEU.SG NEG single-GEN.SG snowflake-GEN.SG
‘Not a single snowflake melted.’
- (18) V gorode ne bylo vraca.
In town not was-NEU.SG doctor- GEN.SG
‘There was no doctor in town/the doctor was not in town.’
- (19) *Nikakix devocek ne tancevalo.
no-kind- GEN.PL girl- GEN.PL not danced- NEU.SG
‘No girls danced.’

Even though the theme argument in ‘genitive of negation’ construction with unaccusative verbs in (17) and (18) occurs post-verbally, bears genitive case, does not trigger verb agreement, and syntactically behaves like an object, evidence from negative concord shows that this constituent undergoes covert movement to subject position (Babyonyshev et al., 2001). In addition, unlike typical unaccusatives, which occur with nominative themes and therefore are homophonous with unergative verbs, unaccusatives with ‘genitive of negation’ in (17) and (18) occur with genitive themes, which are banned with unergative verbs, as illustrated in (19). Consequently, unaccusatives with ‘genitive of negation’ have no syntactic homophone. According to the predictions of the ACDH, children younger than at least 5 should therefore fail to use ‘genitive of negation’, i.e. fail to supply genitive case to the non-specific arguments of both negated regular unaccusatives (17), and negated bleached unaccusatives (18). Since ‘genitive of negation’ forces A-movement to subject position, such performance will provide evidence for an immature syntax that does not allow for this type of structure.⁸

These predictions were tested on 30 children (age range 3;0 to 6;6), using sentence completion paradigm (Babyonyshev et al., 2001). The results are presented in Table 1, and are classified by the children’s age into two groups of 15 children each.

⁷ Modifiers, such as *nikakih* ‘no kind’, and *ni odnoj* ‘not a single’ make the ‘genitive of negation’ more natural, but are not required. In addition, these modifiers are not responsible for the genitive case (Babyonyshev et al., 2001).

⁸ Babyonyshev et al. leave the issue of the motivation for this movement open, but mention case-checking as one possibility. Alternatively, if we assume that the unaccusatives with ‘genitive of negation’ in (17) and (18) involve a null expletive, the motivation for the movement could be expletive replacement at LF, as suggested for the expletive *there* in English (Chomsky, 1986; 1993).

Table 1.
Average genitive response in each condition for each age group
(taken from Babyonyshev et al., 2001)

	transitive verb, non-specific theme	transitive verb, specific theme	unergative	regular unaccusative	bleached unaccusative
younger group (n=15), (mean =4;0)	.73 (.31)	.04 (.17)	0 (0)	.40 (.33)	.31 (.32)
older group (n=15), (mean=5;4)	.73 (.36)	0.4 (.11)	0 (0)	.50 (.30)	.62 (.30)

The above results show that both younger (mean 4;0) and older children (mean 5;4) mastered ‘genitive of negation’ with transitive and unergative verbs, but not with the unaccusatives. More specifically, neither group performed above the chance level with regular unaccusatives. However, the results obtained for the bleached unaccusatives show a significant increase from 31% in the younger group, to 62% in the older. Since the bleached unaccusatives always require use of ‘genitive of negation’ regardless the specificity of the theme argument, the authors conclude that the results obtained on the bleached unaccusatives represent “the cleanest test of the ACDH” (Babyonyshev et al., 2001: 25). The increase from 31% correct uses at age 4;0, to 62% correct uses at age 5;4 is, therefore, taken as a strong support for the maturational account (the ACDH).

The data on individual performances reveals more details about how this maturation process seems to proceed. Out of 30 children who participated in this study, only 22 demonstrated necessary knowledge of the ‘genitive of negation’ with transitive verbs. Furthermore, 3 out of these 22 children demonstrated an unexpected pattern of response with unaccusative verbs, possibly due to noise and performance factors, as suggested by the authors.⁹ The remaining 19 children showed following results: 7 children demonstrated no use of genitive of negation with either type of unaccusatives, 4 performed adult-like, while 8 children demonstrated correct use with the bleached unaccusatives, and incorrect with the regular unaccusatives. This sharp split in performance of the last group of children is surprising, since the same child should either have a deficient syntax, or not. The authors propose that these results demonstrate rote learning, which is facilitated by the extreme frequency of the bleached unaccusatives in the input, but crucially enabled by weakening of the ACDH property of child grammar (Babyonyshev et al., 2001: 27).

With respect to this explanation, it is interesting to observe that the proposed weakening of the ACDH property seems to have occurred in 12 out of 19 children whose results were reviewed above (i.e. only 7 children performed incorrectly on the bleached unaccusatives). Moreover, a closer look at the individual performances in relation to the children’s age reveals that the proposed weakening of the ACDH is well under way by age 4;3 (all children younger than 4;3 performed incorrectly on the bleached unaccusatives, and all children older than this age (except for one, age 5;9) performed correctly in all the trials). These findings, therefore, seem to suggest that, regardless of how overwhelming positive evidence might be, rote learning of constructions

⁹ These children correctly used ‘genitive of negation’ with the regular unaccusatives, but not with the bleached verbs. Considering a very high frequency of use of the bleached verbs in everyday speech, this pattern of response is indeed not very likely. We, therefore, conclude that these results are not informative for this study.

involving A-chain formation becomes possible only around age 4;3. Bearing this in mind, I will now turn to the acquisition of the involuntary state construction in Serbo-Croatian.

5. Rationale behind the study, and evidence for the lack of syntactic-homophones

Main purpose of the present study was to test the ACDH in a syntactic context that requires covert movement of the theme argument to the subject position, has no syntactic-homophone, and at the same time provides a clear measure for the occurrence of this movement. The involuntary state construction in Serbo-Croatian illustrated in (1), repeated here as (20), fulfills all three requirements.

- (20) Meni se jedu keksi.
 I.DAT SE ATELIC.eat.PRS.3.PL cookies.NOM.PL
 'I have a craving for some cookies.'

As demonstrated in the previous sections, the theme NP in the involuntary state construction undergoes covert movement to the subject position. Its nominative case and verb agreement are obvious manifestation of this movement, and therefore provide a clear measure for its occurrence. On the other hand, accusative case marking and the absence of the subject-verb agreement clearly signal that the movement has not occurred. Finally, the involuntary state construction has no syntactic-homophones, although two constructions illustrated below, namely the benefactive construction (21), and the malafactive unaccusative construction (22), can become homophonous with it if the verb and aspect are felicitously chosen. However, these two constructions cannot function as syntactic-homophones for the involuntary state construction simply because they also involve covert movement, as evidenced by the negative concord test in (23) and (24).

- (21) Marku se kupuju pokloni.
 Mark.DAT SE ATELIC.buy.PRS.3.PL presents.NOM.PL
 'People buy presents for Mark.'

- (22) Marku se kvare kompjuteri.
 Mark.DAT SE ATELIC.break.PRS.3.PL computers.NOM.PL
 'Mark's computers keep breaking on him.'

- (23) *Marku su se poceli [ne kupovati nikakvi pokloni].
 Mark.DAT AUX SE begin3.PL [NEG buy.INF neg-kind presents.NOM.PL
 'People started not buying any presents for Mark.'

- (24) *Marku su se poceli [ne kvariti nikakvi kompjuteri].
 Mark.DAT AUX SE begin3.PL [NEG break.INF neg-kind computers.NOM.PL
 'Mark's computers started not breaking on him.'

Given the above, the ACDH predicts that children younger than at least 4 will have difficulty parsing and using the involuntary state construction, as it requires linguistic abilities that are subject to biological maturation, and at the same time offers no syntactic homophone to compensate for the lacking knowledge.

6. The study: methodology, results, and discussion

Participants in this study were five children, native speakers of Serbo-Croatian, age range 2;11-3;9 (mean age 3;4), attending a preschool in Belgrade (Serbia). The study involved two

production tasks, which is why only communicative children were chosen for participation. After the children were selected, their knowledge of the relevant case markers, i.e. nominative, dative, and accusative, was assessed by the researcher through direct spontaneous communication. Knowledge of the involuntary state construction was not independently tested prior to the research, since this construction represents the main vehicle to express some basic physical needs, such as a need to go to the bathroom, or to take a nap, and is therefore well attested in naturalistic speech as early as age 2;0, but possibly occurs at an even earlier age.¹⁰

The research focused on children's production, rather than comprehension, for two reasons. First, the assessment of children's ability to represent covert A-chains crucially relies on the theme NP's case marking and verb agreement. In production, these two properties can be either correct or incorrect. In comprehension, on the other hand, children could conceivably interpret the meaning correctly even with incorrect verb agreement and case-marking on the theme NP, presumably based on other factors, such as word order, semantics, verb choice, etc.

The particular tasks used in this research are a modeled elicited production task (Task 1), and spontaneous elicitation (Task 2). In Task 1, the researcher used a picture book to elicit the involuntary state construction. The construction was first modeled by the researcher, and the child's task was to repeat the construction, only this time using a different dative-marked NP. The rest of the sentence was open for the child to either repeat the same verb and the theme NP from the researcher's sentence, or to supply new ones, as illustrated bellow:

(25) Modeled elicited production task (Task 1):

Researcher: Vidi, ovo prase jede jabuku, a ovaj konjic ga gleda...I
njemu se jede jabuka...A tebi?
'Look, this piggy is eating an apple, and this horsey is watching him... Looks like
he's in the mood to have one too... How about you?'

Child: I meni se jede jabuka.../ A meni se jede cokolada... / Meni se jase konjic!!!
'I'm in the mood for apple-eating too... /I'm in the mood for a chocolate... /... I'm
in a mood for... horseback riding!!!

The second task was spontaneous elicitation, an improvisational "competing" game in which the researcher and the child rotated in making statements about what they (or someone else) were in the mood to do at that moment, resulting in creative and sometimes even impossible propositions. Some examples of the children's spontaneous creative uses are given bellow. The results of the two elicited production tasks are given in Table 2.

- (26) Meni se vrti prasetov rep. (3;3)
I.DAT SE twist.PRS.3.SG pig's tail.NOM.SG
'I am in the mood to twist the pig's tail.'
- (27) Kravi se sisa ovca. (3;3)
Cow.DAT SE IMPERF.shear.PRS.3.SG sheep.NOM.SG
'The cow is in the mood for sheep-shearing.'
- (28) Meni se ide na more dvaput. (3;9)
I.DAT SE go.PRS.3.SG on seaside two.times
'I am in the mood to go to the seaside twice.'

¹⁰ There is no doubt that these early spontaneous uses result from rote learning. The question is only whether children's knowledge becomes more productive by the age 3 to 4.

Table 2.
Number of occurrences of the involuntary state construction in Task 1. and Task 2.

	Task 1.	Task 2
Tijana (2;11)	12	17
Luka (3;0)	19	16
Sofija (3;3)	37	29
Lea (3;9)	did not participate	35
Teodora (3;9)	did not participate	32

As the results show, all five children, including the youngest (age 2;11), produced a fairly high amount of the involuntary state construction in both Task 1 and Task 2. Since the number of test questions in Task 1 was not determined ahead of time, and the Task 2 was an open improvisation, the number of tokens varies both across children, and the two tasks. As expected, children older than 3 produced more tokens than the two youngest children. All five children demonstrated productive use, which was defined as occurrence of the construction with at least three different verbs other than *eat*, *drink*, *sleep*, *pee*, and *poop*, which are the verbs that, in child language, occur most frequently in this construction.

I will now turn to the issue of case and verb agreement, as covert A-movement measures. As reported in Table 3., occurrences of case and/or agreement errors were almost nonexistent, which clearly suggests movement of the theme argument to the subject position. The only two errors were made by the youngest child (age 2;11), both times involving incorrect use of accusative case on the theme NP accompanied by the 3rd person singular agreement on the verb. This correlation clearly indicates a breakdown of the Agree relation with T, and therefore absence of movement. The two erroneous examples are given in (29) and (30).

Table 3. Percentage of case and agreement errors per child, collapsed across tasks

	Nominative case + agreement	
	number of errors	percentage correct
Tijana (2;11)	2/29	93%
Luka (3;0)	0/35	100%
Sofija (3;3)	0/66	100%
Lea (3;9)	0/35	100%
Teodora (3;9)	0/32	100%

(29) *Meni se cita knjige.
I.DAT SE IMPERF.read.PRS3.SG books.ACC/NOM.PL
'I'm in the books-reading mood.'

(30) *Meni se pere zube.
I.DAT SE IMPERF.brush.PRS3.SG teeth..ACC.PL
'I'm in the teeth-brushing mood.'

Children's overall error-free use of case and agreement could potentially be ascribed to the type of tasks used, both of which modeled the construction for the child immediately before the elicitation. However, even in Task 1, the children would often supply a new verb and a theme NP

'out of the blue', while the whole purpose of Task 2 was to test whether children can go beyond what they have heard before (including that particular session). The results of this study therefore suggest two important points. First, children seem to be able to successfully represent A-chains resulting from covert movement even as early as age 3. Second, if some of the correct uses of case and agreement did result from previous modeling, which may very well be true, then it must be the case that the performance on tasks requiring syntactic knowledge that is biologically determined to mature late can be improved by this type of aid. What remains to be seen is whether possible positive effects of this type of modeling would be detectable couple of weeks after the modeling was provided.

7. Conclusion:

Early and productive knowledge of the involuntary state construction, which involves covert A-movement and offers no possibility for recourse to an alternative analysis via an s-homophone, suggests that 3-year-olds have the ability to represent A-chains resulting from covert movement of theme arguments to the subject position. The results of this study, therefore, do not confirm predictions of the ACDH and the UPR relative to covert movement, and furthermore do not replicate findings reported in Babyonyshev et al. (2001). This discrepancy in findings could possibly be explained by the fact that the theme NPs in this study enter Agree relation with T, while the theme NPs in Babyonyshev et al.'s study do not. In this view, source of the problem for the Russian children would not be the representation of covert A-movement *per se*, but peculiar properties of the movement investigated in Babyonyshev et al.

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