

**PRO or pro - investigating the covert subjects of
Hungarian -*ván/-vén* participial clauses**

36th OTDK

Theme: pro

Date of closing: 2023. 01. 11.

TABLE OF CONTENTS

1. Introduction.....	5
2. Theoretical background.....	6
2.1. The OC-NOC distinction.....	7
2.2. The null subject of NOC adjuncts.....	9
3. The <i>-ván/-vén</i> participial clause.....	11
4. Research aims.....	14
5. The survey.....	16
5.1. Materials.....	16
5.2. Participants.....	18
5.3. Results.....	19
6. Discussion.....	23
7. Conclusion.....	26

LIST OF ABBREVIATIONS

ACC	accusative
DEL	delative
f	finite
h	human
INF	infinitive
ILL	illative
NOM	nominative
PL	plural
SG	singular
t	topical

I. Introduction

Within the study of syntax, it is established that syntactic structures can contain empty constituents. These constituents are ‘silent’ in the sense that they have no phonetic form, therefore they are unpronounced. There are several types of empty constituents but within the frame of this study, the two relevant types are the *pro* (‘small pro’) and the PRO (‘big pro’).¹

Small *pro* occurs in finite clauses and carries case. This silent element is unpronounced in the sentence and stands in the position of an overt pronoun. Pro-drop languages, such as Spanish, Chinese, or Hungarian allow the drop of the overt pronoun, and therefore the occurrence of *pro*, as it is illustrated in (1). The meaning can be recovered from the context because of the agreement marker on the matrix predicate.

- (1) *pro Szeretek játszani.*
like.1SG play.INF
‘(I) like to play.’

On the other hand, PRO stands as the special null pronoun of nonfinite clauses. In complements, it is coreferential with the subject of the matrix clause – it is ‘controlled’ by the matrix subject, as in (2).

- (2) *János_i szeretne [PRO_i minden nap futni.]*
János would.like.3SG every day run.INF
‘John would like to run every day’

The standard assumption is that PRO is caseless or only has a special zero/null case (see e.g. Hornstein 1999). Nevertheless, data from Icelandic suggest the possibility of PRO carrying a case (Landau 2013: 27). Example (3) below shows that in Icelandic, the PRO can bear an accusative case indicated by the case of *alla* ‘all’, as quantifiers share case with the quantified element in Icelandic (here, with the covert subject), while the controller bears a nominative case – therefore the case of PRO is assigned in the embedded clause (Landau 2013: 104).

- (3) *Strakarnir_i vonast til [að PRO_i vanta ekki alla 'I skolann].*
the.boys.NOM hope for to PRO.ACC to.lack not all.ACC in the.school
‘The boys hope not to be all absent from school.’
(Landau 2013: 27/72a.)

¹ Other examples for unpronounced constituents are the traces left in the low position in movement operations (e.g. *John_i seems ~~John_i~~ to be happy*).

The main goal of the present study is to examine a specific Hungarian structure: adjunct clauses containing a participle suffixed with *-ván/-vén* (“*-ván/-vén* clauses”). There is no agreement in the previous literature on the nature of the null subject in this structure and my aim is to add further details to the debate. The structure of the paper is the following. In the next section, I present the relevant theoretical background in connection with the structure in question, then I move on to present my specific research aims. The fourth section presents the survey, the materials and the results. In the fifth section, I give a brief discussion, then finally, I conclude the findings of the research.

2. Theoretical background

2.1. The OC-NOC distinction

Constructions in which the subject of the embedded non-finite clause is referentially bound to an argument of the matrix clause are called “control”. In the introduction, (2) illustrated this referential boundedness in Hungarian, but control was widely investigated in other languages as well in the last decades. In (4), the subject of the infinitival clause is controlled by the matrix subject *Lucy*.

(4) *Lucy_i tried [PRO_i to talk loudly to everyone.]*

One of the main distinctions that has been made between control constructions is the distinction between obligatory control (OC) and alternating obligatory control and non-obligatory control (NOC). These structures are deeply studied by Landau (2013, 2015, 2021) and he emphasizes the differences on the basis of several parameters. OC is described as a local, syntactic dependency between a matrix argument and a covert subject in the embedded clause. Landau (2013: 232) presents the OC signature as follows:

(5) *The OC signature*

In a control construction [. . . X_i ...[S PRO_i . . .] . . .], where X controls the PRO subject of the clause S:

- a. The controller(s) X must be (a) co-dependent(s) of S.
- b. PRO (or part of it) must be interpreted as a bound variable.

(Landau 2013: 232)

(5a.) is illustrated in the following ellipsis example (6). The controller must be a local co-dependent of the elided clause and not the controller in the antecedent clause (Landau 2013: 30).

- (6) *Mary_i expected [PRO_i to attend the ceremony], and Sue_j did too (~~expect [PRO_j/*_i to attend the ceremony]~~).*
(Landau 2013: 30/76a.)

That PRO must be interpreted as a bound variable is illustrated in (7). In an imaginary context, where more people (with Peter amongst them) states that they are the winners (7) would be false, while in a context where more people (also with Peter amongst them) states that Peter is the winner, (7) would be true. That is because this sentence can only be interpreted as Peter = Only x [x claimed x is the winner] (Landau 2013: 30).

- (7) *Only Peter_i claimed [PRO_i to be the winner].*
(Landau 2013: 30/78a.)

Landau also claims that complements are always OC.² Within the frame of the OC-NOC distinction, structures like (4) display the OC signature as the subject of the complement clause is controlled by the matrix subject.

On the other hand, adjuncts can be either strict OC or alternating between OC and NOC (Landau 2021: 39). The NOC signature is defined differently from OC. It may be a non-local, pragmatic dependency between a salient contextual antecedent and a covert subject. In contrast with complements, adjuncts can be either OC or NOC depending on the position and the type of the adjunct (Landau 2021: 5). (8) shows Landau's proposal on the NOC signature:

- (8) *The NOC signature*

In a control construction [... [S PRO ...] ...]:

- a. The controller need not be a grammatical element or a co-dependent of S.
- b. PRO need not be interpreted as a bound variable (i.e., it may be a free variable).
- c. PRO is [+human].

(Landau 2013: 232)

² But see Landau (2017): a distinct group of verbs (communicative verbs, e.g. 'say') may occur with NOC complements

Generally, in NOC adjuncts the subject of the adjunct clause may be controlled by an extrasentential, or arbitrary element determined from the context.

(9) *Potatoes are tastier [after PRO_{arb} boiling them].*

(Landau 2021: 4)

That adjuncts display OC or can also display NOC, can be differentiated by applying the Propositional Variant Criterion (Landau 2021: 17). A propositional variant is a variant containing a distinct lexical subject in the embedded clause (as illustrated in (11b) below) (Landau 2021: 8).

(10) *The Propositional Variant Criterion (PVC)*

For a clausal adjunct [P [PRO . . .]]W:

- a. W has no propositional variant $\Leftrightarrow$ W is predicative $\Leftrightarrow$ W displays strict OC
- b. W has a propositional variant $\Leftrightarrow$ W is either predicative or propositional $\Leftrightarrow$ W displays OC or NOC

(Landau 2021: 17)

Predicative clauses display OC, while clauses that have a propositional variant can display NOC as well. (11) illustrates this distinction: the adjunct control structure (11a) can display NOC as the adjunct has a propositional variant (11b):

(11) a. *Jane stepped back [in order to get a better view].*

b. *Jane stepped back [in order for Bill to get a better view].*

(Landau 2021: 18)

Regarding NOC adjuncts, Landau treats the covert subject as being PRO even if they can alternate with lexical subjects. However, there is no agreement in the previous literature on the nature of the covert subject of NOC adjuncts: there are arguments for the PRO analysis, but some evidence suggest the possibility of the null subject being a *pro* (see the data in Landau (2021 and Donaldson (2021) discussed in detail below).

2.2. The null subject of NOC adjuncts

The standard assumption is that, being control constructions, NOC adjunct structures have a PRO subject in their infinitival clause. According to Landau (2021), PRO is restricted by several pragmatic factors in NOC, as about the pragmatics of NOC he states the following:³

(12) In a NOC configuration [. . . DP . . . [PRO. . .] . . .] (order irrelevant), DP may control PRO if:

- a. DP is [+top] or a logophoric centre
- b. Default: [+top] → [+human]

(Landau 2021: 195)

A matrix subject can control PRO if it can be interpreted as a discourse or sentence topic and/or is a logophoric centre. If a DP can be interpreted as a topic, then it is preferably [+human] as well. (13) illustrates this [+human] restriction. Sentence (13b) shows the intended meaning of (13a). Sentence (13a) is ungrammatical because PRO cannot be [-human].

- (13) a. **[PRO to snow all day] would be a nuisance.*
b. *(For it to snow all day would be a nuisance.)*
(Landau 2021: 22/32c)

The topicality restriction illustrated in (14). Indefinite DPs introduce new discourse referents, therefore cannot refer to old ones, from which the sentence topic must be selected. (Landau 2013: 251)

- (14) a. *[After PRO_i collecting some money], a bank account was opened by the landlord_i*
b. **[After PRO_i collecting some money], a bank account was opened by a businessman_i.*
(Landau 2013: 251/510)

About logophoricity, the following contrast is explained by the fact that the PRO subject of *to prepare* can be controlled by a goal of a communicative act (15a) but not by its subject matter (15b), whose perspective is not involved in the sentence (Landau 2013: 245).

³ (12) shows Landau's most recent assumptions on the issue. His earlier works presented slightly different arguments (e.g. Landau (2013) treats the [+human] restriction as being absolutely obligatory).

- (15) a. *John said to Mary that it would be easy to prepare herself for the exam.*
b. * *John said about Mary that it would be easy to prepare herself for the exam.*

Even though Landau claims that adjunct control clauses have a PRO subject, he challenges the restrictions by showing some counterexamples, like (16) where the [-human] *note* serves as the controller of PRO.

- (16) [*PRO_i being stolen*], *the Bank of England refused to honor the note_i*
(*Because it was stolen, the Bank of England refused to honor the note.*)

He states that examples like (16) may hold the possibility of a *pro* subject if they represent a general exemption from the [+human] restriction, as *pro* is not restricted to humanness (Landau 2021: 124). Another possibility is that NOC PRO and *pro* are not two completely different categories, but two points along the referential options available (Landau 2021: 124).⁴

Donaldson (2021) examines some possible factors that restrict the NOC controller. He does not take a stand on the proper analysis, but some data presented in his work can be understood as standing against the NOC PRO analysis (17).

- (17) *Having just arrived in town, the train made an impression on Bill.*
(Donaldson 2021: 136)

Sentence (17) illustrates a counterexample which may challenge the topicality restriction as the matrix subject ‘Bill’ does not serve as the topic of the utterance. Nevertheless, it is important to note that the matrix subject here could stand as a controller because of its logophoric nature, as *Bill’s* mental perspective is involved. However, the logophoricity restriction can also be challenged (18-19). The controllers in these examples are inanimate, therefore logophoricity is excluded. Obviously, these examples challenge the [+human] restriction as well.

- (18) *Having run smoothly for years, it was finally time for my car to be serviced.*
(19) *The train has a track to run on.*
(Donaldson 2021: 126/32)

⁴ referring back to Paz (2019) and Herbeck (2020)

Based on the data presented in the previous literature, both the possibility of the PRO and the *pro* approaches stand in NOC adjunct constructions. Despite the potential counterexamples for the PRO analysis, it is established that NOC PRO is somehow in connection with the presented pragmatic factors and if all else being equal, [+human], [+topic] and [+logophoric] DPs serve as better controllers than DPs of other nature (Landau 2021: 121).

However, the studies presented above focus on the English data. In the following section, I present the relevant findings about one Hungarian counterpart of the structure, namely about the *-ván/-vén* participial clause.

3. The *-ván/-vén* participial clause

One Hungarian NOC adjunct structure is the *-ván/-vén* participial clause (20). These structures fall under the subcategory of adverbial adjunct clauses, together with the *-va/-ve* participles (21).

- (20) *Az elnök megérkezvén, elkezdődött az ünnepség.*
 the president arrive-*VÁN* started the ceremony
 ‘The president having arrived, the ceremony started.’
 (Tóth 2000: 202/1/b)

- (21) *Ismerve a helyzetet, úgy tűnik, hogy nincs megoldás.*
 know-VA the situation so seemed that is.not solution
 ‘Knowing the situation, it seems (to me) that there is no solution.’
 (Tóth 2000: 202/2)

Andrási (2016) summarizes the characteristics of these structures: I use her definitions to present the key findings and differences. Historically, the main distinction between *-va/-ve* and *-ván/-vén* participials was that *-ván/-vén* participials tend to express events preceding events of the main verb. Nowadays, *-ván/-vén* participials seem to be rather archaic and they are more or less interchangeable with the *-va/-ve* participials.

Given that the *-ván/-vén* forms are said to be rather archaic, I have checked all *-ván/-vén* verbs that I used in the survey in the *Magyar Nemzeti Szövegtár (MNSZ)* ‘Hungarian National Corpus’. I checked the instances in order to make sure that all the verbs used in the survey are still available in Hungarian. The table below shows the number of the occurrences of each form.

<i>Hungarian</i>	<i>Meaning</i>	<i>Number</i>
<i>menvén</i>	go- <i>VÁN</i>	240
<i>esvén</i>	fall- <i>VÁN</i>	119
<i>pattanván</i>	snap- <i>VÁN</i>	3
<i>úszván</i>	swim- <i>VÁN</i>	7
<i>folyván</i>	flow- <i>VÁN</i>	14
<i>hullván</i>	fall- <i>VÁN</i>	18
<i>gurulván</i>	roll- <i>VÁN</i>	1

Table 1.
Number of the instances of each -ván/-vén form found in the MNSZ

The numbers indicate that in some cases there are very few instances (e.g. *gurulván* – 1) but still, there were no forms to which I could not find at least one occurrence. In the case of common verbs like *menvén* (rooted in *menni* ‘to go’) the occurrences were quite high. Altogether, based on the MNSZ findings, the -ván/-vén forms in general should be still available for native speakers, at least for recognition.

Nevertheless, there is at least one key difference between -va/-ve and -ván/-vén structures: in some cases, -ván/-vén participials can license a lexical subject in their infinitival clause (23) (Andrási 2016:17).⁵

Based on the findings of Tóth (2000), É. Kiss (2002) and Bartos (2009), -ván/-vén participials may fall under two distinct categories: one that is equal to -va/-ve participials in the expressed meaning (22), and one that is completely different because of its capability of licensing a lexical subject in its infinitival clause that is different from the matrix subject (23) (Andrási 2016: 17).

- (22) *A vonatot lekésvén/-ve, a moziról is lemaradtam.*
the train.ACC PV.miss-*VÁN*/-VA the movie too missed.1SG
‘Having missed the train, I missed the movie as well.’
(Tóth 2000: 202/1/a)

- (23) *A kapu becsukódván/*-va, Aladdin egy barlangban találta magát*
the gate close-*VÁN*/*close-VA Aladdin a cave-in found himself
‘The gate having closed, Aladdin has found himself in a cave.’
(É. Kiss 2002: 222/71)

⁵ About the historical aspects of the structure, see more in Dékány (2014)

However, the categorization of *-ván/-vén* participial clauses is still dubious as there are disagreements in the nature of their covert subject. This research is also concerned with this question, specifically, if these structures have a PRO or a *pro* subject.

Tóth (2000) uses the *pro* analysis based on the fact that *-ván/-vén* participial clauses can license lexical subjects. She proposes that "the morpheme -n is an element functioning as an agreement marker and is responsible for nominative case assignment. When no overt DP subject is present in *ván*-participial phrases, we have a *pro* subject, which can also be logophorically controlled" (Tóth 2000: 205). It is important to note again that, according to the traditional view, PRO is caseless or can only have a zero case, while lexical subjects need a case. In other words, within this traditional frame lexical subjects and PRO are not interchangeable in a given position (but see the Icelandic examples (3)) – this is why Tóth may have used the *pro* analysis.

Kenesei (2001) also uses *pro* analysis. Sentence (24a) can only be understood as 'Anna having thundered', as *-va/-ve* structures (being OC) cannot license a distinct subject from that of their matrix subject, therefore the structure is semantically anomalous. Sentence (24b) however is grammatical because weather verbs have subjects with independent reference and, possibly, separate thematic roles (Kenesei 2001: 21). Personally, I find the (24b) example rather dubious as, for the first reading, I understood the structure as *Anna having thundered...*, therefore I found the structure semantically anomalous. This understanding also stands for the PRO analysis because of the possible markedness of the structure.

- (24) a. *PRO_i *dörög-ve Anna_i bekapcsolta a tévét.*
 thunder-VA
 *Thundering, Anna turned on the TV.
- b. *pro_j dörögvén, Anna_i bekapcsolta a tévét.*
 thunder-VÁN
 '(With) it having thundered, Anna turned on the TV.'
 (Kenesei 2001: 21/22)

On the other hand, É. Kiss (2002) mentions the possibility of both the PRO and the *pro* analysis. She proposes that *-ván/-vén* participial phrases cannot project an AgrP because their subject cannot be a personal pronoun (25) (É. Kiss 2002: 222). The unavailability of the AgrP projection suggests that the clause may be non-finite.

- (25) **Én nem lévén otthon/ *ti nem lévén otthon, a postás
 I not be-VÁN at.home/ you-PL not be-VÁN at.home the postman
 nem tudott bejutni.
 not could get.in
 ‘I/you not being at home, the postman could not get in.’
 (É. Kiss 2002: 222/72)*

Examining the structure below (26), she states the following:

“Given that the *-ván/vén* phrase does not project an AgrP, its *pro* subject can only be licensed by being coindexed with the matrix subject, sharing its person and number. Or perhaps the subject of the *-ván/vén* phrase is a case-marked PRO, assigned nominative by the *-n* Tense morpheme.” (É. Kiss 2002: 222)

- (26) PRO_i/pro_i/*_j *Belépvén a patikába, Mari_i észre vette Jánost_j.*
 enter-VÁN the drugstore Mary in.sight took John-ACC
 ‘Having entered the drugstore, Mary noticed John.’
 (É. Kiss 2002: 222/73a)

The above examples illustrate that there is an ongoing debate on the nature of the covert subjects both in English and Hungarian. Topicality and humanness are possible restrictions for the PRO analysis, and a deeper examination of these factors could help us in the proper understanding of these constructions.

3. Research aims

The aim of this research is to empirically investigate the nature of the covert subject in adjunct control constructions, specifically in Hungarian *-ván/-vén* participial clauses. The previous literature has shown that, regarding these constructions, the nature of the covert subject is not straightforward: there are arguments for both the *pro* and the PRO analyses.

The following arguments support the PRO analysis:

- the possible non-finite nature of the adjunct clause suggests control (see (25))
- the possible restrictions to humanness, topicality and logophoricity, as NOC PRO is said to be restricted to these factors (see the possible markedness of (24b))

Arguments for the *pro* analysis:

- the possibility of a different overt subject in the matrix clause assumes that there is no control involved (see (23))
- the occurrences of [-human] and [-topic] controllers (see (24b))

My research aims to add further details to the debate. The previous studies suggest that NOC PRO is more restricted to humanness, topicality and logophoricity than *pro*. Based on these possible restrictions, my research focuses on the effect of the humanness and topicality factors on the acceptability of Hungarian *-ván/-vén* participial clauses. I have chosen these two factors only because of the possible complexity of the experimental methods in measuring logophoricity alone, as it is in connection with the humanness factor because of the mental perspective.

It is important to note that regarding topicality, the English data does not separate discourse and sentence topics as English does not have a specific topic position. However, in the Hungarian neutral sentences there is a specific preverbal position for the sentence topic according to the mainstream view of Hungarian sentence structure, see e.g. É. Kiss (2016) (27). As opposed to preverbal subjects, postverbal ones are not regarded as topics, at least syntactically speaking. This special characteristic of Hungarian allows us to test its topicality.

(27) [TopicP *János* [TP *felhívta* *Évát.*]]
John up.called Eve.ACC
'John called up Eve.'
(see e.g. É. Kiss 2016)

In the survey that I designed to test the factors I assumed that if a potential controller stands in the topic position, then it is the discourse topic as well and if it does not then neither it is a discourse topic. Naturally, this issue is not necessarily this straightforward, as something that is not a syntactic topic might still be treated as topic at some discourse level by the speakers. Nevertheless, I expect some correlation to exist between the syntactic topic position and the notion of topicality in general.

I test these factors by presenting finite-non-finite minimal pairs to Hungarian native speakers that contain human or non-human, and topic or non-topic DPs as a potential controller. It is not straightforward that adjunct structures like (28) have a PRO or a *pro* subject, while finite structures like (29) must have a *pro* subject. Also, as can be seen, in (29) the small *pro* can be coreferential unproblematically with a non-human, inanimate antecedent. However, based on

the English data, if we are dealing with an NOC structure the possibility of a non-human antecedent should be questionable.

- (28) [A *fáról* PRO_i/pro_i *lehullván*], *a sárba* *esett a falevél*.
 The tree-DEL having.fallen.off the splash-ILL fell the leaf
 'Having PRO_i/pro_i fallen off the tree, the leaf fell into the splash.'
- (29) [*Miután* *lehullott pro a fáról*], *a sárba* *esett a falevél*.
 After fell the tree-DEL the splash-ILL fell the leaf
 'After it has fallen off the tree, the leaf fell into the splash.'
- (30) *A felhajtóról* *kimenvén*, *megbotlott János*.
 the ramp.DEL go.out-VÁN stumbled John
 'Leaving the ramp, John stumbled.'

I expect the following results based on the theoretical background of the issue:

- *Expectation 1:* PRO subjects are assumed to be more restricted to the humanness and topicality factors. If *-ván/-vén* structures with [-human] and [-topic] controllers get significantly lower points than with [+human] [+topic] controllers, then the covert subject is probably PRO.
- *Expectation 2:* In case of these adjuncts have a PRO subject, speakers should rate the [+human] and [+topic] controllers the most acceptable among *-ván/-vén* structures, giving around the same points to them as to finite structures, while the [-human] and [-topic] controllers should seem the least natural to them. If the [h] and the [t] factors will not make any significant difference between the *ván/-vén* structures, then the subject is probably a *pro* as it is more resistant to these pragmatic factors.
- *Expectation 3:* If *-ván/-vén* structures get significantly lower points on the average than finite structures then the archaic nature *-ván/-vén* structures would explain this difference, and that would mean that the structure is disappearing from the language.

5. The survey

5.1. Materials

In the survey, I used 50 sentences. There were 32 target sentences and 18 fillers given to the speakers via a Google Form. The speakers had to decide on the acceptability of the structures

on a 1 to 5 Likert scale. For the target sentences, I have used eight different structures to test the three factors: the finiteness [f], the humanness [h] and the topicality [t]. Regarding the finiteness factor, I use the [-f] indication in the case of the *-ván/-vén* structures regardless the fact that it is a question if the structure is finite or non-finite. I do this for the sake of clear distinction from the certainly finite *miután* ‘after’ construction types.

There were 4 sentences in each target structure type. Examples are presented below for the 8 structure types.

I. [-f]

- [+h] [+t]

(31) *A felhajtóról kimenvén, János megbotlott.*
 the ramp.DEL go.out-VÁN John stumbled.
 ‘Leaving the ramp, John stumbled.’

- [+h] [-t]

(32) *A felhajtóról kimenvén, megbotlott János.*
 the ramp.DEL go.out-VÁN stumbled John
 ‘Leaving the ramp, John stumbled.’

- [-h] [-t]

(33) *A fáról lehullván, a sárba esett a falevél.*
 the tree-DEL fell.down-VÁN the mud-ILL fell the leaf
 ‘Having fallen off the tree, the leaf fell into the mud.’

- [-h] [+t]

(34) *A fáról lehullván, a falevél a sárba esett.*
 the tree.DEL fell.down-VÁN the leaf the mud.ILL fell
 ‘Having fallen off the tree, the leaf fell into the mud.’

II. [+f]

- [+h] [+t]

(35) *Miután a felhajtóról kiment, János megbotlott.*
after the ramp.DEL went.out John stumbled
'After he had left the ramp, John stumbled.'

- [+h] [-t]

(36) *Miután a felhajtóról kiment, megbotlott János.*
after the ramp.DEL went.out stumbled John
'After he had left the ramp, John stumbled.'

- [-h] [+t]

(37) *Miután a fáról lehullott, a falevél a sárba esett*
after the tree.DEL fell.down the leaf the mud.ILL fell
'After it had fallen off the tree, the leaf fell into the mud.'

- [-h] [-t]

(38) *Miután a fáról lehullott, a sárba esett a falevél*
after the tree.DEL fell.down the mud.ILL fell the leaf
'After it had fallen off the tree, the leaf fell into the mud.'

I used two kinds of fillers in the survey: one that is perfectly natural (39), and one that is certainly unacceptable (40). I used 9 sentences for each type.

(39) *János kiment a felhajtóról, majd megbotlott.*
John went.out the ramp.DEL then stumbled
'John had left the ramp then stumbled.'

(40) **A falevél lehullva fáról, és a sárba esett.*
the leaf fell.down-VA tree.DEL and the mud-ILL fell

5.2. Participants

66 native speakers filled out the form. There were 9 speakers who, based on their points given to the fillers, did not give consistent answers so data and the averages are calculated from the answers of 57 speakers.

I assumed that if the *-ván/-vén* forms are vanishing from everyday Hungarian then maybe there are differences in the judgements of the different age groups so the age of the speakers

was also asked. I drew a line at 40 years of age: there were 15 speakers above and 42 speakers below 40.

I also suggested that *-ván/-vén* forms could be more available to speakers who were more frequently exposed to archaic or literary language. The only way to test this assumption in a measurable way was to ask the speakers education level: each of them had at least a secondary school qualification.⁶

5.3. The results

The averages points given by the speakers to each structure type are presented in the following table.

<i>Factors</i>	<i>Examples</i>	<i>Averages</i>
1. [+f] [-h] [-t]	(38) <i>Miután a fáról lehullott, a sárba esett a falevél.</i>	4,34
2. [+f] [+h] [+t]	(35) <i>Miután a felhajtóról kiment, János megbotlott.</i>	4,35
3. [+f] [+h] [-t]	(36) <i>Miután a felhajtóról kiment, megbotlott János.</i>	4,36
4. [+f] [-h] [+t]	(37) <i>Miután a fáról lehullott, a falevél a sárba esett.</i>	4,36
5. [-f] [-h] [-t]	(33) <i>A fáról lehullván, a sárba esett a falevél.</i>	3,28
6. [-f] [-h] [+t]	(34) <i>A fáról lehullván, a falevél a sárba esett.</i>	3,37
7. [-f] [+h] [+t]	(31) <i>A felhajtóról kimenvén, János megbotlott.</i>	3,15
8. [-f] [+h] [-t]	(32) <i>A felhajtóról kimenvén, megbotlott János.</i>	2,87

Table 2.
Averages of the points given by the speakers to each construction type

The table shows that *-ván/-vén* structures got significantly lower points than that of their finite counterparts. It seems that finiteness makes a significant difference, while the [h] and the [t] factors do not seem to make any differences.

As indicated above, I separated the speakers in two age groups to (above and below 40) to see if the two groups have any differences in their acceptability of the *-ván/-vén* structures. Table

⁶ The number of the answers drastically improved after I shared the survey in a Facebook group for university students. Based on this fact and the average age of the speakers who filled out the form, I suggest that most of the speakers were university students.

3 shows the average points of the speakers below 40 and Table 4 shows the points of the speakers above 40.

Factors	Examples	Averages
[+f] [-h] [-t]	(38) <i>Miután a fáról lehullott, a sárba esett a falevél.</i>	4,36
[+f] [+h] [+t]	(35) <i>Miután a felhajtóról kiment, János megbotlott.</i>	4,38
[+f] [+h] [-t]	(36) <i>Miután a felhajtóról kiment, megbotlott János.</i>	4,32
[+f] [-h] [+t]	(37) <i>Miután a fáról lehullott, a falevél a sárba esett.</i>	4,40
[-f] [-h] [-t]	(33) <i>A fáról lehullván, a sárba esett a falevél.</i>	3,40
[-f] [-h] [+t]	(34) <i>A fáról lehullván, a falevél a sárba esett.</i>	3,40
[-f] [+h] [+t]	(31) <i>A felhajtóról kimenvén, János megbotlott.</i>	3,23
[-f] [+h] [-t]	(32) <i>A felhajtóról kimenvén, megbotlott János.</i>	2,96

Table 3.
Average points of the speakers below 40 years of age

Factors	Examples	Averages
[+f] [-h] [-t]	(38) <i>Miután a fáról lehullott, a sárba esett a falevél.</i>	4,32
[+f] [+h] [+t]	(35) <i>Miután a felhajtóról kiment, János megbotlott.</i>	4,28
[+f] [+h] [-t]	(36) <i>Miután a felhajtóról kiment, megbotlott János.</i>	4,48
[+f] [-h] [+t]	(37) <i>Miután a fáról lehullott, a falevél a sárba esett.</i>	4,23
[-f] [-h] [-t]	(33) <i>A fáról lehullván, a sárba esett a falevél.</i>	2,93
[-f] [-h] [+t]	(34) <i>A fáról lehullván, a falevél a sárba esett.</i>	3,27
[-f] [+h] [+t]	(31) <i>A felhajtóról kimenvén, János megbotlott.</i>	2,93
[-f] [+h] [-t]	(32) <i>A felhajtóról kimenvén, megbotlott János.</i>	2,6

Table 4.
Average points of the speakers above 40 years of age

Table 3. and Table 4. show that speakers above 40 years of age gave more or less similar points to younger speakers on the average to finite structures, while in the case of *-ván/-vén* constructions, they seem to be less concessive. On the average, older speakers gave 2,93

points to the *-ván/-vén* structures, while younger speakers gave 3,25, however, deeper statistical analysis would be required to see the significance of this difference.⁷

Table 5. shows the Descriptive Statistics of all points given to all *-ván/-vén* structures from the 57 speakers altogether. Diagram 1. shows the histogram of the statistics.

Variable	N	Mean	StDev	Min	Max	Range
<i>-ván/vén</i>	912	3,1667	1,2937	1	5	4

Table 5.
Descriptive Statistics of the *-ván/-vén* structures

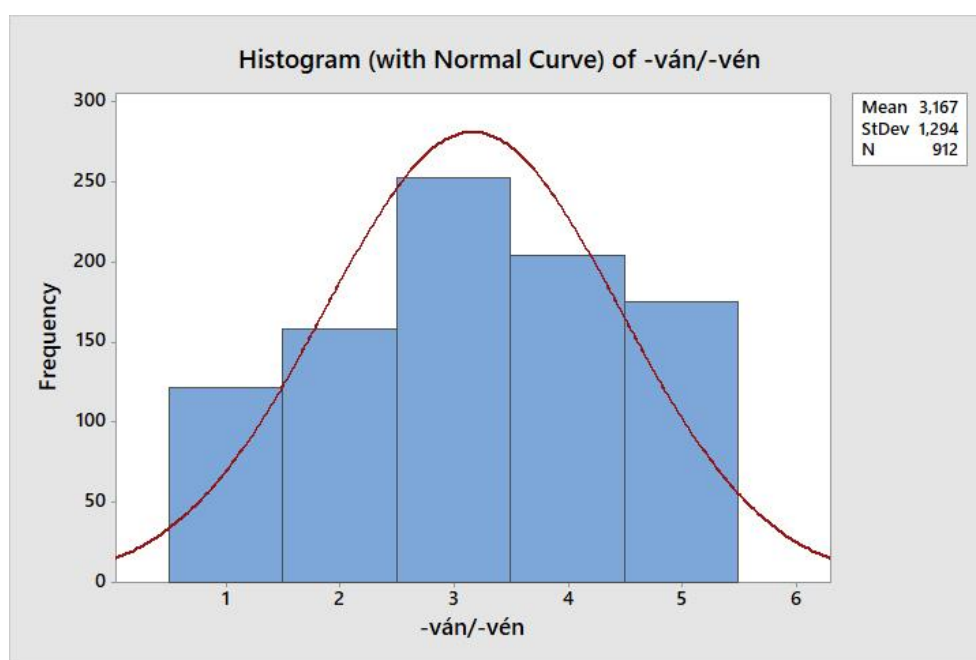


Diagram 1.
Histogram (with Normal Curve) of *-ván/-vén* structures

Table 5. and Diagram 1. show that there is a normal distribution between the answers regarding these structures. The Mean is 3,1667 (~ 3,17) – ‘3 points’ was the most frequent answer. However, answers range from 1 to 5 and ‘4’ and ‘5 points’ were chosen slightly more frequently than points ‘1’ and ‘2’.

⁷ Not indicated separately in the tables inserted, see the appendix.

Table 6. and Histogram 2. show the Descriptive Statistics of all answers to the finite structures.

Variable	N	Mean	StDev	Min	Max	Range
<i>finite</i>	912	4,3564	1,0462	1	5	4

Table 6.
Descriptive Statistics of the *finite* structures

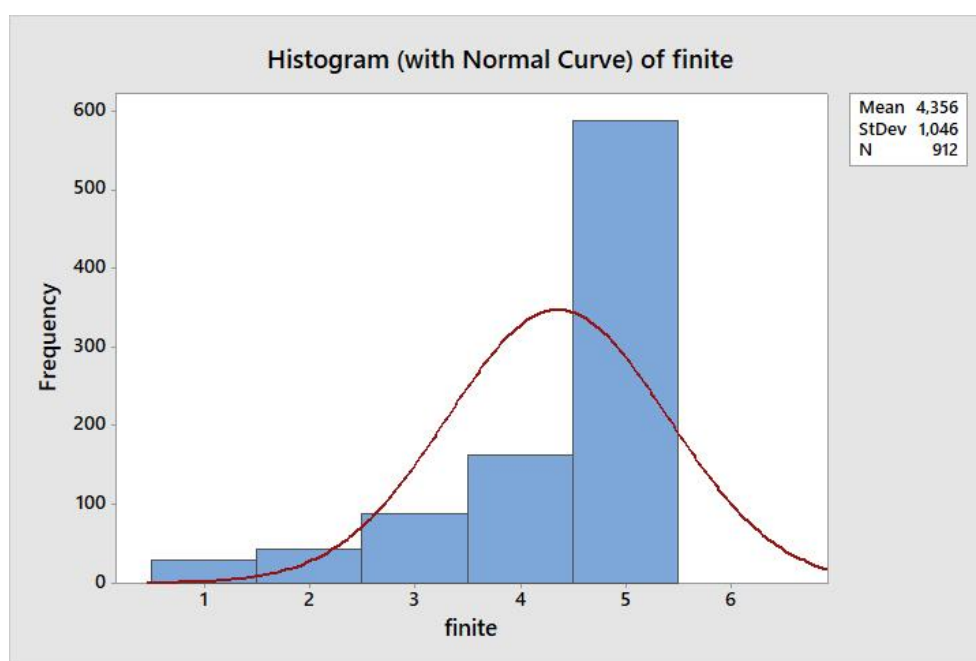


Diagram 2.
Histogram (with Normal Curve) of the *finite* structures

The distribution of the number in the points given to the finite structures is very different from the that of the *-ván/-vén* structures. Clearly, there is a consistent growth in the number of the answers from to 1 to 5 points, so these structures seem to be inevitably acceptable to most speakers.

Finally, there are some interesting findings in the dataset. There was a small group of speakers who gave consistently high points to the *-ván/-vén* structures: specifically, there were 11 speakers among the 57 who gave points above 3 to these constructions – 4,27 points on the average. In contrast, there were also 6 speakers who gave consistently low points to these structures: 1,64 points on the average. It would be interesting to identify the different set of

speakers as there may be groups who find the *-ván/-vén* forms clearly acceptable, while there may be groups who reject these structures consistently. However, the age group and the education level variables does not to interact with this special set of data. In the following section, I discuss the results in more detail.

6. Discussion

The results are mixed. Regarding the age groups, the prediction about people above 40 years of age might find the *-ván/vén* structures more natural was not confirmed. Moreover, data show that they may find these structures even less acceptable than speakers under 40. If the difference would be proven to be significant by deeper statistical analysis, the reason behind this result could be that older speakers may judge the more marked structures more strictly because they may have a slightly different grammar, or they might be more prescriptive. Nevertheless, in the following discussion I do not separate the dataset according to the age of the speakers; I focus on the full set of data (Table 2. is inserted below repeatedly for the sake of illustration.)

<i>Factors</i>	<i>Examples</i>	<i>Averages</i>
1. [+f] [-h] [-t]	(37) <i>Miután a fáról lehullott, a sárba esett a falevél.</i>	4,34
2. [+f] [+h] [+t]	(31) <i>Miután a felhajtóról kiment, János megbotlott.</i>	4,35
3. [+f] [+h] [-t]	(32) <i>Miután a felhajtóról kiment, megbotlott János.</i>	4,36
4. [+f] [-h] [+t]	(36) <i>Miután a fáról lehullott, a falevél a sárba esett.</i>	4,36
5. [-f] [-h] [-t]	(34) <i>A fáról lehullván, a sárba esett a falevél.</i>	3,28
6. [-f] [-h] [+t]	(35) <i>A fáról lehullván, a falevél a sárba esett.</i>	3,37
7. [-f] [+h] [+t]	(30) <i>A felhajtóról kimenván, János megbotlott.</i>	3,15
8. [-f] [+h] [-t]	(33) <i>A felhajtóról kimenván, megbotlott János.</i>	2,87

Table 2.
Averages of the points given by the speakers to each construction type

I discuss the result in the light of the expectations set in the Research aims section. The expectations are inserted below repeatedly:

- *Expectation 1:* PRO subjects are assumed to be more restricted to the humanness and topicality factors. If *-ván/-vén* structures with [-human] and [-topic] controllers get significantly lower points than with [+human] [+topic] controllers, then the covert subject is probably PRO.
- *Expectation 2:* In case of these adjuncts have a PRO subject, speakers should rate the [+human] and [+topic] controllers the most acceptable among *-ván/-vén* structures, giving around the same points to them as to finite structures, while the [-human] and [-topic] controllers should seem the least natural to them. If the [h] and the [t] factors will not make any significant difference between the *ván/-vén* structures, then the subject is probably a *pro* as it is more resistant to these pragmatic factors.
- *Expectation 3:* If *-ván/-vén* structures get significantly lower points on the average than finite structures then the archaic nature *-ván/-vén* structures would explain this difference, and that would mean that the structure is disappearing from the language.

Regarding *Expectation 1 and 2*, they are not fully confirmed as the effects of the [h] and the [t] factors are not clearly detectable. The humanness factor does not seem to make significant changes in the points between the *-ván/-vén* structures. Moreover, it can be seen that structures having a [-h] controller (structure type 6.) got higher points on the average than structures having a [+h] controller (structure type 7.).

Regarding the topicality factor, in the case of *-ván/-vén* structures, it might make some difference: structures with the potential controllers in the topic position got higher points than structures with the controllers outside the topic position.

Expectation 3 is confirmed. On the average, *-ván/-vén* structures got significantly lower point than that of their finite pairs.

There are several reasons that can explain the inconsistent distribution of the points given to the different structure types. The reason behind the lower points of the *-ván/-vén* constructions than that of their finite counterparts can be the fact that *-ván/-vén* structures are considered to be archaic in nature and therefore they seem less acceptable to the speakers compared to more common constructions. Given that the [h] and the [t] factors are pragmatic in nature, the ambiguous effects of these factors may be the result of accidental misinterpretations of the structures. It is challenging to capture the effects of pragmatic factors, and several studies face this difficulty (see e.g. Needham 2012). It is possible that a simple survey method is not able

to properly capture the slight changes that these factors can make, and a more sensitive method would be required. Another possible reason behind the ambiguous effects of the [h] and the [t] factors is an assumption mentioned by Landau (2021) as it was indicated in the theoretical background section: “NOC PRO and *pro* are not two completely different categories, but two points along the referential options available” (Landau 2021: 124). Further investigation would be required to confirm this assumption. Nevertheless, the effects of the [h] and the [t] factors are not straightforward; therefore, both the possibility of a PRO and a *pro* subject still stands.

In conclusion, the results suggest the following interpretations:

- The *-ván/-vén* structure is an archaic, disappearing construction and it is not reliable to test its acceptability on today’s speakers.
- The structure has a *pro* subject, that is why the [h] and the [t] factors does not make a significant difference. A *pro* subject would mean that in these structures tense in itself is enough for finiteness and there is no need for complex morphology and agreement.
- The structure has a PRO subject but the methodology was not sensitive enough to properly test the different pragmatic factors. A PRO subject would mean that control is involved.
- *Pro* and PRO are not two completely different categories, as suggested in (Landau 2021: 124).

It is a potential option for the future investigations to solve the possible methodological problem. Data could be collected by a reaction-time measuring software. Seeing the reaction time of the speakers before they make their judgements on the different construction types could tell us interesting details about the effects of the pragmatic factors on their processing. If *-ván/-vén* constructions involve control, then the [-h] and the [-t] factors may expand their reaction time as topicality can appear on a discourse level. Therefore, speakers might need more time to create a mental context for the potential controllers. Another possible solution is providing context for the sentences to lower the chance of misinterpretation. Nevertheless, further investigations of the issue and methodological changes in the future examinations could help in the deeper understanding of the construction and adjunct structures in general.

7. Conclusion

The present paper examined the nature of the covert subject of a specific Hungarian construction, namely the *-ván/-vén* participial clauses. Based on the previous studies on the structure and on the English counterparts of it, arguments can be found to two different analysis. Some data support the *pro* analysis, which would mean that the structure is finite, while some evidence suggests that the PRO analysis, which would mean that the structure can be treated as a non-obligatory control construction. A PRO subject is more restricted to pragmatic factors, such as humanness and topicality. I conducted an experimental study examining these factors to investigate the proper analysis of the structures. I tested the acceptability of these structures together with certainly finite constructs with *pro* subjects. The assumption was that if *-ván/-vén* structures have a PRO subject, they would get significantly lower points if the humanness and topicality factors are changed, as PRO subjects are more restricted to these factors. However, the results are mixed. *-Ván/-vén* structures got significantly lower points than that of their finite counterparts in general, but the detailed examination of the factors suggests that the reason behind this result is not straightforward. Future investigations and methodological changes could add to investigate the proper analysis of the structures and to the understanding of adjunct structures in general.

REFERENCES

- É. Kiss, Katalin. 2002. *The Syntax of Hungarian*. Cambridge: Cambridge University Press.
- É. Kiss, Katalin. 2016. *Discourse functions: The case of Hungarian*. In Caroline Féry & Shinichiro Ishihara (eds.), *The Oxford handbook of information structure*, pp. 663-685. Oxford University Press.
- Dékány 2014. *A nem véges alárendelés (az igenevek) története [The history of Hungarian non-finite subordination]*. In Katalin É. Kiss (ed.), *Ómagyar generatív szintaxis [Old Hungarian generative syntax]*, pp. 179--239. Budapest, Akadémiai Kiadó.
- Donaldson, James. 2020. *Control in free adjuncts: The "dangling modifier" in English*. School of Philosophy, Psychology & Language Sciences (Doctoral dissertation). Edinburgh.
- Herbeck, Peter. 2020. *The (null) subject of adjunct infinitives in spoken Spanish*. Ms., University of Cologne.
- Kenesei, István. 2001. Criteria for auxiliaries in Hungarian. In I. Kenesei, ed., *Argument structure in Hungarian*, pp. 73-106. Budapest, Akadémiai Kiadó.
- Landau, Idan. 2013. *Control in generative grammar: a research companion*. Cambridge: Cambridge University Press.
- Landau, Idan. 2015. *A two-tiered theory of control*. Cambridge, Massachusetts; London, England: The MIT Press.
- Landau, Idan. 2020. "Nonobligatory Control with Communication Verbs: New Evidence and Implications," in *Linguistic Inquiry*, vol. 51, no. 1, pp. 75-96. London, England: The MIT Press.
- Landau, Idan. 2021. *A Selectional Theory of Adjunct Control*. The MIT Press
- Needham, Stephanie. 2012. *Prepositional anaphora in English: The relationship between so and discourse*. Master's thesis, Carleton University
- Paz, Justin. 2019. *Revising the distribution of control: Evidence from Spanish*. Handout of talk presented at the workshop "Crosslinguistic Variation in Control Phenomena," DGFS 41, University of Brem
- Tóth, Ildikó. 2000. *Va- and ván- participles in Hungarian*. In *Approaches to Hungarian 7.:* Papers from the Pécs conference