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Case and word order in Lithuanian revisited

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1. Introduction

In Modern Lithuanian, the overt object of the Infinitive of a transitive verb can be marked in four different ways depending on the type of matrix clause:

– with most verbs taking infinitival complements, the object is in the Accusative, like in ordinary finite clauses, cf. (1);
– in impersonal matrix constructions the object of the Infinitive can be in the Nominative, cf. (2);
– with verbs of motion, the object of the infinitival clause denoting the purpose of motion, is in the Genitive, cf. (3);
– in other kinds of purpose infinitives adjoined to verbs or nouns, the object is in the Dative, cf. (4).

(1) *Jon-as* *nor-i* [*perskaity-ti* ***laišk-ą***].
Jonas-NOM.SG want-PRS(3) read.through-INF letter-ACC.SG
'Jonas wants to read the letter.'

(2) *J-am* *ne-patik-o* [***laukel-is*** *ar-ti*].
3-DAT.SG.M NEG-like-PST(3) field-NOM.SG plough-INF
'He did not like to plough the field.' (Ambrazas (ed.) 1997: 638)

(3) *išvažiav-o* [***keli-o*** *taisy-ti*].
drive.out-PST(3) road-GEN.SG repair-INF
'(they) went to repair the road.' [ibid.]

(4) *iššov-ė* [***žmon-ėms*** *pagąsdin-ti*].
shoot-PST(3) people-DAT.PL frighten-INF
'(he) fired to scare the people.' (ibid.: 557)

In addition to that, the direct object of the infinitive of type (1) is marked Genitive in the presence of negation, either on the infinitive (5a) or on the matrix verb (5b).

(5) a. *Dėking-a* *Onut-ė* *pažadėj-o* [***ne****-palik-ti* ***mūs-ų***]…
grateful-NOM.SG Onutė-NOM.SG promise-PST(3) NEG-leave-INF we-GEN
'Grateful Onutė promised not to leave us.' (LKT, http://tekstynas.vdu.lt/)

b. *Jon-as* ***ne****-nor-i* [*perskaity-ti* ***laišk-o***].
Jonas-NOM.SG NEG-want-PRS(3) read.through-INF letter-GEN.SG
'Jonas does not want to read the letter.'

The main focus of this paper are constructions with the Dative and the Genitive marking illustrated in (3) (Gen + Inf) and (4) (Dat + Inf). They have been extensively studied by Stephen Franks and James Lavine (2006) (further FL06), and one of my goals is to review their analysis in the light of new and more reliable empirical data and to propose an alternative account, based on typologically-informed revision of the Minimalist case theory.
The structure of the paper:
– § 2: outline of FL06's analysis and claims;
– § 3: revision of FL06's analysis;
– § 4 and § 5: typological parallels and attempt at a new analysis.

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2. Franks & Lavine 2006

FL06's main empirical tenets are as follows:
❶ Case alternation in infinitival clauses is possible only with Accusative direct objects, which receive case via general mechanisms of structural case assignment, and not with indirect objects assigned "quirky" case by the verb, cf. (6) vs. (7).

(6) a. *Mes* *rūpin-a-mė-s* ***vaik-ais***.
we:NOM take.care.of-PRS-1PL-RFL child-INS.PL
'We take care of children.'

b. *Mes* *pastat-ė-me* *ligonin-ę* [*rūpin-ti-s* ***vaik-ais***].
we:NOM build-PST-1PL hospital-ACC.SG take.care.of-INF-RFL child-INS.PL

c. **Mes* *pastat-ė-me* *ligonin-ę* [***vaik-ams*** *rūpin-ti-s*].
we:NOM build-PST-1PL hospital-ACC.SG child-DAT.PL take.care.of-INF-RFL
'We built a hospital to take care of children.' (FL06: 250)

d. *Atėj-o* [*rūpin-ti-s* ***draug-u***].
come-PST(3) take.care.of-INF-RFL friend-INS.SG

e. **Atėj-o* [***draug-o*** *rūpin-ti-s*].
come-PST(3) friend-GEN.SG take.care.of-INF-RFL
'He came to take care of a friend.' (FL06: 255)

(7) a. *Mes* *gyd-o-me* ***vaik-us***.
we:NOM treat-PRS-1PL child-ACC.PL
'We treat children.'

b. *Mes* *pastat-ė-me* *ligonin-ę* [***vaik-ams*** *gydy-ti*].
we:NOM build-PST-1PL hospital-ACC.SG child-DAT.PL treat-INF
'We built a hospital to treat children.' (FL06: 252)

c. *Daktar-as* *atėj-o* [***vaik-o*** *gydy-ti*].
doctor-NOM.SG come-PST(3) child-GEN.SG treat-INF
'The doctor came to treat the child.'

❷ Case alternation is coupled with "object shift" whereby the direct object moves to a preverbal position in order to receive case assigned from the upper clause, cf. (7b) vs. (7c) and (8).

(7) c. *#Mes* *pastat-ė-me* *ligonin-ę* [*gydy-ti* ***vaik-ams***].
we:NOM build-PST-1PL hospital-ACC.SG treat-INF child-DAT.PL
acceptable only under the narrow focus interpretation 'We built a hospital to treat precisely children (and not somebody else)' (FL06: 251-252)

(8) a. *J-ie* *dėj-o* *pastang-as* [***ilg-am*** ***kar-ui*** *užbaig-ti*].
3-NOM.PL.M put-PST(3) effort-ACC.PL long-DAT.SG.M war-DAT.SG finish-INF
'The made efforts to end the long war.'

b. *#J-ie* *dėj-o* *pastang-as* [*užbaig-ti* ***ilg-am*** ***kar-ui***].
3-NOM.PL.M put-PST(3) effort-ACC.PL finish-INF long-DAT.SG.M war-DAT.SG
acceptable only under the narrow focus interpretation (FL06: 251-252)

However, FL06 (256–257) note that the OV preference is attested only in Dat + Inf, and is not observed with Gen + Inf, cf. (9).

(9) a. *Siunt-ė* *mergait-ę* [*parvež-ti* ***daktar-o***].
send-PST(3) girl-ACC.SG bring-INF doctor-GEN.SG

b. *Siunt-ė* *mergait-ę* [***daktar-o*** *parvež-ti*].
send-PST(3) girl-ACC.SG doctor-GEN.SG bring-INF
'He sent the girl to fetch a doctor.' (FL06: 256) — both variants are claimed to be neutral in terms of information structure

❸ In purpose infinitival clauses, but not in goal infinitival clauses with verbs of motion, the replacement of the Accusative by the Dative is obligatory, cf. (10) vs. (11).

(10) **Pastat-ė daržin-ę [sukrau-ti **šien-ą**]*.
build-PST(3) hayloft-ACC.SG keep-INF hay-ACC.SG
intended: 'They built a hayloft to keep hay.' (FL06: 254)

(11) *Parvažiav-o [pasiim-ti **suknel-ę**]*.
come.back-PST(3) take.RFL-INF dress-ACC.SG
'She came back to take the dress.' (ibid.)

❹ In the OV Infinitive constructions, the Dative or Genitive object is moved out of the VP, which is indicated by the position of manner adverbials, cf. (12a), and even higher, i.e. to the left edge of the InfP, which is indicated by the position of epistemic adverbials in (12b) and the OSV order in examples where both the Dative object and the Dative subject co-occur, cf. (13).

(12) a. *Pastat-ė daržin-ę [**šien-ui** [$_{VP}$**saugiai** sukrau-ti]]*.
build-PST(3) hayloft-ACC.SG hay-DAT.SG safely keep-INF
'The built a hayloft to keep the hay safely.'

b. *Išvažiav-o [**keli-o** **tikriausiai** [$_{VP}$taisy-ti]]*
drive.out-PST(3) road-GEN.SG probably repair-INF
'The went probably to repair the road.' (FL06: 260)

(13) *Pastat-ė daržin-ę [$_{InfP}$**šien-ui** [$_{VP}$**mums** sukrau-ti]]*.
build-PST(3) hayloft-ACC.SG hay-DAT.SG we-DAT keep-INF
'They built a hayloft for us to keep hay.' (FL06: 266)

❺ The displaced Dative or Genitive object forms a constituent with the Infinitive, which is evidenced by the following diagnostics:

– in many cases, it is impossible to omit the Infinitive, since the object is not licensed in the matrix clause, cf. (14a) vs. (14b), (15a) vs. (15b):

(14) a. *Parvež-ė-me lent-ų **nam-ui** (apmuš-ti)*.
bring-PST-1PL board-GEN.PL house-DAT.SG cover-INF
'We brought some boards for the house / to cover the house.' (FL06: 270)

b. *Iššov-ė **žmon-ėms** *(pagąsdin-ti)*.
shoot-PST(3) people-DAT.PL frighten-INF
'He fired to frighten the people / *for people.' (FL06: 271)

(15) a. *Išėj-o **pien-o** (parneš-ti)*.
go.out-PST(3) milk-GEN.SG bring-INF
'He went for milk / to bring some milk.' (FL06: 268)

b. *Išvažiav-o **keli-o** *(taisy-ti)*.
drive.out-PST road-GEN.SG repair-INF
'They went to repair the road / *to fetch the road.' (FL06: 271)

– constituency tests such as coordination (16), "clefting" (17) or fragmenting (18):

(16) *Pastat-ė daržin-ę [**šien-ui** sukrau-ti] ir [**grūd-ams** apsaugo-ti]*.
build-PST(3) hayloft-ACC.SG hay-DAT keep-INF and grain-DAT.PL protect-INF
'They built a hayloft to keep hay and protect grain.' (FL06: 272)

(17) *Tai [**šien-ui** sukrau-ti] pastat-ė daržin-ę.*
it hay-DAT.SG keep-INF build-PST(3) hayloft-ACC.SG
'It is (for them) to keep hay that they built a hayloft.' (FL06: 273)

(18) a. *K-am pastat-ė daržin-ę?*
what-DAT build-PST(3) hayloft-ACC.SG
'For what purpose did they build a hayloft?'

b. *Šien-ui sukrau-ti.*
hay-DAT.SG keep-INF
'To keep hay.' (FL06: 272–273)

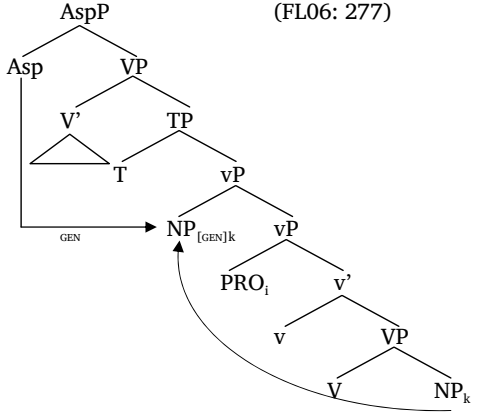
❻ Dat + Inf and Gen + Inf clauses differ in their syntactic status, the former being purpose **adjuncts**, the latter (optional) goal **arguments** of motion verbs. This is evidenced by the difference in wh-extraction possibilities, cf. (19) vs. (20).

(19) **__K-am__$_i$ atneš-ė vanden-s [t$_i$ palaisty-ti]?*
what-DAT bring-PST(3) water-GEN.SG pour-INF
intended: 'What did he bring some water in order to pour on?' (FL06: 277)

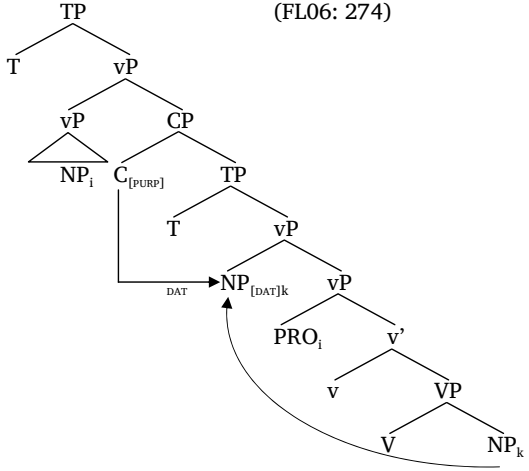
(20) ***K-o**$_i$ atėj-o [t$_i$ aplanky-ti]?*
who-GEN come-PST(3) visit-INF
'Whom did he come to visit?' (FL06: 278)

➲ In order to account for both case marking and the object shift, FL06 (273ff) propose a mechanism of "agnostic movement", whereby an NP with an unvalued case feature moves to a higher position where it can be assigned Genitive by an aspectual projection associated with verbs of motion (21), or Dative by the purpose head C (22).

(21) (FL06: 277)



(22) (FL06: 274)



3. Franks & Lavine 2006 revised

There are several empirical as well as conceptual problems with FL06's analysis, which will be discussed here together with additional data, coming both from native speakers and the Internet (note that any real corpus, let alone statistical analysis is virtually impossible, because LKT does not have morphological annotation).

3.1. Of the points ❶–❻ outlined above, only ❺ holds without any further qualifications.

❶ "Structural" vs. "quirky" case. It turns out that not only structural Accusative, but also "quirky" Genitive and Instrumental can sometimes be replaced by the Dative in the infinitival constructions, at least for some speakers, cf. (23), (24).

(23) a. *J-ie* *nor-i* [*išveng-ti* ***kar-o***].
3-NOM.PL.M want-PRS(3) avoid-INF war-GEN.SG
'They want to avoid war.'

b. %*J-ie* *dėj-o* *pastang-as* [***kar-ui*** *išveng-ti*].
3-NOM.PL.M put-PST(3) effort-ACC.PL war-DAT.SG avoid-INF

c. %*J-ie* *dėj-o* *pastang-as* [*išveng-ti* ***kar-ui***].
3-NOM.PL.M put-PST(3) effort-ACC.PL avoid-INF war-DAT.SG
'They made efforts to avoid war.'

(24) a. *Mes* *rūpin-a-mė-s* ***vaik-ais***.
we:NOM take.care.of-PRS-1PL-RFL child-INS.PL
'We take care of children.'

b. %*Mes* *pastat-ė-me* *ligonin-ę* [***vaik-ams*** *rūpin-ti-s*].
we.NOM build-PST-1PL hospital-ACC.SG child-DAT.PL take.care.of-INF-RFL

c. %*Mes* *pastat-ė-me* *ligonin-ę* [*rūpin-ti-s* ***vaik-ams***].
we.NOM build-PST-1PL hospital-ACC.SG take.care.of-INF-RFL child-DAT.PL
'We built a hospital to take care of children.'

Examples parallel to (23) are also found in the Internet, cf. (25):

(25) a. *Veiksm-ai* [***ši-oms*** ***problem-oms*** *išveng-ti*].
action-NOM.PL this-DAT.PL.F problem-DAT.PL avoid-INF
'Actions in order to avoid these problems.'[1]

b. *...dokument-ai* [***finansin-ei*** ***param-ai*** *prašy-ti*].
document-NOM.PL financial-DAT.SG.F support-DAT.SG ask-INF
'documents in order to ask for financial support.'[2]

This unexpected phenomenon does not seem to be correlated with the (non-standard) Accusative case marking of the object of verbs such as *išvengti* 'avoid' or *prašyti* 'ask', since the latter is attested much less frequently than the Dative marking with the infinitive:

(26) Google search 04.01.2013

problemoms$_{\text{DAT}}$ *išvengti* 'to avoid problems'	> 40 results
išvengti problemas$_{\text{ACC}}$	2 results
išvengė problemas$_{\text{ACC}}$ 'avoided problems'	0 results
paramai$_{\text{DAT}}$ *prašyti* 'to ask for support'	7 results
prašyti paramą$_{\text{ACC}}$	0 results
prašo paramą$_{\text{ACC}}$ 'asks for help'	4 results

(For sure, the standard variants with Genitive object are many times more frequent.)
Replacement of "quirky" case by the Genitive in goal infinitival clauses with motion verbs is, however, consistently banned.

[1] http://support.google.com/webmasters/bin/answer.py?hl=lt&answer=76401
[2] http://kekstas.darbastalis.lt/istorija/

❷ The correlations between case marking and object shift postulated by FL06 turn out to have a much subtler nature.

First, the native speakers I consulted (five VU students in their 20-ies) all tend to prefer VO in both types of infinitive constructions, cf. (27) and (28).

(27) *Jon-as* *atėj-o* [*aplanky-ti* ***draug-o***].
Jonas-NOM.SG come-PST(3) visit-INF friend-GEN.SG
'Jonas came to visit his friend.'

(28) *Mes* *pastat-ė-me* *ligonin-ę* [*gydy-ti* ***vaik-ams***].
we:NOM build-PST-1PL hospital-ACC.SG treat-INF child-DAT.PL
'We built a hospital in order to treat children.'

The VO order, consistent with the general pattern of the language, is often regarded by my consultants as neutral, whereas the OV order is associated with focus or emphasis. Dat + Inf and Gen + Inf do not differ in this respect either from each other or from Acc + Inf.

Second, the analysis of elicitation is partly supported by corpus data:
– For Gen + Inf, the VO order is clearly preferred.

(29) Google search 03.01.2013

aplankyti draugo 'to visit a friend'	~ 80 results
draugo aplankyti	~ 35 results
pasiimti vaiko 'to take the child'	~ 200 results
vaiko pasiimti	~ 160 results
nusipirkti laikraščio 'to buy a paper'	45 results
laikraščio nusipirkti	5 results

The OV order is preferred only when the matrix verb is an attributive participle, cf. (30):

(30) a. [[***draug-o*** *aplanky-ti*] *atėj-ęs*] *berniuk-as*.
friend-GEN.SG visit-INF come-PST.PA.NOM.SG.M boy-NOM.SG
'the boy who came to visit his friend'[3]

b. [[***vaik-o*** *pasiim-ti*] *atvyk-us-i*] *mam-a*
child-GEN.SG take.RFL-INF arrive-PST.PA-NOM.SG.F mother-NOM.SG
'the mother who came to take along her child'[4]

– For Dat + Inf, the corpus data shows a clear preference for OV, but VO is clearly a well-established, though yet minor, pattern:

(31) Google search 04.01.2013

durims uždaryti 'to close doors'	30 results
uždaryti durims	7 results
namui pastatyti 'to build a house'	~ 300 results
pastatyti namui	10 results
mašinai nusipirkti 'to buy a car'	60 results
nusipirkti mašinai	11 results
nuomai sumokėti 'to repay the loan'	~ 55 results
sumokėti nuomai	~ 10 results
knygai skaityti 'to read a book'	~ 70 results
skaityti knygai	10 results

The VO order seems to be slightly favoured when the object NP is heavy, cf. (32)–(33).

[3] http://www.delfi.lt/news/daily/crime/article.php?id=14784007
[4] http://www.15min.lt/komentaras/2492729

(32) *neelektrini-ai* *įtais-ai* [*atidary-ti* *ir* *uždary-ti* [***dur-ims,***
non.electric-NOM.PL.M device-NOM.PL open-INF and close-INF door-DAT.PL
lang-ams *ir* ***langin-ėms***]].
window-DAT.PL and shutter-DAT.PL
'non-electric devices for opening and closing of doors, windows and shutters'[5]

(33) *Vis dėlto* *ne* *pat-s* *geriausi-as* *laik-as*
however NEG very-NOM.SG.M best-NOM.SG.M time-NOM.SG
[*rašy-ti* [***laišk-ui*** *apie* *sav-e*]]...
write-INF letter-DAT.SG about self-ACC
'However, it's not the best time to write about oneself...'[6]

Cf. corpus data:

(34) Google search 04.01.2013:
pastatyti [*namui ar butui*] 'to build a house or a flat'[7]
no: [*namui ar butui*] *pastatyti*
malti [*mėsai ir žuviai*] 'to chop meat and fish'[8]
no: [*mėsai ir žuviai*] *malti*

But: [*butui ar mašinai*] *nusipirkti* 'to buy a flat or a car' (3 results) vs.
nusipirkti [*butui ar mašinai*] 0 results
[*buto nuomai*] *sumokėti* 'to pay the rent for the flat' (6 results) vs.
sumokėti [*buto nuomai*] (2 results)

In fact, it looks like a considerable part of the instances of Dat + Inf in the OV order is constituted by set phrases which are not created anew but memorized and repeated, e.g.:

(35) *mėsai malti mašinėlė* 'mincing mashine', lit. "meat-DAT chop-INF mashine"
indas kavai virti 'coffee maker', lit. "vessel coffee-DAT boil-INF"
pinigai nuomai sumokėti 'money to repay the loan' lit. money loan-DAT pay-INF
paskola namui pirkti 'loan to buy a house', lit. loan house-DAT buy-INF etc.

❸ At least for some native speakers, Dative is not obligatory in purpose infinitival constructions, Accusative also being possible, at least as a marginal option, especially in the VO order, cf. (36).

(36) a. %*Jon-as* *nupirk-o* *medžiag-as* [*pastaty-ti* ***nam-ą***].
Jonas-NOM.SG buy-PST(3) material-ACC.PL build-INF house-ACC.SG
'Jonas bought materials to built a house.'

b. %*Mes* *pastat-ė-me* *ligonin-ę* [*gydy-ti* ***vaik-us***].
we.NOM build-PST-1PL hospital-ACC.SG treat-INF child-ACC.PL
'We built a hospital to treat children.'

❹ Though FL06's observations on the position of adverbials in Dat + Inf and Gen + Inf OV structures is largely confirmed by my consultants, they consistently reject examples like (13) where both the Dative subject and the Dative object are present; in these cases, the object must appear in the Accusative, cf. (37)

(37) a. **Atidėj-au* *pinig-ų* [***nam-ui*** ***mums*** *pastaty-ti*].
put.by-PST.1SG money-GEN.PL house-DAT.SG we.DAT build-INF

[5] http://isdv.upv.cz/portal/pls/portal/portlets.ozs.det?pozk=729339&plan=en
[6] http://www.rasyk.lt/dienorastis/195020/195020.html
[7] http://verslas.delfi.lt/nekilnojamas-turtas/article.php?id=19144292&com=1&s=1&no=140
[8] http://www.mokslai.lt/referatai/referatas/smulkinimo-irengimai-prekybinese-ir-maitinimo-imonese-puslapis5.html

b. *Atidėj-au* *pinig-ų* [***mums*** *pastaty-ti* ***nam-ą***].
put.by-PST.1SG money-GEN.PL we.DAT build-INF house-ACC.SG
'I put by some money for us to build a house.'

Moreover, this restriction is not limited to the co-occurrence of the object and the subject, but is operative in prohibiting the Dative of the direct object in the presence of a Dative indirect object regardless of word order, cf. (38a,b); here again only Accusative is possible, cf. (38c):

(38) a. **pinig-ai* ***vaz-ai*** ***motin-ai*** *nupirk-ti*
money-NOM.PL vase-DAT.SG mother-DAT.SG buy-INF

b. **pinig-ai* ***vaz-ai*** *nupirk-ti* ***motin-ai***
money-NOM.PL vase-DAT.SG buy-INF mother-DAT.SG

c. *pinig-ai* *nupirk-ti* ***motin-ai*** ***vaz-ą***
money-NOM.PL buy-INF mother-DAT.SG vase-ACC.SG
'money in order to buy a vase for mother'

The Genitive direct object is compatible with the Dative indirect object, but not with the Dative subject, cf. (39).

(39) a. *Jon-as* *atėj-o* [***vaz-os*** ***motin-ai*** *padovano-ti*].
Jonas-NOM.SG come-PST(3) vase-GEN.SG mother-DAT.SG give-INF
'Jonas came in order to give the vase to his mother.'

b. **Jon-as* *atėj-o* *pas* *mane* [***laišk-o*** ***mums*** *parašy-ti*].
Jonas-NOM.SG come-PST(3) at me.ACC letter-GEN.SG we.DAT write-INF
intended: 'Jonas came to me in order for us to write a letter.'

Thus, Gen + Inf constructions selected by verbs of motion arguably do not have a subject position at all. This is not true of the Dat + Inf purpose constructions, which can have their own Dative subjects, cf. (37b) and (40).

(40) a. ... *pakeis-ti* *būd-ą* [***vis-iems*** *skaity-ti* *knyg-as*]
change-INF way-ACC.SG all-DAT.PL.M read-INF book-ACC.PL
'to change the way everyone reads books'[9]

b. *tikimyb-ė* [***vaik-ams*** *susirg-ti* *alergij-a*]
probability-NOM.SG child-DAT.PL.M fall.ill-INF allergy-INS.SG
'the probability that children become allergic'[10]

❻ The adjunct vs. complement status of Dat + Inf resp. Gen + Inf is also not uncontroversial, since the contrast between (19) and (20) and similar examples in (41) and (42) can actually be explained as stemming from a Complex NP Constraint violation, without recourse to the adjunct/complement distinction.

(41) ***K-am**$_i$ *atidėj-ai* [$_{NP}$ *pinig-us* [$_{InfP}$ t$_i$ *nusipirk-ti*]]*?*
what-DAT put.by-PST.2SG money-ACC.PL buy.RFL-INF
intended: 'What did you put by money to buy?'

(42) ***K-o***$_i$ *darbinink-ai* *nuvažiav-o* [t$_i$ *taisy-ti*]*?*
what-GEN worker-NOM.PL drive.out-PST(3) repair-INF
'What did the workers go to repair?'

The felicitous variant of (41) involves pied-piping of the whole Infinitive clause, cf. (43):

(43) [$_{InfP}$ ***K-am*** ***nusipirk-ti***]$_i$ *atidėj-ai* [$_{NP}$ *pinig-us* t$_i$]?
what-DAT buy-INF put.by-PST.2SG money-ACC.PL
lit. 'What to buy did you put by money?'

[9] http://www.johns-company.com/index.php?lang=lt&cat=400&month=2009-08&id=54486
[10] http://www.alergija.info/view.php?page=104&rpid=2

Moreover, passivization of the matrix clause, which dissociates the InfP from the noun, improves extraction, cf. (44):

(44) a. *Nauj-oji* *ligonin-ė* *buv-o* *pastaty-t-a*
new-NOM.SG.F.DEF hospital-NOM.SG AUX-PST(3) build-PST.PP-NOM.SG.F
[***vaik-ams*** ***gydy-ti***].
child-DAT.PL treat-INF
'The new hospital was built to treat children.'

b. ***K-am***$_i$ *nauj-oji* *ligonin-ė* *buv-o* *pastaty-t-a*
who-DAT new-NOM.SG.F.DEF hospital-NOM.SG AUX-PST(3) build-PST.PP-NOM.SG.F
[t_i *gydy-ti*]*?*
treat-INF
lit. 'Whom was the new hospital built to treat?'

This suggests (if we take such a diagnostic seriously at all) that there is no syntactic difference between Gen + Inf and Dat + Inf constructions, at least in terms of the argument vs. adjunct distinction.

3.2. Some additional observations on the data not treated by FL06.
(1) Neither Dat + Inf nor Gen + Inf allow negated infinitives, cf. (45) and (46). As the ungrammatical (45b) shows, this is not because Genitive triggered by Negation cannot be replaced by the Dative.

(45) a. **Jon-as* *užmerk-ė* *ak-is* [***žmon-ėms*** ***ne-maty-ti***].
Jonas-NOM.SG close.eyes-PST(3) eye-ACC.PL people-DAT.PL NEG-see-INF

b. **Jon-as* *užmerk-ė* *ak-is* [***ne-maty-ti*** ***žmoni-ų***].
Jonas-NOM.SG close.eyes-PST(3) eye-ACC.PL NEG-see-INF people-GEN.PL
intended: 'Jonas closed his eyes in order not to see the people.'

(46) a. **Jon-as* *išėj-o* [***ne-pykin-ti*** ***motin-os***].
Jonas-NOM.SG go.out-PST(3) NEG-irritate-INF mother-GEN.SG

b. **Jon-as* *išėj-o* [***motin-ai*** ***ne-pykin-ti***].
Jonas-NOM.SG go.out-PST(3) mother-DAT.SG NEG-irritate-INF
intended: 'Jonas went in order not to irritate his mother.'

A possible explanation of this fact may be that the kind of InfP appearing in purpose constructions is too small to include negation, i.e. is a bare vP, and not a TP, in contrast to the ordinary complement Infinitive clauses with Accusative object, cf. (5a). This idea, however, won't be pursued in the account of purpose clauses in § 5, and the peculiar ban on negated purpose Infinitives will remain unaccounted for.

(2) The Gen + Inf construction can appear not only with unequivocal verbs of motion like *eiti* 'go', *važiuoti* 'drive' etc., but also with verbs like *sustoti, stabtelėti* 'stop' (47) or *būti* 'be' in the locative meaning (48):

(47) *...ir* *net* *buv-o* ***stabtelėj-ęs*** [*nusipirk-ti* *laikraščі-o*].
and even AUX-PST(3) stop-PST.PA.NOM.SG.M buy.RFL-INF newspaper-GEN.SG
'...and even had stopped to buy a newspaper.'[11]

(48) *o* *aš* *va* *ką tik* *grįž-au* *iš* *ligonin-ės,*
and I.NOM PTCL just return-PST.1SG from hospital-GEN.SG
buv-o-m [*aplanky-ti* *vyr-o* *sės-ės*]*...*
be-PST-1PL visit-INF husband-GEN.SG sister-GEN.SG
'And I've just returned from the hospital, we went to visit my husband's sister...'[12]

[11] http://www.delfi.lt/news/daily/world/brazilijos-pareigunai-atvyko-i-londona-tirti-brazilo-zuties-aplinkybiu.d?id=7328231
[12] http://www.tevu-darzelis.lt/forumas/topic/2012m-balandzio-men-mamytes/page/2265

3.3. The observed properties of Dat + Inf and Gen + Inf constructions are summarized in the table.

	Dat + Inf	**Gen + Inf**
(a) replacement of "quirky" case	marginally possible	impossible
(b) accusative retention	marginally possible	possible
(c) VO order	possible, though less frequent	preferred
(d) overt subject	i. possible with Acc object ii. impossible with Dat object	impossible
(e) overt Dat indirect object	i. possible with Acc object ii. impossible with Dat object	possible with Gen object
(f) wh-extraction	possible	possible
(g) negation	impossible	impossible

Among the features listed, (d-ii) and (e) are most probably a reflection of a processing-related surface ban on two Dative argument NPs, while others call for a deeper structural explanation.
➲ My account of case marking in the constructions in question, in contrast to that of FL06, will rest on the assumption that word order does not play any important role in this phenomenon, which is warranted by the facts discussed above. This means that the conceptually problematic mechanism of "agnostic movement" proposed by FL06 is unnecessary.
➲ This implies, in turn, that the case assignment in Gen + Inf and Dat + Inf constructions is not subject to the familiar constraints on long-distance dependencies, i.e. to the Phase Impenetrability Condition in (49).

(49) In phase α with head H, the domain of H (its complement) is not accessible to operations outside of α; only H and its edge (specifier) are (Chomsky 2000: 108).

In § 4 I will present typological data which suggests an alternative analysis in terms of **multiple case assignment** in syntax, outlined in § 5.

4. Some typological parallels

"Non-canonical" marking of objects of infinitival or purpose clauses seems to be an infrequent phenomenon cross-linguistically; e.g. in a recent typological work on purpose clauses (Schmidtke-Bode 2009) such patterns are not mentioned at all.

4.1. In the neighbouring languages (Latvian, Latgalian, Estonian, Polish, East Slavic), no direct parallels to the Lithuanian Dat + Inf and Gen + Inf construction are found, with the exception of the Latgalian Genitive + Supine construction occurring with verbs of motion:

LATGALIAN
(50) *Rogon-a* *izsyutej-a* *bōrineit-i* [***drēb-u*** *valāt*]
witch-NOM.SG send-PST(3) orphan-ACC.SG cloth-GEN.PL beat:SUP
'The witch sent out the orphan to beat clothes.' (Nau 2011: 61)

The Infinitive in Latgalian differs from the Supine in the range of matrix verbs it occurs with, the root vocalism and the Accusative object marking (51), though examples are attested where the Infinitive is used instead of the Supine with verbs of motion, retaining the Genitive case of the object (52).

LATGALIAN

(51) *Bōrineit-ia* *sōk-a* [*viaļāt* ***driāb-is***].
orphan-NOM.SG begin-PST(3) beat:INF clothe-ACC.PL
'The orphan began to beat clothes.' [ibid.]

(52) *Jei* *aizguoj-a* *iz* *klāv-u* [*dacierp-t* ***pādej-ūs*** ***vušk-u***].
3:NOM.SG.F go.out-PST:3 to barn-ACC.SG shear-INF last-GEN.PL sheep-GEN.PL
'She went out to the barn in order to shear the last sheep.' [ibid.: 79]

In Lithuanian, the Supine construction with the Genitive object has been well-attested in older language up to the beginning of the 20-th century (Schmalstieg 1987: 174–176), and is still used in the North-Eastern Aukštaitian dialects (Zinkevičius 1966: 390), which border on Latgale, cf. (53).

(53) [*Svetim-uos* *mišk-uos* ***malk-ų*** ***pirk-tų***] *važinėj-o*.
alien-LOC.PL.M forest-LOC.PL wood-GEN.PL buy-SUP ride-PST(3)
'They rode to buy wood in other people's forests.' (BA 1859[13], II)

The Supine with the Genitive direct object was also (vestigially) attested in the older Slavic languages (Vaillant 1966: 127–129; 1977: 171–172), cf. (54):

OLD CHURCH SLAVONIC

(54) *id-ǫ* [***ugotova-tъ*** ***měst-a*** *vamъ*].
go-PRS.1SG prepare-SUP place-GEN.SG you:DAT.PL
'I am going in order to prepare a place for you.' (Sav 1030[14] J 14:2, Lunt 2001: 160)

The Supine as a verbal form distinct from the Infinitive is still attested in Slovene and Lower Sorbian, but here the direct object is marked Accusative and not Genitive, cf. (55).

SLOVENE

(55) *Še-l* *je* [***gleda-t*** ***nov-i*** ***film***].
go-PST.M AUX.PRS.3SG watch-SUP new-ACC.SG.M film(ACC.SG)
'He went to watch the new film.' (Brezar et al. 2005: 114)

4.2. Constructions with "non-canonical" case marking of the object of purpose clauses are attested in some Australian languages, where the so-called **complementizing** and **associating** functions of case have been singled out by Dench & Evans (1988) (DE88) in addition to the more familiar relational and adnominal case functions.

– Complementizing case appears on a subordinate (usually, though not necessarily non-finite) clause and can spread to some or all of its subconstituents (DE88: 18–23), cf. (51) from Warumungu with the Dative complementizing case.

WARUMUNGU (Pama-Nyungan > Warumungic, Northern Australia)

(56) *api-jirra* *warnapartt=arna* [***ngapa-ka*** ***pari-nji-kki***].
walk-towards tomorrow=1SG.FUT water-DAT get-NML-DAT
'I will go tomorrow to get water.' (DE88: 18)

– Associating case appears on arguments of nominalized verbs instead of the ordinary case-marking (DE88: 31–32); thus, the Genitive marking of subjects and/or objects on action nominalizations in the familiar Indo-European languages is actually an instance of the associating case.

Different functions of case have different sources and domains of application, i.e. are associated with different lexical or functional heads:

– relational case is assigned in the VP/vP domain;

[13] Antanas Baranauskas. Anykščių šilelis. 1858–1859. http://antologija.lt/text/antanas-baranauskas-anyksciu-silelis

[14] Sava's Book, ca. 1030.

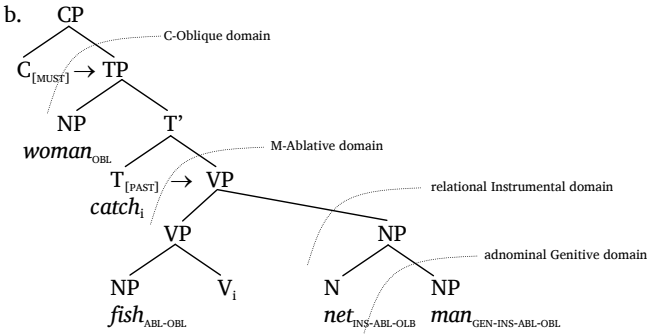
– adnominal case is assigned in the NP/DP domain;
– "modal" case (DE88: 23–28) is assigned in the TP domain;
– associating case in assigned in the v-N or $T_{[nonfin]}$ domain;
– complementizing case is assigned in the CP domain.

In a number of Australian languages cases assigned at different levels of structure do not exclude each other but are expressed by stacked case suffixes whose order normally reflects the scope of case-assigning domains.

KAYARDILD (Tangkic, Northern Australia; Evans 1995: 102–103, 115–116; for an alternative analysis of Kayardild data see Round 2010)

(57) a. *maku-**ntha*** *yalawu-jarra-**ntha*** *yakuri-**naa-ntha***
woman-C:OBL catch-PST-C:OBL fish-M:ABL-C:OBL
*dangka-**karra-nguni-naa-ntha*** *mijil-**nguni-naa-nth**.*
man-GEN-INS-M:ABL-C:OBL net-INS-M:ABL-C:OBL
'The woman must have caught fish with the man's net.'

b.

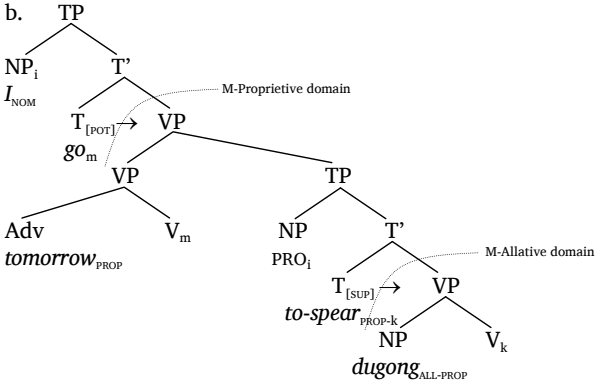


In Kayardild there is a special non-finite verbal form similar to the Indo-European Supine, appearing with matrix verbs of motion and assigning to the object the modal Allative, which appears to the left of the "outer" "modal" case assigned by the matrix T, cf. (58).

KAYARDILD

(58) a. *balmb-u* *ngada* *warra-ju* [*bijarrba-**ring**-ku* *raa-**jiring-ku***].
tomorrow-M:PROP 1SG:NOM go-POT dugong-M:ALL-M:PROP spear-SUP-M:PROP
'Tomorrow I will go to spear dugong.' [Evans 1995: 487]

b.



(In (58b) I assume that the Supine is simply a special kind of T head; an alternative CP analysis is also possible.)

➲ We have seen that in Kayardild the case assigned by a head is by default morphologically expressed on **all** subconstituents of the head's complement. The easiest way to account for this is to assume that the head simply assigns case to its complement, even if the latter is not a nominal (cf. Matushansky 2008, 2010).

The most striking parallel to the Lithuanian Dat + Inf construction is constituted by non-finite purpose clauses in the Pama-Nyungan languages Nyamal and Jiwarli, whose object appears in the (associating or complementizing) Dative, cf. (59) and (60). In particular, examples (59b) and (60b) can be translated into Lithuanian literally, with the use of the Dative-plus-Infinitive construction. The diagram in (61) shows the structure of (59b).

NYAMAL (Pama-Nyungan > South-West)

(59) a. *Ngunti-rna-rna* *jilya* [*kurti-larta* ***yurta-yu***].
send-PST-1SG child get-PURP fish-DAT
'I sent the child to get fish.' [Dench 2009: 761]

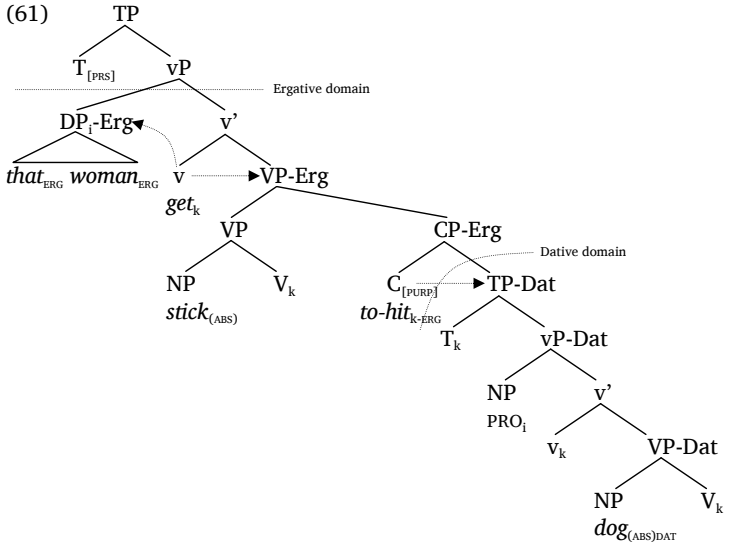
b. *Ngunya-ngku* *mangkurla-lu* *warnta* *kurti-la* [*punga-lartara-lu* ***yukurru-ku***].
that-ERG woman-ERG stick get-PRS hit-PURP-ERG dog-DAT
'That woman is getting a stick to hit the dog.' [ibid.: 767]

JIWARLI (Pama-Nyungan > South-West)

(60) a. *Ngatha* *kamurri-a-rru* [***pirru-wu*** *thika-lkarringu*].
I(NOM) get.hungry-PRS-now meat-DAT eat-PURP
'I am becoming hungry to eat meat.' (Austin 2009: 4)

b. *Kuwarti* *kurriya* *purra-rninyja* [*patha-rrkarringu-ru* ***jiriparri-yi***].
now boomerang toss-PST pelt-PURP-ERG echidna-DAT
'Next (he) threw a boomerang to hit echidna.' (ibid.)

(61)



Why does not the object of the purpose clause in (59b) bear the double Dative-Ergative, if otherwise Nyamal allows case-stacking? Cf. (62), where the Dative complementizing case follows the Elative associating case in the nominalized relative clause.

NYAMAL

(62) a. *Wurtama-la* *nyumpalanga-mu* [*mayi-**kapu-ku*** *kama-njanu-**ku***].
wait.for-ANT you.DU.DAT-ANT food-ELAT-DAT cook-REL-DAT
'He'll wait for you two who are cooking food.' (Dench 2009: 766)

b. ... $[_{VP}$ V $\rightarrow$ $[_{NP}$ $N_{[DAT]}$ $[_{CP}$ C + T + $V_{[REL][DAT]}$ $\rightarrow$ $[_{VP}$ $NP_{[ELAT][DAT]}$ $t_V]_{[ELAT]}]_{[DAT]}]_{[DAT]}]$
← dative domain →
← elative domain →

The only empirically tenable answer (cf. Dench 2009: 766–768) is that there exist language-specific morphological restrictions on the co-occurrence or co-expression of several cases (see also DE88: 35–43).

DJAPU (Pama-Nyungan > Yuulnguan, Northern Australia): relational case markers must be omitted **before** the complementizing case markers (DE88: 40), cf. (63a), and Locative case markers are deleted **after** the (adnominal) Oblique (ibid.: 41), cf. (63b).

(63) a. *ngayi* *rongiyi-n* [*nha-nhara-ngur* *malu-'mirringu-**wal***].
he return-PRF see-NML-ABL father-KIN-(*REL.CASE)-OBL
'He came back from seeing his father.'

b. *waanga-ngur* [*yapa-'mirringu-**wal**(*-ngur)* *ngarra-kalangu-**wal**(*-ngur)*].
camp-LOC sister-KIN-OBL(*-LOC) I-OBL-OBL(*-LOC)
'at my sister's camp'

➲ Since the mechanism of multiple case assignment is anyway necessary not only to account for the phenomena in the Australian languages, but also elsewhere (cf. Plank (ed.) 1995 on *Suffixaufnahme* in the world's languages), and not only for the cases of overt multiple case marking (cf. Béjar & Massam 1999; Matushansky 2008, 2010; Erschler 2009), I see no conceptual obstacles to extending this mechanism to Lithuanian data.

5. Back to Lithuanian: a new analysis

The essence of my analysis of the Lithuanian Dat + Inf and Gen + Inf constructions:

– in syntax, the Dative and Genitive cases are assigned by some higher projection at least to the whole vP containing the object and then percolate to its subconstituents;
– at the syntax-morphology interface, the "outer" cases are (optionally) realized when they combine with the "inner" structural Accusative and deleted otherwise.

More particularly:

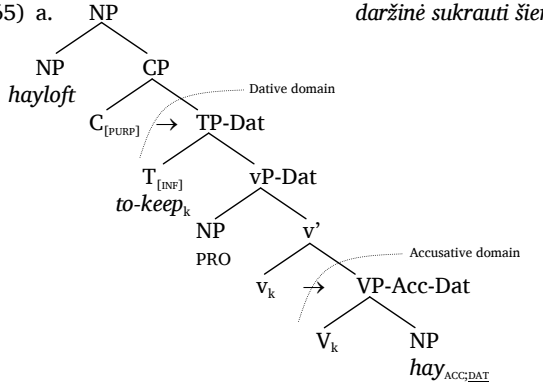
– Dative is a complementizing case assigned by $C_{[PURP]}$ to the infinitival TP (actually like in FL06: 274), cf. (64);
– Genitive is an associating case assigned by $T_{[SUP]}$ to vP, cf. (65); thus, the analysis of the Lithuanian Gen + Inf construction does not differ from that of the Kayardild construction in (58) and can be easily extended to the Latgalian Supine in (49). The only difference between Latgalian and earlier/dialectal Lithuanian, on the one hand, and standard Lithuanian, on the other, is that in the latter the morphological realizations of $T_{[SUP]}$ and $T_{[INF]}$ are identical.

Case resolution rules:

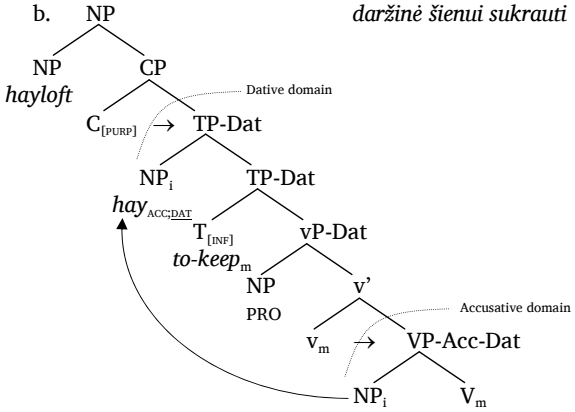
(64) i. [acc][dat] → [dat] or [acc]
ii. [acc][gen] → [gen] or [acc]
iii. [gen][dat] → [gen] or marginally [dat] (for exex. like (26))
iv. [α-case][dat] → [α-case]
v. [α-case][gen] → [α-case]
vi. Surface constraint: *$[_{TP}$ NP_{DAT} ... $NP_{DAT}]$

Object shift is not dependent on case assignment, cf. (65a) and (65b); exact mechanisms triggering the movement of the object are not substantial for the present discussion.

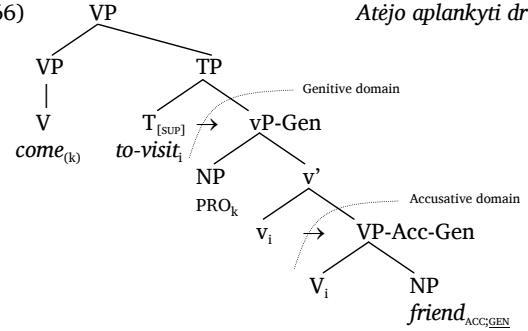
(65) a. *daržinė sukrauti šienui*



b. *daržinė šienui sukrauti*



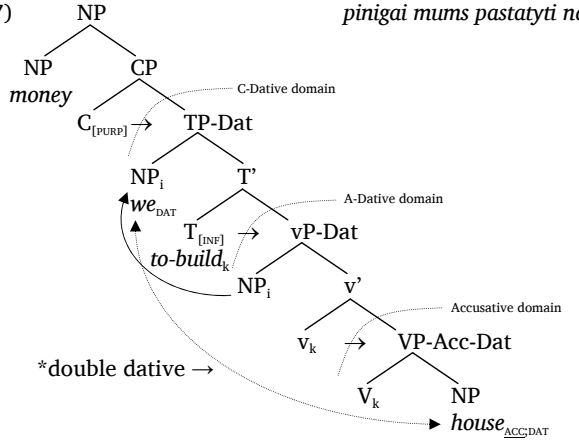
(66) *Atėjo aplankyti draugo*



Infinitive constructions with Dative subjects, being not limited to purpose infinitives, suggest a different analysis, i.e. the one where the subject NP is assigned associating Dative by the $T_{[INF]}$ head. If an Infinitive clause with an overt subject gets embedded under $C_{[PURP]}$, its direct object can potentially also receive the complementizing Dative from the latter,

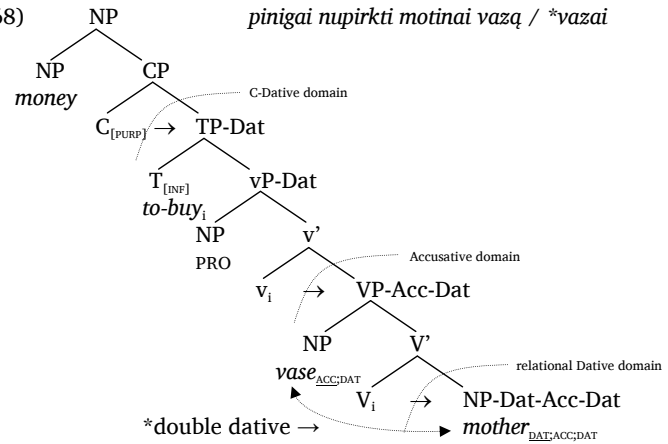
but such a surface structure is ruled out by the constraint against two Datives in one TP (64vi), cf. (67).

(67) *pinigai mums pastatyti namą / *namui*



The ban on the Accusative → Dative conversion in the presence of a Dative indirect object is accounted in the same way, cf. (68).

(68) *pinigai nupirkti motinai vazą / *vazai*



Note that the "double-dative" constraint is violable, since not **all** structures with more than one Dative NP are ruled out, but only those where there is an **alternative** variant of case-marking (i.e. Accusative). Cf. a modal Infinitive clause (69) with a Dative subject and a Dative indirect object.

(69) *Kaip* [***mums*** *padė-ti* ***j-am*** *pripras-ti* *prie* *nauj-ų* *nam-ų*]*?*
how we.DAT help-INF 3-DAT.SG.M get.used-INF at new-GEN.PL house-GEN.PL
'How can we help him to get accustomed to the new home?'[15]

Such violability can in principle be handled by OT-style constraint interaction, cf. Erschler 2009.

[15] http://www.paukstis.lt/forumas/viewtopic.php?f=23&t=6006&start=810

6. Conclusions and implications

The Lithuanian Dat + Inf and Gen + Inf constructions pose very peculiar problems for a formal analysis. I have presented empirical arguments for a revision of the only such analysis proposed in the literature (FL06), and have drawn upon "very exotic" typological parallels from Australian languages with "complementizing" and "associating" case and overt multiple case marking, which help us better understand the nature of the actually no less "exotic" Lithuanian constructions.

The analysis presented above has some immediate consequences for the formal theory of case (cf. Erschler 2009 and Matushansky 2008, 2010 for very similar proposals).

Metaphorically speaking, instead of assuming that "all languages are like English", the belief which has guided much of the Government-and-Binding theory of "abstract case", I propose to assume that in fact "all languages are like Kayardild":

– NPs receive case from many (potentially all) lexical and/or functional heads which c-command them;
– morphological realization of these multiple cases assigned in syntax is subject to language-particular rules and constraints, which do not belong to "narrow syntax";
– some languages, like Kayardild or Nyamal, allow simultaneous morphological realization of several layers of case on a nominal; this is the strongest empirical evidence for the syntactic mechanism of multiple case assignment;
– other languages (arguably the majority) do not allow overt multiple case marking in morphology, but in some (and probably many) of them the mechanism of syntactic multiple case assignment reveals itself in alternations of case marking.

Some implications for the architecture of grammar:

– in the "classic" case theory (e.g. Chomsky 1981: 162–176; Stowell 1981: 110–125; see Bobaljik & Wurmbrand 2009 for a review) case assignment is a **local** operation, sometimes assumed to be just a reflection of **Agree** ultimately constrained by the Phase theory of the Minimalist program (Chomsky 2001: 6ff);
– by contrast, the current analysis and the data supporting it imply a non-local view of case: case is assigned by a head to its complement and percolates down to all subconstituents of the latter; thus, though **case assignment** *per se* is still a strictly local (head-complement) operation, **case percolation** is unbounded and in particular pays no attention to phase boundaries;
– a possible way to reconcile the novel view of case and the independently motivated Phase theory is to exclude case percolation from narrow syntax and to transfer it to PF, where case realization belongs, anyway;
– this move, however, necessarily requires that PF-spellout occur not as soon as each phase is constructed, but only after the whole derivation in narrow syntax is completed (cf. Richards 2007).

Abbreviations

ABL – ablative, ACC – accusative, ANT – anticipatory mood, AUX – auxiliary, C:OBL – complementizing oblique case, DAT – dative, DEF – definiteness, DU – dual, ELAT – elative, ERG – ergative, F – feminine, FUT – future, GEN – genitive, INF – infinitive, INS – instrumental, KIN – kinship possessive, LOC – locative, M – masculine, M:ABL – modal ablative, M:ALL – modal allative, M:PROP – modal proprietive, NEG – negation, NML – nominalization, NOM – nominative, OBL – oblique, PA – active participle, PL – plural, POT – potential, PP – passive participle, PRF – perfect, PRS – present, PST – past, PTCL – particle, PURP – purposive, REL – relativization, RFL – reflexive, SG – singular, SUP – supine

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