The Preface

The editors of FULL are pleased to announce the first issue of the journal. In our description of the journal's scope and focus we say that it is meant to provide a platform for linguistic research on modern and older Finno-Ugric and Uralic languages and dialects, comparative research as well as research on single languages, with comparison of just Finno-Ugric languages or comparison across family lines, with formally or empirically oriented papers. Our first volume, consisting of a double issue, contains five contributions, all dealing with issues in Finno-Ugric generative syntax, but representing a variety of different approaches within that domain.

Two of the papers have an explicitly comparative Finno-Ugric theme. Ora Matushansky's paper is on case and the structure of small clauses in Hungarian, Finnish and Estonian. The main idea is that surface case-marking is, universally, a diagnostic of syntactic complexity, which is confirmed by her findings from the three Finno-Ugric languages. Bácskai-Atkári and Gergely Kántor investigate ellipsis in comparative clauses also in Hungarian, Finnish, and Estonian, focusing on a kind of ellipsis found in these constructions but not previously investigated, called Comparative Verb Gapping. Diane Nelson's paper is also comparative, exploring properties of nominalised clauses in Saami and Finnish, compared with Turkish, in order to determine if, or in what sense, they behave like finite clauses. Katalin Gugán's short paper is on the history of the Hungarian negation (hence also comparative, as all investigation of language change) arguing that the standard Hungarian sentential negation word *nem*, despite appearances, is not an outcome of the Jespersen cycle. Lena Dal Pozzo's contribution is a report of an experiment testing Finnish speakers' expression of new information. The experiment is adapted from similar experiments made with speakers of Romance languages, testing their use of so called free inversion. The theoretical background is the assumed connection between free inversion and subject pro-drop, where Finnish is interesting as it is a partial null subject language.

The idea behind FULL is to stimulate research on Finno-Ugric and Uralic languages, and contribute to raising the level of knowledge and awareness of the results of Finno-Ugric linguistics globally, but also more specifically, contribute to raising the level of knowledge among experts on one Finno-Ugric language of the other languages in this family, and stimulate collaboration and comparative research. We are sitting on a gold mine which we have barely begun to exploit, of languages with complex historical and social relations to each other; very close relations among some of them, very distant relations among others, but still exhibiting common, family-specific characteristics, modified in intricate ways over the millennia. If we make the effort, there can be no doubt that this research, in a foreseeable future, will lead to a better understanding of the complex relationships among languages, the effects of time, cultural evolution, language contact and language acquisition, and ultimately contribute to a fuller understanding of the human language faculty and its interplay with other human cognitive faculties. We take the first issue of FULL to be a big step in that direction

We also say in the description of our aims that we welcome manuscripts from all the main branches of linguistics, including phonology, morphology, syntax, semantics and pragmatics, as well as from first language acquisition and psycholinguistics. The present issue has a distinctly syntactic orientation. We hope that future volumes will include papers from the other branches and fields as well. But whatever the theoretical or empirical orientation of the contributions may be, our leading principle is to maintain the highest international standards.

The launching of this new journal, and the publication of its inaugural double issue would not have been possible without the various forms of contributions made by various people and organizations. We would like to close this editorial by expressing our gratitude to them. Our first thanks go to Katalin É. Kiss for being involved both in shaping the conception of the journal from the very beginning, and in organizing the workshop together with Anne Tamm and Anders Holmberg, where the selected papers appearing in this first double issue were originally presented. We are grateful for the ad hoc financial support received from the Faculty of Humanities and Social Sciences of Pázmány Péter Catholic University to customize the open source OJS journal management software to the needs of FULL, and for the support received from TÁMOP grant 4.4.4/B-10/1-2010-0014, funded by the Europen Union, and from Pázmány University's Graduate School in Linguistics, which helped us produce the first volume. We thank all our colleagues serving as anonymous reviewers of the contributions submitted, from which the best have been selected to appear in the volume. Finally, we would like to express our personal gratitude to FULL's Editorial Assistant, Orsolya Tánczos, without whose conscientious collaboration with our contributors, consummately industrious work on the manuscripts, and enthusiastic dedication to the whole endeavor FULL could not have gotten off the ground.

The Editors
Anders Holmberg
Balázs Surányi
Paul Kiparsky
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On the Internal Structure of Case in Finno-Ugric Small Clauses*

Ora Matushansky

In this paper I will argue that case-marking on the predicate of a small clause in Finno-Ugric languages reflects the complexity of the environment that the small clause finds itself in. I will show that the dynamic vs. stative nature of the main verb (presence or absence of the change-of-state presupposition), the (non-)deficient nature of the v (unaccusative vs. transitive), time-stable vs. transient interpretation of the copula and the lexical semantics of the verb ("light" verbs vs. all others) can all affect predicate case-marking. The resultant surface form, however, does not always correspond to the complex underlying specification, due to the fact that vocabulary insertion rules are characterized by underspecification and impoverishment. As a result, identical case labels can fail to indicate the differences in the underlying specification of a case-marked constituent even in closely related languages and within a single language.

I will argue that observable patterns of predicate case-marking provide a strong argument against the hypothesis that a given constituent can bear only one case feature (cf. Merchant 2006, Caha 2007 and Richards 2007). Independently available data (cf. Plank 1995) suggest that the accumulation of case features on a single XP constituent need not reflect multiple case-assignment to this constituent, but rather involve case-assignment to larger constituents dominating XP.

Keywords: *Case, Predication, Small clause, Change of state, PredP*

1 Introduction

In this paper I argue that case-marking in Finno-Ugric non-verbal predication provides strong support for the mechanism of case assignment described in Matushansky (2008a, 2010), where case-marking on a given constituent reflects the featural complexity of the structure in which the constituent is contained.

1.1 Case as a feature bundle

Following Matushansky (2008a, 2010), I assume (see also Pesetsky and Torrego 2001, 2004, 2007, Bailyn 2004, Pesetsky 2010) that there exists no dedicated category of case-features; rather a functional head assigns its own interpretable features (which become uninterpretable on the target). Accepting the hypothesis that, e.g., accusative case is the

* Not being a speaker or even a scholar of any Finno-Ugric language, I would have been unable to conduct this research without the generous help of my colleagues, who have patiently and unstintingly provided me with the examples and judgments presented here (except those directly attributed to other sources). I am most grateful to Anikó Lipták, Gabi Tóth, Grete Dalmi, Veronika Hegedüs, and Balázs Surányi for their help with Hungarian, to Andres Karjus, Tiina Kikerpill, Diana Maisla, Kärt-Katrin Pere and especially to Martin Aher and Anne Tamm for assisting me with Estonian data, and Elsi Kaiser and Liina Pylkkänen for information about Finnish; all examples not attributed to other sources come from them. My heartfelt thanks to FULL for enlisting Sander Lestrade, Isabelle Roy and two anonymous language consultants, whose comments greatly improved the paper. Naturally, none of them should be blamed for the way I have (mis-)treated the information received.

This research was generously supported by a grant from the Netherlands Organization for Scientific Research – *NWO* (project number 276-70-013).

spell-out of (the features of) the head known as the transitive *v*° (Chomsky 1995) or as voice° (Kratzer 1996), I extend this account to all instances of dependent, or uninterpretable, case with the ultimate goal of extending this view towards a general theory of Case as a bundle of semantically grounded features (cf. Jakobson 1958/1984), which may be interpretable or uninterpretable.

My central assumption is that syntactic case on a given constituent need not be a single feature, but is rather a bundle of uninterpretable features (cf. Merchant 2006, Caha 2007 and Richards 2007 for similar proposals). The fact that more than one case feature can be present on a given constituent can be shown on the basis of the cross-linguistic availability of multiple case-marking, generally known as *Suffixaufnahme* (Plank 1995a), where an NP may surface with several case markers:[1]

(1) *ŋinqej-ərg-ine-t* *tumg-ət*
boy-PL-POSS-ABS.PL friend-ABS.PL
'(the) friends of (the) boys' (Chukchi; Plank 1995b)

Crucial for Suffixaufnahme is the fact that each among such multiple case markers is assigned to a different constituent: the absolutive case in (1) is assigned to the entire DP, but surfaces on the inner DP (*boys*) alongside the possessive case as a result of the mechanism usually known as *concord*. That concord need not be NP-internal is shown by multiple case-marking in a number of Australian languages, including Kayardild (Evans 1995):

(2) *Ngada mungurru, [maku-ntha yalawu-jarra-ntha yakuri-naa-ntha* (Kayardild)
I know woman-C.OBL catch-PAST-C.OBL fish-M.ABL-C.OBL
thabuju-karra-nguni-naa-ntha mijil-nguni-naa-nth].
brother-GEN-INS-M.ABL-C.OBL net-INS-M.ABL-C.OBL
'I know that the woman caught the fish with brother's net.'

The spreading of the complementizing-oblique case (C.OBL)[2] over the entire embedded CP shows that case-assignment and concord (i.e., the percolation of the assigned features to terminals) can apply to constituents other than NPs. While in Kayardild the features assigned to, e.g., *brother* are spelled out separately, I hypothesize that it is also possible for features assigned to a particular constituent by several heads to be spelled out as a single portmanteau morpheme. The surface realization of a case feature bundle is determined by language-specific Vocabulary Insertion rules, which (as usual for Vocabulary Insertion rules) may be underspecified or affected by

[1] The following abbreviations are used: 1 first person, 3 third person, ABS absolutive, ACC accusative, ADE adessive, ALL allative, C. OBL complementizer-oblique, CAUS causative, CVB co-verb (verbal prefix), DAT dative, DEM demonstrative, EMPH emphatic, ESF essive formal, ESS essive, GEN genitive, ILL illative, IMP imperative, IMPERS impersonal, INESS inessive, INF infinitive, INS instrumental, M.ABL modal-ablative, NMLZ nominalization, NOM nominative, PART partitive, PASS passive, PAST past, PL plural, POSS possessive, PPRT past participle, PRES present, RES resultative, SBL sublative, SG singular, SPE superessive, SPR superessive, TRS translative. Differential object-verb agreement in Hungarian is not indicated.

[2] "Complementizing" cases are the uses of oblique and locative cases that mark clauses as embedded; the choice of a complementizing case depends on a number of factors (see Evans 1988, 1993, 1994, 1995).

impoverishment (Bonet 1991, Halle 1997, Noyer 1997). Crucially, under the view adopted here case-features on a given constituent accumulate rather than overwrite each other.

On the syntactic side I follow Matushansky (2008a, 2010) and assume that case-features are uninterpretable counterparts of the features of a head and a head assigns its features to its sister (rather than to an NP that it agrees with) and that the source of cross-linguistic variation in case-assignment properties is morphological (Vocabulary Insertion rules) rather than syntactic (the ability of a given head to assign case). In the context of this paper, this means that the difference in the case-marking on the predicate in the complement of an intensional verb between Hungarian (dative) and Estonian (translative) does not result from the different properties of intensional verbs in the two languages but rather from differing Vocabulary Insertion rules.

1.2 The environment of a nonverbal predicate

The approach sketched above suggests that case-marking on a given constituent should be a direct reflection of the structure that this constituent is contained in (modulo the existence of barriers to case assignment, such as the finite CP). I will show that the markedness of the case assigned to the non-verbal predicate of a small clause obeys this generalization in that a VP with a more complex internal structure or featural specification results in a correspondingly more marked case.

I take as a starting point the hypothesis (Stowell 1980, 1983, 1989, 1991) that examples below all involve a constituent consisting of a subject and a nonverbal predicate. Following general conventions, I adopt the name of "small clauses" for such minimal units of non-verbal predication and assume that they consist of a subject (type *e* or ⟨⟨e, t⟩, t⟩) and a predicate (type ⟨e, t⟩). In addition to small clauses in primary predication (3) and small-clause complements of raising verbs (4a,b), relevant for this paper will be small-clause complements of ECM verbs, including intensional (4c), causative (4d), nomination (4e) and naming verbs (4f), the resultative construction (4g), and subject and object depictives (4h,i):[3]

(3) Sam_i is $[_{SC}\ t_i$ *sad*$]$. primary predication

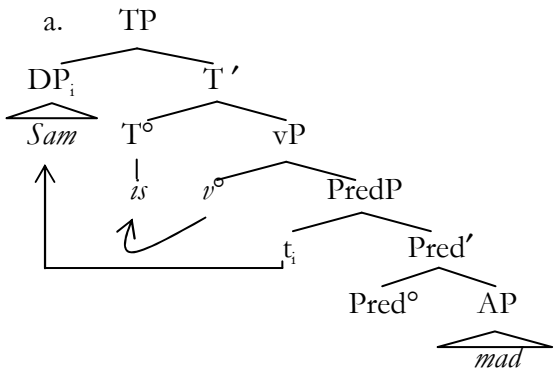
(4) a. Sam_i seems $[_{SC}\ t_i$ *mad*$]$. raising, stative
b. Sam_i became $[_{SC}\ t_i$ *mad*$]$. raising, dynamic
c. Sam considered $[_{SC}$ Lee *mad*$]$. ECM, stative
d. Sam made $[_{SC}$ Lee *mad*$]$. ECM, dynamic (causative)
e. The people elected $[_{SC}$ Sam (??*the) president*$]$. nomination
f. Carroll named $[_{SC}$ his heroine *Alice*$]$. naming
g. We painted $[_{SC}$ the room *green*$]$. resultative
h. Sam_i ate the meat_k $[_{SC}\ \text{PRO}_k$ *raw*$]$ object depictive
i. Sam_i ate the meat $[_{SC}\ \text{PRO}_i$ *nude*$]$ subject depictive

[3] Not examined in this paper are absolute constructions (van Riemsdijk 1978:62-86, see also Chung and McCloskey 1987) and so-called "Mad Magazine" sentences (Akmajian 1984, see also Potts and Roeper 2006):

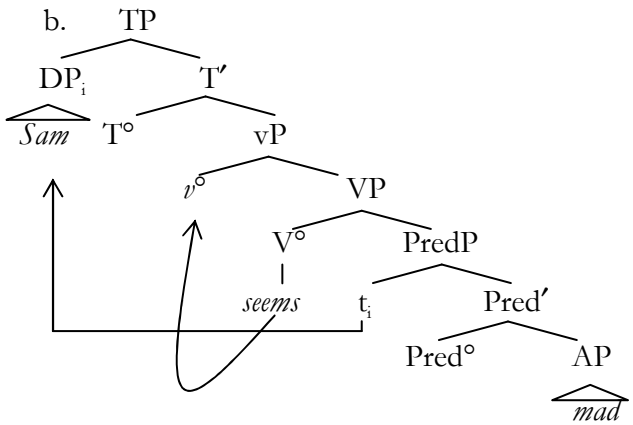
(i) a. [With John sick], we'll never get the job done on time. absolute construction
b. [Me mad]?! Ridiculous! "Mad Magazine" sentence

I will argue that such examples provide several testing grounds for the hypothesis that an increase in the complexity of an extended VP yields a more marked case on the predicate.[4] In particular, I will compare primary predication (which projects a minimum of structure, as in (5a), excluding even a verbal root) to stative raising verbs (which add a verbal root, as in (5b)),[5] showing that the surface case on the predicate in (5a) is systematically less marked than the surface case on the predicate in (5b).[6]

(5) a.



b.



Comparing the structures in (5) to dynamic raising verbs (which add a change-of-state component to v°) shows that the latter can give rise to a more marked surface case

[4] The markedness of a particular case can be determined on the basis of its cross-linguistic frequency (for instance, dative is more common than translative, which is in turn more common than sublative), its position on the implicational hierarchy of cases (e.g., the presence of dative implies the presence of accusative, but not vice versa), the morpho-phonological complexity of exponents (in some languages, oblique case realization overtly contains the accusative case exponent), the direction of syncretism, the association with a particular θ-role (e.g., of movement onto a surface for sublative, as opposed to simple change of state for translative), etc.; see Blake (1994), among others, for discussion. While these characteristics do not always go hand-in-hand, due to the fact that the same case labels do not always correspond to the same featural content across languages or even within a single language, as will be shown below, I maintain nonetheless that the tendency holds.

[5] In the trees below only V°-to-v° movement, assumed to be cross-linguistically universal, is indicated; I abstract away from the surface position of the verb as irrelevant for my purposes.

[6] In a number of languages (e.g., Russian or standard Arabic) the predicate is marked with nominative case in the present tense (where the copula is structurally absent/null) and a non-nominative case (instrumental or accusative, respectively) when an overt copula is present. I take it as an instance of the same phenomenon (see Matushansky (2010) for discussion).

on the predicate. Transitive verbs, which project more structure in order to introduce the external argument, will be shown to yield a further increase in the markedness of the predicate case.

I will further demonstrate that the correlation between the two factors is not perfect and may be obscured within a single language. While on the one hand, in the three Finno-Ugric languages discussed in this paper (Finnish, Hungarian and Estonian) nominative, essive and translative can be shown to share an environment (the copula *be* for nominative, depictive secondary predication for essive and the change-of-state component for translative), their distribution outside these environments will be argued to show that these convenient labels do not correspond to a particular feature or feature bundle, but rather spell out a subset of features assigned to an AP or NP predicate. By showing that case morphology does not accurately reflect the underlying featural specifications, Finno-Ugric languages will provide evidence for determining the role of the morphological component in surface case-marking.

2 Finnish and the change-of-state component

As convincingly argued by Fong (2003), the distribution of the three predicate cases in Finnish is intimately connected to the presence of a change-of-state component. Whereas nominative can only be assigned in primary predication, the choice between the other two predicate cases is semantically determined: translative implies a change of state whereas essive is used in its absence. In this section I show that the entire pattern is fully compatible with the approach advocated here. The relative simplicity of Finnish predicate case-marking will allow us to easily demonstrate that nominative, the least marked case (or perhaps even the lack of case) appears in the least complex environment, while more complex environments result in a more marked case.

2.1 Nominative

As exemplified below, in primary predication the AP or NP predicate is marked nominative:

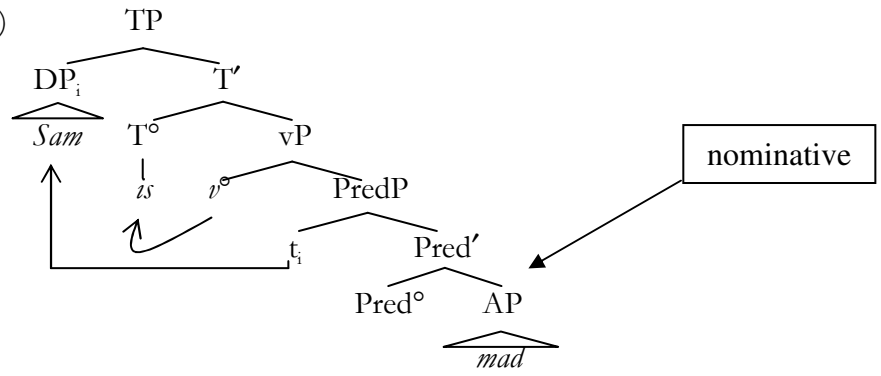
(6) a. *Ystävä-ni* *on* *pappi.*
friend-3SG.POSS.NOM be.PRES.3SG vicar.NOM
'My friend is a vicar.' (Fromm and Sadeniemi 1956:115)

b. *Tyttö* *on* *pieni.*
girl.NOM be.PRES-3SG small.NOM.SG
'The girl is small.' (Fromm and Sadeniemi 1956:116)

The structure in (7) reflects the standard assumption that the copula *be* is not a lexical verb but rather a functional morpheme. Following Bierwisch (1988), Kamp and Reyle (1993), Rothstein (1999), Maienborn (2003, 2005a, 2005b), among others, I assume that the semantic contribution of *be* is to introduce a neo-Davidsonian eventuality argument slot (thought to be lacking in APs and NPs) that enables a small clause to combine with temporal, aspectual, etc., functional categories. The overtness of *be* is determined by its need to function as morphological support for tense and agreement in

T° to avoid a violation of the Stray Affix Filter (Lasnik 1995).[7] I also assume that small clauses are projections of the functional head Pred° (Bowers 1993), though nothing crucial depends on this assumption:

(7)



Several potential sources for nominative case on predicates have been identified. One possibility is that it corresponds to a lack of case-marking (cf. Andrews 1982). Another, that it results from direct agreement with the nominative subject (Matushansky 2000) or from T° entering into an agreement relation with both the subject and the predicate (Bailyn 2001, Chomsky 2001). The third option, suggested by Comrie (1997) in order to explain the predicate nominative case in non-finite copular clauses, is that nominative is assigned by the copula:

(8) *Tiedän kirjan olevan %valkoinen/%valkoisen.*
know.1SG book.GEN being white.NOM/white.GEN
'I know that the book is white.'

While examples like (8) show that the Finnish predicate nominative case on predicates is not a result of agreement with the nominative case on the subject, they do not exclude the other two hypotheses, as long as the subject is assumed to receive genitive case from a head other than the non-finite T° (see footnote 12 for discussion). As Andrews's view provides the most intuitive account of the default nature of nominative case, I will adopt it here (even though the hypothesis that nominative reflects the presence of T° also correctly predicts that the predicate in (7) will bear a relatively unmarked case, on the assumption that the features of T are assigned in any finite clause). Turning now to dynamic raising verbs, like (4b), I will argue that they add a lexical root and the [BECOME] feature on *v* to the structure in (7). In the view sketched above, both should enter the feature bundle spelled out as case on the non-verbal predicate. This prediction is borne out.

[7] A number of authors (Bailyn and Citko 1999, Pereltsvaig 2007, den Dikken 2006, among others) argue that the copula *be* is merely the morphological support for tense and agreement in T° (potentially, after Pred°-to-T° movement). From the syntactic point of view, adopting their analysis would not have affected the main point of the paper.

2.2 Translative case and the role of change of state

As demonstrated by Stassen (2001) and Fong (2003), the distribution of Finnish translative case is semantically determined: in the resultative construction and with all change-of-state verbs only translative case is used:[8]

(9) a. *Vanhus tul-i sokea-ksi.*
old man.NOM go/become-PAST.3SG blind-TRS.SG
'The old man went blind.' (Fromm and Sadeniemi 1956:143)

b. *Isä on tullut vanha-ksi.*
father.NOM be.PRES.3SG go/become.PPRT old-TRS.SG
'Father has become old.' (Karlsson 1999:125)

c. *Me kutsu-mme William Gatesi-a Billi-ksi.* naming verb
1PL.NOM call-1PL William Gates-PART Billy-TRS
'We call William Gates Billy.'

d. *Me valits-i-mme Sue-n presidenti-ksi.* nomination verb
1PL.NOM elect-PAST-1PL Sue-ACC president-TRS
'We elected Sue president.'

e. *Me maalas-i-mme seinä-n keltaise-ksi.* resultative construction
1PL.NOM paint-PAST-1PL wall-ACC yellow-TRS
'We painted a/the wall yellow.'

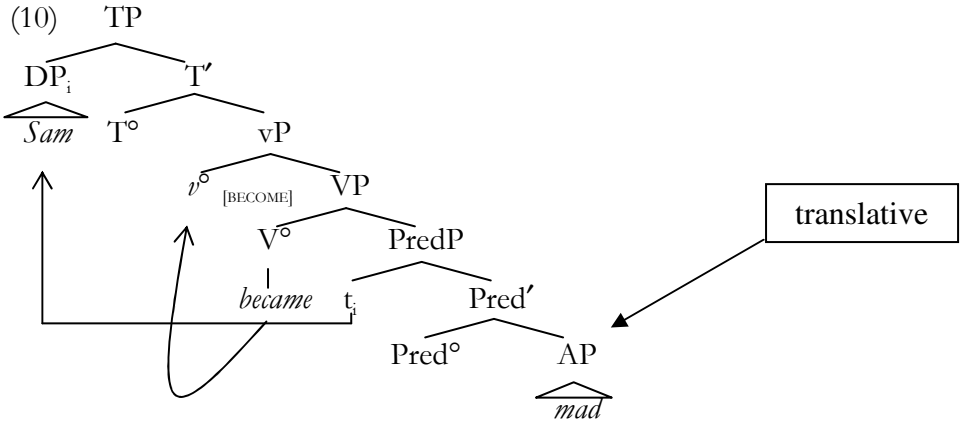
f. *Kivi jä-i vanha-ksi poja-ksi.*[9]
Kivi.NOM remain-PAST.3SG old-TRS boy-TRS
'Kivi remained a bachelor.' (Fong 2003)

To formalize Fong's hypothesis that it is the change-of-state meaning that is responsible for translative case-marking, I suggest that translative case is the uninterpretable counterpart of the [BECOME] feature (exemplified here for the lexical verb *become*; one more functional projection will be argued to be necessary in the next section):

[8] Translative is also used with language names (e.g., *in English*), as well as with temporal expressions of duration (e.g., *for two hours*) or temporal limit (e.g., *until tomorrow*, *by 3 PM*) (Karlsson 1999). While the latter two uses resemble the change-of-state interpretation in that they also introduce boundary conditions, the former use seems to be idiosyncratic.

[9] Fong (2003) provides an illuminating discussion of the difference between the near-synonymous verbs *jäädä* 'to remain', taking translative, and *pysyä* 'to stay', taking essive, showing that the case-marking correlates with the implication of change-of-state for the former and its absence for the latter.

(10)



Whereas in (10) [BECOME] is located on *v*, placing [BECOME] on the lexical verb itself (as a syntactically active lexical-semantic feature) or projecting it as another head (see section 0 for a detailed discussion of the structure of resultatives) would make no difference for case-assignment: under the assumption that a head assigns its interpretable features to its sister the feature [BECOME] will end up on the predicate (*mad*) in (10) wherever in the extended VP it has started from.

2.3 Essive

As mentioned above, in the three Finno-Ugric languages under discussion the case assigned to depictives is called essive, though, as will be shown below, the depictive construction in Finnish is only one of three environments where predicate essive is assigned. Case-marking is no different for object and subject depictives, be they APs or NPs:

(11) a. *Alice palas-i kotikaupunki-in-sa presidentti-nä.*
Alice.NOM return-PAST.3SG hometown-ILL-3SG.POSS president-ESS
'Alice returned to her hometown (as) president. '

b. *Hän kuol-i vanha-na.*
3SG.NOM die-PAST.3SG old-ESS
'S/he died old. ' (Fong 2003)

c. *Elefantti sö-i maapähkinä-t suolattom-i-na.*
elephant.NOM eat-PAST.3SG peanut-PL.ACC unsalted-PL-ESS
'A/The elephant ate the peanuts unsalted. ' (Fong 2003)

Besides marking depictives, the Finnish essive appears with raising and ECM verbs that do not involve a change of state:

(12) a. *Pysyykö ilma kirkkaa-na?*
stay.PRES.3SG air.NOM clear-ESS
'Will the air stay clear?' (Karlsson 1999)

b. *Me pidä-mme Sue-ta presidentti-nä.*
1PL.NOM consider/hold-PRES.1PL Sue-PART president-ESS
'We consider her president.'

Finally, essive also appears with the copula *be*, yielding what I take to be two distinct interpretations and structures. The first one, restricted to NP predicates denoting professions or functions, is straightforwardly analyzed as depictive secondary predication on the main PP predicate (whose absence leads to ungrammaticality):

(13) *Hän* *ol-i* *siellä* *opettaja-na.*
3SG.NOM be-PAST.3SG there teacher-ESS
'S/he was a teacher there, s/he worked there as a teacher.' (Lehtinen 1963:373)

I surmise that this is precisely the same effect as the Russian instrumental of temporary function (Nichols 1981, Bailyn and Citko 1999, Geist 1999, among others), which is the only type of an instrumental predicate compatible with the null copula:

(14) a. *Sergej* **(u nas)* *načal'nikom.*
Sergei.NOM at 1PL.GEN boss.INS
'Sergei's the boss here (= at our institution).' (Geist 1999)
b. *Vera* **(zdes')* *assistentom.*
Vera.NOM here assistant.INS
'Vera is here as an assistant.'

The second, unrelated use of essive with the copula *be* is compatible with both AP and NP predicates. The predication is then interpreted as a temporary state or function (Karlsson 1999) or a "contingent" state of affairs (Stassen 2001, Fong 2003), as illustrated in (15). This type of essive can be compared to the regular appearance of the instrumental case in Russian primary predication, which also conveys the perception of transience (see Peškovskij 1956, Nichols 1981, Bailyn and Rubin 1991, Fowler 1997, Geist 1999, Matushansky 2000, among many others).[10]

(15) a. *Toini* *ol-i* *sairaa-na* *(kolme* *viikko-a).*
Toini.NOM be-PAST.3SG ill-ESS three week-PART
'Toini was ill (for three weeks).' (Fong 2003)
b. *Hän* *ol-i* *opettaja-na* **(kolme* *viikko-a).*
3SG.NOM be-PAST.3SG teacher-ESS three week-PART
'S/he was a (substitute) teacher for three weeks.'

It is tempting to suggest that the essive case is assigned by the component responsible for the connotation of transience, but such a proposal would not extend to examples like (12). Conversely, examples like (16), where essive and translative predicates

[10] Stassen (2001) claims that Votic permits the same two options in primary predication, but the examples provided do not make it possible to determine whether the locative or the essive is the primary predicate:

(i) *Tämä* *on* *hakka.*
3SG.NOM is old woman.NOM
'She is an old woman.' (Ariste 1968:31 via Stassen 2001)

(ii) *Elin* *sematehe-nna* *Tallina-za.*
be.PAST.1SG soldier-ESS Tallinn-LOC
'I was a soldier in Tallinn.' (Ariste 1968:32 via Stassen 2001)

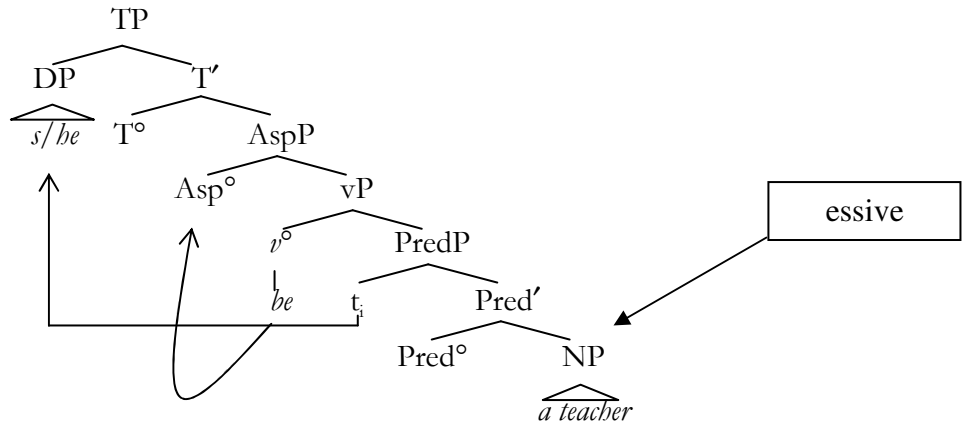
appear with the same verb, strongly suggest that one of the two predicate cases cannot be assigned by the verb:

(16) a. *Sointu* *paisto-i* *kala-n* *kuiva-ksi.*
Sointu.NOM fry-PAST.3SG fish-ACC dry-TRS
'Sointu fried a/the fish dry.' [resultative] (Fong 2003)

b. *Sointu* *paisto-i* *kala-n* *kuiva-na.*
Sointu.NOM fry-PAST.3SG fish-ACC dry-ESS
'Sointu fried a/the fish dry.' [depictive] (Fong 2003)

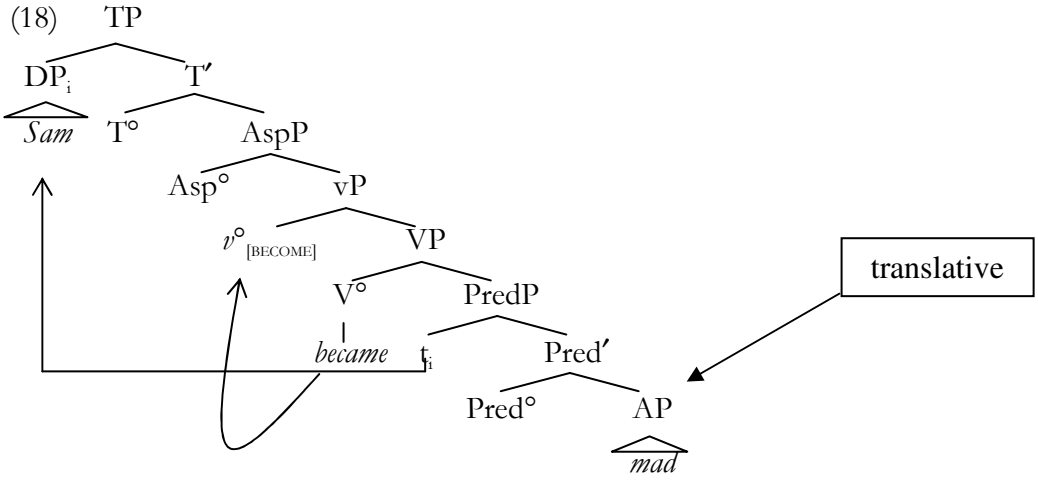
Furthermore, it is not even clear that depictives are c-commanded by the verb. While object depictives are usually analyzed as a VP-adjuncts, subject depictives have been argued to appear higher in the structure, perhaps even as TP-adjuncts (Williams 1980, Roberts 1988, Nakajima 1990). To unify the three types of small clauses where the predicate surfaces in the essive case I propose that the head responsible for the assignment of essive is the aspectual (perfective or imperfective) projection associated with any lexical verb (see Kiparsky 2001 for a discussion of the effect of aspect on the Finnish direct object case-marking, which I take as independent motivation for projecting AspP in Finnish). I further hypothesize, following Matushansky's (2010) analysis of nominative vs. instrumental case in primary predication in Russian (see also Matushansky 2000, Richardson 2007 and Markman 2008), that Asp° can be added to the copula *be*, yielding the transient reading of the primary predication.[11] A natural consequence of this proposal is that change-of-state verbs discussed in the previous section also project an AspP:

(17)



[11] The unavailability of predicate instrumental with the null copula in Russian is therefore attributed to the lexical requirement of Asp°, which needs to attach to an overt host.

(18)



Under the assumption that any lexical verb projects a vP and is specified for aspect, in order to obtain the correct result, the relevant Vocabulary Insertion rules must be ordered as follows:[12]

(19) In the context of [Pred]:
translative: [BECOME]
essive: [Asp]
nominative: elsewhere

The Vocabulary Insertion rules in (19) are underspecified, since every rule spells out only a subset of the features assigned to non-verbal predicates in complex environments. Since the relation between surface cases and the environments that they are assigned in is a surjective rather than a bijective function, underspecification is crucial. Given that non-verbal predicates in change-of-state environments receive not only the feature corresponding to the [BECOME] component, but also the feature corresponding to Asp, a change in the ordering of these two rules would have led to the disappearance of translative. The rule ordering in (19) is therefore driven by the Elsewhere Condition (Kiparsky 1973, Halle 1990), requiring more specific rules, such as (19a), where the presence of [BECOME] entails the presence of [Asp], to precede less specific rules, such as (19b). As a result, the Finnish translative ends up as more marked than the Finnish essive. As we will see in the next section, in Estonian such is not the case.

2.4 Summary

An investigation into predicate case-marking in Finnish has shown it to be fully compatible with the proposal advanced above: while a nominative non-verbal predicate corresponds to the least complex environment possible, the more marked essive and translative cases appear in environments that are clearly more complex.

[12] Missing here is the rule assigning the agreeing genitive, as in Comrie's example (8). I hypothesize that it is assigned by the same head that assigns genitive to the subject. To explain the alternative nominative case-marking on the predicate, I propose that the non-finite T° here can block case assignment by higher heads – an assumption that I also appeal to in analyzing the Estonian essive below (section 0).

The fact that the same surface case may appear in a number of environments strongly suggests that a single case label may spell out different underlying featural specifications. In the next section we will see that Estonian imposes a different set of conditions on the use of nominative, essive and translative, showing that cross-linguistically, even in the case of clear cognates, each case exponent may correspond to different (potentially underspecified) feature combinations.

3 Estonian

Estonian predicates appear in the same cases as in Finnish: nominative, translative and essive. The generalization governing the distribution of these cases will be claimed to be as follows: predicates c-commanded by a non-finite C° bear essive, the complements of intensional raising verbs are nominative and all other non-verbal predicates are marked translative. The putative effect of the complexity of the embedding structure on the non-verbal predicate case will therefore be claimed to obtain in Estonian as well: both translative and essive appear in environments more marked than those where nominative does.

3.1 Nominative case

An Estonian AP or NP predicate bears nominative case in primary predication (Lehiste 1969, 1972, Stassen 2001 and Erelt and Metslang 2003), but also, crucially, in the complement of a raising intensional verb (but not with the raising verb *jääma* 'to remain', which, as in Finnish, patterns with change-of-state verbs (see footnote 9) and appears with translative predicates (Matsumura 1996):[13]

(20) a. *NN on meie saadik London-is.*
NN.NOM be.PRES.3SG our ambassador.NOM London-INESS
'NN is our ambassador in London.' (Lehiste 1972:216)

b. *Tä ol-i noor.*
3SG.NOM be-PAST.3SG young.NOM
'S/he was young.' (Stassen 2001)

(21) a. *Nii paist-si-d silma-d palju suurema-d.*
so appear-PAST-3PL eye -PL.NOM much bigger-PL.NOM
'So the eyes appeared much bigger.' (Matsumura 1996)

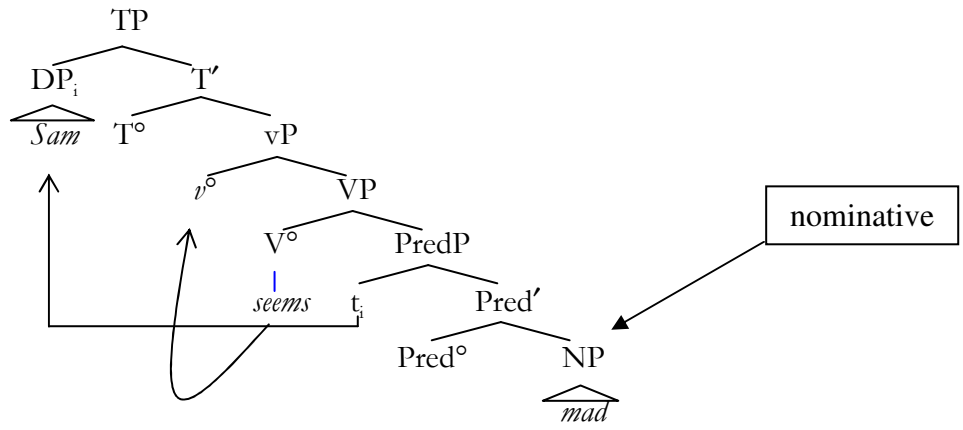
b. *Raskus näi-b ületamatu.*
difficulty.NOM seem-PRES.3SG insurmountable.NOM
'The difficulty seems insurmountable.' (Lehiste 1969)

The VP in both instances contains a "deficient" *v*° not projecting an external argument or assigning accusative case (cf. Chomsky 2001), which means, in the system developed here, an absolute minimum of functional projections and features. Thus the

[13] Essive-marked predicates are also possible with raising intensional verbs. While essive AP predicates are usually dispreferred compared to nominative, NP predicates, on the opposite, must be essive. I will return to this issue in section 0.

predicate nominative in Estonian is assigned in the structures in (7) and (22), just like in Finnish:

(22)



The divergent behavior of nominative case in Estonian and Finnish is essential for our understanding of the nature of surface case: while in both languages nominative appears in the least marked environments, the threshold, so to say, of markedness is set differently, leading to a wider distribution of nominative in Estonian. As we will now show, the presence of the [BECOME] feature on *v* or the projection of voiceP results in translative case-marking, supporting the intuition that the more marked cases appear in more complex environments.

3.2 Translative case as the marked option

When the minimal structures of the verb *be* in (7) and the verb *seem* in (22) are augmented by the presence of additional features, nominative case-marking is replaced with translative. Thus the change-of-state verbs *saama* 'to get, become', *jääma* 'remain', *muutuma* 'to change into' and *minema* 'to go' all appear with translative-marked predicates (Matsumura 1996), as do nomination verbs and resultatives. Extending to Estonian the hypothesis proposed for Finnish, it is the feature [BECOME] on *v*° (cf. (10)) that is responsible for the more marked case:

(23) a. *Peeter* *saa-b* *vana-ks.*
Peter.NOM become-PRES.3SG old-TRS
'Peter is getting old.' (Stassen 2001)

b. *NN* *määrati* *meie* *saadiku-ks* *London-is.*
NN.NOM appoint.PASS our ambassador-TRS London-INESS
'NN was appointed as our ambassador in London.' (Lehiste 1969)

c. *Ja* *ema* *ehmu-s* *vaikse-ks.*
and mother.NOM be.frightened-PAST.3SG silent-TRS
'And Mother got scared into silence.' (Matsumura 1996)

While Finnish translative case-marking can only reflect the presence of a change-of-state component, in Estonian, translative predicates also appear in the context of ECM verbs, be they dynamic (change-of-state) or stative (intensional):

(24) a. *See teg-i ema mureliku-ks.*
DEM.NOM make-PAST.3SG mother.PART anxious-TRS
'That made Mother anxious.' (Matsumura 1996)

b. *Tee-me ennast mustlas-te-ks.*
make-1PL self.PART Gypsy-PL-TRS
'Let's dress ourselves as Gypsies.' (Matsumura 1996)

c. *Ma õpin õpetaja-ks.*
1SG.NOM study.PRES.1SG teacher.TRS
'I am studying to become a teacher.' (Creissels 2008)

d. *Lapse-d kutsu-si-d koristaja-t Emmi-tädi-ks.*
child-PL.NOM call-PAST-3PL cleaner-PART Emmi-aunt-TRS
'The children called the scrubwoman Aunt Emmi.' (Matsumura 1996)

(25) a. *Mari pea-b Jaani hea-ks*
Mary.NOM consider-PRES.3SG John.PART good-TRS
kiimnevõistleja-ks/targa-ks.
decathlete-TRS/intelligent-TRS
'Mary considers John a good decathlete/intelligent.'

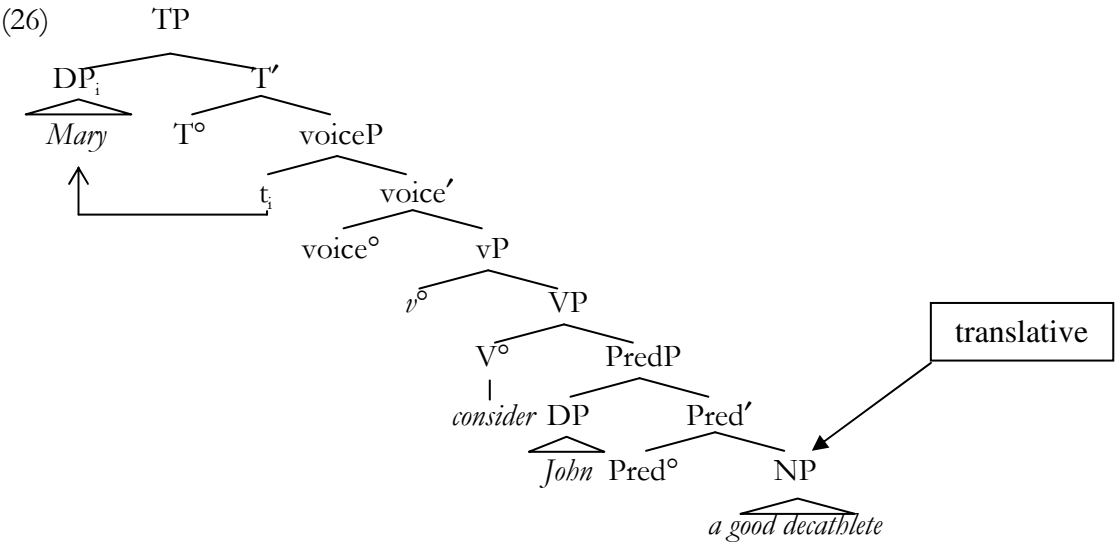
b. *Kui Kiir se-da tarviliku-ks arva-b…*
as Kiir.NOM DEM-PART necessary-TRS think-PRES.3SG
'If Kiir considers it to be necessary...' (Matsumura 1996)

c. *Tagasihoidlikkus-t loe-takse ju vooruse-ks.*
modesty-PART read-IMPERS.PRES EMPH virtue-TRS
'Modesty is considered to be a virtue.' (Matsumura 1996)

The structural difference between raising intensional verbs and their ECM counterparts is usually assumed to be a more complex (non-deficient) transitive *v*° (Chomsky 1995) or an additional functional head voice° (Kratzer 1996), which introduces the external argument (the subject) and enables accusative case assignment (cf. Burzio 1981):[14]

[14] The formalization of transitivity as a voice° as opposed to a feature on *v* throughout the discussion is chosen because it renders more transparent the increased complexity in the structure projected by transitive verbs. Like the formalization of the change-of-state component, this choice is no more than a technicality and does not affect the main argument.

(26)



The fact that the tree in (26) correlates with translative case-marking on the predicate is also fully consistent with the hypothesis that a more complex environment (a transitive voice° as opposed to the deficient raising *v*) entails a more marked case on the predicate of the small clause. An increase in the complexity of the structure also characterizes the third environment where translative case is assigned: with the copula *olema* 'to be', forcing a transient (Lehiste 1969, 1972, Stassen 2001) or non-stable, random, or temporary (Erelt and Metslang 2003) interpretation, which is marked in Finnish by essive:[15]

(27) a. *Ol-i-n oma õpetaja-le rohkem jooksupoisi-ks kui õpilase-ks.*
be-PAST-1SG own teacher-ALL more errand.boy-TRS than pupil-TRS
'For my teacher I was an errand-boy rather than a pupil.' (Matsumura 1996)

b. *NN on meie saadiku-ks London-is.*
NN.NOM be.PRES.3SG our ambassador-TRS London-INESS
'NN is our ambassador in London.' (Lehiste 1972:216)

(28) *Minu ülesandeks on lahendada see küsimus.*
1SG.GEN task-TRS be.PRES.3SG solve.INF this question.ACC
'My task is to solve this question.' (Miljan 2008)

Unlike the Finnish copular essive, the Estonian copular translative case is restricted to NP predicates (cf. Matsumura 1996), and for animate NPs, to those that denote professions (Anne Tamm, p.c.); other NPs are either ungrammatical or coerced into a role interpretation comparable to the interpretation of ACT-*be* predication (Partee 1977):

---

[15] According to Erelt and Metslang 2003, of all Finno-Ugric languages only Estonian and Livonian allow translative case in primary predication, and then only with nominal predicates. Judging from the translation, the use of translative case in Livonian also entails transience:

(i) *Sigadpaint vol, biskapo-ks.*
swineherd.NOM was bishop-TRS
'The swineherd acted as a bishop.'

(29) a. *? NN on meie isa-ks.*
NN.NOM be.PRES.3SG our father-TRS
'NN plays the role of our father.'
b. *? NN on hispaanlase-ks/ mulati-ks.*
NN.NOM be.PRES.3SG Spaniard-TRS/ mulatto-TRS
'NN plays the role of a Spaniard/mulatto she. '

Given that in Estonian, too, the translative case marker surfaces not only on the head noun, but also on the modifying adjectives (cf. (25a) and (30a)), the translative case suffix itself cannot be argued to provide the interpretation of transience. The fact that the copular translative is restricted to NPs suggests that the source of the translative case-marking on it is a preposition, as opposed to Asp° in Finnish. Evidence in favor of this hypothesis comes from the interpretable use of translative to express purpose (Matsumura 1996):

(30) a. *Kerge-ks meeleolu-ks ol-i ta-l õigupoolest vähe põhjus-t.*
easy-TRS mood-TRS be-PAST.3SG 3SG-ADE in fact little cause-PART
'There was little reason for him to feel easy.' (Matsumura 1996)
b. *Eestimaa on koige-ks valmis, ...*
Estonia.NOM be.PRES.3SG all-TRS ready.NOM
'Estonia is ready for anything.' (Matsumura 1996)

Assuming that the copular translative case is an instance of the translative of purpose yields both the connotation of transience and the restriction of the copular translative case on animate NP predicates to those denoting professions.[16]

To summarize, the presence of voice°, the [BECOME] feature (for both ECM and raising *v*) or the transient interpretation of the primary predicate (for *be*) all entail translative case-marking. While the latter two cases exhibit a certain semantic affinity, their unification with the effect of voice° seems problematic, suggesting that the Estonian translative is the default predicate case in a complex environment.[17]

3.3 Essive and the structure of depictives

Essive marking in Estonian appears on depictive predicates, including comparative adjuncts, and with perception verbs discussed in section 0, where it alternates with nominative (in the sources cited for examples (32) essive rather than nominative is used, but for the first two of them, native speakers actually prefer nominative):

(31) a. *Poisi-na mängi-s-in jalgpalli.*
boy-ESS play-PAST-1SG football.PART
'As a boy I played soccer.' (Schultze-Berndt and Himmelmann 2004)

[16] The natural question arises whether examples like (24c) involve the translative of purpose (Matsumura 1996). Some (weak) evidence against this comes from the fact that Hungarian NP predicates indicating purpose are marked with dative rather than translative, but purpose NPs are marked with sublative (see section 0).

[17] For the sake of completeness, it should also be noted that in Estonian, as in Finnish, translative also marks NP adverbials of duration (e.g., *nädalavahetuse-ks* 'for the weekend') or temporal limit (e.g., *lõuna-ks* 'by noon') (Matsumura 1996).

b. *NN tööta-b meie saadiku-na London-is.*
NN.NOM work-PRES-3SG our ambassador-ESS London-INESS
'NN works as our ambassador in London.' (Lehiste 1969)

c. *Ta läk-s koju rõõmsa-na.*
3SG.NOM go-PAST.3SG house.ILL happy-ESS
'S/he went home happy.' (Schultze-Berndt and Himmelmann 2004)

(32) a. *Asi näi-s mulle imeliku-na/imelik.*
affair.NOM seem-PAST.3SG me-ALL strange-ESS/NOM
'The affair seemed strange to me.' (Õispuu 1999:112)

b. *Talle tundu-s palk liiga väikse-na/väike.*
3SG.ALL feel-PAST.3SG salary.NOM too small-ESS/nom
'The salary seemed too small to him.' (Õispuu 1999:112)

c. *selle, mis meid lase-b halvema-na/halvem paist-a*
DEM.GEN REL.NOM 1PL.PART let-PRES-3SG worse-ESS/NOM appear-INF
'that which makes us look worse' (Matsumura 1996)

In this section I will argue that the essive in (32) has the same source as the essive in (31). Not only does it correspond to a functional head, but moreover, it is interpretable.

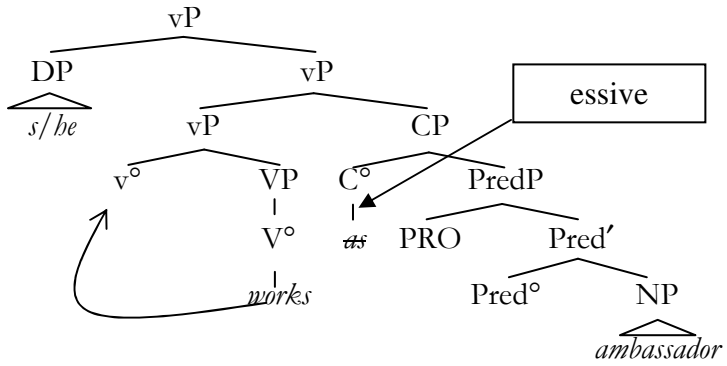
3.3.1 *Essive marking as a functional element*

The first question to arise is whether the Estonian essive is a case. While the Finnish essive is realized not only on the noun, but also on the modifying adjectives, such is not the case with the Estonian essive. Like with terminative, abessive and comitative, the essive suffix appears only on the noun and does not spread to the modifying adjectives in a complex NP. Crucially, and in this Estonian differs from Hungarian, most Estonian cases undergo concord:

(33) a. suure poisi**-ni** 'up to a big boy' (terminative)
b. suure poisi**-na** 'as a big boy' (essive)
c. suure poisi**-ga** 'with a big boy' (comitative)
d. suure poisi**-ta** 'without a big boy' (abessive)
e. suure**-lt** poisi**-lt** 'from the big boy' (ablative)
f. suure**-ks** poisi**-ks** '[to turn into] a big boy' (translative) (Õispuu 1999:59)

If essive is itself a functional head (rather than the realization of this head's features), then a single functional head should appear in all environments where the essive marker does. I hypothesize that essive morphologically realizes a non-finite, non-verbal C° that functions as a phrasal affix on the predicate. Independent evidence for the presence of an additional functional head in depictives comes from Jackendoff (1990:97-98), who notes that the relation between the depictive and the main predicate is '(a) closer than mere conjunction but (b) something less than full causation'. An adjunction of a small clause with a PRO subject to vP or VP will not achieve this result, and thus some further "glue" is necessary. A connection to complementizer-like elements comes from similar lexical items in other languages (e.g., *as*), supporting the link between essive and a non-finite C° (conventionally linearized to the left below):

(34)



The semantic contribution of the depictive C° can be constructed on the basis of various proposals for the semantics of depictives (e.g., Rapoport 1993, McNally 1993, Filip 2001), as well as from a number of cases where a depictive adjunct is obligatory:

(35) a. *Asi* *näita-s* *end* **imelik/*imeliku-ks/imeliku-na.*
thing.NOM show-PAST.3SG self.PART strange.NOM/-TRS/-ESS
'The affair made itself appear weird.'

b. *Ta* *kujutle-s* *end* *printsessi-na.*
3SG.NOM imagine-PAST.3SG self.PART princess-ESS
'She imagined herself as a princess.' (Õispuu 1999:112)

As the internal argument position is occupied by the reflexive, the depictive cannot be argued to form part of the complement of the main verb.

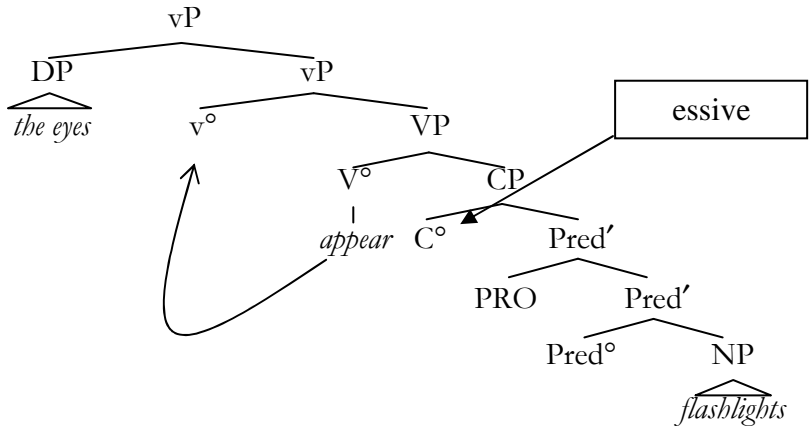
3.3.2 *Essive with perception verbs*

Further evidence for linking essive with a non-finite C° comes from the distribution of essive with perception verbs, where only AP predicates can appear in the nominative. In this respect Estonian resembles American English, which (like a number of other languages) does not allow nominal small clauses with raising verbs:

(36) *Silma-d* *paist-si-d* *pimeda-s* *tulukes-te-na/*tulukese-d.*
eye-PL.NOM appear-PAST-3PL dark-INE flashlight-PL-ESS/-PL.NOM
'In the dark the eyes looked like flashlights.'

Under the assumption that nominative-marked predicates appear in the complement of the raising verb, the question arises what structure essive is associated with. Following the proposals made by Iatridou (1990) and Rothstein (2000) for sensory perception verbs in English, I suggest that essive case-marking signals the fact that the perception verb assigning it does not function as a raising verb and that its surface subject is also its thematic subject:

(37)



The fact that weather predicates embedded under raising perception verbs can only appear in the nominative further supports the hypothesis that essive-marked predicates are adjuncts. If perception verbs assign an external thematic role when they appear with essive, an expletive subject will naturally be impossible:

(38) a. *Jahe* *on.*
cold.NOM be.PRES.3SG
'It is cold.'
b. *Näi-b* *jahe(*-na).*
seem-PAST-3SG cold.NOM/-ESS
'It seems cold.'

While raising verbs naturally denote states, this is not necessarily true of their control counterparts. The assumption that the addition of an external argument converts the verb into an activity explains both the enhanced transience that native speakers associate with the essive case under the perception verbs and the intuition that with essive marking the source of the impression is the subject, while with nominative it is the observer.

3.3.3 *Essive with the copula*

While with perception verbs essive-marked predicates form part of the internal argument of a control verb, in primary predication an essive-marked predicate still functions as a depictive. The essive-marked predicates with *be* in (39b) and (40b), unlike the minimally different (39a) and (40a), do not function as primary predicates (cf. Erelt and Metslang 2003):

(39) a. *NN* *on* *meie* *saadik-Ø/-uks* *London-is.*
NN.NOM be.PRES.3SG our ambassador-NOM/-TRS London-INESS
'NN is our ambassador in London.' (Lehiste 1972:216)
b. *NN* *on* *meie* *saadiku-na* *London-is.*
NN.NOM be.PRES.3SG our ambassador-ESS London-INESS
'NN is our ambassador in London.' (Lehiste 1972:216)

(40) a. *Ta* *ol-i* *noor.*
3SG.NOM be-PAST.3SG young.NOM
'S/he was young.' (Stassen 2001)

b. *Ta ol-i seal noore-na.*
3SG.NOM be-PAST.3SG there young-ESS
'S/he was there (when) young.' (Stassen 2001)

Evidence for treating essive-marked predicates as depictives comes from the fact that they are sharply ungrammatical with the copula *be*, unless a true primary predicate, which can be a PP or another AP or NP in nominative or translative, is present:

(41) a. *NN ol-i meie saadiku-na päris*
NN.NOM be-PAST.3SG our ambassador-ESS quite
hea tegija.
good.NOM activist.NOM
'NN was quite active (while/as) our ambassador.'
b. **NN ol-i üliõpilase-na iluduse-na.*
NN.NOM be-PAST.3SG student-ESS beauty-ESS
c. *NN ol-i üliõpilase-na kultuurisaadiku-ks.*
NN.NOM be-PAST.3SG student-ESS cultural.ambassador-TRS
'NN was a cultural ambassador as a student.'
d. **NN on meie saadiku-na.*
NN.NOM be-PRES.3SG our ambassador-ESS

I conclude therefore that the appearance of the essive with the copula in Estonian must be analyzed along the same lines as the Russian instrumental of temporary function (Nichols 1981, Bailyn and Citko 1999, Geist 1999, etc., briefly discussed in section 0).

3.4 Summary

While Finnish has been shown to treat essive as the default predicate case in the domain of Asp°, in Estonian essive appears in the context of a non-finite C°, i.e., primarily in depictives. Conversely, translative case, which in Finnish is correlated with the presence of a change-of-state component, has a wider distribution in Estonian. Structurally, the Estonian translative co-occurs with *voice* and a change-of-state *v* and with the copula it induces the connotation of transience. This pattern, summarized in Table 1, is clearly consistent with the hypothesis that the surface case-marking on the small-clause predicate reflects the complexity of its environment.

Table 1: *Estonian predicate cases*

environment	**c-commanding heads**	**predicate case**
be	v	nominative
intensional raising verbs	v, V	nominative
transient *be*	v, P	translative (NP professions)
intensional ECM verbs	v, voice, V	translative
change-of-state	$v_{[BECOME]}$, V	translative
depictive	C	essive
control perception verbs	C	essive

The corresponding Vocabulary Insertion rules can be stated as follows:

(42) In the context of [Pred]:
essive: [$C_{[}$-finite$_{]}$]
translative: *v*+ (i.e., *v* with additional features)
nominative: elsewhere

The hypothesis that the spell-out of an underlying morphosyntactic case reflects only a subset of the relevant underlying morphosyntactic features straightforwardly accounts for the partially overlapping distribution of the Finnish translative and the Estonian translative.

However, the hypothesis that the presence of a non-finite C° results in essive case-marking on the predicate incorrectly predicts that control environments should also give rise to essive, even if the embedded verb usually co-occurs with nominative or translative:

(43) *Ma* *käsk-i-sin* *Peetril* *saa-da*
1SG order-PAST-1SG Peter.ADE become-INF
**suursaadik/*suursaadiku-na/suursaadiku-ks.*
ambassador.NOM/-ESS/-TRS
'I ordered Peter to become an ambassador.'

To avoid this outcome I assume that T° functions as a barrier to case assignment (cf. fn. 12 discussing the same assumption for Finnish). As a result, case in control infinitives is not assigned from outside, with the possible exception of case-assignment of the subject.

In the next section I will examine case-marking on non-verbal predicates in Hungarian, which involves a much larger number of cases. Hungarian will provide further evidence for underspecification by showing that [BECOME] and [Asp] are not the only features assigned to non-verbal predicates embedded in change-of-state environments.

4 Hungarian

As can be seen from Table 2, which provides a partial summary of predicate case-marking in Hungarian, with raising verbs lacking lexical content NP and AP predicates surface in the nominative. The appearance of a lexical root leads to the more marked dative case (whose full distributional pattern will be discussed in section 0). With the addition of the [BECOME] component (in change-of-state lexical verbs) the predicate becomes translative. Finally, the resultative construction leads to an even further increase in markedness yielding the sublative case. Case-marking in Hungarian depictives will be discussed in section 0.

Table 2: *Hungarian predicate cases*

environment	c-commanding heads	predicate case
van 'be'	*v*	nominative
marad 'remain' *lesz* 'become'	BECOME	nominative
intensional verbs	V (contentful verb), *v*	dative
tesz 'make' *válik* 'turn into'	V, BECOME, *voice*	translative
resultative	V, BECOME, RES, (*voice*)	sublative

In what follows I will provide a more detailed description of non-verbal predicate case-marking patterns in Hungarian.[18] I will demonstrate that the underspecification inherent in the

Vocabulary Insertion rules in (19) and (42) allows us to explain not only language-internal patterns of predicate case-marking, but also to account for cross-linguistic variation. I will also discuss apparent counterexamples to the hypothesis that a more complex environment yields a more marked case and argue that they can be accounted for by independent factors.

4.1 Nominative

Under the assumption that in Hungarian, just like in Finnish and Estonian, the copula *be* is a purely functional element and therefore results in a minimally complex environment for a small clause, it is unsurprising that in primary predication the non-verbal predicate is marked nominative:

(44) a. *János* *orvos.*
Janos.NOM doctor.NOM
'John is a doctor.'

b. *Én* *tanár* *vagy-ok.*
1SG.NOM teacher.NOM be.PRES-1SG.
'I am a teacher.'

(45) a. *János* *orvos* *vol-t.*
Janos.NOM doctor.NOM be-PAST.3SG
'John was a doctor.'

b. *A* *fiú-k* *aranyos-ak* *vol-t-ak.*
the boy-PL.NOM nice-PL.NOM be-PAST-3PL
'The boys were nice.'

[18] Trommer (2008) and Spencer (2009) argue that there are no morpho-phonological reasons to distinguish between cases and postpositions in Hungarian. Their conclusion, however, is less problematic for my analysis than it seems at first glance. Indeed, my primary assumption is that case morphology spells out uninterpretable counterparts of interpretable features located elsewhere, but absolutely not that such uninterpretable counterparts must be realized as morphological case. I take adpositions that are not interpretable themselves but reflect the presence of interpretable features elsewhere (which is the core of a case analysis of some instances of the French *de* or the English *of*) as the prepositional (non-affixal) counterparts of uninterpretable case. A proper discussion of interpretable vs. uninterpretable case and adpositions would take us too far afield here.

We will now show that, although in Hungarian as well, nominative predicates appear in the least complex environment, this least marked environment is defined differently from either in Finnish or in Estonian. As the following examples show, the semi-lexical verbs *lesz* 'become' (but not the verb *válik* 'become' to be discussed in section 0) and *marad* 'remain' also combine with a nominative predicate in Hungarian:

(46) a. *A lány-ok nem vol-t-ak / marad-t-ak sokáig boldog-ok.*
the girl-PL.NOM not be-PAST-1PL / stay-PAST-3SG for.long happy-PL.NOM
'The girls were not / did not remain happy for long.'

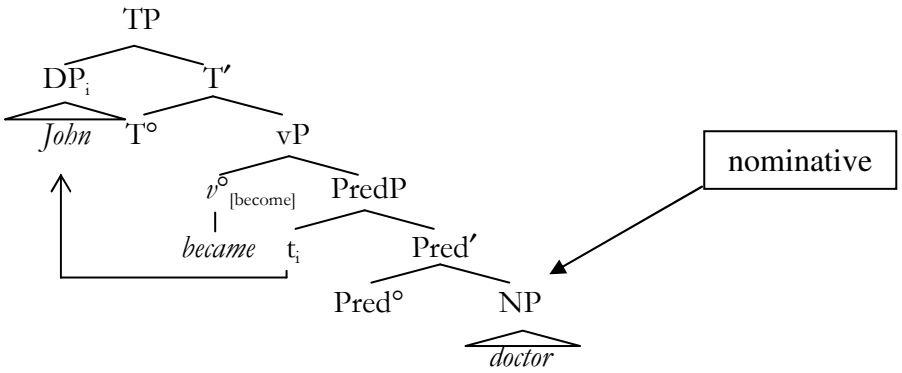
b. *János orvos le-tt.*
Janos.NOM doctor.NOM be/become-PAST.3SG.
'John was/became a doctor.'

As discussed in section 0, change-of-state verbs in Finnish project the structure in (10), which is more complex than that for the copula *be* in (7). Is Hungarian different? And if it is, why does the verb *válik* 'become' assign translative?

From the semantic standpoint the unification of the two semi-copulas with the copula *be* is altogether natural, since they differ from *be* only in their presuppositions: all three verbs assert that the state *p* (the denotation of the small clause) obtains at the time *t*, but *become* also presupposes that the state ¬*p* obtained before *t* (i.e., that a change of state has occurred), while *remain* presupposes that the state *p* obtained before *t* as well (no change has occurred). From the syntactic point of view, likewise, the verbs *marad* 'remain' and *lesz* 'become' have both been argued to have an auxiliary use (cf. Kenesei 2001) and are therefore likely to be functional. Conversely, the Finnish verb *tulla* 'become' and its Estonian counterpart *saama* 'to get, become' do not function as auxiliaries.

To unify the semi-copular verbs *marad* 'remain' and *lesz* 'become' with the copula *be* I propose that the verbs *marad* 'remain' and *lesz* 'become' do not involve a lexical root, as shown in (47), but merely the functional *v* head, which, since the semi-copulas *become* and *remain* are dynamic, must be endowed with the [BECOME] feature:

(47)



While in Estonian and in Finnish the presence of the [BECOME] feature resulted in the marked translative case, such is not the case in Hungarian. Assuming two different structures, with a lexical verb for Finnish and Estonian and without a lexical verb for Hungarian, is not therefore enough to account for nominative case-marking with the verbs *marad* 'remain' and *lesz* 'become'. Some modifications should therefore be made in Vocabulary Insertion rules governing translative case-marking. To do so, it is first

necessary to investigate predicate case-marking with stative (intensional) and dynamic (change-of-state) verbs, which I will do in subsections 0 and 0, respectively.

4.2 Dative

The structure hypothesized for *seem* in (22) is fully compatible with the fact that in the small-clause complement of an intensional raising verb, such as *látszik* 'look, seem' and *tűnik* 'appear', the predicate bears dative, which is more marked than nominative and less marked than translative or sublative:

(48) a. *Mari* *orvos-nak* *látszik.*
Mary.NOM doctor.DAT seem.PRES.3SG
'Mary seems a doctor.'

b. *A* *diák-ok* *elégedett-nek* *tűn-nek.*
the student-PL.NOM satisfied-DAT appear-PRES.3PL
'The students appear satisfied.' (Kenesei, Vágó and Fenyvesi 1998:202)

Indeed, on the one hand, the structure in (22) contains a lexical verb (V), unlike the primary predication structure in (7) or the functional change-of-state structure in (47), which means that more features are assigned to the small clause predicate resulting in the dative case, which is clearly both semantically and morphologically more marked than nominative. I therefore hypothesize that the dative case on the predicate corresponds to the [V] feature.[19] Unlike in Estonian, in Hungarian intransitive and transitive verbs assign the same predicate case, irrespective of the presence of voice°: ECM intensional verbs, such as *(el)fogad* 'accept', *gondol* 'think', *(el)képzel* 'imagine', *tart* 'consider', *talál* 'find' and *hisz* 'believe', also appear with dative:

(49) a. *Péter* *zseni-nak / okos-nak* *tartja* *Mari-t.*
Peter.NOM genius-DAT/smart-DAT consider.PRES.3SG Mari-ACC
'Peter considers Mary a genius/smart.'

b. *A* *katoná-t* *mindenki* *halott-nak* *hi-tte.*
the soldier-ACC everyone.NOM dead-DAT believe-PAST.3SG
'Everyone believed the soldier to be dead.' (Kenesei et al. 1998:203)

The natural question arises here how the difference between Estonian and Hungarian is to be handled. One possible assumption is that voice° (while uniformly assigning accusative case to the direct object) fails to assign any features to the predicate in Hungarian, though not in Estonian. In other words, the difference between the two languages can be attributed to a lexical property of voice°. The price to pay for such an assumption is the renunciation of the mechanism of case-assignment advocated above: if a head assigns its features to its sister,[20] accusative case-marking signals that voice° has done so.

[19] In section 0 I. will discuss a number of other environments where dative case appears on predicates and which cannot be characterized by such a simple description.

[20] Note that the ability of voice° to differentially affect case-marking on the internal argument and on the nonverbal predicate cannot be explained in more standard approaches to case.

Conversely, it can also be suggested that case-assignment in both languages proceeds along the same lines, but Vocabulary Insertion rules differ: while in Estonian, there exists a Vocabulary Insertion rule that references [voice] for predicate case-marking (even if under the guise of "additional features on *v*"), no rule does so in Hungarian. I find the latter solution preferable, both on theoretical and empirical grounds, since underspecification in Vocabulary Insertion has to be assumed on independent grounds.

Predicate case-marking with intensional verbs is therefore compatible with our theory and needs no special assumptions. In the next subsection I turn to environments that involve simultaneously a lexical verb and a change-of-state meaning. I will argue that the Hungarian translative reflects the presence of a lexical root and the [BECOME] feature at once, which correctly predicts that the distribution of translative case in Hungarian is more constrained than in Finnish or in Estonian. I will then suggest that resultatives involve another functional projection, which further increases the markedness of the assigned case, yielding sublative.

4.3 Change of state with lexical verbs

In addition to the semi-copular verb *lesz* 'become', which appears with nominative case on the predicate, there exist two verbs in Hungarian with the same or a very similar meaning that nonetheless appear with translative case. The fact that one is morphologically derived from the other is probably irrelevant:

(50) a. *A béka királyfi-vá vál-t.*
the frog.NOM prince-TRS become-PAST.3SG
'The frog turned into a prince.' (Kenesei et al. 1998:201)

b. *A királyfi béká-vá változ-ott.*
the prince.NOM frog-TRS change-PAST.3SG
'The prince changed into a frog.' (Creissels 2008)

c. *A díszvacsorán 'sok vendég$_j$ vál-t [nevetséges-sé t$_j$].*
the banquet.SPR many guest.NOM become-PAST.3SG ridiculous-TRS
'Many guests became ridiculous at the banquet.' (Dalmi 2005:162)

Adopting the analysis proposed for the Finnish verb *tulla* 'become' in (10), I suggest that, unlike the purely functional verb *lesz* 'become', the two verbs above contain a lexical root in addition to the change-of-state [BECOME] feature on *v*°. The verbs *become* and *change/turn into* in Hungarian can thus be compared to the verbs *have* and *own* in English.[21]

[21] Obviously, a number of alternative theories can be envisaged. The simplest is that the translative case is assigned by a preposition (as in the translations in (50a, b)), but the adjectival predicate in (50c) would then be a mystery, since prepositions do not usually take AP complements. Equally unclear would be the semantic contribution of the preposition in question, given that the change-of-state semantics is provided by the verb. The latter issue also arises with the hypothesis that the translative case itself is interpretable (see Piñón 2011 for a discussion of the issue). Finally, another option is that lexical change-of-state verbs c-select a Pred° with a different featural specification or with a more developed small-clause structure, containing higher projections above PredP. Once again a specification of the semantics of this additional structure is required, as well as an answer to the question why intensional verbs or (semi-) copulas cannot combine with such special small clauses. My conclusion, that the Hungarian translative case is assigned by the combination [BECOME][V], is

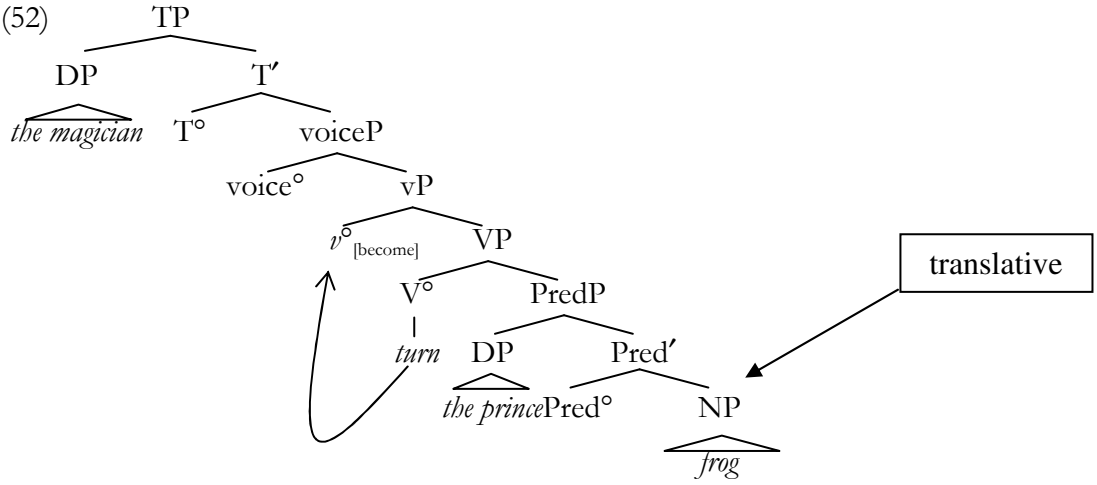
As a result, we can now formalize the following Vocabulary Insertion rules, where the more complex syntactic structure results in a more complex feature bundle on the nonverbal predicate, which in turn yields a more marked predicate case:

(51) In the context of [Pred]:
translative: [V, BECOME]
dative: [V]
nominative: elsewhere

In other words, I suggest that translative case assignment with lexical change-of-state verbs results from the lexical verb and a change-of-state component simultaneously. While with intensional verbs the presence of the lexical verb yields dative case-marking (instead of the nominative appearing with the copula *be*) and, unlike in Estonian or Finnish, the presence of [BECOME] itself has no effect, the combination of the change-of-state component with a lexical root yields an outcome more complex than that of either of its component parts. Thus the translative case provides evidence for the cumulative nature of case in general.

The underspecified formulations above entail that the presence of voiceP in the ECM change-of-state structure (52) does not yield a more complex case-marking on the predicate, correctly predicting that the transitive verbs *változtat* 'change into' and *tesz* 'make' appear with the same translative case as their intransitive counterparts:

(52)



(53) a. *Engem király-lyá/boldog-gá te-tt-ek.*
1SG.ACC king-TRS/happy-TRS make-PAST-3PL
'I was made king/happy.' (Kenesei et al. 1998:202)

b. *János híres-sé te-tte Mari-t.*
John.NOM famous-TRS make-PAST.3SG Mary-ACC
'John made Mary famous.'

c. *Jézus bor-rá változ-tat-ta a viz-et.*
Jesus.NOM wine-TRS change-CAUS-PAST.3SG the water-ACC
'Jesus changed the water into wine.' (Creissels 2008)

---

supported by the fact that its only use in Hungarian is in change-of-state environments (Rounds 2001).

The hypothesis that translative case-marking on the small-clause predicate corresponds to the presence of [BECOME] and a lexical root finds support in the fact that nomination verbs also appear with translative on the small clause predicate (though see section 0):

(54) *István-t* *tegnap* *pap-pá* *szentel-t-ék.*
Stephen-ACC yesterday priest-TRS ordain-PAST-3PL
'Stephen was ordained priest yesterday.' (Kenesei et al. 1998:202)

Such verbs make it possible for us to shed some light on the syntactic structure where resultatives are projected. As the following examples show, resultative AP predicates appear in the sublative case, which, being more specific in its semantics (as a locative case), can be considered more marked than translative:[22]

(55) a. *János* *apró-ra* *vág-ta* *a* *gombá-t.*
John.NOM small-SBL cut-PAST.3SG the mushroom-ACC
'John cut the mushroom into small pieces.'
b. *János* *piros-ra* *fest-ette* *az* *ajtó-t.*
John.NOM red-SBL paint-PAST.3SG the wall-ACC
'John painted the wall red.'

(56) a. *János* *betegre* *tanul-ta* *magá-t.*
John.NOM sick.SBL learn-PAST.3SG himself-ACC
'John studied himself sick.' (Kiss 2002:74)
b. *A* *munkás* *lapos-ra* *kalapácsol-ta* *a* *féme-t.*
the worker.NOM flat-SBL hammer-PAST.3SG the metal-ACC
'The worker hammered the metal flat.' (Snyder 2001)

Hoekstra 1988 argues that resultatives, both transitive and intransitive, are small-clause complements of a lexical verb. If this assumption is correct, resultative small

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[22] While resultatives are generally assumed not to allow NP predicates, the following example seems to provide a counterexample to this claim:

(i) *Mari* *tíz* *szelet-re* *vág-ta* *a* *tortá-t.*
Mary.NOM ten slice-SBL cut-PAST.3SG the cake-ACC
'Mary cut the cake into ten pieces.' (Bene 2009)

Three reasons allow us to maintain that the predicate here is actually a PP. First of all, from the semantic point of view the resultant state in (i) cannot be described as "the cake is ten pieces" but rather resembles so-called *pseudo-resultatives*, marked illative in Finnish (Levinson 2010): it is the result of the cutting rather than its affected theme that constitutes ten pieces. Secondly, the choice of the main verb and/or the noun affects case-marking, which is not the case for true resultatives:

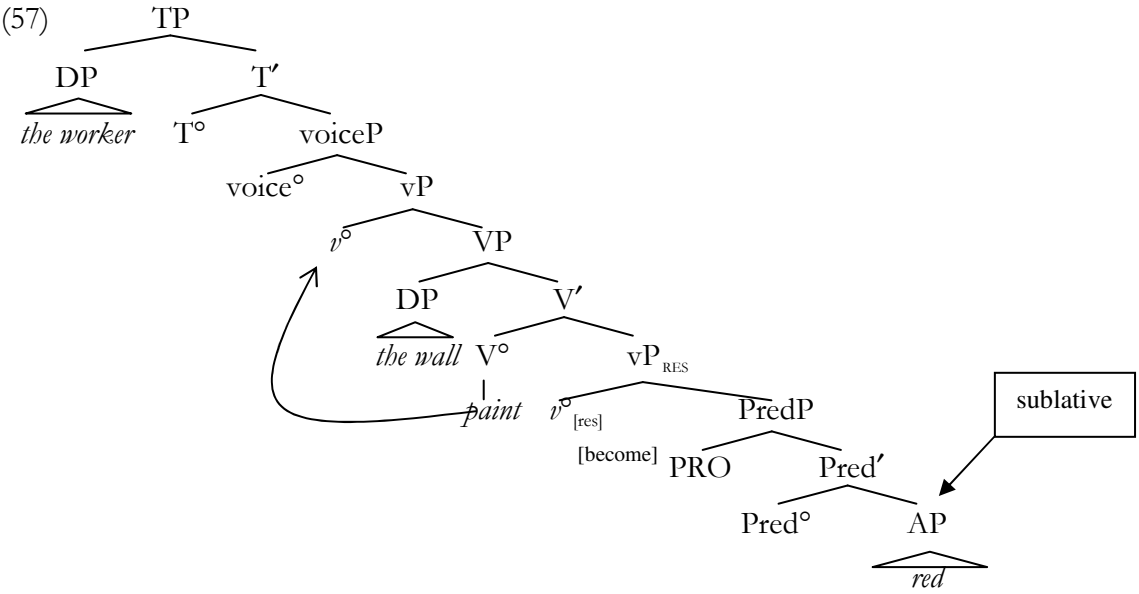
(ii) *János* *kemény* *tésztá-vá* *gyúr-ta* *az* *alkotóanyag-ok-at.*
John.NOM stiff dough-TRS knead-PAST.3SG the ingredient-PL-ACC
'John kneaded the ingredients into stiff dough.'

As example (i) also shows that the NP in question need not be a semantic predicate, I conclude that the predicate in these examples is a PP, leaving open the question whether the sublative and translative affixes (not appearing on the modifying APs) reflect the presence of a null preposition, or are themselves interpretable. Crucially, such examples also argue against the hypothesis that the sublative case-marking in true resultatives is interpretable, as the interpretational difference between PP sublatives and NP sublatives is clear.

clauses should appear in the structure (52), as do small-clause complements of change-of-state verbs. This, however, incorrectly predicts translative rather than sublative case-marking on the resultative AP predicate, since it seems unlikely that *paint* is somehow more complex than *ordain*.

An alternative is that resultative small clauses project in an additional vP introducing the resultant state (Winkler 1997, Ramchand 2008) and therefore specified for the [BECOME] feature. An additional advantage of this hypothesis is its consistency with the standard assumptions about verb meanings, as in this structure it is *the wall* rather than a proposition that is being painted:

(57)



Further evidence for the structure in (57) comes from the fact that it provides potential solutions for both the cross-linguistic variability in the availability of resultatives (which can now be attributed to the presence in the lexicon of the language of v_{RES}). I conclude that we can reasonably add to the Vocabulary Insertion rules in (51) the specification [V, BECOME, RES] for sublative. Being the most specific lexical entry, the new rule takes precedence over the rules above by the Elsewhere Condition:

(58) In the context of [Pred]:
sublative: [V, BECOME, RES]
translative: [V, BECOME]
dative: [V]
nominative: elsewhere

However, my description of nonverbal predicate case-marking in Hungarian would be incomplete without a full discussion of the wide range of environments where dative-marked predicates appear. In the next section I provided description of the factors conspiring to turn dative into the default predicate case in Hungarian.

4.4 Dative as the default predicate case

Besides marking small-clause predicates in the complement of intensional verbs, dative case also surfaces on predicates in five more environments, where the rules discussed so far would predict a different case-marking. I will hypothesize that the more complex case-marking does not surface there because some head functions as a barrier to case assignment.

4.4.1 *Naming verbs*

In Matushansky (2008b) I argued that cross-linguistically naming verbs can systematically take small-clause complements. Hungarian naming verbs, such as *hív* 'call', *(el)nevez* 'name' or *(meg)keresztel* 'baptize', can also be shown to be ECM: had they been ditransitive, which is the only other option assumed for naming verbs, the dative case-marking on the proper name would have been inexplicable. If, on the other hand, naming verbs take small clauses, their case-marking behavior patterns with intensional ECM verbs:

(59) a. *Mi-nek nevez-z-em a kutyá-m-at?*
what-DAT name-IMP-1SG the dog-POSS.1sg-ACC
'What shall I name my dog?' (Kenesei et al. 1998:203)

b. *A fi-unk-at Miklós-nak keresztel-jük.*
the son-POSS.1PL-ACC Nicholas-DAT baptize-PRES.1PL
'We'll baptize our son Nicholas.' (Kenesei et al. 1998:203)

However, as naming verbs involve a causative component, i.e., a voice° and a change-of-state component ([BECOME]], they should project in the structure in (52), which leads us to expect translative case-marking on the proper name rather than the attested dative. The fact that the verbs in question form a coherent lexical-semantic class allows us to attribute their uniform case-assigning behavior to the shared feature [naming].[23]

One possibility would be to suggest that the dative case assigned by naming verbs realizes the feature [naming]. The problem with this hypothesis is that it becomes a pure accident that this feature is realized as dative. This is why I propose instead that the feature [naming] functions as a barrier to case assignment by higher functional heads, as suggested earlier for T° in Finnish and Estonian. Independent evidence for the need to selectively assign to some functional heads the property of blocking case assignment by higher heads comes this from the cross-linguistic variability in e.g., case assignment across CPs (cf. example (2)). As a result, the proper name predicate in the small-clause complement of a naming verb ends up receiving only [V] and [naming] features, which is spelled out as dative according to the rules in (58).

4.4.2 *Goal vs. result*

Dative case-marking on the Hungarian non-verbal predicate also appears in the resultative-like purpose construction, which has no counterpart in English:

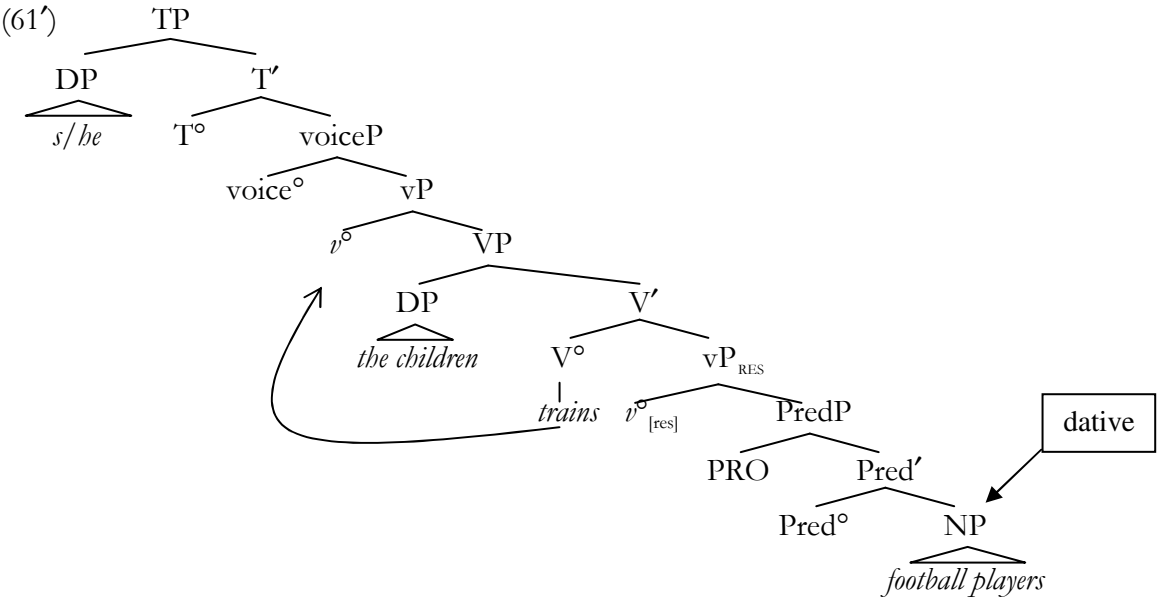
[23] In the semantics that I proposed in Matushansky (2008b) the naming root existentially quantifies over naming relations that link the external argument to the phonological form of the name, which means that naming verbs do indeed have a shared semantic component that can function as a syntactically active feature.

(60) a. *Futballistá-nak neveli a gyerek-ek-et.*
football.player.SG-DAT train.PRES.3SG the child-PL-ACC
'S/he trains the children to become football players.'
b. *Az any-ja tanár-nak tanít-at-ja Péter-t.*
the mother.POSS.3SG-NOM teacher-DAT learn-CAUS-PRES.3SG Peter-ACC
'His mother makes Peter learn to become a teacher.'
c. *Péter politikus-nak készül.*
Peter.NOM politician-DAT prepare.PRES.3SG
'Peter is preparing (planning) to become a politician.' (Ürögdi 2006)

The fact that the nominal predicate specifies the intended result of the activity denoted by the main verb leads us to expect either sublative, as in true resultatives (57), or translative (which is, in fact, assigned in this construction in Estonian, cf. (24c)).

I propose that the construction in (60) does not involve a change-of-state component. Instead, what is crucial here is that the goal is specified but not necessarily reached: having trained, studied or prepared for a profession does not entail that at the culmination of this process the desired result is achieved. With true resultatives and change-of-state verbs, on the other hand, the culmination of the main event entails the attainment of the result state and therefore, a change of state. Structurally, this means that the small clauses in (60) appear in the resultative structure in (57) with no [BECOME] component:

(61′)



Since the [BECOME] component is absent, the rules in (58) will correctly spell the case-feature bundle on the predicate as dative.

The same reasoning explains dative case-marking in examples (62). Although de Groot (2008) regards them as depictives, true depictives, discussed in section 0, are marked with the superessive case in Hungarian:[24]

[24] While the Estonian counterpart of (62b), (24b), is marked translative, the counterpart of (62a) is in fact marked essive (Martin Aher, p.c.):

(62) a. *Az-t a pulóver-t párná-nak használtam.*
that-ACC the sweater-ACC pillow-DAT use.PAST.1SG
'I used that sweater as a pillow.' (de Groot 2008)
b. *Don Giovanni szolgá-nak álcázta magá-t.*
Don Giovanni.NOM servant-DAT disguise.PAST.3SG himself-ACC
'Don Giovanni disguised himself as a servant.'

As neither of these examples entails a change of state, with the NP predicate specifying the goal rather than the resultant state, the same analysis can be assumed.

Less evident is the lack of the change-of-state component in the fourth environment where dative case is assigned to a non-verbal predicate. As discussed in section 0, lexical change-of-state verbs generally appear with translative:

(63) *István-t tegnap pap-pá szentel-t-ék.*
Stephen-ACC yesterday priest-TRS ordain-PAST-3PL
'Stephen was ordained priest yesterday.' (Kenesei et al. 1998:202)

However, though translative case is the only option for an imperfective change-of-state verb, perfective prefixes, such as *ki-*, *meg-*, and *fel-*, enable dative case-marking on the predicate for several verbs,[25] including *(ki)kiált* 'proclaim', *(ki)nevez* 'appoint', *(fel)szentel* 'ordain', *(meg)koronáz* 'crown', *(meg)választ* 'elect', but also *(meg)tesz* 'make'. The verb *(meg)szavaz* 'vote' seems to always require dative.

(64) a. *Csabá-t tegnap fel-szentel-t-ék pap-nak/pap-pá.*
Csaba-ACC yesterday CVB-ordain-PAST-3PL priest-DAT/-TRS
'Csaba was ordained priest yesterday.' (Kenesei et al. 1998:202)

(i) *Ma kasut-an kampsuni-t padja-na.*
1SG use-PRES.1SG sweater-PART pillow-ESS
'I use a sweater as a pillow.'

A more detailed investigation of the verbs appearing in this construction in the two languages is required in order to determine the nature of this divergent behavior.

[25] For some speakers, the presence of a prefix makes translative marking impossible (Gabi Tóth, p.c.):

(i) *Az emberek meg-választ-ott-ák %elnök-ké/ ✓elnök-nek Pétert.*
the people.NOM.PL CVB-elect-PAST-3PL president-TRS/-DAT Peter-ACC
'The people elected Peter president.'

Conversely, the following example from Ürögdi (2006) shows dative case-marking in the imperfective form:

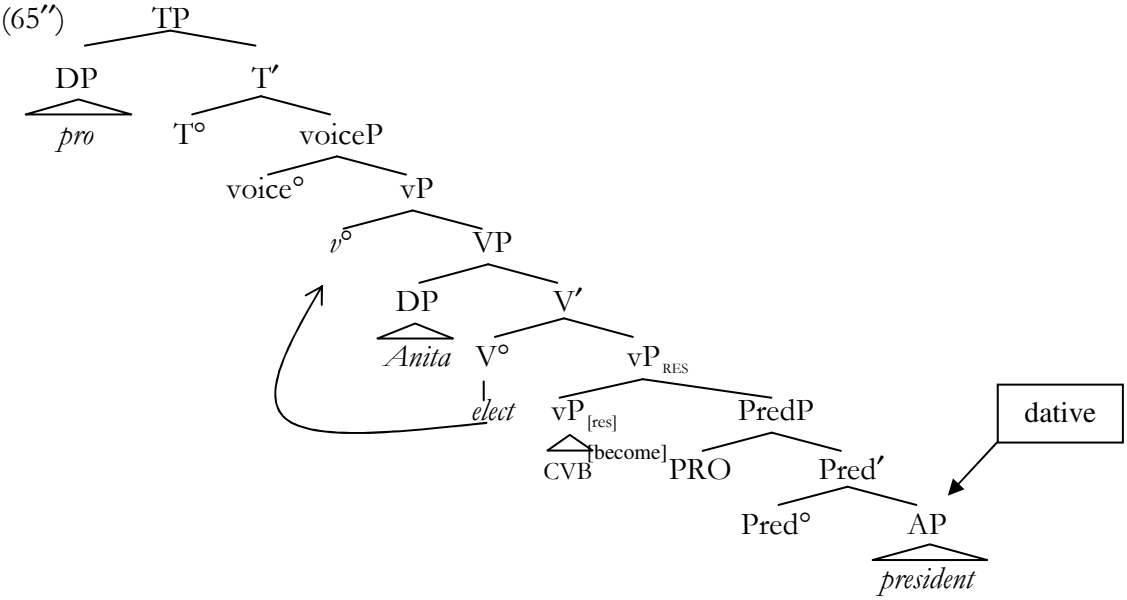
(ii) *Péter-t elnök-nek választ-ott-ák.*
Peter-ACC president-DAT elect-PAST-3PL
'Peter has been elected president.'

If, contrary to the empirical generalization of Kenesei et al. (1998:202), the appearance of dative is not restricted to perfective nomination verbs, the most economical analysis would then unambiguously link translative case-marking to the change-of-state entailment. A more detailed investigation of options available to each individual speaker is required.

b. *Anitá-t* *meg-választ-ott-ák* *elnök-nek / elnök-ké.*
Anita-ACC CVB-elect-PAST-3PL president-DAT/-TRS
'Anita was elected president.' (Kenesei *et al.* 1998:202)

Given that the presence of an aspectual prefix has to add to the complexity of the small-clause environment, the question arises why the outcome is a relatively unmarked case on the predicate. The reason, I suggest, lies in the fact that it is the perfective prefix that specifies the result state (cf. Dékány 2008), either as the head of the resultative vP or as the complement of that head; the resultative small clause is therefore merged as a modifier:

(65″)



As in the configuration above the resultative small clause is not assigned the [BECOME] feature, the rules in (58) will yield dative case-marking on the nominal predicate.

4.4.3 *Topic doubling*

In addition to the four environments discussed above, dative also surfaces in contrastive-topic doubling (Ürögdi 2006), which doesn't seem to share any meaning components with any of the dative environments discussed above:

(66) a. *Büszké-nek* *büszke* *vol-t.*
proud-DAT proud.NOM be-PAST.3SG
'As for being proud, s/he was.' (Ürögdi 2006)
b. *Szigorú tanár-nak* *szigorú* *tanár* *vol-t.*
strict teacher-DAT strict teacher.NOM be-PAST.3SG
'S/he was in fact a strict teacher.' (Ürögdi 2006)

A further complication arises from the fact (Ürögdi 2006) that the dative-marked predicate may also double an argument:

(67) a. *Vers-nek* *vers-et* *ír-t* *(de szabadverse-t).*
poem-DAT poem-ACC write-PAST.3SG (but free.verse-ACC)
'It's true that it was a poem that she wrote but it was free verse.' (Ürögdi 2006)

b. *Szép-nek* *szép* *lány-t* *ve-tt* *el,* *de* *szegény* *nem* *nagyon* *okos.*
beautiful-DAT beautiful girl-ACC take-PAST.3SG CVB, but poor NEG very smart
'As for beauty, he married a beautiful girl, but poor her, she is not very smart.' (Kádár 2011)

As Ürögdi (2006) correctly points out, the simple assertion that dative is the default case for Hungarian predicates does not explain how this state of affairs comes about. To handle the ubiquitous dative case-marking on predicates, Ürögdi (2006) proposes that it indicates that the small clause is not directly dominated by tense, i.e., that dative-marked predicates have the distribution of an infinitive. Ürögdi (2006) further suggests that dative is assigned to non-verbal predicates by a functional head F°, corresponding to v° for fronted VPs. Following Bowers' (1993) original proposal equating the functional projection introducing small clauses (Pred°) with the functional head introducing VPs (v°), I take Ürögdi's proposal to be that the predicate dative in Hungarian is assigned by Pred°; primary predicates are taken to be merged as direct complements to T°. Focusing now on contrastive-topic doubling, Ürögdi suggests that the movement of the PredP takes it out of the domain of tense and therefore the higher copy is spelled out with dative case-marking.

While my proposal is similar to Ürögdi's in that dative case on predicates is linked to a higher head in the absence of certain other heads, the differences are non-negligible. On the one hand, Ürögdi's proposal has to stipulate the absence of Pred° in primary predication and on the other, it does not address other predicate cases in Hungarian. Furthermore, as Ürögdi also notes, her analysis cannot explain examples like (67), as there is no reason to postulate the direct object and AP modifier there appear in their base position as predicates in a small clause.

To account for the dative case-marking in contrastive-topic doubling, I will follow the suggestion rejected by Ürögdi (2006) and assume that the dative case here is linked to the topic position. More specifically, given the existence of a mechanism assigning structural dative to subjects of infinitives (Tóth 2002), I hypothesize that it is also responsible for the dative of contrastive topics. To explain why dative is not assigned in the domain of T°, I appeal once again to the hypothesis that T° functions as a barrier to case assignment by higher functional heads, already invoked above.

4.4.4 *Summary*

As this section shows, the least syntactically and morphologically marked case (nominative, in Hungarian) is not the same thing as the perceived default case, i.e., the case appearing in most environments (dative, in Hungarian). We accounted for this effect by assuming that the predicate dative spells out the feature [V] on the non-verbal predicate. I unify resultative-like and depictive-like constructions with perfective nomination verbs by assuming that they do not contain the [BECOME] feature. Conversely, naming verbs and contrastive-topic doubling must be dealt with by separate mechanisms: for the former I hypothesize that it is the lexical root that acts as the

intervener, while for the latter I appeal to the independently postulated mechanism of structural dative assignment.

4.5 Depictives

The assumption that depictive small clauses are introduced by a functional head (section 0) leads us to expect the possibility of a special case-marking in this environment. Indeed, AP depictives in Hungarian appear in the superessive case:[26]

(68) a. *János részeg-en vezet-te az autó-já-t.*
Janos.NOM drunk-SPE drive-PAST.3SG the car-POSS.3SG-ACC
'John drove his car drunk.'

b. *János hideg-en et-te a hús-t.*
Janos.NOM cold-SPE eat-PAST.3SG the meat-ACC
'John ate the meat cold.'

Like essive in Finnish, superessive case is also used with time expressions to indicate a point in time, though in Hungarian it also has a straightforward locative meaning, as in (69a). In an interesting twist, NP depictives are introduced by a different functional morpheme:[27]

(69) a. *Madonna férfi-ként jelen-t meg a színpad-on.*
Madonna.NOM man-ESF appear-PAST.3SG CVB the stage.SPE
'Madonna appeared on stage as a man [= in a male guise].'
(de Groot 2008)

b. *Tolvaj-ként hagy-ta el a börtön-t.*
thief-ESF leave-PAST.3SG CVB the prison-ACC
'S/he left the prison a thief.'

Differential treatment of NP and AP predicates is quite common cross-linguistically: both copular particles and verbal copulas are more likely to be required with the former than with the latter (Croft 1991, Stassen 1997, Pustet 2005). I will not attempt to analyze here the difference between AP and NP depictives beyond noting that the essive-formal marker *-ként* cannot be viewed as an allomorph of the superessive marker *-n*. On the one hand, besides non-verbal predication the two are used in different environments: the essive-formal marker *-ként* has a meaning approximating the English *as* ('in the function of'), while the superessive marker *-n* functions as a locative case, as well as an adverbial marker. On the other hand, the essive-formal marker *-ként* and the superessive marker *-n* have been argued to have different morphosyntactic properties by de Groot (2008) and Thuilier (2011), who argue that the former but not the latter is a preposition (cf. fn. 18).

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[26] The case glossed as superessive (SPE), following Rounds (2001), is also known as modal-essive (Kenesei et al. 1998), essive (Dalmi 2005) or adverbial (de Groot 2008). Following an attested cross-linguistic tendency (see van der Auwera and Malchukov 2005), Hungarian uses the same suffix *-n* to mark depictives and adverbs, though the adverbial suffix triggers a different type of vowel harmony (Rákosi 2006).

[27] The case glossed as essive-formal (ESF), following Rounds (2001), is referred to as essive by Kiss (2002).

4.6 Summary

In this section I have suggested that, once some complicating factors are taken into account, case-marking on Hungarian NP and AP predicates reflects their structural environment. For small-clause predicates nominative case corresponds to the near-lack of structure: it appears on the predicate in the context of primary predication (where only a TP is projected) and with the semi-copular verbs *lesz* 'become' and *marad* 'remain' (which project a TP and a dynamic ([BECOME]) vP). The presence of a lexical root results in a more marked case being assigned to the small-clause predicate. Thus intensional verbs, like *látszik* 'look, seem' and *tűnik* 'appear', appear with dative predicates (corresponding in our approach to the [V] feature), as do their transitive counterparts. Change-of-state lexical verbs, such as *válik* 'become' or *tesz* 'make', appear with the even more marked translative. Finally, resultatives, which we have argued to require an additional functional projection in the complement of V°, are marked with the sublative case, which we take to correspond to the simultaneous presence of [BECOME], [V] and [RES], and depictives form a category apart:

(70) In the context of [Pred]:
essive-formal: [$C_{depictive}$]/__[N]
superessive: [$C_{depictive}$]/__[A]
sublative: [V, BECOME, RES]
translative: [V, BECOME]
dative: [V]
nominative: elsewhere

The distribution of dative as the perceived default on non-verbal predicates is derived by appealing to a number of confounds, such as a syntactically active lexical-semantic feature [naming] blocking case-assignment by higher functional heads, the lack of a change-of-state entailments or accidental syncretism with the dative is assigned to topic positions.

The existence of a correlation between the lexical-semantic and/or featural complexity of the environment of a small clause and the markedness of the case surfacing on the small-clause predicate further supports the hypothesis that the underlying case is not a single feature but a complex of features, each of them the uninterpretable counterpart of some interpretable feature in the embedding environment of the small clause (Matushansky 2008a, 2010). Under this view the presence of an additional functional head (e.g., voice° with transitive verbs), the presence of an additional feature (e.g., the [BECOME] feature on *v*) and the lexical-semantic class of the verb (formalized as a syntactically active lexical-semantic feature) all contribute to the underlying case-marking of the small-clause predicate. A more complex feature bundle surfaces as a more marked case.

5 Conclusion

I have examined case-marking on non-verbal predicates in three Finno-Ugric languages that, despite their genetic connection, nevertheless diverge in ways providing us with interesting insights into the nature of case.

Thus, in the three languages nominative-marked predicates appear in the least complex environments, but Finnish, Estonian and Hungarian differ as to the environments perceived as least complex. While in Finnish only the copula *be* can appear with nominative predicates, in Estonian intransitive intensional verbs do so as well, and in Hungarian, nominative appears in the small-clause complements of the semi-copular verbs *marad* 'remain' and *lesz* 'become'. I argued above that this difference among the three languages is due to different Vocabulary Insertion specifications for the more marked cases rather than for nominative itself, which is always the elsewhere case. As a more general rule, it is the least marked case in every given language (in general, nominative or absolutive) that is predicted to be the one used in primary predication.

The distribution of the other two predicate cases shared by the three languages, essive and translative, shows the existence of "prototype values" (change-of-state for translative and depictive for essive), while demonstrating considerable dissimilarities. While essive is limited to depictives in Hungarian and to tenseless non-finite CPs in Estonian, in Finnish it appears in all non-dynamic environments. Translative, on the other hand, requires the [BECOME] feature in Finnish and in Hungarian, but in Estonian it marks NP and AP predicates in any marked environment that is not depictive. The change-of-state "domain" of translative is further delimited in Hungarian by the existence of the predicate sublative case, which is assigned in resultatives, and by dative, appearing in the domain of a verbal stem.

To account for these facts I have argued that case-marking on AP and NP predicates in Finnish, Hungarian and Estonian reflects the complexity of their environments: assuming that a head assigns to its sister (the uninterpretable counterparts of) its interpretable features leads to an accumulation on each terminal node of the features of c-commanding heads. I suggest that it is these features that are spelled out as case; the interplay between underspecification and intrinsic rule ordering in Vocabulary Insertion rules entails that environments with the most syntactic complexity (i.e., with the largest number of features assigned) should result in the more marked cases (i.e., those that correspond to the presence of the less common heads). The opposite, however, need not be true: for instance, the highly marked essive cases in Estonian and Hungarian correspond not to a very complex environment, but simply to a less common one.

I conclude that the hypothesized correlation between the case-marking on a constituent and the complexity of that constituent's environment is supported by Finno-Ugric predicate case-marking. If the underlying assumptions of the approach defended above are correct, surface case-marking can be used for determining the underlying structure responsible for it.

A possible alternative, which I have not attempted to explore here, is to parametrically specify whether T° and v° assign their features to the predicates they embed; nominative in this approach would correspond to the lack of case-marking. A potential advantage of this view is that it would allow us to regard the "default but marked" case (such as translative in Estonian or dative in Hungarian) as the actual morphological default in the presence of some case-features. While under this view two defaults (the lack of syntactic case alongside the elsewhere case) would be specified, the underlying intuition would be the same: an increase in the structural complexity would yield a correspondingly more complex case-feature bundle and as a result, a more marked surface case.

6 References

Akmajian, Adrian. 1984. Sentence types and the form-function fit. *Natural Language & Linguistic Theory* 2, 1-23.

Andrews, Avery. 1982. The representation of Case in modern Icelandic. In *The Mental Representation of Grammatical Relations*, ed. by Joan Bresnan. Cambridge, Massachusetts: MIT press.

Ariste, Paul. 1968. *A Grammar of the Votic Language*. The Hague: Mouton.

van der Auwera, Johan, and Andrej Malchukov. 2005. A semantic map for depictive adjectivals. In *Secondary Predication and Adverbial Modification: The Typology of Depictives*, ed. by Nikolaus P. Himmelmann and Eva Schultze-Berndt, 393-421. Oxford: Oxford University Press.

Bailyn, John. 2001. The syntax of Slavic predicate Case. *ZAS Papers in Linguistics* 22, 1-26.

Bailyn, John. 2004. The Case of Q. In *Formal Approaches to Slavic Linguistics 12: The Ottawa Meeting*, ed. by Olga Arnaudova, Wayles Browne, Maria-Luisa Rivero and Danijela Stojanovic. Ann Arbor, Michigan: Michigan Slavic Publications.

Bailyn, John, and Barbara Citko. 1999. Case and agreement in Slavic predicates. In *Formal Approaches to Slavic Linguistics 7: The Seattle Meeting*, ed. by Katarzyna Dziwirek, Herbert S. Coats and Cynthia Vakareliyska, 17-37. Ann Arbor, Michigan: Michigan Slavic Publications.

Bailyn, John, and Edward J. Rubin. 1991. The unification of Instrumental case assignment in Russian. In *Cornell Working Papers in Linguistics*, vol. 9, ed. by A. Toribio and Wayne Harbert, 99-126. Ithaca, New York: Department of Modern Languages and Linguistics, Cornell University.

Bene, Annamária. 2009. What is really the function of the verbal particle in Hungarian. *Contemporary Linguistics* 35, 207-220.

Bierwisch, Manfred. 1988. On the grammar of local prepositions. In *Syntax, Semantik und Lexikon*, ed. by Manfred Bierwisch, Wolfgang Motsch and Ilse Zimmermann. *Studia Grammatica XXIX*, 1-65. Berlin: Akademie.

Blake, Barry. 1994. *Case*. Cambridge: Cambridge University Press.

Bonet, Eulália. 1991. Morphology after Syntax: Pronominal Clitics in Romance, Doctoral dissertation, MIT.

Bowers, John. 1993. The syntax of predication. *Linguistic Inquiry* 24, 591-656.

Burzio, Luigi. 1981. Intransitive Verbs and Italian Auxiliaries, Doctoral dissertation, MIT.

Caha, Pavel. 2007. Case Movement in PPs. In *Tromsø Working Papers on Language & Linguistics: Special issue on Space, Motion, and Result*, ed. by Monika Bašić, Marina Pantcheva, Minjeong Son and Peter Svenonius. *Nordlyd 34.2*, 239-299. Tromsø: CASTL, University of Tromsø.

Chomsky, Noam. 1995. Categories and transformations. In *The Minimalist Program*, 219-394. Cambridge, Massachusetts: MIT Press.

Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: a Life in Language*, ed. by Michael Kenstowicz, 1-52. Cambridge, Mass.: MIT Press.

Chung, Sandra, and James McCloskey. 1987. Government, barriers, and small clauses in Modern Irish. *Linguistic Inquiry* 18, 173-237.

Comrie, Bernard S. 1997. The typology of predicate case marking. In *Essays on Language Function and Language Type Dedicated to T. Givón*, ed. by Joan Bybee, John Haiman and Sandra A. Thompson, 39-50. Amsterdam: John Benjamins.

Creissels, Denis. 2008. Predicative argument marking: the case of transformation verbs. Ms., Université Lyon 2.

Croft, William. 1991. *Syntactic Categories and Grammatical Relations*. Chicago: University of Chicago Press.

Dalmi, Gréte. 2005. *The role of agreement in non-finite predication*. Linguistik Aktuell 90. Amsterdam: John Benjamins Publishers.

Dékány, Éva. 2008. *El* + verb complex predicates in Hungarian. In *Complex Predication*, ed. by Peter Svenonius and Inna Tolskaya. *Nordlyd 35*, 1-17. Tromsø: CASTL.

den Dikken, Marcel. 2006. *Relators and linkers: The syntax of predication, Predicate Inversion, and copulas*. Cambridge, Massachusetts: MIT Press.

Erelt, Mati, and Helle Metslang. 2003. Case-marking of the predicative in Estonian. *Linguistica Uralica* XXXIX, 166-173.

Evans, Nicholas. 1988. Odd topic marking in Kayardild. In *Complex Sentence Constructions in Australian Languages*, ed. by Peter Austin, 219-266. Amsterdam: Benjamins.

Evans, Nicholas. 1993. Code, inference, placedness and ellipsis. In *The Role of Theory in Linguistic Description*, ed. by William A. Foley, 243-280. Cambridge: Cambridge University Press.

Evans, Nicholas. 1994. *Kayardild, the Language of the Bentinck Islanders: With Elements of a Historical-Comparative Tangkic Grammar*. Berlin: Mouton de Gruyter.

Evans, Nicholas. 1995. Multiple case in Kayardild: Anti-iconic suffix ordering and the diachronic filter. In *Double Case: Agreement by Suffixaufnahme*, ed. by Frans Plank, 396-428. Oxford: Oxford University Press.

Filip, Hana. 2001. The semantics of Case in Russian secondary predication. In *Proceedings of Semantics and Linguistic Theory (SALT) 11*, ed. by Rachel Hastings, Brendan Jackson and Zsofia Zvolenszky, 192-211. Ithaca. New York: CLC Publications, Department of Linguistics, Cornell University.

Fong, Vivienne. 2003. Resultatives and depictives in Finnish. In *Generative Approaches to Finnic and Saami Linguistics*, ed. by Diane Nelson and Satu Manninen. Stanford: CSLI.

Fowler, George. 1997. Toward a rapprochement between form and intuition: Approaches to the Russian double nominative construction. In *Annual Workshop on Formal Approaches to Slavic Linguistics. The Indiana Meeting of 1996*, ed. by Martina Lindseth and Steven Franks, 144-165. Ann Arbor, Michigan Michigan Slavic Publications.

Fromm, Hans, and Matti Sadeniemi. 1956. *Finnisches Elementarbuch* I: Grammatik. Heidelberg Carl Winter Universitatsverlag.

Geist, Ljudmila. 1999. Kopula *byt'* (sein) eine funktionale und/oder eine lexikalische Kategorie? *ZAS Papers in Linguistics* 14, 1-39.

de Groot, Caspar. 2008. Depictive secondary predication in Hungarian. In *Secondary Predicates in Eastern European Languages and Beyond*, ed. by Christoph Schroeder, Gerd Hentschel and Winfried Boeder, 69-96. Oldenburg: University of Oldenburg.

Halle, Morris. 1990. An approach to morphology. In *Proceedings of NELS 20*, ed. by Juli Carter, Rose-Marie Déchaine, Bill Philip and Tim Sherer, 150-184. Amherst, Massachusetts: University of Massachusetts, GLSA.

Halle, Morris. 1997. Distributed Morphology: impoverishment and fission. In *PF: Papers at the Interface*, ed. by Benjamin Bruening, Yoonjung Kang and Martha McGinnis. *MIT Working Papers in Linguistics*, 425-449. Cambridge, Mass.: MIT, Department of Linguistics and Philosophy, MITWPL.

Hoekstra, Teun. 1988. Small clause results. *Lingua* 74, 101-139.

Iatridou, Sabine. 1990. About Agr(P). *Linguistic Inquiry* 21, 551-577.

Jackendoff, Ray. 1990. *Semantics and Cognition*. Cambridge, Massachusetts: MIT press.

Jakobson, Roman. 1958/1984. Morphological observations on Slavic declension (the structure of Russian case forms). In *Roman Jakobson: Russian and Slavic Grammar, Studies, 1931-1981*, ed. by Linda R. Waugh and Morris Halle, 105-133. Berlin: Mouton de Gruyter.

Kádár, Edith. 2011. Environmental copula constructions in Hungarian. *Acta Linguistica Hungarica* 58, 417-447.

Kamp, Hans, and Uwe Reyle. 1993. *From Discourse to Logic*. Dordrecht: Kluwer.

Karlsson, Fred. 1999. *Finnish: An Essential Grammar*. New York: Routledge.
Kenesei, István. 2001. Criteria for auxiliaries in Hungarian. In *Argument structure in Hungarian*, ed. by István Kenesei, 73-106. Budapest: Akadémiai Kiadó.
Kenesei, István, Robert Michael Vágó, and Anna Fenyvesi. 1998. *Hungarian*. London: Routledge.
Kiparsky, Paul. 1973. "Elsewhere" in phonology. In *A Festschrift for Morris Halle*, ed. by Stephen R. Anderson and Paul Kiparsky, 93-106. New York: Holt, Rinehart, and Winston.
Kiparsky, Paul. 2001. Finnish structural Case. *Lingua* 111, 315-376.
Kiss, Katalin É. 2002. *The Syntax of Hungarian*. Cambridge: Cambridge University Press.
Kratzer, Angelika. 1996. Severing the external argument from its verb. In *Phrase Structure and the Lexicon*, ed. by Johan Rooryck and Laurie Zaring, 109-137. Dordrecht: Kluwer.
Lasnik, Howard. 1995. Verbal morphology: *Syntactic structures* meets the minimalist program. In *Evolution and revolution in linguistic theory: Essays in honor of Carlos Otero*, ed. by Héctor Campos and Paula Kempchinsky, 251-275. Washington DC: Georgetown University Press.
Lehiste, Ilse. 1969. 'Being' and 'having' in Estonian. *Foundations of Language* 5, 324-341.
Lehiste, Ilse. 1972. 'Being' and 'having' in Estonian. In *The Verb 'be' and Its Synonyms*, vol. 5, ed. by John W. M. Verhaar, 207-224. Dordrecht: Reidel.
Lehtinen, Meri. 1963. *Basic Course in Finnish*. Ural and Altaic Series 27. Bloomington, Indiana: Indiana University Press.
Levinson, Lisa. 2010. Arguments for pseudo-resultative predicates. *Natural Language & Linguistic Theory* 28, 135-182.
Maienborn, Claudia. 2003. *Die logische Form von Kopula-Sätzen*. Berlin: Akademie-Verlag.
Maienborn, Claudia. 2005a. On Davidsonian and Kimian states. In *Existence: Semantics and syntax*, ed. by Ileana Comorovski and Klaus von Heusinger. Dordrecht: Springer.
Maienborn, Claudia. 2005b. On the limits of the Davidsonian approach: The case of copula sentences. *Theoretical Linguistics* 31, 275-316.
Markman, Vita. 2008. The Case of Predicates (Revisited): Predicate Instrumental in Russian and Its Restrictions. *Journal of Slavic Linguistics* 16, 187-246.
Matsumura, Kazuto. 1996. The Estonian translative: a corpus-based description. In *Estonian: Typological studies*, vol. 1, ed. by Mati Erelt, 68-122. Tartu: Publications of the Department of Estonian of the University of Tartu 4.
Matushansky, Ora. 2000. The instrument of inversion: Instrumental case in the Russian copula. In *Proceedings of the 19th West Coast Conference on Formal Linguistics*, ed. by Roger Billerey and Brook Lillehaugen, 101-115. Somerville, MA: Cascadilla Press.
Matushansky, Ora. 2008a. A case study of predication. In *Studies in Formal Slavic Linguistics. Contributions from Formal Description of Slavic Languages 6.5*, ed. by Franc Marušič and Rok Žaucer, 213-239. Frankfurt am Main: Peter Lang.
Matushansky, Ora. 2008b. On the linguistic complexity of proper names. *Linguistics and Philosophy* 31, 573-627.
Matushansky, Ora. 2010. Russian predicate case, *encore*. In *Proceedings of FDSL 7.5*, ed. by Gerhild Zybatow, Philip Dudchuk, Serge Minor and Ekaterina Pshehotskaya, 117-135. Frankfurt: Peter Lang.
McNally, Louise. 1993. Adjunct predicates and the individual/stage-level distinction. In *Proceedings of WCCFL 12*, ed. by Erin Duncan, Donka Farkas and Philip Spaelti, 561-576. Stanford: CSLI.
Merchant, Jason. 2006. Polyvalent case, geometric hierarchies, and split ergativity. In *Proceedings of the 42nd annual meeting of the Chicago Linguistics Society*, ed. by Jackie Bunting, Sapna Desai, Robert Peachey, Chris Straughn and Zuzana Tomkova. Chicago, Illinois: Chicago Linguistics Society.

Miljan, Merilin. 2008. Grammatical Case in Estonian, Doctoral dissertation, University of Edinburgh.
Nakajima, Heizo. 1990. Secondary predication. *The Linguistic Review* 7, 275-309.
Nichols, Johanna. 1981. *Predicate nominals: A partial surface syntax of Russian*. Berkeley: University of California Press.
Noyer, Rolf. 1997. *Features, Positions and Affixes in Autonomous Morphological Structure*. New York: Garland.
Õispuu, Jaan. 1999. *Spravočnik po èstonskomu jazyku*. Tallinn: Koolibri.
Partee, Barbara. 1977. John is easy to please. In *Linguistic Structures Processing*, ed. by Antonio Zampolli, 281-312. Amsterdam: North-Holland.
Pereltsvaig, Asya. 2007. *Copular Sentences in Russian. A Theory of Intra-Clausal Relations*. Studies in Natural Language and Linguistic Theory. Berlin: Springer Verlag.
Pesetsky, David. 2010. Russian case morphology and the syntactic categories. Ms., MIT.
Pesetsky, David, and Esther Torrego. 2001. T-to-C movement: causes and consequences. In *Ken Hale: a Life in Language*, ed. by Michael Kenstowicz, 355-426. Cambridge, Mass.: MIT Press.
Pesetsky, David, and Esther Torrego. 2004. Tense, case, and the nature of syntactic categories. In *The Syntax of Time*, ed. by Jacqueline Guéron and Jacqueline Lecarme. Cambridge, Massachusetts: MIT Press.
Pesetsky, David, and Esther Torrego. 2007. The syntax of valuation and the interpretability of features. In *Phrasal and Clausal Architecture: Syntactic derivation and interpretation*, ed. by Simin Karimi, Vida Samiian and Wendy K. Wilkins. *Linguistik Aktuell/Linguistics Today 101*, 262-294. Amsterdam: John Benjamins.
Peškovskij, A. M. 1956. *Russkij sintaksis v nauchnom osveshchenii*. Moscow: Gosudarstvennoe uchebno-pedagogicheskoe izdatel'stvo ministerstva prosveshchenija RSFSR.
Piñón, Christopher. 2011. Result states in Hungarian. In *Papers from the 2009 Debrecen Conference*, ed. by Tibor Laczkó and Catherine O. Ringen. *Approaches to Hungarian 12*, 109-134. Amsterdam: John Benjamins.
Plank, Frans. 1995a. *Double Case: Agreement by Suffixaufnahme*. Oxford & New York: Oxford University Press.
Plank, Frans. 1995b. (Re-)Introducing Suffixaufnahme. In *Double Case*, ed. by Frans Plank, 3-110. Oxford: Oxford University Press.
Potts, Christopher, and Thomas Roeper. 2006. The narrowing acquisition path: From expressive small clauses to declaratives. In *The Syntax of Nonsententials: Multi-Disciplinary Perspectives*, ed. by Ljiljana Progovac, Kate Paesani, Eugenia Casielles and Ellen Barton, 183-201. Amsterdam: John Benjamins.
Pustet, Regina. 2005. *Copulas: Universals in the Categorization of the Lexicon*. Oxford: Oxford University Press.
Rákosi, György. 2006. Dative experiencer predicates in Hungarian, Doctoral dissertation, Utrecht University.
Ramchand, Gillian. 2008. *Verb Meaning and the Lexicon: A First Phase Syntax*. Cambridge: Cambridge University Press.
Rapoport, Tova R. 1993. Verbs in depictives and resultatives. In *Semantics and the Lexicon*, ed. by James Pustejovsky. Dordrecht: Kluwer.
Richards, Norvin. 2007. Lardil "case stacking" and the structural/inherent case distinction. Ms., MIT. Available at http://ling.auf.net/lingBuzz/000405.
Richardson, Kylie. 2007. *Case and Aspect in Slavic*. Oxford: Oxford University Press.
van Riemsdijk, Henk. 1978. *A Case Study in Syntactic Markedness: the Binding Nature of Prepositions*. Dordrecht: Foris.
Roberts, Ian. 1988. Predicative APs. *Linguistic Inquiry* 19, 703-710.

Rothstein, Susan. 1999. Fine-grained structure in the eventuality domain: The semantics of predicative adjective phrases and *be*. *Natural Language Semantics* 7, 347-420.
Rothstein, Susan. 2000. Secondary predication and aspectual structure. In *ZAS Papers in Linguistics: Papers from the Oslo Conference on Adjuncts*, ed. by Ewald Lang, Cathrine Fabricius-Hansen and Claudia Maienborn, 241-264. Berlin: ZAS.
Rounds, Carol. 2001. *Hungarian. An Essential Grammar*. London: Routledge.
Schultze-Berndt, Eva, and Nikolaus P. Himmelmann. 2004. Depictive secondary predicates in crosslinguistic perspective. *Linguistic Typology* 8, 59-131.
Snyder, William. 2001. On the nature of syntactic variation: evidence from complex predicates and complex word-formation. *Language* 77, 324-342.
Spencer, Andrew. 2009. Does Hungarian have a case system? In *Case and Grammatical Relations*, ed. by Greville G. Corbett and Michael Noonan, 36-56. Amsterdam: John Benjamins.
Stassen, Leon. 1997. *Intransitive Predication*. Oxford: Clarendon Press.
Stassen, Leon. 2001. Nonverbal predication in the Circum-Baltic languages. In *Grammar and Typology*, vol. 2, ed. by Östen Dahl and Maria Koptjevskaja-Tamm, 569-590. Amsterdam: John Benjamins.
Stowell, Timothy A. 1980. Origins of Phrase Structure, Doctoral dissertation, MIT.
Stowell, Timothy A. 1983. Subjects across categories. *The Linguistic Review* 2, 285-312.
Stowell, Timothy A. 1989. Subjects, specifiers and X-bar theory. In *Alternative Conceptions of Phrase Structure*, ed. by Mark Baltin and Anthony Kroch. New York: Academic Press.
Stowell, Timothy A. 1991. Determiners in NP and DP. In *Views on Phrase Structure*, ed. by Katherine Leffel and Denis Bouchard, 37-56. Dordrecht: Kluwer Academic Publishers.
Thuilier, Juliette. 2011. Case suffixes and postpositions in Hungarian. In *Proceedings of the HPSG 2011 Conference*, ed. by Stefan Müller, 209-226. Stanford: CSLI.
Tóth, Ildikó Cecilia. 2002. Inflected Infinitives in Hungarian, Doctoral dissertation, Tilburg University.
Trommer, Jochen. 2008. Case suffixes, postpositions and the phonological word in Hungarian. *Linguistics* 46, 403-438.
Ürögdi, Barbara. 2006. Predicate fronting and dative case in Hungarian. *Acta Linguistica Hungarica* 53, 291-332.
Williams, Edwin S. 1980. Predication. *Linguistic Inquiry* 11, 203-238.
Winkler, Susanne. 1997. *Focus and Secondary Predication*. Berlin: Mouton de Gruyter.

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Deletion in Hungarian, Finnish and Estonian Comparatives*

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Our paper focuses on a new elliptical phenomenon in comparatives – Comparative Verb Gapping (CVG) – that has not been attested earlier in the literature. We will examine its relation to Comparative Deletion (CD), as described by a number of previous studies, both in Indo-European languages and then Hungarian, Finnish, and Estonian. Besides providing a formal description of how CD and CVG are related, the paper will also provide a theoretical approach to CVG, reducing it to more general ellipsis processes.

Keywords: *Comparative Verb Gapping, ellipsis, sluicing, comparative operator, finite verb*

This paper aims at presenting a new elliptical phenomenon in comparatives, Comparative Verb Gapping (CVG), that has not been attested earlier in the literature. We will not tackle the exact mechanisms behind Comparative Deletion (CD), as it has been presented and described by a number of researchers.

The first section will briefly outline the general structure of comparatives, with special attention paid to the subclause. In section 2, we will describe CD and CVG, as found in Indo-European languages, followed by a brief summary in section 3 on the universal constraints on deletion. Sections 4, 5 and 6 will deal with the deletion phenomena in Hungarian, Finnish and Estonian respectively, with the aim of describing how CD and CVG appear in these languages and whether there is any correlation between them. Finally, section 7 will summarise the theoretical implications of our findings and our proposal to analyse CVG.

1 The structure of comparatives

For the general structure of comparatives, let us consider the following example:

(1) Mary is more intelligent [than Peter is *x-much intelligent*].

The structure of comparatives consists of two major parts: in the matrix clause (*Mary is more intelligent*), the reference value of comparison is expressed in the form of a degree expression, within which the comparative subclause itself (*than Peter is*) expresses the standard value, cf. Lechner (2004); Bresnan (1973). The structure of the string *more intelligent than Peter is* is shown in Figure 1[1]:

* The present research was funded by the project OTKA-78074.

List of abbreviations: ACC = accusative; ADE = adessive; CD = Comparative Deletion; CE = Comparative Ellipsis; COND = conditional; DAT = dative; Deg = Degree; DegP = Degree Phrase; FOC = focus; GEN = genitive; IMP = imperative; INS = instrumental; NOM = nominative; SING = singular; OP = operator; PL = plural; Q = Quantifier; QP = Quantifier Phrase; VM = verb modifier

1 Based on Izvorski (1995), White (1998), Lechner (1999, 2004), Kántor (2008a).

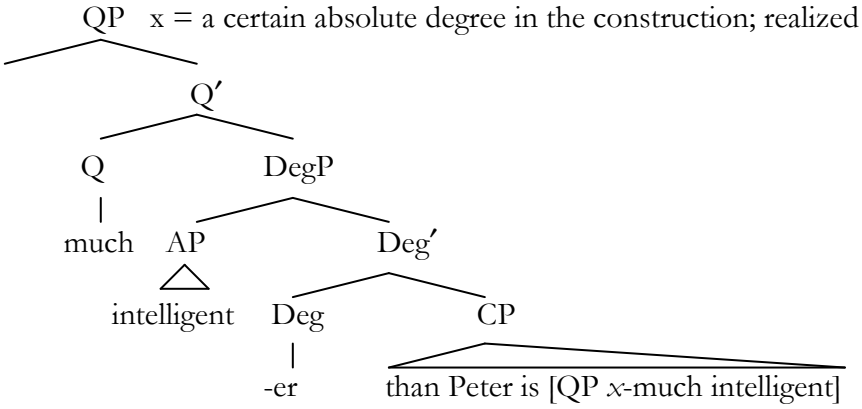

Figure 1: *The structure of the matrix QP*

The reference value is expressed in the matrix clause by a DegP, headed by the Deg head *-er* in English and *-bb* in Hungarian, which – being a bound morpheme – morphologically merges with the adjective/adverb in the specifier in morphological comparatives (e.g. *taller*; see also Abney 1987, 189–204; Corver 1990, 34) or moves up to the Q head in periphrastic comparatives (e.g. *more intelligent*; see Kántor 2008a: 100)[2]. The specifier of the DegP hosts an AdjP/AdvP, which gives the semantic dimension of comparison (Kántor 2008a: 97; see also Lechner 1999, 25); the complement of the Deg head expresses the standard value and is realized by the *than*-clause (see Bhatt & Pancheva 2004, 2–6), which is generally taken to be a CP in English (see Kántor 2008a: 101). The subclause also contains a QP, within which the comparative operator (here: *x-much*) is to be found.

The term 'comparative operator' refers to a subset of operators behaving quite similarly to ordinary relative operators but are found in comparative subclauses and may exhibit certain characteristics that are not shared by all operators, as will be shown in section 5. This operator is generally taken to be null in English, see Kennedy & Merchant (1997, 5); we will indicate it as *x-much* (or *x-many*) throughout the paper, using the conventions of the relevant literature; still, it has to be stressed that since this is a null operator, *x-much* does not refer to any phonological content to be deleted.

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[2] The existence of the QP layer is obviously necessary, as shown by periphrastic comparatives, where the element *-er* (the original Deg head) ultimately precedes the AP (see Kántor 2008a: 99–101). In order to render the provenance of the ideas transparent, in the original DegP-hypothesis, there was only one functional layer: a Deg^0 selected an AP (Abney 1987, Corver 1990). The motivation for the QP layer can be found in Corver's (1997) article introducing determiner- and quantifier-like degree items, in which he places a QP between the DegP and the AP, and generates determiner-like degree items in [Spec; DegP], and quantifier-like degree items in Q^0. The two approaches are illustrated by the representations below:

(i) [DegP Deg^0 [AP A^0] (Abney 1987, Corver 1990)
(ii) [DegP Deg^0 [QP Q^0 [AP A^0]]] (Corver 1997)

The proposed representation in Kántor (2010), as adopted in Figure 1, differs from these to some extent. For example, Corver (1997, 123) takes "the comparative forms not to be transformationally derived but to be base-generated as such in syntax", whereas the structure presented in Figure 1 shows that the comparative degree morpheme *–er* can be base-generated in Deg^0 and via head movement and merge with *much* in Q^0 periphrastic comparatives can be derived syntactically. For further information, see Kántor (2010, 43ff).

In connection with the representation above, three questions might arise: why there is a QP layer above DegP; why the comparative subclause is a complement; and why the AP is located in [Spec; DegP].

As for the QP, this layer is obviously necessary in periphrastic comparatives (e.g. *more intelligent*), but since morphological comparatives behave in exactly the same way syntactically, it seems reasonable to claim that all comparatives involve a QP, not just a DegP layer.[3]

The comparative subclause is a complement for two main reasons. First, from the perspective of the semantic computation, an element expressing the standard value is obligatory (cf. von Stechow 1984; see also Kennedy 1997, 56)[4], which is a property of arguments, and not of adjuncts. Second, there are certain selectional restrictions (Bhatt & Pancheva 2004, 3; Bresnan 1973):

(2) a. Mary is *more* intelligent *than*/**as* Peter (is).
b. Mary is *as* intelligent *as*/**than* Peter (is).

As can be seen, the Deg° imposes restrictions on the head of its complement: if it is *–er*, (as in *more* above), the subclause has to be introduced by *than*, whereas if the Deg° is *as*, the subclause must be headed by *as*.

There are two reasons for locating the AP in the [Spec; DegP] position, as described by Kántor (2008b: 85). On the one hand, it accounts for the formation of comparative APs both in morphological (e.g. *taller*) and in periphrastic (e.g. *more intelligent*) comparatives: in the first case, the specifier and the head are morphologically merged, whereas in the latter the *-er* moves from Deg° to Q° and will thus come before the AP. On the other hand, the AP located in [Spec; DegP] also accounts for the "*enough*-inversion" (e.g. *big enough*): there is actually no inversion at all, since the fact that the AP appears before the Deg° is in correlation with the underlying structure and thus no additional rightward movement has to be introduced.

Let us now turn to the structure of the subclause. The comparative subclause is a CP, which is introduced by the complementiser *than* (cf. Kenesei 1992a) representing comparative Force (see Rizzi 1999). This subcategorises for another CP, to the specifier of which the comparative operator moves via operator movement (Chomsky 1977; Kennedy & Merchant 2000). The structure is schematically represented below:

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[3] It must be highlighted that this is claimed only from a strictly syntactic point of view. As Embick (2007, 10) has also pointed out, "there is a single syntactic structure underlying all comparatives and superlatives."

[4] Note that the presence of arguments may remain implicit. Consider (i), where the standard value (*than it was before*) is not expressed explicitly:

(i) My admiration for him is greater since I met him in person (than it was before).

This phenomenon is not restricted to comparatives; e.g., a transitive verb may appear without an explicit object:

(ii) Ann is eating.

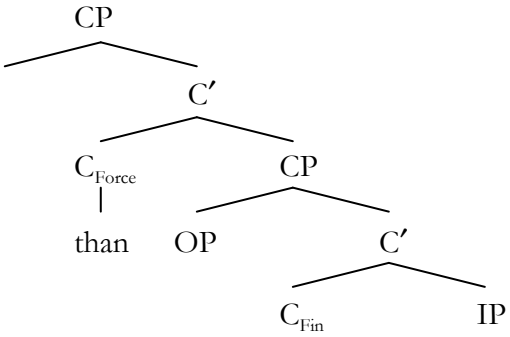

Figure 2: *The structure of the Left Periphery in comparatives*

This follows Rizzi's analysis of the Left Periphery, who claims that there are two CP projections, the upper one being responsible for Force and the lower one for Finiteness, and in between the two optional Topic and Focus phrases can be found, if any (Rizzi 1997, 297):

(3) [CP [TopP* [FocP [TopP* [CP]]]]]

In English, the comparative operator is normally covert; however, there are some dialectal differences – (4) is grammatical in New England English:

(4) John is taller than what Mary is. (Chomsky 1977, 87, ex. 51a)

This shows explicitly that there is operator movement in the subclause: the comparative operator is base-generated within the QP in the comparative subclause[5] and moves up to the [Spec; CP] position, as shown in Figure 2. Even when there is no operator, however, there are further reasons for operator movement as comparatives obey islands. The examples below show that they obey *wh*-islands:

(7) a. *John killed more dragons than OP_x Mary wondered **whether** to kiss [t_x ~~dragons~~].
b. John killed more dragons than OP_x Mary wanted to kiss [t_x ~~dragons~~].

Likewise, the operator cannot be extracted out of a complex NP island:

(8) a. John killed more dragons than OP_x he had outlined **a plan** to kill [t_x ~~dragons~~].
b. John killed more dragons than OP_x he planned to kill [t_x ~~dragons~~].

Having established all this, let us briefly look at the classification of comparatives, before turning to deletion phenomena. There are two basic types of comparatives: predicative comparatives, as in (9a), where the QP is in a predicate position, and attribute comparatives, as in (9b), where the QP is a modifier within a DP:

[5] Note that in Hungarian and Bulgarian, the comparative operator is overt and can easily be detected, as will be seen later. On its exact base position, see Kántor (2010, 115ff.).

(9) a. The tiger is faster than the cat. *predicative*
b. I have bigger tigers than Peter has. *attributive*

Both of these types have their subcomparative counterparts, which means that in the case of predicative comparatives, the QP is different in the subclause from the one in the matrix clause, and in the case of attributive comparatives, the noun modified by the QP is different in the two clauses. This is shown below:

(10) a. The desk is longer than the rug is wide.
predicative subcomparative
b. Pico wrote a more interesting novel than he did a play.
attributive subcomparative
Kennedy & Merchant (2000, 131, ex. 77)

2 Parametric variation in the comparative subclause (IE languages)

There are three deletion operations that can be associated with comparative subclauses: Comparative Deletion (CD), Comparative Ellipsis (CE), and Comparative Verb Gapping (CVG). The first two have been well-known from the 1970s in the literature, whereas CVG is a phenomenon that, to our knowledge, has not been described so far.[6]

With respect to the appearance of Comparative Deletion and Comparative Verb Gapping, languages seem to either have one of them, meaning that the operation responsible for either surface phenomenon is obligatory in the given language, or they can be non-CD or non-CVG languages, meaning that the grammar of the language lacks the given phenomenon. Note that (i) this is only a working hypothesis and will be reformulated later, and (ii) these terms are descriptive only (in this respect similar to SVO, SOV or the [±V2] parameter): they describe only what can be seen in the surface structure but do not refer to the syntactic causes why this should be so. The explanation of CVG will be given later.

Let us begin with Comparative Deletion (CD). This deletes the AP in predicative comparatives and the DP in attributive comparatives, if it is identical to its antecedent in the matrix clause (cf. Kennedy & Merchant 2000; Bresnan 1973). If the grammar of a language involves CD, it means that the deletion of these constituents is obligatory. On the other hand, if the grammar of a language lacks CD, it means that CD cannot delete these constituents and they may optionally be deleted by other deletion mechanisms.

Comparative Deletion is illustrated below:

(11) a. Mary is taller than Peter is $\_\_\__{CD}$. ($\_\_\__{CD}$ = x-much tall)
b. Susan has bigger cats than Peter has $\_\_\__{CD}$. ($\_\_\__{CD}$ = x-much big cats)

English has obligatory CD, and if it does not apply, the result is ungrammatical:

(12) a. *Mary is taller than Peter is tall.
b. *Susan has bigger cats than Peter has big cats.

[6] As the main focus of our investigation is the phenomenon of CVG, we will not venture to investigate the exact mechanisms behind CD (or CE). For such analyses, cf. e.g. Lechner (2004), Bácskai-Atkári (2010).

By contrast, CD in Bulgarian is much less strict than in English:

(13) a. *Marija beše po-visoka ot-**kolkoto**(?**visok**) Petăr beše.*
Mary was taller than+**x-much** **tall** Peter was
'Mary was taller than Peter.'

b. *Žuža viďa po-goľama kotka ot-**kolkoto** (?**goľama** **kotka**)*
Susan saw bigger cat than+**x-much** **big** **cat**
Petăr kăpeše.
Peter bathed
'Susan has a saw a bigger cat than Peter bathed.'

Note that in Bulgarian (and in Hungarian), the comparative operator is visible in the form of a relative operator; that is, it has phonological representation. In other words, the Bulgarian (and Hungarian) equivalent of *x-much* in the degree expression *x-much tall* or *x-much big* is overt. As can be seen in (13), the visible comparative operator *kolkoto* and the related AP or DP can indeed remain overt and the sentences are still grammatical, unlike in English.

In fact, there might be optional deletion mechanisms in language with CD: these are usually covered by the umbrella term Comparative Ellipsis.[7] Since these are indeed optional, they are not treated as diagnostic of language differences. As can be seen, the verbs are optionally deleted in the examples in the comparative subclauses in (11):

(14) a. Mary is taller than Peter $\_\__{CE}$ $\_\__{CD}$.
($\_\__{CD}$ = x-much tall; $\_\__{CE}$ = is)

b. Susan has bigger cats than Peter $\_\__{CE}$ $\_\__{CD}$.
($\_\__{CD}$ = x-much big cats; $\_\__{CE}$ = has)

Last but not least, let us discuss a peculiar phenomenon here referred to as Comparative Verb Gapping (CVG). CVG means that if the operator is deleted, the finite verb must also be deleted.

To illustrate our point, consider the following data from Bulgarian, which show CVG effects. The examples in (15) show the phenomenon in predicative comparatives:

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[7] It must be highlighted that in this article the focus is on elliptical comparatives; that is, comparatives involving ellipsis. According to Lechner (2004, 93), all phrasal comparatives without explicit standard values can be derived from a clausal source. Nevertheless, this cannot be maintained with respect to Hungarian or Russian, since in these languages the DP representing the standard value is assigned an inherent case, Adessive in Hungarian and Genitive in Russian (Kántor 2010, 34):

(i) *János magasabb Péternél.* (*genuine phrasal comparative*)
John taller Peter.ADE.
'John is taller than Peter.'

(ii) *János magasabb, mint Péter.* (*reduced clause comparative*)
John taller than Peter.NOM.
'John is taller than Peter.'

I.e., genuine phrasal comparatives involving inherently case-marked DPs – such as (i) – are treated as phrasal comparatives in the sense of Heim (1985); however, if there is a DP with structural case – such as (ii) – we will follow Lechner (2004), inasmuch as these will be treated as reduced clause comparatives.

(15) a. *Marija beše po-visoka ot-**kolkoto** Petăr **beše**.*
Mary was taller than+**x-much** Peter **was**
'Mary was taller than Peter was.'

b. **Marija beše po-visoka ot Petăr **beše**.*
Mary was taller than Peter **was**
'Mary was taller than Peter was.'

c. *Marija beše po-visoka ot Petăr.*[8]
Mary was taller than Peter
'Mary was taller than Peter.'

In (15a), the comparative subclause contains the visible comparative operator *kolkoto* 'x-much', and the finite verb *beše* 'was'; the sentence is grammatical. However, if the degree expression containing both the operator and the AP is deleted but everything else remains, as in (15b), the result is ungrammatical. If the finite verb is also elided, as in (15c), the sentence is again grammatical. It is not obligatory Comparative Deletion that elides this degree expression, since Comparative Deletion would be obligatory if it were present in this language; however, (15a) clearly shows that this is not the case.

The same phenomenon can be observed in attributive comparatives:

(16) a. *Žuža viďa po-goľama kotka ot-**kolkoto** Petăr **kăpeše.***
Susan saw bigger cat than-**x-much** Peter **bathed**
'Susan saw a bigger cat than Peter bathed.'

b. **Žuža viďa po-goľama kotka ot Petăr **kăpeše**.*
Susan saw bigger cat than Peter **bathed**
'Susan saw a bigger cat than Peter bathed.'

c. *Žuža viďa po-goľama kotka ot Petăr.*
Susan saw bigger cat than Peter
'Susan saw a bigger cat than Peter.'

In (16a), the comparative subclause contains *kolkoto* 'x-much' and the finite verb *kăpeše* 'bathed'; the sentence grammatical. If only the DP containing the degree expression (along with the operator) is deleted, as in (16b), the result is ungrammatical. The finite verb must also be elided form a grammatical sentence, as in (16c), with natural changes in the meaning, of course.

At first sight this seems to be a comparative-specific issue but the phenomenon can actually be observed in relative clauses as well. Consider:

(17) a. *Săštata kniga četă kato **kojato** Petăr **čete**.*
that.same book read as **what** Peter **reads**
'I read the same book that Peter read.'

[8] In this article – following Lechner (2004, 93) – we take the stance that wherever possible, the comparative complement is underlyingly clausal. Pancheva (2006) also states that structures similar to (15c) – see her example (20a) and the analysis provided there – are ambiguous, as they can be analysed both as reduced clause and direct/phrasal comparatives. As far as the Bulgarian glosses are concerned, since от may be followed by колкото in our examples (see, e.g., (16) above), we take these as underlyingly clausal and we follow Kennedy & Merchant (2000) in that от is glossed as *than*.

b. *Săštata kniga četă kato Petăr **čete**.
that.same book read as Peter **reads**
'I read the same book that Peter read.'
c. *Săštata kniga četă kato Petăr.*
that.same book read as Peter
'I read the same book that Peter read.'

It is a property of Bulgarian that it can include *kato* 'as' in ordinary relatives in addition to the relative operator, in this case *kojato* 'what'. The interdependency between *kojato* and the verb *čete* 'read' can be observed: if *kojato* is deleted, *čete* has to be deleted as well.

CVG is not a universal phenomenon: English for instance clearly lacks CVG, as demonstrated by the examples in (18), where the finite verb is present but there is no overt operator:[9]

(18) a. Mary is taller than Peter is.
b. Susan saw a bigger cat than Peter bathed.

It can be concluded that both CD and CVG are present in languages on a +/– basis. Before turning to the question of how the selected Finno-Ugric languages behave in this respect, let us first overview the universal constraints in ellipsis.

3 Deletion, new, given

Ellipsis must be constrained, so that the information structure remains intact and the elided constituents can be recovered, meaning that elided elements must be *given* in the context. Thus, a constraint separating *new information* and *given information* is necessary.

Taglicht (1982, 222) asserted that novelty in the sentence is associated with prominence. Such prominence involves *F-marking* (cf. Selkirk 1996). I.e., utterances containing new information are always F-marked and are also intonationally prominent. Naturally, F-marked elements cannot be deleted. Note that certain given constituents can also bear prominence (e.g., focussed elements) – these are F-marked and cannot be deleted either.

Schwarzschild (1999) suggested that a constituent or a sequence of constituents may be regarded as *given* in the clause if and only if it is entailed by prior discourse:

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[9] Pseudo-gapping can save certain subcomparative constructions in English (Kennedy & Merchant 2000):

(i) *Pico wrote a more interesting novel than Brio wrote a play.
(ii) Pico wrote a more interesting novel than he did a play.
(Kennedy & Merchant 2000, ex. 7a and 77)

However, this is only slightly reminiscent of CVG as described in connection with the Bulgarian examples above, since this involves a remnant DP and the dummy auxiliary must also remain overt. What is more, the comparative operator is generally covert in Standard English, thus its presence or absence cannot influence the well-formedness of either (i) or (ii) above.

(19) "[a]n utterance U counts as given iff it has a salient antecedent A and, modulo ∃-type shifting, A entails the ∃-**F**-closure of U [**+GIVEN**]" (**GIVENness)**
(Schwarzschild 1999, example 25)

In other words, if there is an utterance in the discourse, it is regarded to be given if and only if there is an antecedent in the discourse, which is naturally present earlier than the utterance, and this antecedent must include the information represented by a not F-marked set of subconstituents of the utterance. However, this working definition proved not to be adequate in the case of deletion constructions. Let's consider the following examples:

(20) John kissed Mary and Peter$_{\mathbf{F}}$ ~~kissed~~ Susan$_{\mathbf{F}}$. — *∃-type shifting*
(kiss(j,m)) ENTAILS ∃x∃y(kiss(x,y))

Peter and *Susan* encode new information in the second clause: they are F-marked. Still, the verb *kiss* has appeared in the preceding discourse, thus its second use counts as given. This is indeed justified by the fact that the first clause does entail the ∃-**F**-closure of the second one.

However, in the light of Merchant (2001), there should also be mutual satisfaction of the givenness requirement between the antecedent and the utterance:

(21) *John punched Bill and Carl$_{\mathbf{F}}$ ~~hurt~~ Fred$_{\mathbf{F}}$.
(punch(j,m)) ENTAILS ∃x∃y(hurt(x,y))
∃x∃y(punch(x,y)) IS NOT ENTAILED BY (hurt(c,f))

As can be seen, it is not enough for the antecedent clause to entail the ∃-F-closure of the utterance; the utterance should also entail the ∃-**F**-closure of the antecedent (*ibid.*). The working definition of givenness in its modified version can be seen below:

(22) **GIVENness in ellipsis domains (e-GIVEN)**: An utterance U counts as e-GIVEN iff it has a salient antecedent A and, modulo ∃-type shifting, A entails the ∃-**F**-closure of U, and U entails the ∃-**F**-closure of A.
(on the basis of Merchant 2001)

In this paper, we will rely on Merchant's condition on ellipsis, which can be summarised as follows: a constituent α can be deleted iff α is e-GIVEN (Merchant 2001, 38). This will be important, when it has to be determined what is and what is not an appropriate antecedent.[10]

4 Hungarian

In this section we will show that Hungarian has CVG and lacks CD.

First of all, let us have a look at the summary of Hungarian clause structure:

[10] Based on Schwarzschild (1999) and Merchant (2001), as well as on (19) and (22), it is obvious that the utterance to be deleted and its antecedent must be of the same semantic type (see also Schwabe 2003, 305ff.).

(23) [C_{Force}P [TopP* [C_{Fin}P [TopP* [DistP* [FocP/PredP [VP …]]]]]]]

Following É. Kiss (2002, 2006), the core of Hungarian predicates is a VP, in which the verb and its arguments are base-generated; on the top of VP either (i) an AspP (Aspectual Phrase) can be found, the specifier of which hosts verb modifiers, or (ii) there is a Focus Phrase (FocP), into the specifier of which focussed elements can move (see also Brody 1990a, 1990b, 1995); we accept É. Kiss' (2002, 85) proposal that AspP and FocP are alternative to each other. Above AspP/FocP, there may be iterable Distributive Phrases, the specifier of which can host monotone increasing distributive quantifiers, such as universal quantifiers, quantified phrases involving *sok* 'many', or *is* 'also' phrases; topicalized constituents move to the specifiers of iterable Topic Phrases (TopP) above DistPs; the topmost maximal projection is a CP.

As for the split Left Periphery of Hungarian CPs, consider the following examples (see also Kántor 2008a, 2008b):

(24) a. [$_{DP}$ [$_{CP}$ Elemért [$_{CP}$ aki látja]]], szóljon neku.
Elmer.ACC who sees notify.IMP.3SG him.DAT
'Whoever sees Elmer, please notify him.'

b. Jelentkezzen [$_{DP}$ [$_{CP}$ Edével [$_{CP}$ aki beszélt]]]
Come.forward.IMP.3SG Ede.INS who talk.3SG
'Whoever saw Ede, please come forward.'

Kenesei (1992b: 588)

As can be seen, the relative operator *aki* 'who' in the examples can be preceded by another phrase, namely *Elemért* in *(24a)* and *Edével* in *(24b)*. This is only possible if there is another layer (a TopP) generated above the CP containing the operator in its specifier position – in that case, the split CP analysis of Rizzi should be adopted (see section 1; for further discussion, see Kántor 2008c, 2008d).

Let us consider the following examples in terms of Comparative Deletion (CD) in Hungarian:

(25) a. *Péter sokkal kövérebb, mint Jancsi.*
Peter much fatter than Johnny
'Peter is much fatter than Johnny'.

b. *Péter sokkal kövérebb, mint (amilyen kövér) Jancsi valaha is*
Peter much fatter than OP fat Johnny ever
lesz.
will.be
'Peter is much fatter than Johnny will ever be.'

c. *Péter sokkal gyorsabb autót vett, mint Jancsi.*
Péter much faster car.ACC bought than Johnny
'Peter bought a much faster car than Johnny'.

d. *Péter sokkal gyorsabb autót vett, mint amilyen gyors*
Peter much faster car.ACC bought than OP fast
autót Jancsi vásárolt.
car.ACC Johnny purchased
'Peter bought a much faster car than the one that Johnny purchased.'

The sentences in (25a) and (25c) would be the most naturally used versions for native speakers; however, as demonstrated by the possibility of (25b) and (25d), the full clauses can be recovered both for predicative and for attributive comparatives, containing also the operator (i.e. *amilyen kövér* and *amilyen gyors autót*). This shows that Hungarian must be a non-CD language, which means that the AP in predicative comparatives and the DP in attributive comparatives do not have to be deleted even if they are identical to their antecedents in the matrix clause. As has been mentioned in section 2, this means that Hungarian totally lacks CD and it does not have the application of CD even as an option. If there is ellipsis reminiscent of the kind of deletion attested in English that obligatorily eliminates these constituents, it is the side effect of CVG phenomena, as will be demonstrated in the forthcoming paragraphs.

When it comes to Comparative Verb Gapping (CVG), the following pattern can be observed in predicative comparatives:

(26) a. *Péter sokkal kövérebb volt, mint Jancsi.*
Peter much fatter was than Johnny
'Johnny was much fatter than Johnny.'

b. *Péter sokkal kövérebb volt, mint amilyen kövér Jancsi*
Péter much fatter was than OP fat Johnny
volt.
was
'Peter was much fatter than Johnny was.'

c. **Péter sokkal kövérebb volt, mint Jancsi volt.*
Péter much fatter was than Johnny was
'Peter was much fatter than Johnny was.'

The full subclause is shown in (26b), which is perfectly grammatical, containing both the operator *amilyen* and the finite verb *volt*. However, if the operator is deleted but the verb is not, as in (26c), the result is ungrammatical. Note that no deletion can be regarded as the result of CD in (26c), since CD would involve the obligatory deletion of the AP in (26b) too, which is clearly not the case. Also, in a [+CD] language, Comparative Deletion *per definitionem* obligatorily deletes APs (or DPs, in attributive comparatives); therefore, that the verb *volt* – which is discontinuous from the operator and the AP – should also be deleted for the construction to converge in (26c) shows that it is not CD that is operational here.

Also, the question is whether (26a) can be regarded as the product of optional Comparative Ellipsis. By merely looking at (26a), it could also be purported that this is the case. Nevertheless, it must be taken into consideration that two constituents are missing: the operator + AP sequence, constituting the degree expression, and the verb. Since the ellipsis of the verb is obligatory in the absence of the operator + AP sequence, Comparative Ellipsis cannot be responsible for this, since it is optional. Later it will be shown what deletion operation is responsible for eliding the degree expression.[11]

[11] As has been mentioned in footnote 7, in Hungarian, only genuine phrasal comparatives involving inherently case-marked DPs are considered phrasal comparatives in the sense of, for example, Pancheva (2006) or Bhatt & Takahashi (2007), since the Nominative case of *Jancsi* ('Johnny') must be licensed clausally. Following Lechner (2004), we take the stance that examples like (24a) are reduced clause comparatives.

The phenomenon that we would like to focus on is that the construction can be saved by deleting the verb too, as in (26a). The same can be observed in attributive comparatives:

(27) a. *Péter sokkal gyorsabb autót vett, mint Jancsi.*
Peter much faster car-ACC bought than Johnny
'Peter bought a much faster car than Johnny.'

b. *Péter sokkal gyorsabb autót vett, mint amilyen gyors*
Peter much faster car.ACC bought than OP fast
autót Jancsi vett.
car.ACC Johnny bought
'Peter bought a much faster car than Johnny.'

c. **Péter sokkal gyorsabb autót vett, mint Jancsi vett.*
Peter much faster car.ACC bought than Johnny bought
'Peter bought a much faster car than Johnny.'

Hungarian seems to behave exactly in the same way as Bulgarian, and thus it clearly has CVG phenomena. It must be mentioned, though, that the requirement that the finite verb should be deleted if the operator has been deleted is also dependent on whether the verb contains NEW or GIVEN information. Consider:

(28) a. *Péter sokkal kövérebb, mint (amilyen/amilyen kövér) Jancsi*
Peter much fatter than OP/OP fat Johnny
(valaha is) ***lesz.***
ever will.be
'Peter is much fatter than Johnny will ever be.'

b. *Péter kövérebb, mint ?(amilyen) Jancsi* ***lenne,*** *ha*
Peter fatter than OP Johnny be.COND.3SG if
élne.
live.COND.3SG
'Peter is fatter than Johnny would be, if he were alive.'

c. *?Több almát vettem, mint Péter* ***hámozott.***
More apple.ACC bought.1SG than Peter peeled
'The number of pears I bought is higher than that of those that Peter peeled.'

d. *Nagyobb macskát láttam, mint ?(amekkora macskát)* ***etetett***
Bigger cat-ACC saw.1SG than OP cat.ACC fed
Péter.
Peter
'I saw a bigger than the one that Peter fed.'

e. *Péter gyorsabb autót vett, mint ?(amilyen gyors*
Peter faster car.ACC bought.3SG than OP fast
autót) mi vettünk.
car.ACC we bought.1PL
'Peter bought a faster car than we did.'

In all the above cases, the finite verb can remain in the subclause, despite the fact that there is no operator. However, the deletion of the verb in these cases would violate

the requirement that only GIVEN elements can be deleted, hence the difference from the examples in (26) and (27).

As for (28e), it could be asked whether the agreement difference between the verb forms warrants the retention of the verb. The only reason why (28e) is not totally ungrammatical without the operator, only marked (similarly to (30b), (30c) and (30d)), is that the agreement morphology on *vettünk* is different from that on its antecedent in the first clause (*vett*), and in this respect it contains new information. An anonymous reviewer remarked that the agreement on *vettünk* should not be new information, since agreement morphology on the verb is governed by the subject. On the contrary, GIVENness in ellipsis domains, as defined in (22), requires a salient antecedent of the same type for the utterance to be deleted, and it is straightforward that a pronoun in the same clause cannot be a salient antecedent for a finite verb here. Another argument in favour of this is that mainly anaphoric relations involve antecedents in the same clause, whereas the antecedents of elliptical constructions tend to be located in preceding clauses.

In sum, it can still be maintained that Hungarian displays CVG phenomena. Yet, some problems do emerge in connection with CVG-effects, which must be addressed.

First, it is true that comparative operators are optionally present in the subclause. However, if they are absent, the deletion of the verb is obligatory; on the other hand, a constituent can be deleted iff it is GIVEN (e-GIVEN).

Our explanation of CVG effects will partly be based on the characteristics of Hungarian focussing (cf. É. Kiss 2002, 85ff). First, let us examine the diagram below, which shows the structure of (26b):

(26b) *Péter sokkal kövérebb volt, [mint [QP amilyen kövér] JANCSI volt].*

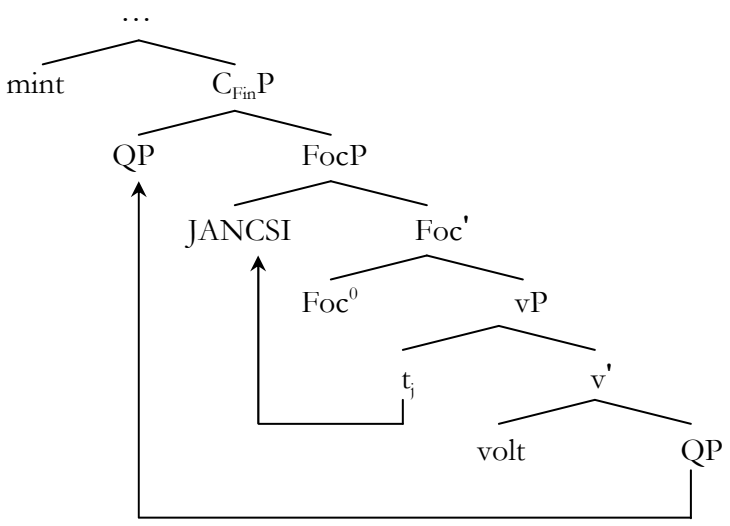

Figure 3: *The structure of (26b)*

The reason for *Jancsi* to be located in [Spec; FocP] is that it is focussed: it bears main sentence stress and it expresses exhaustive identification (cf. É. Kiss 2002). This is in line with the fact that comparatives also tend to inherently encode contrast – this is formalised below:

(29) a. Max is taller than Felix is.
b. ∃d[¬(d(tall(felix))) & (d(tall(max)))]
cf. Klein (1980) and Larson (1988)

Whenever there is focussing in Hungarian, the focussed element is followed by a reverse Verb–Verb Modifier order;[12] [13]this is what happens in comparatives, too:

(30) *Aztán* *meg-pillantottam* *egy* *sokkal* *nagyobb* *macskát,* *mint*
then VM-noticed.1SG a much bigger cat-ACC than
amilyet *PÉTER* *pillantott* *meg.*
OP Peter noticed VM
'Then I noticed a much bigger cat than Peter did.'

Returning now to the problem in connection with Figure 3, which does not involve CVG, it can be seen that the operator has to move up to the [Spec; CP] position to have its [+wh] feature checked. This is shown below:

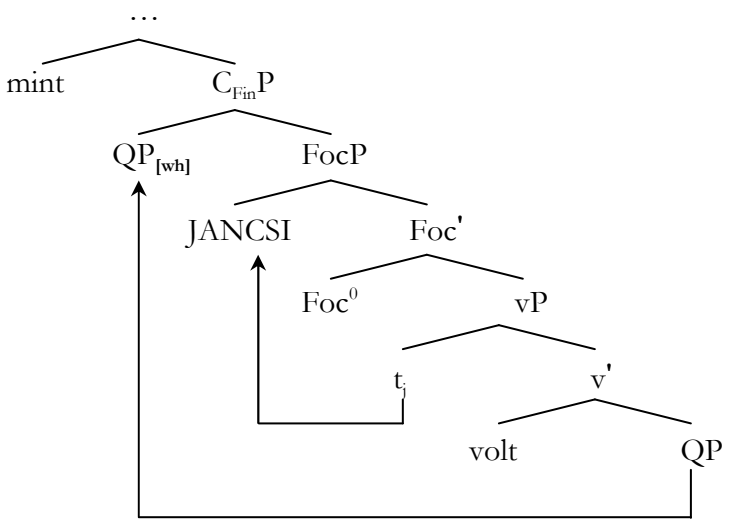

Figure 4: *Feature checking*

Now let us turn to another version of this construction, which involves CVG. If the operator for some reason fails to move up, feature checking cannot happen, which causes PF-uninterpretability as the comparative operator's feature is PF-uninterpretable.

[12] As É. Kiss (2002, 55) points out, "[v]erbs very often have a particle-like adverbial complement […], which is not only categorially selected, but is also lexically identified." These elements are here referred to as Verb Modifiers.

[13] It is widely known that in Hungarian examples that involve focussing, the focussed element – *Jancsi* in Figure 3 – and the verb must strictly be adjacent (cf. É. Kiss 2002, 83ff.). Certainly, focus–verb adjacency does not imply that the verb is focussed. Still, instead of the neutral Verb Modifier–Verb order, the verb must precede the Verb Modifier so that it could immediately follow the focussed element. In this paper, as has been mentioned, we adopt É. Kiss' (2002, 85) approach, inasmuch as AspPs and FocPs are alternative to each other, and since Verb Modifiers could move to specAspP, the absence of such a projection renders it to remain *in situ*, in the VP. Thus, head-initial projections ensure the focus–verb adjacency.

PF solves this via deletion, which is known to effectively eliminate the otherwise fatal strong [+wh] feature inside the VP (Kennedy & Merchant 2000, 131). This is illustrated in Figure 5:

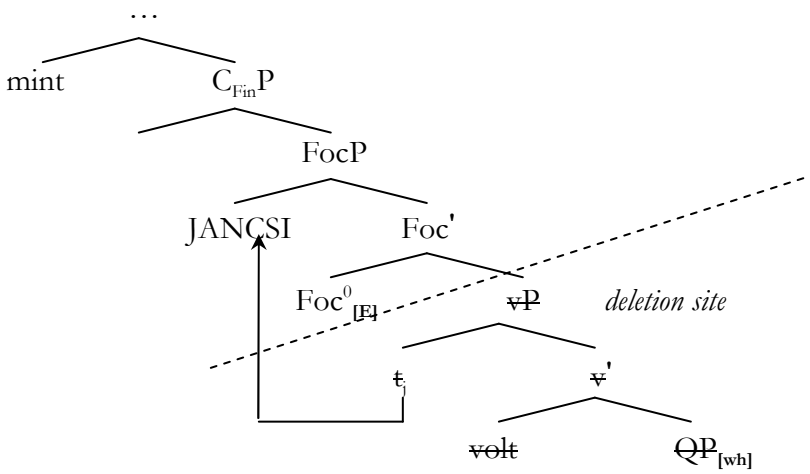

Figure 5: *The deletion of vP*

On the basis of Craenenbroeck & Lipták (2006), the deletion operation in Figure 5 is sluicing.[14] In Hungarian, sluicing always targets the constituent selected by Foc^0 (*ibid.*); Foc^0 is here equipped with the feature responsible for deletion ([E], following Merchant 2001). This feature [E] makes sure that everything will be deleted under Foc^0, including the finite verb *volt*. As can be seen, the uninterpretable [wh] feature of the comparative operator (QP) is located in the vP, thus it has been elided along with the finite verb in Figure 5. On the other hand, if the finite verb is visible, as in (26c) and (27c), this indicates that sluicing has not taken place and the uninterpretable feature has not been elided. The ellipsis domain of sluicing is thus not the verb itself as such, since sluicing in these cases saves the structure from being ungrammatical by also deleting the operator with its uninterpretable feature *in situ*.[15]

In other words, the absence of the overt comparative operator and the AP is indicative of the fact that these have been elided by sluicing along with the verb; certainly, for sluicing to effectively eliminate the operator with the unchecked strong feature *in situ*, the operator must fail to move to the left periphery prior to deletion.

Without this explanation based on sluicing, the data may have created the illusion that the absence of the comparative operator and the AP triggered the deletion of the verb. If it had been purported that Hungarian had a separate operation equivalent to CD in English, the data could also be described in a way that CD typologically correlates with

[14] As has been pointed out by an anonymous reviewer, if CVG is traced back to sluicing, sluiced Hungarian comparatives are expected to pattern along with other, standard examples of sluicing inasmuch as they are not sensitive to islands. This is indeed the case; for the discussion, see Kántor (2010: 121–132, especially ex. 75).

[15] The relation between CVG and ellipsis in general can be captured in that CVG phenomena are manifested by sluicing, a kind of ellipsis. This is a way of reducing CVG to another known instance of ellipsis. I.e., there is no operation such as CVG in the grammar, and its effects are merely epiphenomenal that occur in parallel to the possible use of sluicing.

main verb gapping. Nevertheless, as has been explained, this is not the case, since sluicing elides everything under Foc^0 in Hungarian (see the deletion site in (35) above), which includes both the verb and the operator *in situ*, thus the deletion of these two elements occurs at the same time, by the same ellipsis mechanism.

Furthermore, the question is whether there is a reverse side of this illusory relation, whether the absence of the verb results in the deletion of the degree expression involving the comparative operator. This is clearly not the case, because sluicing may also occur after the operator movement has taken the degree expression involving the operator to the left periphery of the comparative subclause. Consider:

(31) *Péter sokkal gyorsabb autót vett, mint amilyet Jancsi.*
Peter much faster car-ACC bought than OP-ACC Johnny
'Peter bought a much faster car than Johnny.'

As can be seen, the comparative operator is clearly visible while the verb is elided. In fact, verb ellipsis in Hungarian exhibits the same behaviour outside gradable constructions as well, as can be seen below:

(32) a. *Ugyanazt a könyvet olvasom, mint* ***amit*** *Péter* ***olvas****.*
that.same.ACC the book.ACC read.1SG as **what.ACC** Peter ***reads***
'I read the same book that Peter read.'

b. *Ugyanazt a könyvet olvasom, mint* ***amit*** *Péter.*
that.same.ACC the book.ACC read.1SG as **what.ACC** Peter
'I read the same book that Peter read.'

c. **Ugyanazt a könyvet olvasom, mint Péter* ***olvas****.*
that.same-ACC the book-ACC I.read as Peter **reads**
'I read the same book that Peter read.'

d. *Ugyanazt a könyvet olvasom, mint Péter.*
that.same.ACC the book.ACC read.1SG as Peter
'I read the same book that Peter read.'

As can be seen, (32a) contains a full relative clause, whereas (32b) contains a visible relative operator but lacks an overt verb; (32c) is ungrammatical because of the overt verb while the operator is missing, but if both of them are deleted, as in (32d), the structure converges again.

5 Finnish

Let us now turn to the examination of Finnish data; it will be shown that Finnish is basically a language that has CD and that lacks CVG. As for Comparative Deletion (CD), consider (33):

(33) a. *Joni on pidempi kuin Mari (*on)/(*on pitkä).*
John is taller than Mary is. is tall
'John is taller than Mary.'

b. *Joni on pidempi kuin (?mitä/*mitä pitkä) Mari (*on).*
John is taller than OP OP tall Mary is.
'John is taller than Mary'.

The examples above show that in Finnish it is ungrammatical to have an AP in the subclause that is identical with the one in the matrix clause; it is marginally acceptable to have a single operator *mitä* 'what' after *kuin* 'that' but the adjective cannot be repeated.

The picture is even more complex when it comes to attributive comparatives:

(34) a. *??Ostin nopeamman auton kuin miten nopean auton*
bought.1SG faster car than OP fast car
Petri osti.
Peter bought.
'The car I bought is faster than the one that Peter bought'.

b. *Ostin nopeamman auton kuin Petrin ostama*
bought.1SG faster car than Peter.GEN buy.PARTICIPLE
auto.
car
'I bought a car faster than the one that Peter bought.'

c. *??Ostin nopeamman auton kuin miten nopea Petrin*
bought.1SG faster car than OP fast Peter.GEN
ostama auto oli.
buy.PARTICIPLE car was
'I bought a car faster than the one that Peter bought.'

If the subclause contains a DP that is logically identical with the one in the matrix clause, as in (34a) and (34c), the sentence is only marginally acceptable. The only truly grammatical possibility is the one in (34b), where the subclause contains the relevant pieces of information within a kind of possessive construction. Still, even this kind of construction is only marginally acceptable if it contains the repeated adjective, as shown by (34c). Still, we can say that in Finnish, typically narrow reading attributive comparatives are available (on the distinction, see Lerner & Pinkal 1995). Consider the following examples from English:

(35) a. George owns a faster car than this BMW. *NRA*
b. George owns a faster car than Bill (does). *WRA*

In the narrow reading example in (35a), the QP is to be found in a predicative position, whereas in the wide reading example in (35b) it is an attribute within a DP.

This means that the comparative subclause tends to be fundamentally predicative in Finnish, and its subject the contrast necessary for comparison. The following examples show wide reading comparatives in Finnish with entire DPs missing from the subclause:

(36) a. *Ostin nopeamman auton tänään kuin Petri osti*
bought.1SG faster car today than Peter bought
eilen.
yesterday
'I bought a faster car today than Peter bought yesterday.'

b. **Ostin nopeamman auton tänään kuin miten nopean*
bought.1SG faster car today than OP fast
auton Petri osti eilen.
car Peter bought yesterday.
'I bought a faster car today than Peter bought yesterday.'

c. *Söin enemmän omenoita kuin Joni (söi)/ (*söi omenoita).*
ate.1SG more apples than John ate ate apples
'I ate more apples than John ate.'

This all points to the possibility that Finnish has obligatory CD, like English; but unlike English, where CD targets the AP in predicative comparatives and the DP in attributive comparatives, in Finnish it targets the maximal projection containing the finite verb (I'/vP) in predicative comparatives, as can be seen in (33), and the DP in attributive comparatives.

Naturally, deletion can only target given material and therefore there are subcomparatives to be found in Finnish:

(37) a. **Olen viisampi kuin sinä olet sukkela.*
am wiser than you are witty
'I am wiser than you are witty.'

b. *?Olen viisampi kuin mitä sinä olet sukkela.*
am wiser than OP you are witty
'I am wiser than you are witty.'

c. *Huoneeni on suorakaiteen muotoinen, hieman pidempi kuin*
my.room is rectangular shaped slightly longer than
mitä se on leveä.
OP it is wide
'My room is rectangular, it is slightly longer than it is wide.'

d. *Huoneeni on suorakaiteen muotoinen, ?hieman pidempi kuin*
my.room is rectangular shaped slightly longer than
se on leveä.
it is wide
'My room is rectangular, it is slightly longer than it is wide.'

e. *Huoneeni on suorakaiteen muotoinen, hieman pidempi kuin*
my.room is rectangular shaped slightly longer than
leveä.
wide
'My room is rectangular, it is slightly longer than it is wide.'

On the other hand, as far as Comparative Verb Gapping is concerned, there are no CVG-effects, as can be seen in the sentences given in this section; for example, (37c) contains an overt verb without the operator present.

Hence it can be concluded that Finnish is a language with CD and without CVG.

6 Estonian

Last but not least, let us turn to the characterisation of Estonian; Estonian is basically like Finnish in fundamentally having CD and clearly lacking CVG.

The default view of the Estonian clause is as follows (cf. Ehala 2006):

(38) [CP [IP [vP [VP]]]]

In Estonian, there exists an overt form of the comparative operator: *kuivõrd* ('*to the extent that*'). For some speakers, *kuivõrd* is ungrammatical in any construction. Grammaticality judgments are indicated for both *kuivõrd*-sensitive and *kuivõrd*-resistant speakers in this order when they differ.

Let us then begin with Comparative Deletion (CD). Consider the following examples:

(39) a. *Jaan on pikem kui Mari (?on).*
John is taller than Mary is
'John is taller than Mary.'

b. **Jaan on pikem kui Mari on pikk.*
John is taller than Mary is tall
'John is taller than Mary.'

c. *??/?Jaan on pikem kui kuivõrd pikk Mari on.*
John is taller than OP tall Mary is
'John is taller than Mary.'

As can be seen in (39b), the repetition of the adjective in the subclause is not grammatical in itself, and marginal acceptability can be achieved by adding *kuivõrd*. The situation does not seem to be different for other persons:

(40) a. *Olen targem kui teie.*
am wiser than you.PL
'I am wiser than you.'

b. **/? Olen targem kui kuivõrd teie olete targad.*
am wiser than OP you are wise
'I am wiser than you.'

All in all, it seems that in Estonian predicative comparatives there is CD involved. This is so in attributive comparatives as well:

(41) a. *Ostsin kiirema auto kui Peeter.*
bought.1SG faster car than Peter
'I bought a faster car than Peter.'

b. **/?Ostsin kiirema auto kui kuivõrd kiire auto Peeter ostis.*
bought.1SG faster car than OP fast car Peter bought
'I bought a faster car than Peter.'

c. *Ostsin kiirema auto täna kui Peeter eile.*
bought.1SG faster car today than Peter yesterday
'I bought a faster car today than Peter did yesterday.'

d. *Ostsin kiirema auto kui Peeter ostis.*
bought.1SG faster car than Peter bought
'I bought a faster car than Peter bought.'

Especially for *kuivõrd*-sensitive speakers, the presence of the DP containing the operator is not acceptable. See also:

(42) a. *Ma sõin rohkem õunu kui Jaan (?sõi).*
I ate.1SG more apples than John ate
'I ate more apples than John did.'

b. **Ma sõin rohkem õunu kui mitu õuna Jaan (sõi).*
I ate.1SG more apples than OP apples John ate
'I ate more apples than John did.'

Thus it seems that Estonian has obligatory Comparative Deletion for *kuivõrd*-sensitive speakers, whereas *kuivõrd*-resistant speakers are a little more permissive with this requirement. CD targets the I' in predicative comparatives, as can be seen in (39), and the DP in attributive comparatives in Estonian, just like in Finnish.

It has to be mentioned that if the constituent is not given, there is no difference between *kuivõrd*-sensitive and *kuivõrd* -resistant speakers:

(43) ? *Ma sõin rohkem õunu kui mitu pirni Jaan sõi.*
I ate more apples than OP pears John ate
'I ate more apples than John ate pears.'

In Estonian, there is no Comparative Verb Gapping to be observed, as shown below:

(44) a. *Ostsin kiirema auto kui Peeter (ostis).*
bought.1SG faster car than Peter bought
'I bought a faster car than Peter bought.'

b. Ma sõin rohkem õunu kui Jaan (sõi).
I ate more apples than John ate
'I ate more apples than John ate'.

In sum, we can say that Estonian fundamentally has CD, and straightforwardly lacks CVG.

7 Theoretical implications

The primary importance of our findings at present lies in the recognition of Comparative Verb Gapping phenomena, which has not been discussed so far in the literature, and in the fact that CVG can be explained in terms of sluicing. In other words, a seemingly peculiar phenomenon may be traced back to a more general deletion operation, hence providing a sound and parsimonious theoretical background to the actual description of CVG.

Our aim was to provide an economical explanation to the data we found, and since the analysis of CVG is based on sluicing, an already well-attested and explained deletion mechanism, our explanation does not provide any extra burden for the syntactic computation. What our analysis of CVG adds to the work on elliptical comparatives is that sluicing, which was not utilised in Lechner (2004) for this purpose at all, also accounts for a certain type of deletion in comparatives, thus it further strengthens the hypothesis that comparative complements are all underlyingly clausal, and various deletion mechanisms can account for the missing constituents in them (cf. Lechner 1999, 100, 2004,6).

Our future research will be directed to the question of what typological correlations can be detected with respect to CVG-effects and the use of sluicing. Evidently, CVG-effects can only be detected in languages with overt comparative operators. Also, van Craenenbroeck & Lipták's (2006, 259) typology of sluicing must be taken into consideration, according to which the sluicing domains can be the constituents selected by C^0 or Foc^0 (depending on where *wh*-operators move in a given language; e.g., [Spec; CP] in English, Dutch and German; [Spec; FocP] in Hungarian, Basque, Hebrew), or there is no sluicing in languages that lack overt operator movements (e.g., Korean, Japanese, Chinese). In the future, we will try to investigate whether there is a connection between van Craenenbroeck & Lipták's (2006) *wh*-sluicing correlation and the emergence of CVG-effects in certain languages.

The reason why Finnish and Estonian were also taken into consideration in the research was that these languages can also marginally have overt comparative operators, and we wanted to examine whether the overt/covert status of this operator can be linked to the typology of languages, whether they show CVG or obligatory CD phenomena. However, it turned out that Finnish and Estonian have obligatory CD patterns, in spite of the optional and occasional presence of an overt comparative operator. What we found in connection with Finnish and Estonian is that Comparative Deletion targets the maximal projection containing the verb in predicative, and the DP in attributive comparatives, thus it is not CVG but CD that is operational here.

8 Conclusion

In this article, we wanted to provide a survey of what elliptical comparatives look like in Finnish, Hungarian and Estonian. The main aim was to show what kind of deletion phenomena can be found in these languages and to provide an analysis of any new data previously unexplained.

The phenomena in question describe the general appearance of elliptical comparative constructions. First, the presence/absence of CD shows whether the AP in predicative comparatives or the DP in attributive comparative must obligatorily be deleted in the comparative subclause if it is identical to its matrix counterpart. Second, in languages showing CVG effects, if the comparative operator is missing from the comparative subclause, the finite verb must also be deleted, unless it carries new information, as was presented in connection with Hungarian. To our knowledge, this phenomenon has not been explained in the literature; we ventured an analysis in connection with the Hungarian data presented in section 4, which was based on sluicing and its capability to eliminate otherwise fatal unchecked features, thus it could account for the deletion of both the comparative operator and the verb at the same time.

References

Abney, Steven Paul. 1987. *The English Noun Phrase and its Sentential Aspect*. Amherst, MA: Massachusetts Institute of Technology dissertation.

Bácskai-Atkári, Júlia. 2010. Parametric Variation and Comparative Deletion. *The Even Yearbook* 9. 1–21.

Bhatt, Rajesh & Pancheva, Roumyana. 2004. Late Merger of Degree Clauses. *Linguistic Inquiry* 35. 1–45.

Bhatt, Rajesh & Takahashi, Shoichi. 2007. Direct Comparisons: Resurrecting the Direct Analysis of Phrasal Comparatives. In Masayuki, Gibson et al. (eds.), *Proceedings of SALT 17*, 19–36. Ithaca, NY: CLC Publications.

Bresnan, Joan. 1973. The Syntax of the Comparative Clause Construction in English. *Linguistic Inquiry* 4. 275–343.

Brody, Michael. 1990a. Remarks on the Order of Elements in the Hungarian Focus Field. In István Kenesei (ed.), *Approaches to Hungarian* 3. 95–122. Szeged: JATE.

Brody, Michael. 1990b. Some Remarks on the Focus Field in Hungarian. *UCL Working Papers in Linguistics* 2. 201–225.

Brody, Michael. 1995. Focus and Checking Theory. In István Kenesei (ed.), *Approaches to Hungarian* 5. 29–44. Szeged: JATE.

Chomsky, Noam. 1977. On WH-movement. In Peter W. Culicover et al. (eds.), *Formal Syntax*. 71–132. New York: Academic Press.

Corver, Norbert Ferdinand Marie. 1990. *The Syntax of Left Branch Extractions*. Tilburg: Tilburg University dissertation.

Corver, Norbert Ferdinand Marie. 1997. *Much*-Support as a Last Resort. *Linguistic Inquiry* 21.8. 119–164.

van Craenenbroeck, Jeroen & Lipták, Anikó. 2006. The Crosslinguistic Syntax of Sluicing: Evidence from Hungarian Relatives. *Syntax* 9.3. 248-274.

Ehala, Martin. 2006. The Word Order of Estonian: Implications to Universal Language. *Journal of Universal Language* 7. 49–89.

É. Kiss, Katalin. 2002. *The Syntax of Hungarian*. Cambridge: Cambridge University Press.

É. Kiss, Katalin. 2006. Jól megoldottuk? Rosszul oldottuk meg? Az összefoglaló és a kirekesztő kifejezést tartalmazó mondatok szórendjének magyarázata. *Magyar Nyelv* 102.4. 442–459.

Embick, David. 2007. Blocking Effects and Analytic/Synthetic Alternations. *Natural Language and Linguistics Theory* 25,1. 1–37.

Izvorski, Roumyana. 1995. A DP-shell for Comparatives. In Antonietta Bisetto et al. (eds.), *Proceedings of ConSOLE III*. 99–121. Leiden: Sole.

Kántor, Gergely. 2008a. *Edge*-effektus és komparatív extrapozíció. *LINGDOK* 7. 95–121.

Kántor, Gergely. 2008b. A Phase-based Approach to Rightward Movement in Comparatives. *Newcastle Working Paper in Linguistics* 14. 81–99.

Kántor, Gergely. 2008c. Komparatív korrelatív szerkezetek a magyarban. *Nyelvtudományi Közlemények* 105. 134–162.

Kántor, Gergely. 2008d. On Hungarian Relative Operators. *The Even Yearbook* 8. 1–12.

Kántor, Gergely. 2010. *Syntactic Processes and Interface Phenomena in Comparatives*. Budapest: ELTE dissertation.

Kenesei, István. 1992a. On Hungarian Complementizers. In István Kenesei & Csaba Pléh (eds.), *Approaches to Hungarian* 4. 37–50. Szeged: JATE.

Kenesei, István. 1992b. Az alárendelt mondatok szerkezete. In Ferenc Kiefer (ed.), *Strukturális magyar nyelvtan I. Mondattan.* 529–713. Budapest: Akadémiai Kiadó.
Kennedy, Christopher. 1997. *Projecting the Adjective: The Syntax and Semantics of Gradability and Comparison*. Santa Cruz, CA: UCSC dissertation.
Kennedy, Christopher & Merchant, Jason. 1997. Attributive Comparatives and Bound Ellipsis. *Linguistics Research Center Report* LRC-97-03, University of California, Santa Cruz.
Kennedy, Christopher & Merchant, Jason. 2000. Attributive Comparative Deletion. *Natural Language & Linguistic Theory* 18. 89–146.
Klein, Ewan. 1980. A Semantics for Positive and Comparative Adjectives. *Linguistics and Philosophy* 4. 1–45.
Larson, Richard K. 1988. Scope and Comparatives. *Linguistics and Philosophy* 11. 1–26.
Lechner, Winfried. 1999. *Comparatives and DP-structure.* Amherst, MA: University of Massachusetts Amherst dissertation.
Lechner, Winfried. 2004. *Ellipsis in Comparatives*. Berlin & New York: Mouton de Gruyter.
Lerner, Jan & Pinkal, Manfred. 1995. Comparative Ellipsis and Variable Binding. *Proceedings of SALT 5*, 222–236. Ithaca, NY: CLC Publications.
Merchant, Jason. 2001. *The Syntax of Silence: Sluicing, Islands and the Theory of Ellipsis.* Oxford: Oxford University Press.
Pancheva, Roumyana. 2006. Phrasal and Clausal Comparatives in Slavic. In Franks, Steven et al. (eds.), *Formal Approaches to Slavic Linguistics 14: The Princeton Meeting 2005*. 236–257. Michigan: Michigan Slavic Publications.
Rizzi, Luigi. 1997. The Fine Structure of the Left Periphery. In Liliane Haegeman (ed.), *Elements of Grammar.* 281–337. Dordrecht: Kluwer.
Rizzi, Luigi. 1999. *On the Position "Int(errogative)" in the Left Periphery of the Clause*. Università di Siena, manuscript. http://www.ciscl.unisi.it/persone/rizzi.htm (31 March 2008)
Schwabe, Kerstin. 2003. F-Marking and Specificity in Sluicing Constructions. In Kerstin Schwabe & Susanne Winkler (eds.), *The Interfaces: Deriving and Interpreting Omitted Structures.* 301–320. Amsterdam: John Benjamins.
Schwarzschild, Roger. 1999. Givenness, AvoidF and Other Constraints on the Placement of Accent. *Natural Language Semantics* 7. 141–177.
Selkirk, Elisabeth O. 1996. Sentence Prosody: Intonation, Stress and Phrasing. In John A. Goldsmith (ed.), *The Handbook of Phonological Theory*. 550–569. London: Blackwell.
Taglicht, Joseph. 1982. Intonation and Assessment of Information. *Journal of Linguistics* 18. 213–230.
von Stechow, Arnim. 1984. Comparing Semantic Theories of Comparison. *Journal of Semantics* 3. 1–77.
White, Jonathan R. 1998. Syntax-LF Mapping and the Internal Structure of Comparatives. *UCL Working Papers in Linguistics* 10. 1–21.

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New Information Subjects in Finnish: an Experimental Study*

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The study presents experimental findings on new information subjects in Finnish. The main answering strategies that emerge in the collected data are discussed in light of recent studies within the cartographic framework (Belletti 2001, 2004, 2005). In null subject languages subject inversion is typically adopted in contexts in which the subject is new information. Conversely, in non null subject languages other strategies emerge, such as *in situ* focalization (e.g. English) and cleft sentences (e.g. French). Finnish is particularly interesting for its nature of partial null subject language (Holmberg et al. 2009). The unavailability of VS structures of the type observed in null subject languages and the presence of XPVS structures can be accounted for assuming that Finnish does not have a referential *pro* and the EPP can be satisfied by other lexical elements.

Keywords: *Finnish, syntax, new information subject, focus, L1 data*

1 Introduction

Null Subject Languages (NSL) such as Italian typically adopt subject-verb inversion, resulting in the VS order, when answering with a full clause to questions concerning the identification of the subject of the clause. In contrast, in Non Null Subject Languages (NNSL) such as e.g. French and English VS structures are excluded and other types of answers are typically adopted: (reduced) clefts and SV structures (*in situ* focalization henceforth), in which the subject is associated with a particular intonation (Belletti 2001, 2004, 2008, Belletti, Bennati & Sorace 2007). (1)-(3) illustrate the equivalent question-answer exchanges in Italian, English and French, respectively.

(1) a. *Chi ha parlato?*
who has spoke
b. *Ha parlato Pietro*
has spoken Peter

(2) a. *Who came?*
John came

(3) a. *Qui a parlé?*
who spoke?
b. *C'est Jean.*
ce is Jean
'It's Jean'

As thoroughly discussed in the literature, the availability of subject-inversion, yielding the order VS, correlates with the null subject nature of the language (Rizzi 1982,

* I am especially grateful to the anonymous reviewers of FULL whose detailed and insightful comments have considerably improved this contribution. I also thank all the participants at the 11th International Congress for Finno-Ugric Studies in Pilicsaba, where this paper was first presented.

Burzio 1986 and subsequent literature). The phenomenon is often referred to as *Free Inversion*[2] (henceforth FI, cf. Belletti 2001, 2004). The recent studies quoted above have proposed that discourse factors are also highly relevant in the distribution of FI/VS in NSLs. This kind of inversion is thus not 'free' in the sense that it can occur freely since it is discourse-related; it is typically adopted in contexts as (1) where the subject is interpreted as the subject of new information (Belletti 2001, Belletti 2004b, Belletti, Bennati & Sorace 2007). Belletti (2001, 2004) has proposed that a low vP-peripheral focus position is present in the clause structure, which hosts new information subjects in NSLs (e.g. Italian). As mentioned, recent work on answering strategies (cf. Belletti 2009) has shown that this position is not made use of in the same way in NNSLs, which thus adopt different structures to focalize the new information subject (as in (2)-(3) above). Consequently, a relation exists between the possibility to instantiate FI/VS, with the subject interpreted as new information, and the null subject nature of the language (see also Belletti & Shlonsky 1995, Hulk & Pollock 2001, Kayne 2005, Sheehan 2010 a.o. for discussion on inversion in Romance).

Updating the terminology of the traditional account (e.g. Rizzi 1982) it is assumed that a small *pro* satisfies the relevant EPP property of the relevant high subject position of the clause, thus yielding VS.

In a crosslinguistic perspective, it has been observed that the strategies adopted in different and unrelated languages[3] fall within the alternatives illustrated in (1)-(3) (Belletti 2009). In recent studies (Holmberg et al. 2009, Holmberg & Sheehan 2010) it is proposed that Finnish has a special status with regard to the Null Subject Parameter: it is a Partial Null Subject Language (PNSL), cf. also Huang (2000) for a classification of PNSLs or semi NSLs. It allows 1st and 2nd person null subjects but it does not allow 3rd person null subjects, except in some embedded clauses with the null subject 'controlled' by a higher argument; Finnish also does not allow verb-initial impersonal clauses.[4]

The present work presents an experimental study which reports novel findings from an oral elicitation task which tests the use of new information subjects in L1 Finnish. The research questions which are addressed are: (i) What answering strategies are available in Finnish in contexts in which the subject is a new information subject? (ii) Does Finnish make use of the dedicated vP-internal focus position, which in the approach referred to above and adopted here, hosts new information subjects? The main results tell us that in a PNSL like Finnish new information subjects can be generally interpreted as such in preverbal position and no FI/VS is instantiated. However, the possible activation in Finnish of the vP peripheral new information focus position will be discussed in the light of a different word order, XPVS, which has also emerged in the collected data. It will be proposed that the Finnish XPVS order instantiates a different way to satisfy the EPP property of the high subject position of the clause, different from the one characteristically exploited in a NSL (e.g. Italian through small *pro*).

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2 Free Inversion has different properties from other inversion structures in Romance languages, such as French *Stylistic Inversion* (Kayne & Pollock 1978, 2001) discussed in Belletti (2001, 2004b) in comparison to FI.

3 Belletti (2009) discusses data coming from several typologically different and diachronically unrelated languages such as Italian, English, French, European Portuguese, Romanian, Paduan, Japanese, Norwegian, Malayalam, German, Hungarian, Basque, Gungbe.

4 There are some exceptions to this general pattern, as discussed in Holmberg (2005, 2009) and Holmberg & Nikanne (2002). These exceptions are not crucial for the present discussion and will not be discussed here.

2 Theoretical background

2.1 The analysis of Free Inversion

Following Belletti (2001, 2004b), we assume, along the lines of the cartographic approach (Rizzi 1997, 2004, Cinque 2002), that a new information postverbal subject is located in the Specifier of a low focus position, a dedicated position for new information elements (Belletti 2001, 2004b). A clause-internal vP periphery with a FocusP surrounded by Topic projections is identified, as in (5a), parallel to the fine-grained clausal left periphery[5] assumed by Rizzi (1997, 2004).

(5) a. [CP … [TP ... [TopP … [FocP Foc [TopP … vP]]]]]
b. [CP ... [TP pro... ha parlato … [Top [FocP Pietro [TopP [VP…]]]]]
has spoken Peter

The analysis proposed by Belletti (2001, 2004b) in (5b) assumes that the new information subject moves to the low dedicated position, where it is interpreted, while a silent *pro* fills the preverbal subject position in order to satisfy the clausal EPP feature. As discussed in the Introduction, the FI/VS order is constrained by discourse factors, so that typically in sentences such as (5b) the subject is interpreted as a new information subject.

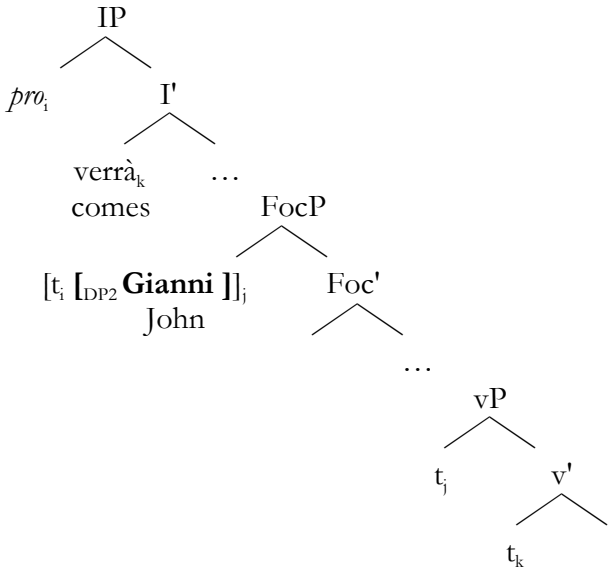
Under this approach the traditional idea that a relation between the preverbal *pro* and the postverbal subject holds, is revisited as follows: Belletti (2005) assumes a doubling derivation inspired by the analysis in Sportiche (1988) for floated quantifiers (see also Torrego 1995, Kayne 1994, Rouveret 1989 for different accounts in the same vein) common to various structures such as clitic doubling, clitic left/right dislocation, and so-called strong pronoun doubling. All these structures exhibit two nominals with the same thematic role and case. It is proposed that in sentences like (6) illustrating the strong pronoun doubling construction a Big DP exists in which both the functional word, the pronoun, and the lexical noun phrase are merged.

(6) *Gianni verrà lui*
John comes he
'John, he will come'

Belletti (2005) proposes that FI/VS structures can be derived in a similar way, as illustrated in (7):

[5] The cartographic approach assumes a detailed architecture of the clause composed of distinct functional heads and their corresponding projections which are directly visible to the interpretative systems. According to Rizzi (1997, 2004) the left periphery of the clause has as a structure along the following lines: [ForceP [TopP [IntP [TopP [FocusP [TopP [FinP [IP …]]]]]]]

(7)



In this configuration *pro* and Gianni are generated in the Big DP, *pro* moves to a nominative case position and Gianni is stranded in the vP-peripheral new information focus position. Nominative case-marking of the postverbal subject is a consequence of the doubling computation. According to this proposal, the EPP feature triggers the movement of the part of the Big DP corresponding to *pro*.[6]

2.2 The nature of *pro* and FI/VS

The assumption is, following Belletti (2005) that in the doubling derivation of VS structures in FI/VS *pro* is a silent personal (referential) pronoun sharing features with the postverbal lexical subject by virtue of their relation in the Big DP, rather than an expletive pronoun.

Languages such as Brazilian Portuguese (BP) have progressively lost the null-subject property with referential subjects. BP has also lost (free) subject inversion structures. The analysis summarized assumes that these two properties are correlated and they can be explained under the doubling derivation according to which a referential *pro* is present in the preverbal position, as illustrated above.[7]

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[6] See Holmberg (2005, 2010) for a different refinement of the traditional analysis (Rizzi 1982) on NS couched within the MP in terms of definiteness. The feature [+ referential] of Rizzi is replaced by a [uD]-feature (a definiteness feature that is present in I with which a null subject enters in an Agree relation); languages divide into those that have such feature in I, hence allowing null subjects (a deficient pronoun phi-P in consistent NSLs) and those that do not have this feature (non NSLs or PNSLs).

[7] The present account does not exclude the possibility of having an expletive rather than a Doubling configuration, as pointed out by an anonymous reviewer. Biberauer (2010) a.o. extensively investigates, within the MP, expletives in NSL and a subset of PNSLs is discussed with regard to the nature of Spec,T. A categorical difference between expletives in NSLs and NNSLs is proposed as well. In the same spirit, Roberts (2010) suggests an alternative analysis to the Rizzian one for null subjects in consistent NSLs based on Holmberg (2005), cf. also Holmberg (2010).

From the above we conclude that having *pro* is a necessary but not sufficient condition for instantiating Verb-Subject structures.[8] A straightforward consequence is that only NSLs, which can have a silent *pro* in the canonical subject position, allow for the kind of movement involved in free inversion structures and NNSLs typically use other kind of structures in context in which the subject is new information, as exemplified in (2)-(3). As for PNSL the question arises as to whether new information subjects are implemented in the NNSL or in the NSL fashion. In Guesser (2007) the same experimental design first used by Belletti & Leonini (2004) and adapted to Finnish in the present study has been adapted to Brazilian Portuguese, another language classified as a PNSL in Holmberg et al. (2009). The results show that in BP different strategies are adopted to focalize the new information subject: SV, clefts (which include reduced clefts, pseudo-clefts and truncated clefts, see Guesser 2007), while VS structures of the type observed in a NSL like Italian seen above were not observed. This supports the idea that referential *pro* is a necessary condition for instantiating VS structures as proposed by Belletti (see section 2) and adopted in Guesser (2007). The present experimental study aims at testing whether this is true for another PNSL, namely Finnish.

Crucially, if an expletive *pro* were sufficient to allow for FI/VS, we would expect FI/VS also in PNSLs such as Finnish and Brazilian Portuguese (BP) as these languages have an expletive *pro* (cf. Duarte 2000, Figueiredo-Silva (1996); Rodrigues (2002), Ferreira (2004), Guesser (2007), Modesto (2008) for discussion and analysis on null subjects in BP and Holmberg & Nikanne 2002, Holmberg 2005 on overt and null expletives in Finnish). Given the similarities between BP and Finnish (they do not have referential *pro* and both have a null expletive), we expect that similarly to what observed for BP (Guesser 2007) no FI/VS structures are available in Finnish. The results (cf. section 5) will show us that things are rather more complicated.

3 The experimental design: task and participants

The experimental task that was used in the present study was first created by Belletti & Leonini (2004) and then also used by Belletti, Bennati & Sorace (2007) to test the acquisition and use of postverbal subjects in Italian L2. Adaptations of the experimental task in different languages have been done to collect data in L1 Brazilian Portuguese (Guesser 2007), L1 Croatian (Kras 2010) and L1 Finnish (in the present study). Noticeably, the same design and materials were used in all studies.

The experimental task consists of 22 short videos in indoor settings with female and male subjects (see Appendix I for tokens of the task). It aims at creating the ideal discourse-pragmatic conditions for question-answer pairs in which the subject is new information focus. The task was presented individually to the participants through a Power Point presentation, the videos were the same for all the participants and they were not randomized. Using the same experimental design crosslinguistically maintains

[8] This is also attested by data on languages that have a positive setting for the null subject parameter but do not allow verb-subject structures, e.g. Bantu languages (Nicolis 2005). Also studies in second language acquisition strengthens the dissociation between the availability of *pro* and that of postverbal subjects: Belletti and Leonini (2004) and Belletti, Bennati and Sorace (2007) investigated the use of null subjects and postverbal subjects in contexts in which the subject is new information in Italian L2. In both studies it is shown that a target use of null subjects is not correlated to a target use of postverbal subjects.

comparable, for different groups of speakers, the discourse-pragmatic contexts in which the subject of the clause is focalized as a new information subject.

Each video shows a situation in which something happens and one of the actors asks about what happened in the scene. The participant has to orally answer the question in the most spontaneous way. After the question in the video (which is always a test item) one to three questions are presented for each scene. All target questions were on 3rd person subjects due to the way the experiment was designed. The participants were not told about the aim of the experiment and the instructions given to the participants were two: 1) answer in the most spontaneous way, and 2) use a verb when answering. Each subject was tested individually and recorded from the beginning to the end of the test. Time was not a relevant factor for the present experiment but in general the test took about 15 minutes per subject. The answers were transcribed afterwards and only sentences containing a verb were considered. One-word answers or answers without a verb (or of a different class w.r.t. the verb in the question) were excluded[9]. The answers were classified on the basis of word order in: SV(O), (XP)VS, SOV, clefts, reduced clefts and existential clefts (Dal Pozzo 2011), where S is subject, V is verb and (XP) is object with transitive verbs and adverb/adverbial with intransitive verbs.

The test items were 34 and the verbs were classified in transitive (n=20), unergative (n=11) and unaccusative (n=3). The experimental task also included filler questions (n=25).

The participants were 15 adult native speakers of Finnish (mean age 27,1), each participant was tested separately in a different place and their participation was not paid.

4 Results

The preferred answering strategy in the present corpus is overwhelmingly SV(O), as evident from graph 1. Nonetheless, other answers are not excluded. In particular an O/Adv VS order is available, where O/Adv is the topic/known information and S is new information focus, as shown in (8)[10]. The clause-initial direct object is generally a pronoun which is co-referent with the DP in the question. Other strategies include clefts, reduced clefts and existential clefts[11], as in (9a,b,c), respectively. In this paper we will focus only on the two main answering strategies adopted in Finnish: SV(O) and XPVS.

(8) a. – *Kuka* *söi* *omenan?*[12]
who.NOM eat.PAST.3SG apple.ACC
– *Sen* *söi* *vaalea* *nainen.*
It.ACC eat.PAST.3SG blond.NOM woman.NOM
b. – *Kuka* *puhui* *videossa?*
who.NOM speak.PAST.3SG video.INE

[9] Notice that these were very few cases.

[10] Examples are directly drawn from the collected data.

[11] Cleft structures open an interesting issue. Along the lines of the cartographic approach (Belletti 2010, Guesser 2011) it seems that in Finnish a vP-peripheral focus position is extensively activated in these structures. The issue is left for future research.

[12] The following abbreviations are used for grammatical cases: ACC=accusative; NOM= nominative; INE= inessive. Following common practice PAST is used to indicate past tense and SG for singular.

– *Videossa puhui se poika*
Video.INE speak.PAST.3SG that.NOM boy.NOM
'- Who spoke in the video? - In the video spoke that boy.'

(9) a. – *Kuka vastasi?*
who.NOM answer. PAST.3SG
– *Se oli tuo tyttö, joka vastasi*
it.NOM was that girl.NOM who.NOM answer.PAST.3SG
b. – *Kuka soitti?*
who.NOM call.PAST.3SG
– *Se oli Kaisa*
it.NOM was Kaisa.NOM
c. – *Kuka on lakaissut?*
who.NOM has swept
– *Siinä oli yksi tyttö, joka lakaisi*
this.INE was one girl.NOM who swept
'There was a girl who swept'

Table 1 provides the total amount of answers classified for verb type and type of answers:

a)

Verb class	SV	VS	O(DP)VS	O(pr)VS	SO(pr)V	Cleft	R. Cleft	Exist. cleft	Tot.
Trans.	82%	0%	2%	8%	0,3%	3,8%	4,2%	0,0%	100%
Unacc.	88%	7%	0%	0%	0%	2,3%	2,3%	0,0%	100%
Unerg.	84,9%	4,6	0%	0%	0%	3,9%	3,9%	2,6%	100%

b)

Verb class	SV	VS	O(DP)VS	O(pr)VS	SO(pr)V	Cleft	R. Cleft	Exist. cleft	Tot.
Trans.	234	0	5	24	1	11	12	0	287
Unacc.	38	3	0	0	0	1	1	0	43
Unerg.	129	7	0	0	0	6	6	0	152

Table 1: *Total amount of answers for verb type*

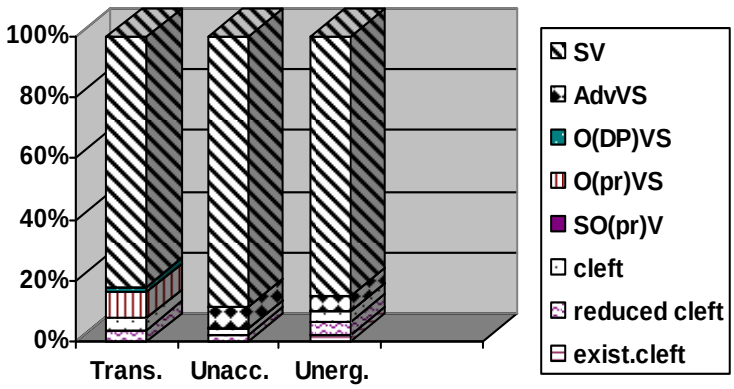

Figure 1: *Strategies of subject focalization in Finnish*

As expected, FI/VS of the type found in NSL languages are not observed under the same discourse-pragmatic circumstances. The result is consistent with elicited data collected through the same experimental design in BP (Guesser 2007, Dal Pozzo & Guesser 2011) and it supports the assumption that a referential (3rd person) null subject, which neither BP nor Finnish have, is a required condition to instantiate FI/VS structures in addition to adequate (new information) discourse conditions, which were controlled for by the contexts of the elicitation task.

I suggest that the SV(O) order in Finnish is an instance of in *situ focalization*, a subject focalization strategy to which typically NNSLs such as English resort (see references quoted), with the derivation in (12). The subject is in its canonical preverbal subject position[13] (Spec, FinP according to Holmberg & Nikanne 2002 and as assumed in Kaiser 2006), in which it is focalized as new information.

(10) [CP [FP **S1** [NegP [TopP […[TP T […[Top …[vP **V** [**O**]]]]]]]
FOC *in situ*

Assuming the representation in (11) for SV(O) with S new information, apparently supports the idea that Finnish can be assimilated to NNSLs: the new information subject is focalized in its canonical preverbal position and no FI/VS (nor activation of the dedicated vP-peripheral focus position) emerges. However, SV(O) is not the only strategy that emerges in our data. The second quantitatively relevant strategy consists of the XPVS order, in which we postulate that the low vP-peripheral position dedicated to new information elements is activated, as discussed in the following section.

4.1 XPVS

The XPVS order is attested in 10% (28/287) of the total amount of answers with transitive verbs, resulting in OVS, and in 5,1% with unergative and unaccusative verbs, resulting in AdvVS. At the discourse level, XPVS is possible when XP is a topic in the sense of known/given information and S is new information (cf. Vilkuna 1995, Holmberg & Nikanne 2002).

Turning the discussion to the OVS order, syntactically at least two alternative analyses come to mind: (i) OV is first obtained by topicalization of the object in the low part of the clause and then the OV chunk is fronted into the left periphery, as in (11), and S is in the same preverbal position as in (10); (ii) as consistent NSLs like Italian, the new information subject is in the low vP-peripheral focus position, as in (5) and repeated in (12).[14]

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[13] Cardinaletti (1997, 2004) identifies a number of subject positions in the preverbal field which are assumed to be quite uniform across languages. In mapping the IP at least two different positions are identified (Spec,AgrSP for the syntactic subject and Spec,SubjP for the the subject of predication). In the present work we abstract away from the discussion.

[14] At first sight another alternative consists of assuming a structure parallel to V2 languages, as in (i):

(i) [$_{CP}$ O_1 V_2 [$_{TP}$ S_3 [t_1 t_2 t_3]]]

This is, however, immediately falsified by examples such as (13), where the subject is preceded by auxiliary verb and main verb, and other sentential material.

(11) [[CP [OV1] [FP S [...t1...]]]
(12) [CP … [TP ... [TopP … [FocP **Foc** [TopP … vP]]]]]

The analysis in (11) is soon ruled out by word order facts. As a matter of fact, sentences such as (13a-b) show us the impossibility of such a representation for XPVS orders.

(13) a. Tämän kirjan on (varmaan) kirjoittanut Graham Greene
O Aux (Adv) V S
this book has (surely) written Graham Greene
'Graham Greene has surely written this book'
b. *Tätä kirjaa ei ole kirjoittanut Graham Greene*
O Neg Aux V S
this book not has written Graham Greene
'Graham Greene hasn't written this book'
c. *Onko tämän kirjan kirjoittanut Graham Greene?*
has-Q this book written Graham Greene?
'Has Graham Greene written this book?'

Postulating movement of the OV chunk to a topic position in the clausal domain with the subject in the preverbal position would exclude having Aux or Neg Aux between O and V. These are nevertheless grammatical sentences[15], (14) illustrates the basic (neutral) word order.

(14) a. *Graham Greene on (varmaan)kirjoittanut tämän kirjan.*
Graham Greene has (surely) written this book
b. *Graham Greene ei ole kirjoittanut tätä kirjaa.*
Graham Greene not has written this book
'Graham Greene hasn't written this book'

A better way to account for these structures comes from the alternative analysis outlined in (ii) above, which assumes that the vP-peripheral focus position is activated. I suggest that this position is where the new information subject is located in XPVS structures. As said earlier, Finnish does not have a referential *pro* which could satisfy the EPP. If we assume that the EPP can also be satisfied by other lexical elements (see Holmberg 2010), in the Finnish XPVS structure it is the XP element that satisfies the EPP[16]. This is reminiscent of Holmberg & Nikanne's (2002) proposal of Finnish as a topic prominent language. Consequently, the orders in (13) can be derived by assuming movement of the object to the preverbal EPP position. Fronting of the object in the left-periphery is also correlated to discourse factors: in (13a-b) the object can be interpreted as known/given or contrastive/corrective (depending on the intonation).
Hence, we can formulate the following:

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[15] I thank an anonymous reviewer for raising the issue and suggesting a possible way to account for the facts exemplified in (13).

[16] XPVS structures also recall the Locative Inversion structures typical of e.g. English (Collins 1997). Locative Inversion typically occurs with intransitive verbs which take a locative argument, as represented in (i) for English and in (ii) for the equivalent in Finnish:
(i) In the corner sat a man
(ii) Nurkassa istui mies
corner.in sat man

(15) Subject-Verb inversion:
   a. Consistent NSLs do have a referential *pro*, which is a condition to satisfy the EPP and to allow FI/VS structures.
   b. In absence of a referential *pro* (e.g. PNSLs), the EPP can be satisfied by another constituent (resulting in XPVS in the case of Finnish).

Notice that (15) is intended under the discourse contexts in which the subject is new information, as discussed earlier. Notice also that this is a tentative generalization and a more extensive discussion based on data from different PNSLs is left for future research[17].

Thus, the assumption put forth by Belletti (see references quoted above) can be further developed in the following way:

(16) Only full Null Subject Languages allow for FI/VS in contexts of (new information) subject focalization. Non Null Subject Languages typically adopt different strategies such as *in situ* focalization (English) and cleft strategies (French, Brazilian Portuguese). Partial Null Subject Languages such as Finnish can have a "mixed pattern" consisting of *in situ* focalization and focalization of the new information subject in the vP-peripheral postverbal position through a different way to satisfy the EPP.

In conclusion, this section examined two possible ways to account for new information subjects in Finnish: *in situ* focalization and activation of the dedicated focus position in the vP periphery. Most importantly, postulating *in situ* focalization (similar to NNSLs such as English) for SV(O) structures is not in contraposition with an activation of the vP-peripheral focus position in XPVS structures. Moreover, this position dedicated to new information elements seems to be active also in the cleft structures that emerged in the data (see fn. (12)). Hence, PNSLs such as Finnish (and BP) seem to have a wider set of possible strategies to adopt, than NSLs and NNSLs, under the discussed discourse contexts.

5 Final remarks

The present study aimed at investigating within the cartographic framework whether Finnish, which is assumed to be a partial null subject language, allows for the subject-

[17] An open question arises from sentences such as (i) and (ii): FI seems to be excluded in Finnish also with first and second person, which can always have a silent subject pronoun. The equivalent sentences are pragmatically appropriate in the same contexts in Italian.

(i) a. Kuka puhui?
   who spoke?
   b. #Puhuin minä
   spoke I
(ii) a. Kuka siellä (on)?
   who there (is)
   b. #Olen minä
   is I
   'It's me'

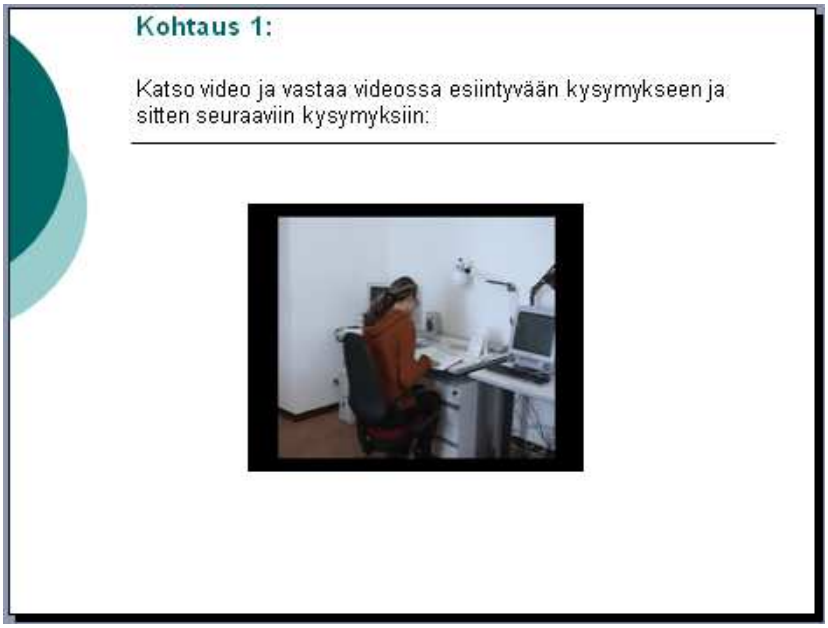
verb inversion analyzed as *free inversion*, which typically involves a low vP-peripheral focus position, in contexts in which the subject is a new information subject. Moreover, it investigated which other word orders might be exploited in the contexts discussed.

The research is based on the observations coming from previous theoretical and empirical research that propose that a positive setting of the null subject parameter is necessary to instantiate *free inversion* in NSLs such as Italian in contexts in which the subject is a new information subject. Even though Finnish is almost fully a null subject language it does not allow for VS structures of the kind observed in NSLs (examples (1) and (5)). It was observed how the data from Finnish compares with the results from the Brazilian Portuguese adaptation of the experiment. In BP, which is also considered a PNSL (Holmberg et al. 2009), the typical strategies in the contexts of the experimental task consist of Subject-Verb structures and clefts of various type (cleft, reduced clefts and truncated clefts, Guesser 2007). The unavailability of FI/VS in Finnish and BP is a direct consequence of the absence of referential null subjects in these languages. If an expletive *pro* were sufficient then instances of FI of the type observed in NSLs such as Italian could have been observed in the collected data.

The empirical data are novel and they have been collected using the same methodology as previous studies on the topic. The data show that the preferred answering strategy in Finnish is SV(O), which also represents the canonical word order. Hence, Finnish does not show instances of subject focalization through a FI strategy of the kind observed in NSL such as Italian in contexts in which the subject is new information focus (Belletti 2001, 2004, 2009**)**. However, even though FI/VS of the NSLs type is excluded, it is proposed that the observed XPVS strategy involves the activation of the vP-peripheral focus position dedicated to new information subjects. Since Finnish does not have a referential *pro* that could satisfy the EPP, it is assumed that also other lexical elements can satisfy the EPP in a language like Finnish, yielding the XPVS structure found in the data. Hence, in Finnish a postverbal subject is possible only when there is an overt element in the preverbal sentence-initial position, namely an object for transitive verbs, an adverb/adverbial for intransitive verbs.

Appendix: The experimental task

Scene 1: The phone rings. The young woman answers and talks with a friend of hers. A young man enters the room and asks who has called.
Question: Who has called? *(target item)*



Further questions:
1) Who has answered? *(target item)*
2) What she was doing when the phone rang? *(filler item)*

References

Anagnostopoulou, Elena. 2005. Clitic Doubling. In M. Everaert and H. van Riemsdijk (eds.) *The Blackwell Companion to Syntax*, vol. I, Ch. 14. Blackwell Publishing.

Belletti, Adriana. & Leonini, Chiara. 2004. Subject inversion in L2 Italian. In S. Foster-Cohen, M. Sharwood Smith, A. Sorace, M. Ota (eds.) *Eurosla Yearbook 4*. Amsterdam/Philadelphia: John Benjamins.

Belletti, Adriana. & Shlonsky, Ur. 1995. The order of Verbal Complements. A Comparative Study. *Natural Language and Linguistic Theory* 13:489-526.

Belletti, Adriana. 2001. Inversion as focalization. In A. Hulk and J.Y. Pollock (eds.) *Subject Inversion in Romance and the theory of Universal Grammar*, 60-90. New York: Oxford University Press.

Belletti, Adriana. 2004a (ed). *Structures and Beyond. The Cartography of Syntactic Structures*, vol. 3. New York: Oxford University Press.

Belletti, Adriana. 2004b. Aspects of the low IP area. In L. Rizzi (Ed.), *The structure of CP and IP. The cartography of syntactic structures*, Vol. 2:16–51. New York: Oxford University Press.

Belletti, Adriana. 2005. Extended Doubling and the VP periphery. *Probus* 17,1:1-35.

Belletti, Adriana. 2009. *Structures and Strategies* (ch. 10). London: Routledge.

Belletti, Adriana, Bennati, Elisa & Sorace, Antonella. 2007. Theoretical and developmental issues in the syntax of subjects: Evidence from near-native Italian. *Natural Language and Linguistic Theory* 25:657-689.

Biberauer, Theresa., 2010. Semi-null subject languages, expletives and expletive pro reconsidered. In T. Biberauer, A. Holmberg, I. Roberts, M. Sheehan (eds.), *Parametric Variation*: *Null Subjects in Minimalist Theory*. 153-199. Cambridge: Cambridge University Press.

Burzio, Luigi. 1986. *Italian Syntax. A Government-Binding Approach*. Dordrecht: Reidel.

Cardinaletti, Anna. 1997. Subjects and clause structure. In L. Haegeman (ed.) *The New Comparative Syntax*, Longman. London/New York.

Cardinaletti, Anna. 2004. The cartography of Subject Positions. In L. Rizzi (ed.) *The Structure of CP and IP*, Oxford/New York: Oxford University Press.

Cecchetto, Carlo. 2000. Doubling structures and reconstruction. *Probus* 12:93-126.

Cinque, Guglielmo. (ed.) 2002. *Functional Structure in DP and IP. The Cartography of Syntactic Structures*, vol. 1. New York: Oxford University Press.

Cinque, Guglielmo. 1990. *Types of A'-Dependencies*. Cambridge: MIT Press.

Collins, Chris. 1997. *Local Economy*. Cambridge, MA: MIT Press.

Dal Pozzo, Lena. 2011. *Testing the acquisition of new information subjects: evidence from Italian and Finnish*. PhD dissertation. University of Siena.

Dal Pozzo, Lena & Guesser, Simone. 2011. A comparative view on answering strategies and new information subjects in Brazilian Portuguese and Finnish. *Stil Studies in Linguistics* 4:83-107. MIT Press.

Duarte, M. E. L. 2000. The Loss of the 'Avoid Pronoun' Principle in Brazilian Portuguese. In Kato, M. e Negrão, E. (eds.). *Brazilian Portuguese and the null subject parameter*. Madrid: Iberoamericana.

Ferreira, Marcelo. 2004. Hyper-raising and Null Subjects in Brazilian Portuguese. *MIT Working Papers in Linguistics 47: Collected Papers on Romance Syntax*: 57-85.

Figueiredo Silva, M. C. 1996. *A Posição Sujeito no Português Brasileiro: Frases Finitas e Infinitivas*. Campinas: Editora da Unicamp.

Guesser, Simone. 2011. *La sintassi delle frasi cleft in Portoghese Brasiliano*. PhD Dissertation. University of Siena.

Guesser, Simone. 2007. Il soggetto nullo incassato in Portoghese Brasiliano: problemi legati al movimento a posizioni tematiche. *Rivista di Grammatica Generativa*: 39-64.

Holmberg Anders & Nikanne Urpo. 2008. Subject doubling in Finnish: the role of deficient pronouns. In S. Barbiers, O. Koeneman, M. Lekakou (eds.). *Microvariations in Syntactic Doubling*. Bingley, Emerald, 325-349.

Holmberg, Anders & Nikanne Urpo., 2002. Expletives, Subjects and Topics in Finnish. In P. Svenonius (ed.). *Subjects, expletives and the EPP*. Oxford: Oxford University Press.

Holmberg, Anders & Sheehan, Michelle., 2010. Control into finite clauses in partial null-subject languages. In T. Biberauer, A. Holmberg, I. Roberts, M. Sheehan (eds.). *Parametric Variation*: *Null Subjects in Minimalist Theory*. Cambridge: Cambridge University Press.

Holmberg, Anders, Nayudu, Aarti, & Sheehan, Michelle. 2009. Three partial null-subject languages: a comparison of Brazilian Portuguese, Finnish and Marathi. *Studia Linguistica* 63:1. Wiley-Blackwell Publishing.

Holmberg, Anders. 2002. Deriving OV order in Finnish. In P. Svenonius, (ed.). *The Derivation of VO and OV*. Amsterdam: Benjamins.

Holmberg, Anders. 2005. Is there a little pro? Evidence from Finnish. *Linguistic Inquiry* 36:4, 533-564.

Holmberg, Anders. 2010. Null Subject Parameters. In T. Biberauer, A. Holmberg, I. Roberts, M. Sheehan (eds.). *Parametric Variation*. Cambridge: Cambridge University Press.

Huang, Yan. 2000. *Anaphora. A cross-linguistic study*. New York: Oxford University Press.

Hulk, Aafke C. & Jean-Yves Pollock. 2001. Subject positions in Romance and the theory of Universal Grammar. In A. Hulk and J-Y. Pollock (eds.). *Subject inversion in Romance and the theory of Universal Grammar*, 107-162. Oxford: Oxford University Press.

Jaeggli, Osvaldo. 1982. *Topics in Romance Syntax*. Dordrecht: Foris.

Johns, Christopher. 2007. *Interpreting agreement*. Durham University dissertation.

Kaiser, Elsi & Trueswell, John. C. 2004. The role of discourse context in the processing of a flexible word order language. *Cognition* 94:113-147.

Kaiser, Elsi & Trueswell, John. C. 2006. Negation and the left periphery in Finnish. *Lingua* 116:314-350.

Kayne, Richard. 1994. *The Antisymmetry of Syntax*. Cambridge: MIT Press.

Kayne, Richard. 2005. *Movement and silence*. New York: Oxford University Press.

Kayne, Richard., Jean-Yves. Pollock 2001. New thoughts on Stylistic Inversion. In (eds.) A. Hulk and J-Y. Pollock *Subject inversion in Romance and the theory of Universal Grammar*. Oxford: Oxford University Press.

Kayne, Richard & J-Y. Pollock. 1978. Stylistic inversion, Successive Cyclicity, and Move NP in French. *Linguistic Inquiry* 9:595-621.

Kras, Tihana. Testing new information subjects: Croatian version of Belletti & Leonini 2004. manuscript. University of Edinburgh.

Modesto, Marcello. 2008. "Topic prominence and null subjects. In T. Biberauer (ed.) *The limits of syntactic variation*, 375–409. Amsterdam: John Benjamins.

Rizzi, Luigi. 1982. *Issues in Italian Syntax*. Dordrecht: Foris.

Rizzi, Luigi. 1997. The Fine Structure of the Left Periphery. In L. Haegeman (ed.) *Elements of Grammar*. Dordrecht: Kluwer Publications.

Rizzi, Luigi. 2004. Locality and Left-Periphery. In Belletti, A. (ed.) *Structures and Beyond. The cartography of Syntactic Structures*, vol. 3, 223-251. New York: Oxford University Press.

Rodrigues, Cilene. 2002. Morphology and null subjects in Brazilian Portuguese. In D. Lightfoot (ed.), *Syntactic Effects of Morphological Change*, 160-178. Oxford: Oxford University Press.

Rouveret, Alain. 1989. Cliticisation et temps en portugais européen. *Revue des Langues Romanes* 2:337-371.

Sheehan, Michelle. 2010. Free' inversion in Romance and the Null Subject Parameter. In T. Biberauer, A. Holmberg, I. Roberts & M. Sheehan (eds.). *Parametric Variation: Null Subjects in Minimalist Theory*, 231-262. Cambridge: Cambridge University Press.

Sportiche, D., 1988. A Theory of Floating Quantifiers and its Corollaries for Constituent Structure. *Linguistic Inquiry* 19:425-449.

Sportiche, Dominique. 1996. Clitic Constructions. In J. Rooryck and L. Zaring (eds.). *Phrase Structure and the Lexicon*, 213– 276. Dordrecht: Kluwer.

Sportiche, Dominique. 1998. *Partitions and Atoms of Clause Structure: Subjects, Agreement, Case and Clitics*. London/New York: Routledge.

Torrego, Esther. 1995. On the Nature of Clitic Doubling. In H. Campos and P. Kempchinsk (eds.) *Evolution and Revolution in Linguistic Theory*, 399-418. Washington DC: Georgetown University Press.

Vilkuna, Maria. 1995. Discourse Configurationality in Finnish. In (ed.) É.K. Kiss, *Discourse Configurational Languages*. Oxford & New York: Oxford University Press.

Vilkuna, Maria. 1989. *Free Word Order in Finnish. Its Syntax and Discourse Functions*. Helsinki: Suomalaisen Kirjallisuuden Seura.

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Diagnosing Finiteness in Embedded Nominalised Clauses*

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This paper focuses on a range of dependent clause types from Finnish, Saami and Turkish in order to evaluate a claim by Kornfilt (2007) that embedded nominalised clauses may be finite. The morphology of these languages allow embedded clauses to host affixes drawn from nominal agreement paradigms and others which signal temporal relationships relative to the main clause event. Drawing on proposals by Bianchi (2003), Adger (2007) and Holmberg & Platzack (1995), it is argued that embedded nominalised clauses fail to display the properties expected of finite clauses if tense and agreement are the categories which license a projection of finiteness (Fin^0). The evidence presented here suggests that the nominalised clauses in question do not meet the relevant criteria for finiteness.

Keywords: *finiteness, agreement, nominalization, Finnish, tense*

1 Introduction

The nature of finiteness is one of the most controversial issues in linguistic theory. While there is broad agreement that finiteness is a property of clauses rather than, for instance, lexical verbs, no real consensus exists in the literature about the best way to characterise it. Across various theoretical frameworks it has been linked to a cluster of properties including clausal independence, nominative case, tense, overt/referential clausal subjects, agreement, factivity and independent binding domains (Nikolaeva 2007).

Within generative approaches, finiteness is normally either taken to be a syntactic primitive, perhaps associated with a particular feature specification in the C domain, or as an epiphenomenon which falls out of other properties of the grammar. The question remains whether it is indeed possible to come up with a discrete, binary approach to finiteness that captures the cross-linguistic data. This paper will evaulate a recent proposal by Kornfilt (2007) by looking at data from Finnish, Saami and Turkish to argue that in line with traditional grammars, embedded nominalised clauses in these languages are not finite.

2 Diagnosing Finiteness

Perhaps the most straightforward diagnostic for identifying finiteness is clausal independence: main clauses tend to host those features associated with finiteness, e.g. tense, agreement, referential subjects and so on. However, it has long been noted that quite a few types of independent clause violate this generalisation, including imperatives,

* The author would like to thank the following people for help with the data: Ida Toivonen, Satu Manninen, Jussi Wikström, Marja-Liisa Olthuis, Sammeli Kuuva, Anna Kuuva, Elsi Kaiser, and Ante Aikio. Thanks are also due to two anonymous reviewers for their extremely helpful comments. All errors are definitely mine. The following nonstandard abbreviations appear in the glosses: IGER=class 1 gerund; ESSA="present" temporal clause; FN=factive nominal; NEE="past" complement clause; PX=possessive affix agreement; TTUA="past" temporal clause; VA="nonpast" complement clause.

subjunctives, and hortatives (Nikolaeva 2007). This then raises an important question: given that many independent clauses fail to meet the basic criteria for finiteness, is it ever possible for a *dependent* clause to be finite?

One strand of research which sidesteps the dependent/independent clause issue are a set of proposals which invoke crieria related to tense semantics. Holmberg & Platzack (1995) and Hornstein (1990) link finiteness to Reichenbachian speech time, i.e. the time of the utterance (S); according to these proposals, the temporal structure of non-finite forms lacks reference to the speech point S. Bianchi (2003) provides a useful characterisation of finiteness along these lines, arguing that it is embedded as a functional head in the C domain (2003:7):

(1) a. A finite verb form can encode the relation of E/R to S, *at least in main clauses*.
b. A non-finite form does not encode any relation to S.

(2) The Speech time S is syntactically represented in [+finite] Fin^0, the lowest head of the Complementizer system interfacing with the inflectional structure (Rizzi 1997).

According to this proposal, the speech event is the centre of deixis, which specifies the speaker (first person), the addressee (2^{nd} person), and the space and time of the utterance (Reichenbachian Speech time S). Nominative case in a finite clause is linked to person features in Agr^0. Tense, then, is seen by many as a key diagnostic for finiteness.

Several recent proposals (Adger 2007, Kornfilt 2007) further emphasise the syntactic category of agreement (Agr) as the key feature for licensing finiteness, encoded in the projection of Fin^0:

(3) [Force [(Topic*) [(Focus) [Fin [... Tense VP]]] (Rizzi 1997)

In Adger (2007), different permutations of C and Fin and their features for T and Agr are shown to yield attested ECM, control and raising infinitive data in several languages. For Adger and Kornfilt, the projection of Agr is a second key diagnostic for finiteness.

3 Nominalised embedded clauses in Finnish, Saami and Turkish

The proposals summarised above collectively draw together a useful set of criteria for identifying finite clauses, and evidence in support of them is mainly drawn from infinitives in Indo-European languages. However, the picture is less clear in languages with richer systems of verbal morphology and agreement, for example Finno-Ugric and Turkic languages. In these languages, embedded nominalised clauses may be adverbial or selected as complements by certain verbs – normally, verbs of thinking, perception (*dicendi)*, and speaking (*sentendi*), etc. In both language families, a range of these clauses share very similar morphological properties: they host some form of nominalising morphology; the clause itself may be case marked by an affix which arguably heads KP or CP; and they display genitive subjects with full person and/or number agreement drawn from a distinct nominal paradigm. Ouhalla (1991) observes the parallels between nominal agreement (or possessive affixes, here glossed as Px) and verbal agreement across the Finno-Ugric and Turkic language families. He argues that nominal agreement is an instantiation of the functional head Agr, and that nominalised clauses headed by Px agreement share a parallel structure with tensed sentences headed by verbal Agr (see

Toivonen 2000 for a detailed analysis of the syntax of Finnish Pxes). Kornfilt (2007) argues that a subset of these nominalised clauses in Turkish are, in fact finite. Examples for Turkish are given in (4) and (5) below, where the embedded factive nominal clauses (glossed FN) host inflection for 2s Px agreement:

(4) *[Sen-in sınav-ı geç-eceğ-in]-i bili-iyor-um / bili-iyor-du-m*
2S-GEN test-ACC pass-FUTFN-PX2SG-ACC know-PROG-1SG/know-PROG-PAST-1SG
'I know/knew (that) you would/will pass the test'

(5) *[Sen-in sınav-ı geç-tiğ-in]-i bili-iyor-um / bili-iyor-du-m*
2S-GEN test-ACC pass-FN-PX2SG-ACC know-PROG-1SG/know-PROG-PAST-1SG
'I know/knew (that) you passed the test'

Kornfilt notes that Turkish factive nominal clauses which host productive agreement morphology display different syntactic properties from other related constructions, and argues that they are finite according to three main diagnostics.[1] Firstly, she shows that they are opaque as binding domains for anaphoric pronouns. Secondly, she claims that clauses like (4) and (5) are *temporally independent* from the matrix, which relates to the tense-based proposals mentioned above (Hornstein 1990, Bianchi 2003 and Holmberg & Platzack 1995). In the above examples, the temporal reference of the embedded clause is morphologically specified independently from that of the main clause. This she interprets to be a realisation of Tense, although she acknowledges that its features in embedded clauses are impoverished. Kornfilt attributes the finite properties of these clauses to the fact that they contain features for Agr, assumed to be hosted by a projection of Fin.

Finnish and Saami have a range of constructions which are morphologically nearly identical to the Turkish clauses analysed by Kornfilt, and like them license genitive subjects.[2] One type of Finnish clauses, like the Turkish examples above, occur as complements to a set of matrix verbs (6-7)(Karlsson 1999:201-2), while the other type are syntactically adjuncts (8-9):

(6) *Näe-n [Kalle-n itke-vä-n] / [Kalle-n itke-nee-n*].
see-1S Kalle-GEN cry-VA-n / Kalle-GEN cry-NEE-n
'I see that Kalle is / has been crying.'

[1] The third diagnostic is that they licence negative polarity items (NPIs), a language-specific feature of Turkish which is not relevant to the current discussion.

[2] Nominative subjects are another standard criterion for finiteness in the literature, but this is often seen as case reflex of finite Agr. Kornfilt makes an interesting point about the status of genitive subjects in Turkish with respect to finiteness: "...genitive subject Case can also be an expression of finiteness, however defined, as long as it can be shown that such genitive case is indeed licensed clause-internally (i.e. in similar ways to nominative), and that the genitive is dependent on the inflection of the predicate within that clause...the realisation of this syntactic subject Case as either nominative or genitive depends on the categorial features of the predicate inflection (as either verbal or nominal, respectively) and does not affect the issue of finiteness" (Kornfilt 2007:307). Consistent with this analysis for Turkish, genitive case in Finnish has been shown to be structurally licensed clause-internally (Vainikka 1989) and is a reflex of a particular clausal inflection, namely Px agreement. It could therefore be argued that a lack of nominative case in these clauses in Finnish and Saami is not problematic for a finite analysis.

(7) *Kalle huomasi [itke-vä-nsä] / [itke-nee-nsä*].
Kalle noticed.3SG cry-VA-PX3 / cry-NEE-PX3
'Kalle noticed that he was crying/ that he had cried.'

(8) [*Miko-n tull-essa kotiin] oli-n nukkumassa.*
Mikko-GEN come-ESSA home was-1SG asleep
'As Mikko came home I was sleeping.'

(9) *Minä lähdi-n [sinu-n tiska-ttu-a-si].*
I left-1S you-GEN wash up-TTUA-PX3
'I left after you had washed up.'

Like the Turkish clauses, the embedded clauses in the Finnish examples (6-9) show "temporal independence" from the matrix; the participial forms –VA and –NEE in (6) and (7) are morphologically marked to signal that the embedded event has taken place either in the nonpast or past relative to the main clause event. The Finnish temporal adjunct clause also signals a similar temporal relation; –ESSA in (8) encodes simultaneity with the main clause event, while –TTUA (9) signals that the embedded event occurred prior to the main clause event.

The Saami languages also have a morphologically similar construction, which appears to be the only nominalised verbal form which can host possessive affixes. (10) is an Inari Saami example, while (11) is from North Saami (Ylikoski 2009:38):

(10) [*Lávluđijn-is] tuáhtâr lâi vaibâm.*
sing.IGER-PX3 doctor.NOM was.3SG tired
'While singing, the doctor was tired.'

(11) *Piera dagai rihkkos-a [vuola juga-dettiin(-is)*].
Piera make.PST.3SG crime-GEN/ACC beer.GEN/ACC drink-GER(-PX3SG)
'Piera committed a crime while drinking beer.'

These adverbial clauses may occur with possessive affix (Px) agreement as shown in these examples. The Saami nominalised clauses in (10) and (11) encode a temporal relation of simultaneity between main and embedded clause events (Olthuis 2000). Their properties with respect to agreement will be discussed further in Section 5.

4 The role of Tense

Given the proposed links between finiteness and tense by Holmberg & Platzack (1995) and Bianchi (2003), the question remains as to what extent the Finnish, Saami and Turkish clauses are temporally independent in the sense that they encode a relation to Reichenbach's speech time S. Going back to Turkish, it can be observed that these embedded clauses do not in fact signal tense independent from the main clause: (12) entails that the watermelon has been eaten, despite the fact that the embedded clause is morphologically marked for future tense:

(12) [*Sen-in karpuz-u yi-yeceğ-in]-i bili-iyor-du-m / gör-dü-m*
2sg-GEN w'melon-ACC eat-FUTFN-PX2SG-ACC know-PROG-PAST-1SG/see-PAST-1SG
'I knew/saw that you were going to eat the watermelon.'

This suggests that the temporal reference of the embedded clause is anchored to that of the main clause, not to speech point S.

Finnish temporal adjuncts do not display genuine temporal independence, either. (13a) and (14a) below, where the matrix verbs are inflected for past tense, entail that the speaker's hair has already been washed, while (13b) and (14b), where the matrix verbs are in the nonpast tense, do not:

(13) a. [Pest-*essä-ni suihku-ssa hiuksi-a-ni] lauloi-n Hämähämähäkkiä.*
Wash-ESSA-PX1 shower-in hair-PART-PX1 sang-1SG ItsyBitsySpider
'While washing my hair in the shower I sang Itsy bitsy spider.'
b. [Pest-*essä-ni suihku-ssa hiuksi-a-ni] laula-n Hämähämähäkkiä.*
Wash-ESSA-PX1 shower-in hair-PART-PX1 sing-1SG ItsyBitsySpider
'While washing my hair in the shower I (will) sing Itsy Bitsy Spider.'

(14) a. [*Pes-tyä-ni suihku-ssa hiukse-ni] lauloi-n Hämähämähäkkiä.*
Wash-TTUA-PX1 shower-in hair.ACC-PX1 sang-1SG ItsyBitsySpider
'After I washed my hair I sang Itsy Bitsy Spider.'
b. [*Pes-tyä-ni suihku-ssa hiukse-ni] laula-n Hämähämähäkkiä.*
Wash-TTUA-PX1 shower-in hair.ACC-PX1 sing-1SG ItsyBitsySpider
'After washing my hair I (will) sing Itsy Bitsy Spider.'

This again suggests that the "tense" of the embedded clause is anchored to the event in the main clause, not to the speech point S. If Bianchi (2003), Holmberg & Platzack (1995) and others are on the right track, then neither the Turkish nor the Finnish nominalised clauses encode tense features that are anchored to S, and this means that [+finite] Fin^0 is not syntactically represented in these clauses. The relationship between finiteness and agreement will be examined next in more detail.

5 Anaphoric binding domains and the role of Agreement

Another important piece of evidence Kornfilt presents in favour of her finiteness analysis for nominalised clauses in Turkish is that they appear to be opaque for anaphoric binding. In embedded nominalised clauses with full agreement morphology (15a), anaphoric binding is disallowed across the clause boundary. Grammaticality improves in a related construction which hosts default Agr (15b). Standard Binding Theory predicts that anaphors cannot be bound across a [+finite] clause boundary, so this contrast is to be expected if Turkish clauses like (15a) are indeed finite (Kornfilt 2007:321):

(15) a. **Biz [birbir-imiz-in sınav-ı geç-ti-imiz]-i san-ıyor-du-k*
We each.other-1PL-GEN test-ACC pass-FN-PX1PL-ACC believe-PROG-PAST-1PL
Intended: 'We believed that each other passed the exam'

b. *?Biz$_i$ [birbir-imiz-in$_i$ sınav-ı geç-tiğ-in]-i san-ıyor-du-k*[3]
We each.other-1PL-GEN test-ACC pass-FN-PX3S-ACC believe-PROG-PAST-1PL
'We believed that each other passed the exam.'

Kornfilt uses this contrast as support for her proposal that Agreement is the primary category in determining finiteness. However, the same diagnostic test yields different results for Finnish. Two types of element arguably have the status of anaphoric pronouns in Finnish: third person Px agreement affixes (Vainikka 1989) and the overt pronominal reflexives *itse* '-self' and *toinen toisensa* 'each other.' Both complement clauses (16) and adjunct clauses (17) allow binding of both types of element into the clausal object[4] position:

(16) a. *He olettavat / uskovat [suostu-va-nsa ehdotukse-en].*
they expect.3PL / believe.3PL agree-VA-PX3 proposal-to
'They$_i$ expect/believe they$_i$ will agree to the proposal.'
b. *He olettavat / uskovat [suostu-va-nsa toinen toiste-nsa ehdotuksi-in].*
they expect.3PL/believe.3PL agree-VA-PX3 each other-PX3 proposals-to
'They expect/believe to agree to each other's proposals.'

(17) *[Pest-essä-än itse-ä-än suihku-ssa] Pekka laulo-i Hämähämähäkkiä.*
Wash-ESSA-PX3 self-PART-px3 shower-in Pekka sang-3SG ItsyBitsySpider
'While washing himself in the shower Pekka sang Itsy Bitsy Spider'

In Inari Saami, Px agreement appears to be similarly anaphoric in embedded nominalised clauses; in (18a), no clause-internal antecedent is available to bind the third person Px affix *–is* and the structure is ungrammatical. Example (18b) shows that as in Finnish, the Px anaphor may be bound by a clause-external antedecent:

(18) a. **[Lávluđijn-is] mun lam / lijjim vaibâm.*
sing.IGER-PX3 I.NOM am / was.1SG tired
'While he/she was singing, I am/was tired.'
b. *[Lávluđijn-is] tuáhtâr lâi vaibâm.*
sing.IGER-PX3 doctor.NOM was.3SG tired
'While singing, the doctor was tired.'

More research is needed to identify the relevant binding properties for reflexive and reciprocal pronouns in Saami. However, taken together, the examples in (16-18) suggest that embedded nominalised clauses in Finnish and Saami fail Kornfilt's anaphoric binding diagnostic test for finiteness. The most straightforward explanation for the grammaticality of these examples is that while these clauses display morphological agreement in the form of Pxes, nominal Agr does not license a projection of Fin: these clauses are not finite.

[3] It is worth noting that Kornfilt judges this sentence as marginal (?) rather than fully grammatical. My informants, however, accept it as grammatical.
[4] These elements are disallowed in subject position; thanks to an anonymous reviewer for pointing this out.

6 Conclusion

Kornfilt's (2007) proposals raise interesting questions about the nature of finiteness in languages with rich agreement and temporal/tense morphology in embedded clauses. However, the evidence from Saami and Finnish, and to a lesser extent Turkish, suggests that (a) these clauses do not encode genuine tense relative to the speech point S; and that (b) nominal Agr in these languages does not necessarily correlate with other features of finiteness, for example anaphoric binding domains. The most straightforward analysis appears to be that in line with traditional grammars, embedded nominalised clauses in Finnish and Saami (and probably Turkish as well) are non-finite.

References

Adger, D. 2007. Three domains of finiteness: A Minimalist perspective. In I. Nikolaeva (ed.), *Finiteness: Theoretical and Empirical Foundations*, 23-58. Oxford: Oxford University Press.

Bianchi, Valentina. 2003. On finiteness as logophoric anchoring. In J. Gueron & L. Tasmovski (eds.)., *Temps et Point de Vue/Tense and Point of View*, 213–246. Nanterre: Université Paris X. http://www.ciscl.unisi.it/persone/bianchi.htm (8 January 2010).

Holmberg, A. & C. Platzack. 1995. *The role of inflection in Scandinavian syntax*. Oxford: Oxford University Press.

Hornstein, N. 1990. *As time goes by*. Cambridge, MA: MIT Press.

Karlsson, F. 1991. *Finnish: An essential grammar*. London: Routledge.

Kornfilt, J. 2007. Verbal and nominalized finite clauses in Turkish. In I. Nikolaeva (ed.), *Finiteness: Theoretical and empirical foundations*, 305-334. Oxford: Oxford University Press.

Nikolaeva, I. 2007. Constructional economy and nonfinite independent clauses. In I. Nikolaeva (ed.), *Finiteness: Theoretical and empirical foundations*, 138-180. Oxford: Oxford University Press.

Olthuis, M.-L. 2000. *Kielâoppâ / Inarinsaamenkielen kielioppi*. Sämitigge.

Ouhalla, J. 1991. *Functional categories and parametric variation*. London: Routledge.

Rizzi, L. 1997. The fine structure of the Left Periphery. In: L. Haegeman (ed.), *Elements of grammar*, 281-337. Dordrecht: Kluwer.

Toivonen, I. 2000. The morphosyntax of Finnish possession. *Natural Language and Linguistic Theory* 18. 579-609.

Vainikka, A. 1989. *Deriving syntactic representations in Finnish*. Amherst, MA: University of Massachusetts dissertation.

Yliokoski, J. 2009. *Nonfinites in North Saami*. Helsinki: Société Finno-ougrienne.

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Zigzagging in Language History: Negation and Negative Concord in Hungarian*

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At a certain stage of its history, Hungarian seems to have gone through Jespersen's Cycle, having substituted the original PU negative auxiliary with the negative particle *nem,* originally an indefinite pronoun. Opinions diverge concerning the details of this process, as the negative indefinite pronouns marked with *nē- /nēm-* in the Northern Ob-Ugric dialects may imply that certain phases of the emergence of the negative function of the indefinite pronoun can be traced back to Proto-Ugric. Even though this seems to be the most economical reconstruction, the present paper argues that data from the Ob-Ugric languages and from Old Hungarian both question the validity of this reconstruction. Negative indefinites marked with *nē- /nēm-* are more likely to be innovations of the Northern Ob-Ugric dialects, and indefinites marked with *né-* do not seem to occur at all in negative sentences in Old Hungarian (whereas quite a few other indefinites do). Therefore, this paper claims that the negative function of the particle *nem* developed independently in Hungarian, and also that it may have grammaticalized straight from the indefinite pronoun *némi* 'some(thing)', without acquiring the negative meaning 'nothing' prior to this process.

Keywords: *Jespersen's Cycle, Hungarian, Ob-Ugric, negative particle, indefinite pronoun*

1 Introduction

The history of negation in Hungarian seems to be a fairly straightforward case of Jespersen's cycle. Similarly to the Ob-Ugric languages, but unlike the majority of Uralic languages, Hungarian expresses negation with the help of a negative particle instead of a negative auxiliary. The Hungarian negative particle *nem* is generally assumed to be a descendant of a Proto-Uralic indefinite pronoun. Similar changes, i.e. the substitution of an older negative element have been widely attested, and Dahl termed these recurring changes Jespersen-cycle, honoring Jespersen's apt description of the process: „The history of negative expressions in various languages makes us witness the following curious fluctuation: the original negative adverb is first weakened, then found insufficient and therefore strengthened, generally through some additional word, and in its turn may be felt as the negative proper […]" (Jespersen 1917, quoted in Dahl 1979: 88).

Moreover, at first sight it seems to be evident that certain phases of this process can be traced back to the Proto-Ugric period, as the etimological equivalents of the Hungarian negative particle turn up as markers of negative indefinites in some Ob-Ugric dialects. The present paper aims at pointing out certain problems with this assumption, argues that it is necessary to give up the most economical reconstruction, and hypothesize independent development in the two branches of the Ugric group in this case.

* This work was supported by grants from the Hungarian Scientific Research Fund (OTKA K68061, NK 78074). I'd also like to thank Katalin É.Kiss and the two anonymous referees for their helpful suggestions.

2 The problem

As mentioned above, one common feature of Hungarian and the Ob-Ugric languages is that they express standard negation with the help of negative particles. However, these particles are different: whereas the negative particle of the Ob-Ugric languages can be traced back to the original Uralic negative auxiliary, reconstructed as PU **e ~ ä ~a* (entry nr. 1876 in: Rédei [ed] 1986-1989), Hungarian has a different particle that seems to be the innovation of Proto-Hungarian. The following sentences illustrate sentential negation in Eastern (Surgut) Khanty, Northern Mansi and Hungarian:

(1) *əj məta ŏt-Ø pə* ***əntə*** *wuj-Ø-əm.* (Eastern (Surgut) Khanti[1])
one some thing-ACC PART not see-PST-1SG[2]
'I didn't see anything'

(2) *am nēmatar-nəl* ***at*** *pilē-γ-um.*
I nothing-ABL not afraid-PRS-1SG
'I am not afraid of anything; I fear nothing.' (Northern Mansi; Kálmán 1989: 73)

(3) ***Nem*** *fél-Ø-ek semmi-től.* (Hungarian)
not fear-PRS-1SG nothing-ABL
'I do not fear of anything.'

Then again, the Hungarian negative particle *nem* has cognates *(nē-* and *nēm-)* in the Northern dialects of the Ob-Ugric languages, where they serve as markers of negative indefinites (as shown in sentence 2 as well). In fact, Honti (1997: 164) suggests that the negative indefinite marker *nem-* originates in Proto-Ugric.[3] In this vein it would seem quite easy to reconstruct the steps of the cycle through which the expression of negation changed. In Stage I, negation must have been expressed with a negative auxiliary in the Ugric languages, similarly to the other Uralic languages. In Stage II, the original marker of negation weakened, and a new pronominal element appeared to reinforce negation. This pronominal element, reconstructed as ***nëmś*** (cf. Sipos 1991: 395) consists of two parts, an indefinite marker *në-* and the interrogative[4] pronoun ***mś*** 'what'. Finally, in Stage III the original negator disappeared altogether when the pronoun became grammaticalized as the general marker of negation. As for the chronology of this change, the preliminaries of Stage II could have occurred already in Proto-Ugric, i.e. the negative auxiliary could have

1 Eastern Khanty data were elicited with the help of a questionnaire; my thanks to the informant, Ljudmila Kajukova, a speaker of the Surgut dialect, and Márta Csepregi, who helped administering the questionnaire

2 ACC = accusative, ABL = ablative, APPR = approximative, CONJ = conjunctive (in Hungarian, morphologically identical with the imperative), INDEF = indefinite marker, LOC = locative, MOD = modality marker, PART = particle, POSS = possessive suffix, , PROH = prohibitive, PRS = present, PST = past, SG = singular.

3 However, there are diverging opinions concerning this issue: K.Sal (1951) claims that *nem-* is a Komi loan in Ob-Ugric, and Rédei (1970) is of the opinion that the pronominal stem is Proto-Finno-Ugric, but its negative functions (i.e. negative indefinite in Northern Ob-Ugric, and negative particle in Hungarian) are independent innovations.

4 Which must have been an undifferentiated interrogative-indefinite pronoun prior to the emergence of a specific indefinite series.

reduced to a negative particle which is no longer marked for any of the verbal categories, as the negative particle of the Ob-Ugric languages is a descendant of the Uralic negative auxiliary. However, Stage II and III must be Proto-Hungarian innovations, and the change seems to be completed by Old Hungarian.

Proto-Hungarian, where this change must have occurred, is the most mysterious phase of the history of Hungarian. It has a vague in-between status: the Ugric period that precedes it can be reconstructed through the systematic comparison of Hungarian and the Ob-Ugric languages, whereas Old Hungarian that follows it already offers written records for investigation. However, there is only indirect evidence to investigate Proto-Hungarian, and besides relying on case studies of better documented changes in other languages and general literature on language change, it is precisely the preceding and the following stages of Hungarian that reconstruction can be based on. Yet both Ob-Ugric and Old Hungarian data raise questions concerning some details of the reconstruction sketched above. In order to point at certain inconsistencies, one has to investigate negative concord in the Ob-Ugric languages (part 2) and in Old Hungarian (part 3).

3 Negative concord in the Ob-Ugric languages

The first problem that emerges is that negative indefinites marked with *nem* only occur in the northern dialects of Khanty and Mansi.

(4) ***nemәlti-Ø*** ***ăt*** *wat-s-әm* (Northern (Synja) Khanty[5])
nothing-ACC not see-PST-1SG
'I didn't see anything.'

Negative indefinites are marked with the same particle that marks negation in Eastern Mansi:

(5) ***öätyi-näär-Ø*** ***öät*** *kont-øs-Ø*
not-something-ACC not find-PST-3SG
'I didn't find anything' (Eastern Mansi; Kulonen 2007:194)

In negative sentences Eastern Khanty uses a set of indefinites which are composed of *әj* 'one' + a pronominal stem + the particle *pә:*

(6) ***әj mәta sŏŋ-nam*** ***pә*** *әntә* *mәn-ʌ-әm.*
one some direction-APPR PART not go-PRS-1SG
'I don't go anywhere.' (Eastern (Surgut) Khanty)

In fact, it seems questionable whether Eastern Khanty has a special set of negative indefinites, as in elliptical contexts these composite indefinites do not have negative force themselves, they have to co-occur with the negative particle to express negation:

[5] Northern Khanty data were also elicited on the basis of a questionnaire; I'd like to thank the informant, Sofia Onina, who is a speaker of the Synja dialect, and Zsófia Kováts for administering the questionnaire.

(7) *ķŏʌnam nŭŋ mən-ʌ-ən?* (Eastern (Surgut) Khanty)
where you go-Prs-2Sg
'Where are you going?'

(8) ***ə̆j mə̆ta sŏŋ-nam pə***
one some direction-APPR PART
'Nowhere.'

According to a description of negation in Ob-Ugric dialects, there are further types of indefinites that may occur in negative sentences: it is possible to use either 'one' or the *pə* particle with the pronominal stem, or even the bare indefinite itself. (K.Sal 1951).[6] On the other hand, the function of the *pə* particle seems to be changing. In the Eastern Khanty dialect this particle is interpreted as an additive focus or emphatic particle in assertive sentences, and as a negative focus particle in negative sentences according to Honti (1986: 86). Perhaps it is not yet an obligatory marker of indefinites under the scope of negation yet, but my Surgut Khanty informant always used it in these indefinite constructions, and corrected the sentences lacking it.[7] Besides, Csepregi (1998: 41) called attention to the fact that it may express negation without the standard negative particle, which again shows that it is strongly associated with negative force:

(9) *ķuj-əʌ-pə ʌŭw-nam ķåt-nə wăʌ-ʌ-Ø*[8]
man-3SG.POSS-PART she-APPR house-LOC live-PRS-3SG
'She does not have a husband.' (Eastern (Surgut) Khanty)

Incidentally, there is a similar phenomenon in certain Northern Ob-Ugric languages, but in these cases the emphatic elements that turn up in negative sentences to reinforce negation are interrogative pronouns *(χǫn* in Kazym Khanty, *χun* in Sherkaly Khanty, *χuń* in Sosva Mansi). However, in spite of the different origin, the final stage of the process is the same as in Surgut Khanty, namely that these emphatic elements can already turn up in negative sentences that lack the standard negative marker, meaning that they are on the way to be reanalyzed as negative markers themselves (Wagner-Nagy 2011: 75-83).

Returning to the analyis of Ob-Ugric indefinites in the scope of negation, it is not a surprising phenomenon that these languages display different sets of indefinites. On the one hand, it is a commonplace that both Khanty and Mansi are strongly divergent dialectally; on the other hand, Haspelmath (1997: 171) observes that indefinite pronouns seem to change easily through language history, therefore, even closely related languages can exhibit different series. Still, if one would want to claim that the source of the Hungarian negative particle *nem* is a negative indefinite that can be traced back to the Ugric period, it does seem problematic to acknowledge that only the northern dialects

[6] However, it must be noted that this study was based on folklore texts, which may preserve such archaic features that are already absent from spoken language.

[7] It must be noted here that even the Eastern Khanty dialect group is divergent in this respect, as this particle seems to occur much less frequently in the easternmost (Vakh, Vasyugan, Alexandrovo) varieties (cf. Filchenko MS. 16-17).

[8] In this case, *ʌŭw.nam* is the emphatic form of the third person singular pronoun *ʌŭw,* and the literal translation of the sentence would be 'husband-her-not in her house lives'.

have such a negative indefinite. Theoretically, these elements in the Northern dialects could be either innovations or archaisms. However, it is the possibility of undifferentiated bare interrogative-indefinite pronouns appearing in negative sentences that all dialects show, and this seems to be a general solution cross-linguistically as well, so it is more viable to suppose that it is the undifferentiated bare interrogative-indefinite that is an archaic phenomenon, and all the other negative indefinite series are innovations of the different dialects. Besides, as it will be shown in the next section, Old Hungarian does not show any signs of once having a negative indefinite series marked with *ne-/nem-*.

4 Negative concord in Old Hungarian

Modern Hungarian (ModH) is a negative concord (NC) language, negative concord defined as „the co-occurrence of two or more negative markers within one clause that is nonetheless interpreted as containing a single semantic negation" (Jäger 2008: 151). However, it is evident that at least that set of indefinite pronouns that appears in negative sentences in ModH, namely those marked with *sem-,* is an innovation of Hungarian, as *sem-* does not have cognates in the related languages. This particle was coined from the additive focus / emphatic particle *is* and the negative particle *nem,* and the fusion of the two particles was still in progress in Old Hungarian (Juhász 1991: 495), cf. (10) and (11):

(10) *fulga-d* ***ef*** ***ne*** *leg-en*
servant-2SG.POSS PART neg be.IMP-3SG
'You shall not have a servant, either' (Königsberg-fragment, 14th century)

(11) *luda-t* ***fem*** *mutat-hat-ø-nac* […]
miracle-ACC PART show-MOD-PRS-3PL
'They cannot show a miracle, either' (Bécsi-codex, 15th century)

Concerning negative concord, it is instructive to investigate Old Hungarian, although at first glance it seems to be the same as ModH: a standard NC-language with a set of negative indefinites marked with *sem-*. However, there are two smaller groups of Old Hungarian data that would be ungrammatical in ModH: there are both a) negative indefinites that appear without the negative particle, and b) negative sentences in which there are non-negative indefinite pronouns. As the vast majority of Old Hungarian texts are translations from Latin, and Latin is a non-NC language, it has long been claimed that these and similar examples are instances of direct translations of Latin (see e.g. Pólya 1995: 41). However, É.Kiss (2010) pointed out that in certain Old Hungarian sources the distribution of pattern a) displays some regularity that suggest that this pattern, i.e. negative indefinites appearing without the negative particle, can be considered an archaic feature. In the present case, it is the second group that requires special attention.

The table below contains the relevant data acquired from five Old Hungarian codices. The instances of pattern b), that is, non-negative indefinites in negative sentences, are split into two groups according to word order, i.e. whether the non-negative indefinite precedes (I-NV, sentence 12) or follows (NV-I, sentence 13) the negated verb. For the sake of comparison, instances of the regular NC-pattern are included in a similar way, i.e. in two groups according to the word order: NI-NV stands

for negative indefinites preceding the negated verb (14), NV-NI for negative indefinites following it (15).

(12) *hog oda* ***valamynemev*** *illat-ot auagÿ kenet-evt*
that there some.kind.of scent-ACC or ointment-ACC
ne *tevt-te-nek leg-enek* [9]
not.PROH(CONJ) put-PST-3PL be.IMP(CONJ)-3PL
'that no scent or ointment of any kind would be put there'. (MargL. 249)

(13) ***nem*** *tud-Ø vala* ***mÿ-th*** *monda-nÿ* [10]
not know-3SG be.PST what-ACC say-INF
'he could not say anything' (Könyv. 67)

(14) *kÿ-th* ***soha*** ***nem*** *gÿẇlǫl-heth-Ø-Ø*
who-ACC never not hate-MOD-PRS-3SG
'whom he may never hate' (Könyv. 35)

(15) *ky az papa kevuet-y elevt* ***nem*** *akar-Ø-Ø*
who DET pope deputy-3SG.POSS in.front.of not want-PRS-3SG
semmy-t monda-ny
nothing-ACC say-INF
'who did not want to say anything in front of the pope's deputy' (MargL. 487)

	NI – NV	**I – NV**[11]	**NV – I**	**NV – NI**
JókK.[12]	54	9	10	4
BirkK.[13]	11	8	3	0
PéldK.[14]	39	0	0	3
MargL.	63	3	9	3
Könyv.	27	0	1	2
All	**194**	**20**	**23**	**12**

Table 1: *The distribution of negative and non-negative indefinite pronouns in negative sentences of five Old Hungarian Codices*

[9] *Szent Margit élete (The life of Saint Margaret);* a copy of an earlier translation of Saint Margaret's legend that was made in 1510.

[10] *Könyvecse az szent apostoloknak méltóságokról (A treatise about the dignity of the holy apostles),* 1521, again a copy of an earlier translation from Latin.

[11] However, some of the data, especially those in the group of non-negative indefinites preceding a negated verb, are problematic, as in certain cases it is likely or even evident that although the indefinite is in a negative sentence, it is not in the scope of the negation. Consider the following example:

(i) Midenkedig vala meli kɵʒʒɵletek nem bɵitɵl (BirkK. 52.)
if however INDEF which of.you not fast
'However, if there's any of you who does not fast'

[12] *Jókai-kódex (Jókai-codex)*, containing the history of St. Francis of Assisi, translated from Latin in the last quarter of the 14th century, the surviving copy copied around 1440.

[13] *Birk-kódex (Birk-codex)* is the first draft of a (non-surviving final) translation of Saint Augustine's monastic rules; the draft was written in 1474.

[14] *Példák könyve (The Book of Exemplars)* was probably translated around 1474/1480 into Hungarian, and the surviving copy dates back to 1510.

As can be seen from the table, the majority of the data follow the standard NC-pattern, that is, the translators / copiers did not follow the Latin original in this respect,[15] which also calls into question whether it is right to explain the rest of the data solely with pattern borrowing from Latin. However, from the point of the present discussion there is one fact that is relevant here. There were several sets of indefinites in Old Hungarian, and one of these sets was marked with *né-,* which is the same marker that appears in the pronoun that is supposed to be the source of the negative particle. However, out of the several sets of indefinites, those that are marked with *né-* do not occur at all in negative sentences in these Old Hungarian sources, either in NC-clauses, or in non-NC clauses. Therefore, Stage II of the reconstruction, ***nëmš*** entering negative sentences to reinforce them, and finally taking over the role of the general negator, seems to call for revision.

Moreover, the same Old Hungarian data also question the plausibility of relating the Northern Ob-Ugric negative indefinite marker *(nē-* and *nēm-)* and the Hungarian negative particle *nem,* at least as far as the reconstruction of a common negative function is concerned. All one could safely assume is that Hungarian and Northern Ob-Ugric, together perhaps with the Permic languages, shared a pronoun marked with *ne-,* and as Rédei (1970) suggests, this changed into a negative indefinite pronoun in the Northern Ob-Ugric languages independently. As for Hungarian, the negative particle *nem* seems to have grammaticalized straight from the nonnegative indefinite ***nëmš,*** without an intermediate phase of acquiring the function of a negative indefinite. It is interesting to note here that whereas the majority of Middle High German dialects grammaticalized the negative indefinite *ni(o)wiht* > *nicht* 'nothing' as the marker of negation, in a few dialects it was the indefinite *(io)wiht* > *iht/ieht* 'anything' that entered into the grammaticalization process and became the source of the new negative particle (Jäger 2008: 253).

The grammaticalization of *nem* as a negative particle seems to be completed by Old Hungarian. Moreover, the fusion of this particle with the additive focus / emphatic particle *is*, yielding *sem,* which becomes the marker of the negative indefinites, was also well in progress by the time of the first written documents. All in all, if one would want to look for parallels of the grammaticalization of the Hungarian negative indefinite marked with *sem-* in the related languages, the Surgut Khanty pattern is more likely to have had Proto- and Old Hungarian parallels, in spite of the formal similarity with the Northern Khanty and Mansi negative indefinite forms.

5 Conclusions

One of the objectives of this paper was to shed light on the grammaticalization process of the Hungarian negative particle *nem,* which appears as the marker of standard negation from the very first written records of Hungarian, but its prior history is vague in certain respects. It is claimed that although an originally indefinite pronoun marked with *ne-* entered negative sentences both in certain Ob-Ugric dialects and in Hungarian, these changes were independent of each other. In the Northern Ob-Ugric dialects, these emerged as the markers of negative indefinite series, whereas in Hungarian only one member of a set of non-negative indefinites acquired the function of reinforcing negation, and it finally took over the role of the standard negator. However, it seems that this element never had the function of a specifically negative indefinite, and the negative

[15] As is well known, Latin was a non-NC language, so the general pattern in the sources of the translations must have been either NI-V or NV-I.

indefinite series marker *sem-* emerged only after the complete grammaticalization of *nem* as the negative particle. Therefore, it seems necessary to hypothesize that the two processes, one yielding a negative indefinite marker in the Northern Ob-Ugric dialects, another a negative particle in Hungarian, must have been independent changes in the two branches of the Ugric group.

References

Csepregi, Márta. 1998. *Szurguti osztják chrestomathia.* [Chrestomathy of Surgut Ostyak] Szeged: JATE Finnugor Tanszék.

É. Kiss, Katalin. 2010. *A negative cycle in 12-15th century Hungarian.* Research Institute for Linguistics, HAS, manuscript. http://www.nytud.hu/oszt/elmnyelv/mgtsz/022%20_ekiss_negcycle_cambridge_kezirat.pdf (22 June 2012)

Filchenko, Andrey. In press. Negation in Eastern Khanty and Southern Selkup. In: Miestamo, Matti, Tamm, Anne & Wagner-Nagy, Beáta (eds). 2012, *Negation in Uralic Languages.* (Typological Studies in Language.) Benjamins.

Haspelmath, Martin. 1997. *Indefinite Pronouns.* Oxford: Oxford University Press.

Honti, László. 1986. *Chrestomathia Ostiacica.* Budapest: Tankönyvkiadó.

Honti, László. 1997. Die Negation im Uralischen I-III. *Linguistica Uralica* 33 (2-4). 81–96, 161–175, 242–252.

Jäger, Agnes. 2008. *History of German Negation.* Amsterdam-Philadelphia: John Benjamins.

K. Sal, Éva. 1951. Az obi-ugor tagadó névmások. [Ob-Ugric negative indefinite pronouns] *Nyelvtudományi Közlemények* 53: 210–19.

Kulonen, Ulla-Maija. 2007. *Itämansin kielioppi ja tekstejä.* Helsinki: Suomalais-Ugrilainen Seura.

Pólya, Katalin. 1995. Az állító és a tagadó mondatok. [Affirmative and negative sentences] In Benkő Loránd (ed), *A magyar nyelv történeti nyelvtana II/2: A kései ómagyar kor: Mondattan, szöveggrammatika* [Historical Grammar of Old Hungarian II/2: Late Old Hungarian], 41–42. Budapest: Akadémiai Kiadó.

Rédei, Károly 1970. Kiellon ilmaisemisen alkuperästä unkarissa. *Virittäjä* 74. 47–51.

Rédei, Károly (ed). 1986-1991. *Uralisches Etymologisches Wörterbuch.* Budapest: Akadémiai Kiadó.

Sipos, Pál. 1991. A névmások. [Pronouns] In: Benkő Loránd (ed), *A magyar nyelv történeti nyelvtana I: A korai ómagyar kor és előzményei* [Historical Grammar of Old Hungarian I: Early Old Hungarian and before], 353-399. Budapest: Akadémiai Kiadó.

Wagner-Nagy, Beáta. 2011. *On the Typology of Negation in Ob-Ugric and Samoyedic Languages.* (Suomalais-Ugrilaisen Seuran Toimituksia 262.) Helsinki: SUS.

Old Hungarian Sources

Birk-kódex (Birk-codex), 1474, published by Pusztai, István. Budapest: Akadémiai Kiadó. 1960.,

Jókai-kódex (Jókai-codex), 14th-15th century, published by P. Balázs, János. Budapest: Akadémiai Kiadó. 1981.

Könyvecse az szent apostoloknak méltóságokról (A treatise about the dignity of the holy apostles), 1521. Published by Pusztai, István. Budapest: Magyar Nyelvtudományi Társaság. 1985.

Példák könyve (The Book of Exemplars), 1510. Published by Bognár, András & Levárdy Ferenc. Budapest: Akadémiai Kiadó. 1960.
Szent Margit élete (The life of Saint Margaret), 1510. Published by Dömötör, Adrienne & Pólya, Katalin. Budapest: RIL, HAS. 1990.

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The 11th International Congress for Finno-Ugric Studies: Finno-Ugric Peoples and Languages in the 21st Century* 9-14. 8. 2010. Piliscsaba, Hungary

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The 11th International Congress for Finno-Ugric Studies was one of the biggest conferences in the last years among the Finno-Ugric events. *Finno-Ugric People and Languages in the 21st Century* dealt mainly with the language and political situation of the Finno-Ugric languages in Russia. Recent researches on descriptive linguistics and new approaches to theoretical and typological issues were also presented at the Congress.

Keywords: *Finno-Ugric Studies, typology, sociolinguistics, negation, syntax*

1 Introduction

The 11th International Congress for Finno-Ugric Studies (CIFU) was organized by the Finno-Ugric Studies Department[1] of Peter Pázmány Catholic University (PPCU) and it was held in Piliscsaba in the middle of August, 2010. The four-day Congress provided a great opportunity for researchers and students of Finno-Ugric Studies from all corners of the world to meet and get to know each other's work. There were 450 participants and 394 talks were presented in various Finno-Ugric languages, in Russian and in English. The proceedings of the Congress appeared in printed version and are available on-line[2].

This event was the latest in the series of meeting under this name. The first International Congress for Finno-Ugric Studies was organized by the Hungarian Academy of Sciences in Budapest in 1960. The Congress takes place every five years in different cities. So far it has been held in Finland, Hungary, Estonia, the Komi Republic and the Mari Republic[3]. The Congress has always been an important event for researchers; for example, during the Congress in the 1980s Bible translations were presented and exchanged in different Finno-Ugric languages, and before the 1990s it was the only possibility for researchers from the West and the East to see each other, talk about different Finno-Ugric issues and get to know each other's work.

The title of the 11th Congress, *Finno-Ugric Peoples and Languages in the 21st Century*, was chosen by the organizers because the issue of minority languages is one of the most important questions of Finno-Ugric Studies at the beginning of the 21st century. Most of the Finno-Ugric languages are endangered; their prestige is really low in their own region, therefore, it is not only important to describe these languages but also to convince native speakers that these languages also have values and they can be used as any of the world languages.

* We would like to thank Katalin É. Kiss, Sándor Csúcs and Veronika Hegedűs for their helpful suggestions.

1 Unfortunately, the Finno-Ugric Department was shut down in 2012.

2 http://fu11.btk.ppke.hu/

3 Budapest 1960, Helsinki 1965, Tallinn 1970, Budapest 1975, Turku 1980, Syktyvkar 1985, Debrecen 1990, Jyväskylä 1995, Tartu 2000, Yoshkar-Ola 2005

It was a novelty in the linguistic discussions that besides descriptive linguistics the theoretical and sociolinguistic approach also appeared at the Congress, for example, in the generative syntax workshop or the typological symposium reviewed here.

Following the procedure established at previous meetings, the Congress included plenary sessions, symposiums, sessions on various topics, and a poster session. Here we will review four different symposiums and workshops that we believe to represent some of the main research areas of today's Finno-Ugric Studies. Two plenary session presentations were also chosen: one is a traditional linguistic lecture on etymology, and the other one is on prosody of the Finno-Ugric languages, which is a relatively new topic in this field.

2 Plenary sessions

Finno-Ugric Studies include multi-disciplinary research areas like linguistics, ethnology, history, literature, etc.; and the talks of the plenary sessions tried to cover all of these fields. We could hear presentations about linguistics, ethnology and archaeology. This diversity was true of the linguistics presentations as well, because the four plenary talks were from different areas of linguistics: etymology, language variation, prosody and (Bible) translations. The two presentations we chose to review are from two different linguistic fields, and they illustrate the diversity of the topics covered during the session.

In her presentation *Expressive Vocabulary in the Early Phases of Fenno-Ugrian,* Ulla-Maija Forsberg (Helsinki) discussed an old problematic group of words in Finno-Ugric languages, which are known as descriptive, onomatopoetic, descriptive-onomatopoetic, imitative, *hangutánzó* or expressive among the Finno-Ugric scholars. This group of words is problematic from the perspective of etymology and reconstruction, because most of them are young or their denotations in the present-day languages, and they include unetymological sounds, vowel variations and contain a lot of derivative morphemes. In Forsberg's proposal what these words have in common is their special relation between their sound structure and semantics, so it would be better to call them sound symbolisms. Their reconstruction has to be based on the theory of phonesthemes, and we should try to reconstruct only sound combinations in the proto-language instead of whole words.

Ilse Lehiste (Tartu) – one of the greatest Finno-Ugric linguists – held an excellent presentation on comparative prosody of Finno-Ugric languages (*Experimental Study of Prosody in Finno-Ugric Languages*), together with Karl Pajusalu (Tartu). This lecture was one of her last presentations. In the first part of their presentation they discussed the recent research questions of the three well-researched Finno-Ugric languages (Finnish, Estonian and Hungarian). The Finno-Ugric Prosody Project deals with understudied Finno-Ugric languages like Erzya, Moksha or Livonian. The project has been carried out by researchers at the University of Tartu and other institutions over the past decade, and the aim of the project is to analyze the prosody of lesser-known Finno-Ugric languages using modern experimental tools. The experimental studies on these languages provide interesting new data, which can be used not only for comparative Finno-Ugric studies, but also for theoretical analyses.

3 Workshops and Symposiums

There were session talks and workshops during all three days of the Congress. Most of the sessions were on linguistics. The linguistic sessions contained eleven different subsessions devided by topic (e.g. Bible translation, etymology) or by languages (e.g. Mordvinic, Permi or Obi-Ugric languages). The 20 different workshops and symposiums were organized around specific topics, and gave an opportunity to the researchers of new fields in Finno-Ugric studies, such as typology and theoretical linguistics, to present their recent results.

In this section, we will review the program of four different symposiums (the ones on typology, sociolinguistics, negation and syntax), which were chosen because they can give a representative overview of today's linguistic research in Finno-Ugristics.

3.1 Symposium on Typology

The symposium consisted of two main parts. First, the organizer of the symposium, Ferenc Havas (Budapest) held an introductory talk on the Uralic Typology Database (UTDB) project[4]. Havas claimed that the UTDB, like the WALS (Dryer – Haspelmath 2011) for instance, can be seen as a virtual grid that includes data arranged in columns and rows. The columns stand for languages; the rows contain data on different features. These features would cover all levels of the human language, that is, the database would consist of phonological, morphological, syntactic and perhaps lexico-semantic features as well. Data should be collected from grammar books and from native speakers if it is necessary. The implementation of the project is to be organized by a permanent Supervisory Board, which would invite specialists for collecting material on a certain feature and writing an article of the database. All the materials should undergo a peer-review process, and if a submitted article is accepted, it can be added to the database. Following this, the UTDB would keep expanding continuously.

There were comments after the talk suggesting, for example, that minor pilot projects should be carried out first[5], and it was mentioned that there is an ongoing project which deals with the typological features of the Ugric languages, hosted by the Yugra University (Khanti-Mansiysk) and Eötvös University[6].

The second part of the symposium was devoted to talks on various topics based on the typological description of the Uralic languages. In this part, the talks principally focused on two topics: (i) the questions of case marking and argument structure, and (ii) verbal semantics in Finno-Ugric languages. Marcus Kracht (Bielefeld) listed some general features of local expressions, which are similar to local case systems of Caucasian

[4] The idea of the UTDB, that is, an online typological database covering all the Finno-Ugric languages, first came up in 2005 at the 10th International Congress for Finno-Ugric Studies held in Yoshkar-Ola, the Mari Republic. It was followed by an international conference on this project in 2008, hosted by the University of Vienna (http://www.univie.ac.at/urtypol/index.html). Till recent times, the typological approach has been considerably omitted in Finno-Ugristics, and it has not dealt with the language family as a whole either, although general typology has focused on some Finno-Ugric languages. It follows from the above that the existence of a database like this would be beneficial not only for Finno-Ugrists but for typologists as well. See Havas 2011

[5] A pilot project funded by the Hungarian Scientific Research Fund (OTKA) has recently started, which aim is to provide the online typological database of the Ugric languages. (Ref. num.: OTKA-104249).

[6] For further details on the project, see Havas 2010.

languages, for instance. There is a strong tendency in Uralic languages to make a straight distinction between stasis and change. Mariya Usacheva (Moscow) gave a systematic sketch of the locative system of the Udmurt language from a semantic perspective. Anne Tamm (Budapest-Florence) pointed out how local case markers of some Finnic languages have continuously changed to elements encoding TAM relationships as a typical instance of grammaticalization. Riho Grünthal (Helsinki) examined some cases of inflectional syncretism in Finnic languages. Since Northern Finnic languages have a more regular suffixal morphology than the Southern members of this group, they use less syncretic forms, which can have diachronic motivations. Tatyana Agranat (Moscow) introduced a current project on "*Expression of Semantic Roles and Localizations in Uralic Languages*", whose task is to establish an online database which includes data about surface and semantic cases. In her presentation, Fanni Karácsony (Budapest) stated that the differences of nominality in Finno-Ugric languages are in close connection with the degree of prototypicality in a certain language.

The rest of the talks dealt with verbal categories, such as aspect and Aktionsart. Giving a corpus-based analysis, Laura Horváth (Budapest) pointed out that the relatively lower frequency of compositional markers in the Volga-Kama region can be due to the richness of paired verb constructions and other non-compositional aspect markers. Katalin Gugán (Budapest) listed general features of Aktionsart markers in (Old) Hungarian and Surgut-Khanty, and found that the well-known typological implications on this topic should be modified. Krisztina Korencsi (Budapest) compared some types of causation in Estonian and Hungarian. She demonstrated that the lexical-semantic grouping of these constructions can offer a tool for the better understanding of causatives. Nikolett F. Gulyás (Budapest) focused on the notion of impersonality with respect to some Finno-Ugric languages. She proposed that a reclassification of impersonals on a broader, functional basis would be useful to get a more detailed picture of the phenomenon. Following Siewierska's definition of passives, Erika Asztalos (Budapest) argued that there is a personal passive construction in Udmurt, which can be formed both with transitive and with intransitive verbs. Szilvia Németh (Budapest) presented a typology of constructions encoding information structure in Mansi investigating implicational criteria.

3.2 Sociolinguistics

Applied linguistics, especially sociolinguistics and the study of bilingualism are comparatively new research fields in Finno-Ugric Studies. Although there have been studies carried out on the so-called bigger Finno-Ugric languages (i.e. Estonian, Finnish, and Hungarian), the smaller languages remained outside the scope of sociolinguistic inquires. Research at the universities of the minor Finno-Ugric peoples rather concentrated on the descriptive grammar and historical aspects of these languages.

In recent years, however, sociolinguistics and especially the study of bilingualism has become part of the current research topics in Russia as well. Studies on bilingualism include articles written on the (socio-)political, psycholinguistic and sociolinguistic aspects of this phenomenon. Language policy and linguistic human rights are some of the other mainstream areas. Gender studies are becoming popular as well.

The reason for the change in academic trends can be attributed to a variety of factors ranging from historical to political and methodological ones. The collapse of the Soviet Union had at least two consequences which are important from this respect: it became possible to carry out fieldwork among the Finno-Ugric minorities living in

Russia, and researchers gained access to literature published in the Western world. Field trips provided data on actual language use, which enabled researchers outside the given language communities to study contemporary language use, and moreover, to study the bi- and multilingualism of these communities.

Having access to publications on sociolinguistics, bilingualism, language contact, and so on enabled researchers to acquire new methodology they can use in this new type of studies. Getting acquainted with the new trends in language policy, communities learned how to acquire and implement their (community) language rights more efficiently. Attitudes towards bilingualism, at least in academic circles, have changed. Bilingual speech used to be considered to be a defected language variety. Studies that make the bilingual community aware of the fact that their bilingualism and the mixed variety they use are common phenomena in bi- or multilingual situations around the world can help raise the prestige of these languages.

The beginning of international co-operation was another important change in the history of the field. A recent development is that members of the minority communities themselves began to realize the level of endangerment of their languages and the need for study in their native tongues. Societies such as the Uralic Sociolinguistic Society (USOS[7]) have been formed to facilitate international co-operation of researchers and members of Finno-Ugric minority communities in Russia. Nonetheless, a number of joint projects have failed or they still stagnate.

As opposed to the small number of successful projects and societies, conferences concentrating on the new aspects of the minority Finno-Ugric languages proved to be more fruitful. There have been steps taken to organize workshops and seminars on these current topics at conferences focusing on the new aspects of Finno-Ugric research[8]. It is especially crucial that researchers of Finno-Ugric languages can present their papers at international conferences, as Finno-Ugric linguistics has been rather self-contained, with very little feedback from colleagues working on similar topics but, for instance, on Indo-European or Australian aboriginal languages. CIFU also proved that significant changes have started in Uralistics and the scope of research has broadened.

As we can infer from the topics of papers presented at these conferences, it seems that the major issues in this field are the following: language endangerment and documentation, bi- and multilingualism (political, grammatical and social aspects; language policy and attitudes), and code-switching (both from a pragmatic and grammatical point of view).

We could hear presentations, among others, from Boglárka Janurik (Szeged) about grammatical types of code-switching in the speech of Erzya-Russian bilinguals and from Zsuzsa Salánki (Budapest), who discussed some grammatical variables in Udmurt with respect to modern bilingual language use.

Students from the minority community itself participate in research; many of them received their education in one of the three autonomous republics. Along with their

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[7] http://u-sos.nytud.hu/

[8] More general conferences (as Conference on (Hungarian) Language Use, 4–6 September, 2008, Párkány–Stúrovo; Grammar and Context, 19–21 April, 2011, Budapest; and NTU (New trends in Uralistics) 3–5 September, 2009, Szeged) provided new opportunities to researchers to introduce these newer fields to the academic public and this year a conference specialized in the multilingualism of the Finno-Ugric peoples was organized in Hamburg (2–3 June, 2011 with the title: *Uralic languages and multilingualism: contexts and manifestations in a language family*).

language studies these students have become acquainted with contemporary theories which are not available in Russian yet. Senior researchers belonging to the Finno-Ugric minority communities are also interested in these topics, it is only logical that especially former dialectologists turn to sociolinguistics and to the study of the numerous varieties of their languages. Larisa Shirobokova, one of such native speakers, presented her recent results on Udmurt-Russian code-switching in today's languages.

In conclusion, the study of minor Finno-Ugric languages from a sociolinguistic point of view has yielded promising results (Udmurt; Salánki 2007, Shirobokova 2011), there is also research going on concerning the urban variety of Finno-Ugric minorities (e.g. Mansi; Sipőcz & Bíró 2009). Code-switching is also widely studied, pertaining to both the actual languages (Karelian; Sarhimaa 2001, Erzya; Janurik 2011) and the typology of code-switching between Russian and the minor Finno-Ugric languages. Hopefully, international co-operation of applied linguists is going to provide more data on the linguistic situation of minor Finno-Ugric peoples and these pieces of information could be applied in order to sustain these endangered languages.

3.3 Negation in Uralic Languages

The symposium *Negation in Uralic Languages*[9] was presented as the part of the Typology Symposium. The one-day event included discussions and presentations about the negation strategies in the Uralic languages.

The organizers (Anne Tamm, Budapest-Florence; Matti Miestamo, Stockholm; and Beáta Wagner-Nagy, Hamburg) held talks about the negation in general and presented their recent project on negation in Uralic languages, furthermore other researchers who study negation from a typological or a descriptive point of view also presented at the symposium.

The Symposium focused on the analysis of Uralic negatives for several reasons. Despite the fact that there is an increasing amount of research dealing with negation in the individual Uralic languages, traditional Finno-Ugric linguistics has not explored negative strategies systematically yet. The organizers aimed to bring together those scholars who work on negation either in an individual Uralic language or from a typological perspective. Some of the main goals of the event were to provide a typological classification of negation in the Uralic languages and to describe the negation strategies in the Uralic languages on the basis of a unified questionnaire. The research concentrates on the description of the markers and negative constructions in standard and non-standard environments (e.g. negative imperatives, interrogatives, existentials, non-verbal predicate negation, the negation of dependent clauses, negative replies, constituent negation, negation in NPs, and negative derivation and inflection). Further central topics were the morphosyntactic and semantico-pragmatic phenomena of negation.

The programme of the symposium was divided into two parts based on the nature of the research presented. On the one hand, an overview of typological research on negation was given by Matti Miestamo (Stockholm), among the presentations of several other typological results. On the other hand, specific features of negatives were demonstrated in Finno-Permic by Sirkka Saarinen (Turku), who talked about negation in

[9] Related projects: Negation in Uralic Languages: http://uralicnegation.pbworks.com, Typology of Negation in Ob-Ugric and Samoyedic Languages: http://www.univie.ac.at/negation/team/team-en.html

Mari in general, and by Arja Hamari (Helsinki), who discussed negation of stative relation clauses in Mordvin, Mari and Permic languages in her presentation. Ob-Ugric was represented by Sosa Sachiko (Helsinki), who presented her recent research on the pragmatic functions of negative clauses in Surgut Khanty. Samoyedic languages were discussed by Larisa Leisiö (Tampere) and Valentin Gusev (Moscow) with their presentations on Nganasan and by Beáta Wagner-Nagy (Hamburg), who gave an overview about negation of predicative possession in Samoyedic Languages.

The negation of Uralic languages will be published in a book next year (2013). Similarly to the structure of the symposium this book describes the negation strategies in individual Uralic languages with a focus on the specific aspects of negation in Uralic languages in general.

3.4 The Syntax of Finno-Ugric Languages and Universal Grammar

Theoretical linguistics was represented at the Congress with a two-day workshop entitled *Syntax of Finno-Ugric Langauges and Universal Grammar* organized by Anders Holmberg (Newcastle), Katalin É. Kiss (Budapest-Piliscsaba) and Anne Tamm (Budapest-Florence). Syntactic research on Hungarian, Finnish and Estonian in the generative framework is well-known and has a tradition that is several decades old, but it is very rare among the so called small Finno-Ugric languages. The aim of the organizers was to bring together linguists who have current or recent work on any issues on the syntax of one (or more) Finno-Ugric language. During the two-day workshop there were talks on Hungarian, Estonian, and Finnish, but also on Saami and Tundra-Nenets languages, which means that the syntactic analysis of these languages has already begun. The organizers of the workshop categorized the syntactic talks on the basis of the language(s) under discussion: the languages discussed on the first day were Hungarian and Finnish, and on the second day Finnic and Samoyedic.

The workshop began with two comparative talks. The presentation by Ora Matushanksy (Utrecht) on predicatives in Hungarian, Estonian and Finnish dealt with the different predicative case assignment in DP and AP predicates, Gergely Kántor & Júlia Bácskai-Atkári's (Budapest) talk on elliptical constructions in comparative subclauses in Hungarian, Estonian and Finnish presented data from these Finno-Ugric languages based on parametric settings of Comparative Deletion and Comparative Ellipsis (paper versions of both talks are available in this volume).

Three talks presented syntactic research on Hungarian. A study of external causatives in Hungarian and their antilexicalist treatment based on Marantz (1999) was presented by Huba Bartos (Budapest). In her presentation, Barbara Ürögdi (Budapest) argued that referentiality restrictions play an important role in 'weak islands' in Hungarian. Balázs Surányi (Budapest) presented a syntax/semantics/prosody interface based analysis of the movement of identificational focus in Hungarian.

The second day of the workshop was devoted mostly to Finnic and Samoyedic languages. Diane Nelson (Leeds) discussed (non)finiteness in Finnish and Saami (also in this Volume), Pauli Brattico (Helsinki) gave a talk on long-distance case assignment in Finnish, and Saara Huhmarniemi & Anne Vainikka's talk on multiple wh-questions and syntactic islands in Finnish presented their recent research on the topic.

The session called *Contributions that are not Finnish or Hungarian* included Irina Nikolaeva's (London) talk on possessive relative clauses in Tundra-Nenets, and a presentation by Heete Sahkai (Tallinn), which focused on Estonian genitive agent phrases. Éva Dékány (Tromsø) and Anikó Csirmaz (Utah) gave a talk on classifiers in

the Hungarian DP. Anne Tamm (Budapest-Florence) closed the session with a presentation on cross-categorial cases in Finnic nonfinite verbs. Ida Toivonen (Carleton) argued for a lexical-functional treatment (LFG; Bresnan 1982, 2001) for syntactic phenomena in the Saami languages.

The workshop also included a poster session in the afternoon of the first day and the posters were on display during the two-days of the symposium.

References:

Bíró, Bernadett & Sipőcz, Katalin. 2009. Language shift among the Mansi. In James N. & Dennis R. Preston (eds.). *Variation in Indigenous Minority Languages*, Stanford, 321–346.

Bresnan, Joan. 2001. Lexical-Functional Syntax. Oxford: Blackwell.

Dryer, Matthew S. & Haspelmath, Martin (eds.). 2011. *The World Atlas of Language Structures Online*. Munich: Max Planck Digital Library. Available online at http://wals.info/

Havas, Ferenc. 2010. Проект типологической базы данных уральских языков. In *Языки и культура финно-угорских народов в условиях глобализации. Материалы IV Всероссийской конференции финно-угроведов (17–20 ноября 2009 г., Ханты-Мансийск).* Ханты-Мансийск. 18–23.

Havas, Ferenc. 2011. The Uralic Typological Database Project: an Introductory Talk for a Free Discussion. In *Congressus XI Internationalis Fenno-Ugristarum, Piliscsaba 9−14. VIII. 2010. Pars VI.* Piliscsaba 2011. 79−84.

Janurik, Boglárka. 2011. An emerging composite Matrix Language? In: *Congressus Congressus XI. Internationalis Fenno-Ugristarum Piliscsaba. Pars IV. Dissertationes sectionum: Linguistica, 9–14. VIII. 2010.* Piliscsaba: Reguly Társaság. 2011. 175–179.

Kaplan, Ronald & Joan Bresnan. 1982. Lexical-Functional Grammar: A Formal System for Grammatical Representation. In J. Bresnan. (ed.). *The Mental Representation of Grammatical Relations*. Chapter 4. Cambridge: The MIT Press.

Marantz, Alec. 2001. (ms). *Words.* http://dingo.sbs.arizona.edu/~hharley/courses/Oxford/Marantz2.pdf

Salánki, Zsuzsa. 2007. (ms). *Az udmurt nyelv mai helyzete.*

Sarhimaa, Anneli. 1999. *Syntactic transfer, contact-induced change, and the evolution of bilingual mixed codes: Focus on Karelian-Russian language alternation*. Helsinki: Finnish Literature Society.

Shirobokova, Larisa. 2011. (ms). *Az udmurt-orosz kétnyelvűség (Udmurt Köztársaság, Sarkan járás, Muvyr község)*

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