On the Internal Structure of Case in Finno-Ugric Small Clauses*

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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

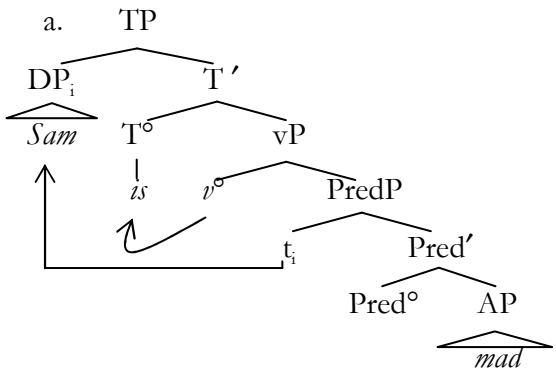
(4) a. Sam_i seems $[_{SC}\, t_i$ *mad*$]$. raising, stative
b. Sam_i became $[_{SC}\, t_i$ *mad*$]$. raising, dynamic
c. Sam considered $[_{SC}$ Lee *mad*$]$. ECM, stative
d. Sam made $[_{SC}$ Lee *mad*$]$. ECM, dynamic (causative)
e. The people elected $[_{SC}$ Sam (??*the) president*$]$. nomination
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.



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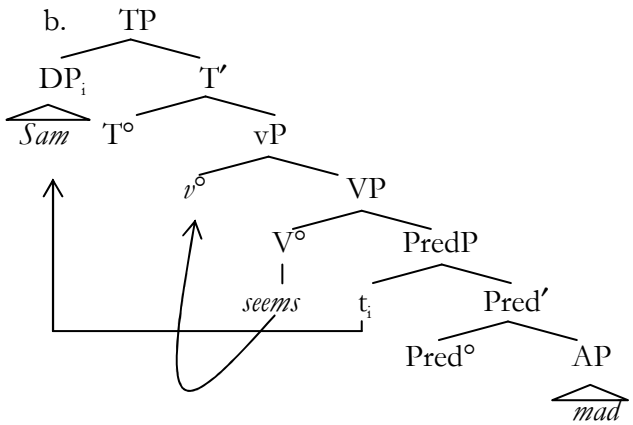


Comparing the structures in (5) to dynamic raising verbs (which add a change-of-state component to v°) shows that the latter can give rise to a more marked surface case

[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:

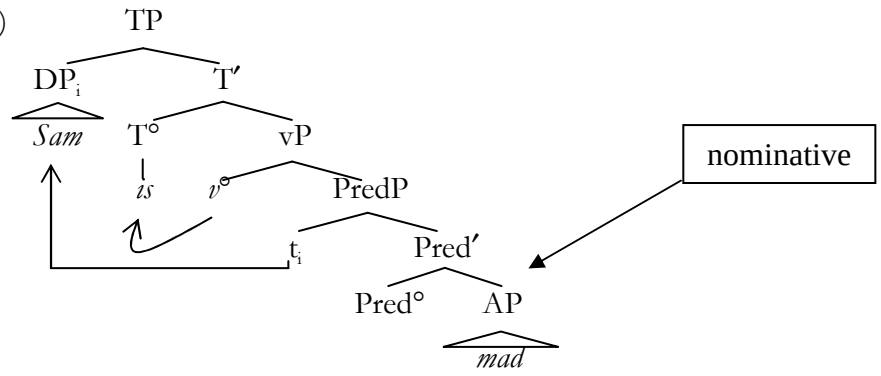
(6) a. *Ystävä-ni* *on* *pappi.*
friend-3SG.POSS.NOM be.PRES.3SG vicar.NOM
'My friend is a vicar.' (Fromm and Sadeniemi 1956:115)

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.'

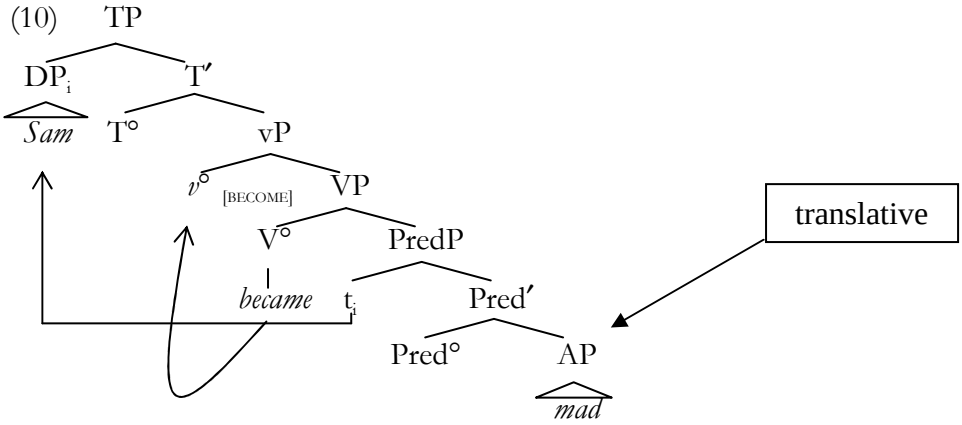
f. *Kivi jä-i vanha-ksi poja-ksi.*[9]
Kivi.NOM remain-PAST.3SG old-TRS boy-TRS
'Kivi remained a bachelor.' (Fong 2003)

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)

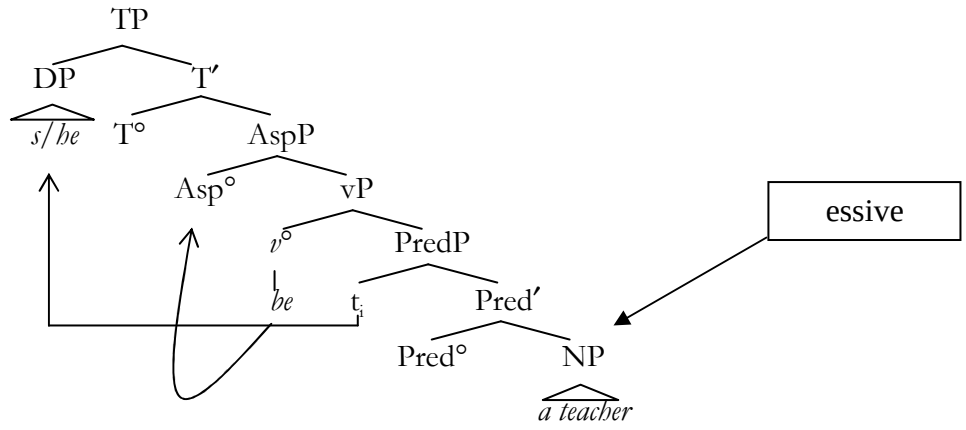
appear with the same verb, strongly suggest that one of the two predicate cases cannot be assigned by the verb:

(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)

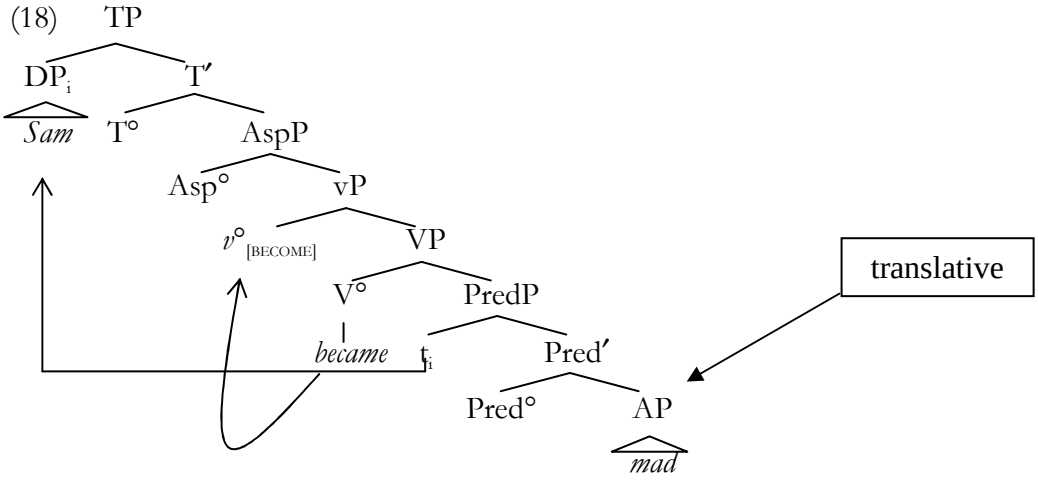
Furthermore, it is not even clear that depictives are c-commanded by the verb. While object depictives are usually analyzed as a VP-adjuncts, subject depictives have been argued to appear higher in the structure, perhaps even as TP-adjuncts (Williams 1980, Roberts 1988, Nakajima 1990). To unify the three 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)

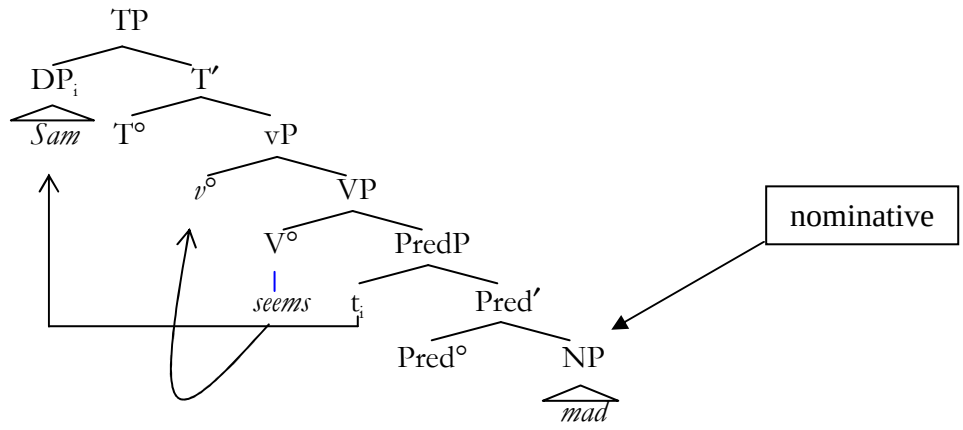
b. *Raskus näi-b ületamatu.*
difficulty.NOM seem-PRES.3SG insurmountable.NOM
'The difficulty seems insurmountable.' (Lehiste 1969)

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
kümnevõistleja-ks/targa-ks.
decathlete-TRS/intelligent-TRS
'Mary considers John a good decathlete/intelligent.'

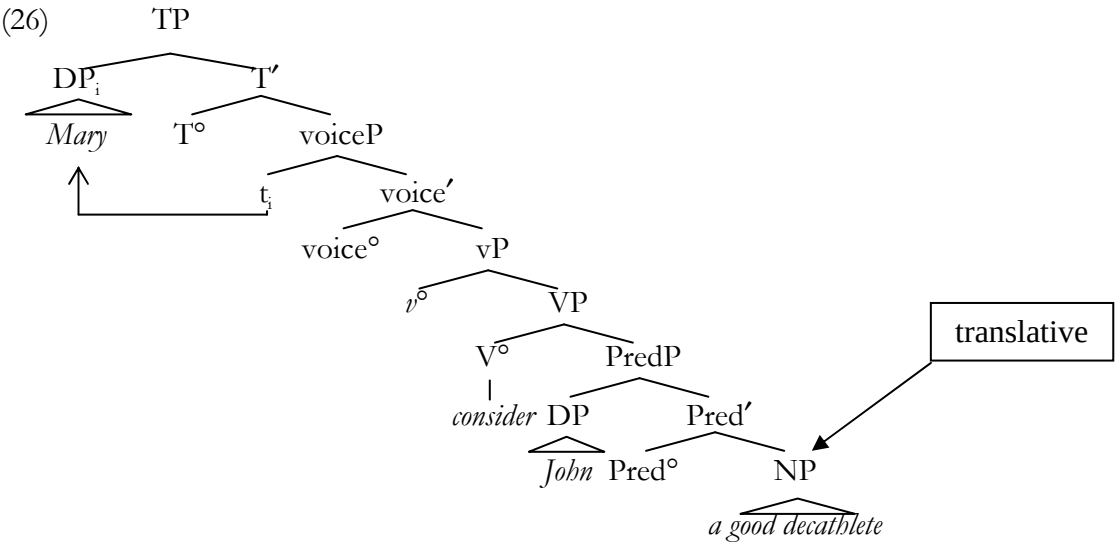
b. *Kui Kiir se-da tarviliku-ks arva-b…*
as Kiir.NOM DEM-PART necessary-TRS think-PRES.3SG
'If Kiir considers it to be necessary...' (Matsumura 1996)

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.

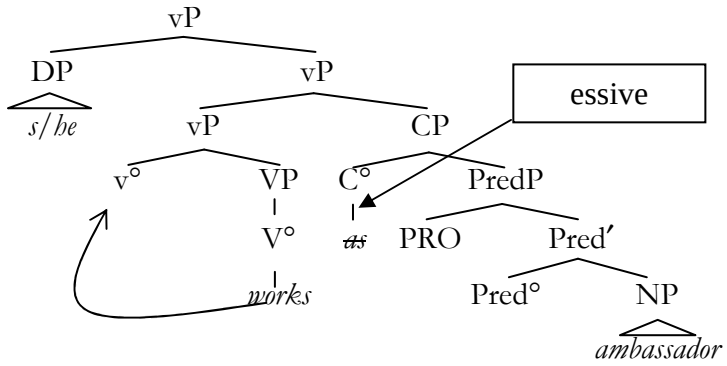
3.3.1 *Essive marking as a functional element*

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.

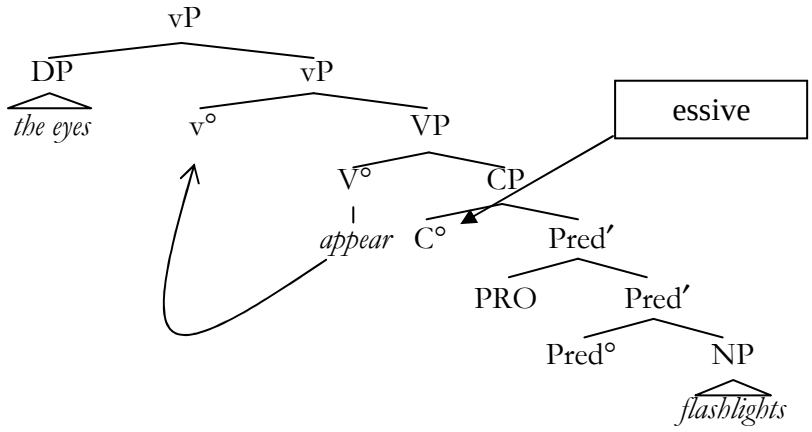
3.3.2 *Essive with perception verbs*

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.'

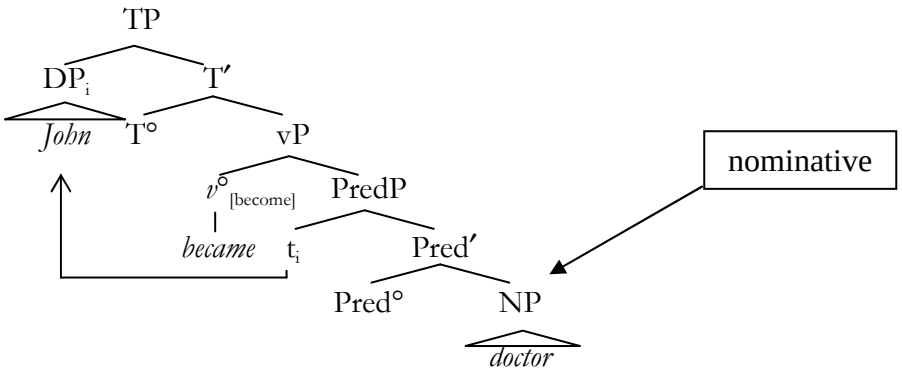
b. *János orvos le-tt.*
Janos.NOM doctor.NOM be/become-PAST.3SG.
'John was/became a doctor.'

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-nek / 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

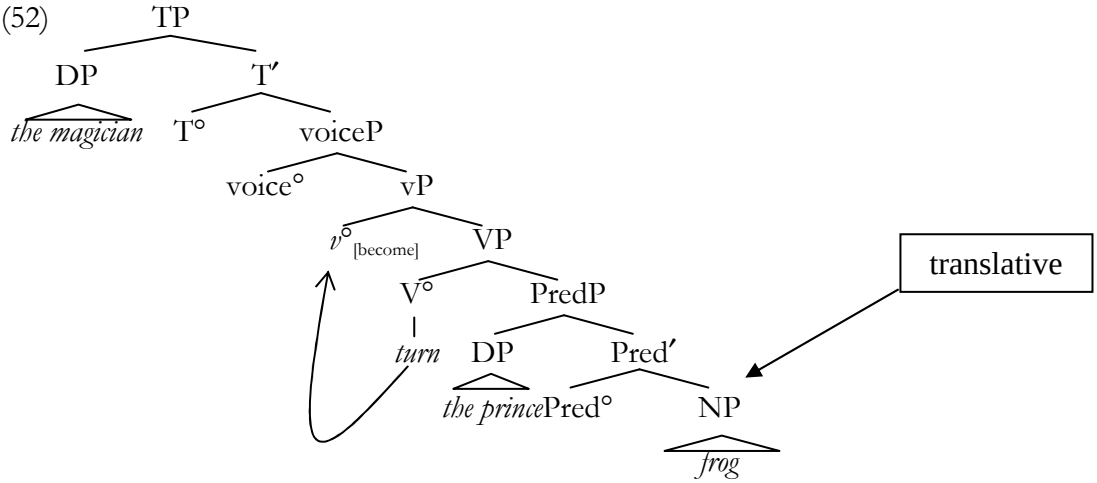
As a result, we can now formalize the following Vocabulary Insertion rules, where the more complex syntactic structure results in a more complex feature bundle on the nonverbal predicate, which in turn yields a more marked predicate case:

(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:

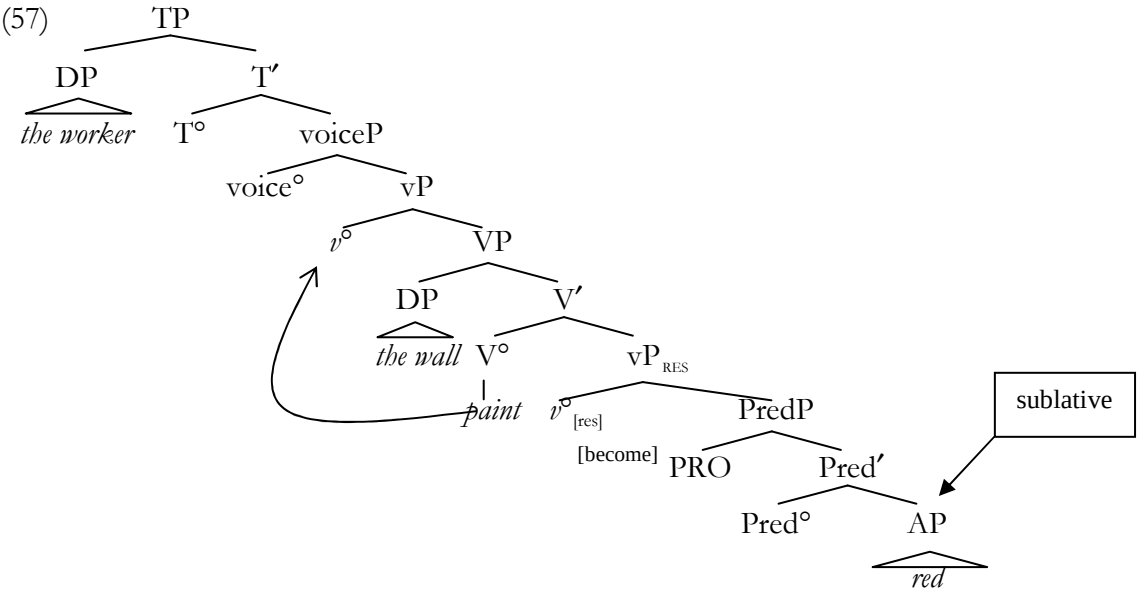
(ii) *János* *kemény* *tésztá-vá* *gyúr-ta* *az* *alkotóanyag-ok-at.*
John.NOM stiff dough-TRS knead-PAST.3SG the ingredient-PL-ACC
'John kneaded the ingredients into stiff dough.'

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:

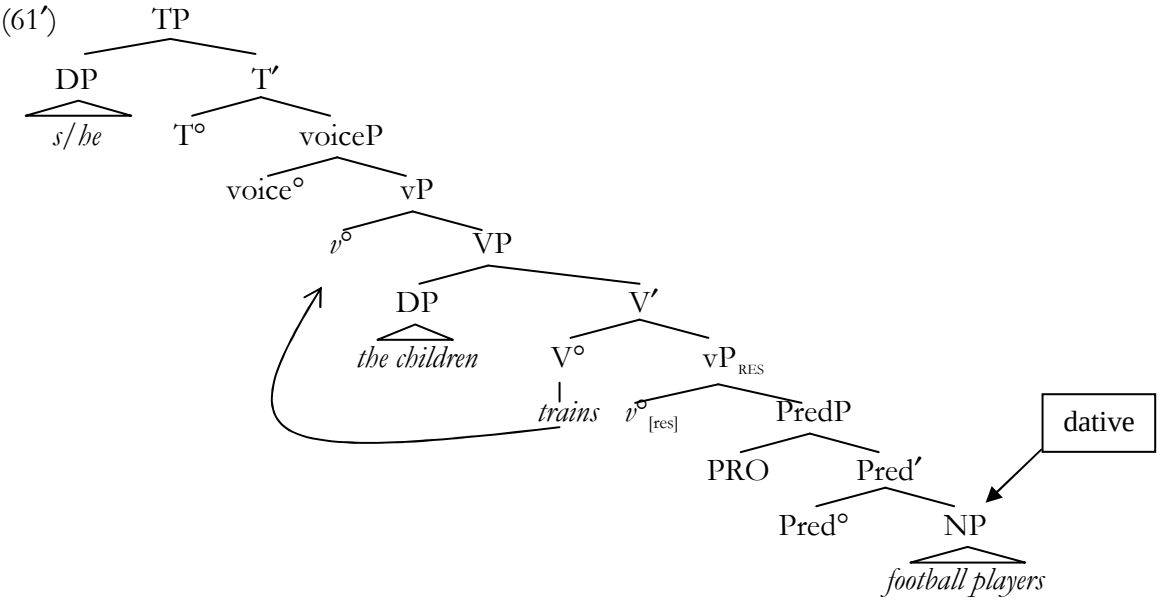
[23] In the semantics that I proposed in Matushansky (2008b) the naming root existentially quantifies over naming relations that link the external argument to the phonological form of the name, which means that naming verbs do indeed have a shared semantic component that can function as a syntactically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

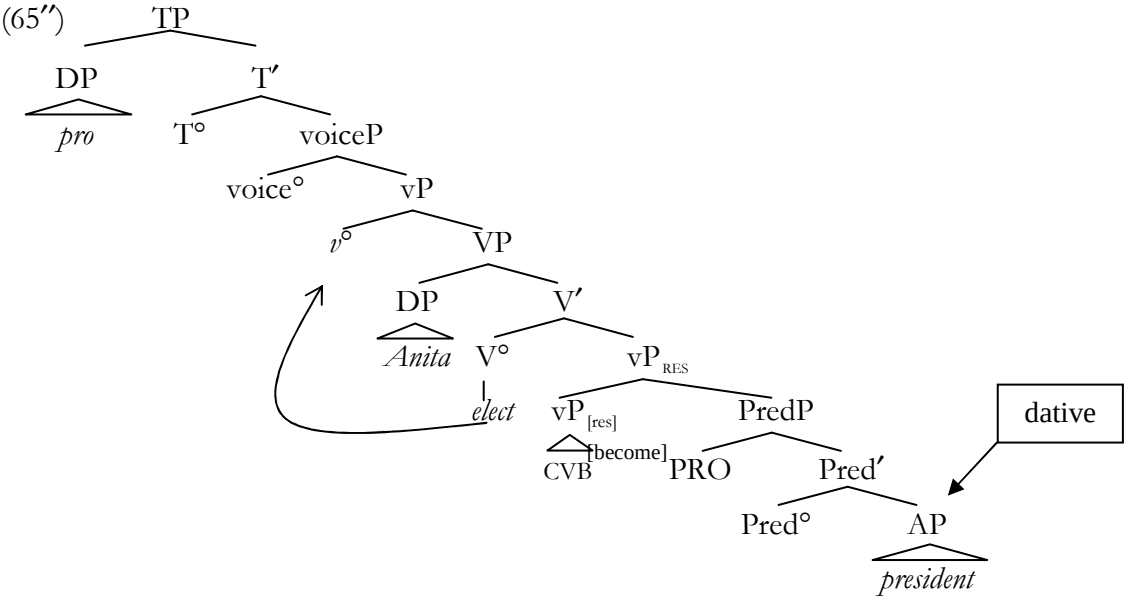
(ii) *Péter-t elnök-nek választ-ott-ák.*
Peter-ACC president-DAT elect-PAST-3PL
'Peter has been elected president.'

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*
beautiful-DAT beautiful girl-ACC take-PAST.3SG CVB, but poor NEG
nagyon *okos.*
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.

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