For the sake of an argument: Grammatical relations and argument selectors in Baltic. A review article

Axel Holvoet & Nicole Nau, eds., *Argument Realization in Baltic.* (Valency, Argument Realization and Grammatical Relations in Baltic, 3) Amsterdam/ Philadelphia: John Benjamins, 2016. viii + 560 p.
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Reviewed by Eitan Grossman, Hebrew University of Jerusalem

This volume is the third in the series *Valency, Argument Realization and Grammatical Relations in Baltic.* It comprises thirteen articles, the majority of which are devoted to case and case alternations, with several articles dealing with topics such as secondary predicates, applicative and causative constructions, and nominalizations. In this review, I summarize and discuss each of the articles in turn, and conclude with some general comments.[1]

1. Description of the individual contributions

The first article in the volume is Axel Holvoet and Nicole Nau's 'Variation in argument realization in Baltic: an overview,' which summarizes the articles in the volume and frames them in the context of previous volumes in this series. Since I survey the contributions in some detail below, I will limit myself to saying that this excellent introduction indeed sets the stage for the individual articles and contextualizes them admirably. Moreover, if one only reads the introduction, one gets a clear idea of the research questions, empirical results, and theoretical insights of the articles, as well as an equally clear idea of how the various articles interrelate.

Nonetheless, there is one idea that deserves mention here, as it is a real leitmotif of the volume: argument structure, argument realization, and the specific phenomena dealt with in this volume are of interest in their own right, but they are also—and perhaps mainly—of interest insofar as they "provide the researcher with an empirical tool for establishing the position of a linguistic unit in syntactic structure wherever coding properties such as case marking, agree-

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[1] This review was submitted unforgivably late, and I have made up for the lateness with a nearly equally unforgivable wordiness. I thank Peter Arkadiev for his unrelenting friendliness in reminding me, for accepting it late, and apologize both to him and to the editors and authors of this terrific volume.

ment and position in linear order do not give us enough clues" (p. 1). In essence, then, the value of these studies—as far as the editors are concerned, and often as far as the authors are concerned—is in their contribution to the elucidation of *grammatical relations* such as "subject" and "object". I will return to this matter throughout this review.[2]

Peter Arkadiev's (PA) "Long-distance genitive of negation in Lithuanian" presents an empirical puzzle. The Genitive of Negation (GenNeg) is a pervasive phenomenon in the Baltic and Slavic languages, as well as the Baltic Finnic languages. Local (clause-bound) GenNeg is essentially a system of polarity-based split P (patient) marking, such that accusative-marked direct objects alternate with genitive-marked direct objects: accusative case occurs in affirmative clauses, while genitive case occurs in negative clauses. In Lithuanian, it is a purely morphosyntactic phenomenon, which does not depend on the semantic transitivity of the predicate or on the type of noun phrase, and it is obligatory. Furthermore, the Genitive of Negation can affect the direct object of a non-negated infinitive embedded under a negated matrix verb, and it can spread to all direct object NPs embedded under the matrix negation. This is, in effect, Long-distance Genitive of Negation (hence LDGenNeg), which is, as PA puts it, "both well-known and understudied". This paper is the first to fill the empirical and theoretical gap in its description.

PA first looks at the type of matrix predicate, which has been claimed in prior work to determine the occurrence of LDGenNeg. In contrast to Gronemeyer & Usonienė (2001), who claim that it occurs in raising and subject control constructions, while it does not in object control constructions, PA shows that LDGenNeg occurs with all types of matrix predicates, including (i) same-subject complement matrix verbs (encompassing both "subject control" and "raising to subject", which is a dubious distinction for Lithuanian); (ii) different-subject complement matrix verbs ("object control"); (iii) light verb constructions; (iv) lexicalized non-finite verb forms, such as the Debitive participle and productive derived action nominals (see also the discussion of the articles by Nau and Zaika in this volume); (v) the construction copula + infinitive of perception verb, in which the perceived object is marked by Nominative case without negation; (vi) verbs with dative experiencer and accusative stimulus; (vii) non-verbal predicates, like *gėda* 'shame'.

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[2] It would have been useful to have read the earlier volumes in this series, which I did not do. This obviously leads to gaps in my knowledge of the phenomena dealt with and the authors' frameworks and argumentation.

PA shows that previous descriptions do not survive their meeting with the facts of Lithuanian. For example, Gronemeyer & Usonienė (2001) claim that LDGenNeg is always optional and correlates with the definiteness of the embedded direct object. In contrast, PA shows that the accusative is ungrammatical in some cases, and that LDGenNeg is preferable in some contexts (some same-subject and different-subject matrix predicates), obligatory in others (e.g., negative pronouns, emphatic negation), and yet in others, substantial variation is found. Moreover, in examples where both genitive and accusative occur, PA finds no link to definiteness or referentiality. On the other hand, word order (which one might think is a proxy for information structure, EG) does matter, at least statistically: fronting of the embedded direct object correlates with genitive case, while fronting of the entire infinitival clause makes the accusative more frequent.

Another discovery is that LDGenNeg in Lithuanian is potentially unbounded, in that GenNeg can apply to any direct object embedded under an infinitive, no matter how deeply it is embedded. For example, it is not blocked in structures like (1):

(1) *pirminink-ė*   ***ne*-*pa-praš-ė***   *sekretori-aus*
     chairwoman-NOM.SG   NEG-PRV-ask-PST(3)   secretary-GEN.SG
     pradė-ti   *skaity-ti*   ***pasveikinim-o***
     begin-INF   read-INF   greeting-GEN.SG
     'The chairwoman does not want to let the secretary begin to read out the greeting' (p. 59, ex. 61).

In (1), GenNeg applies to the very deeply embedded 'greeting'. However, LDGenNeg is blocked by finite clause boundaries, and less trivially, can be blocked by some infinitival clauses with interrogative/relative pronouns. The coordination of infinitival clauses does not block GenNeg, but it may improve the acceptability of the accusative.

Another interesting factor that may play a role is that of information structure. When the direct object is accessible or definite, the object is preferably accusative-marked, while it is indefinite, genitive marking becomes more acceptable. PA interprets this as a structural issue, suggesting that definite nouns have covert determiners, and are hence DPs, and are therefore "opaque for case transmission", whereas indefinite nouns are NPs and are therefore "transparent to external case marking". PA is careful to back up this proposal with a quantitative study comparing the case marking of direct objects of infinitives embedded

under negated matrix predicates containing nominals with and without quantifiers, e.g., *neturi teisės* 'does not have a/the right' vs. *neturi jokios teisės* 'does not have any right.' In all cases with the quantifier *joks* ('none'), the accusative is significantly more frequent than in cases without the quantifier. PA suggests that the presence of 'an extra layer of structure' creates a syntactic boundary that may reduce the frequency of GenNeg. However, I did not understand how one knows that the quantifier is a determiner, and it is not clear to me how one rules out information-structural effects of such quantifiers.

PA also shows that LDGenNeg can apply to direct objects of participial clauses, and is in fact obligatory in some participial constructions, possible and preferable in others, dispreferred in others, and ruled out in yet others. However, PA's closer examination shows that participial constructions block GenNeg unless there is a sufficient "degree of clausal integration between the main verb and the participle" (p. 67). Of course, one might see it the other way around, with GenNeg being the symptom of clause integration rather than seeing clause integration as being what licenses GenNeg, but this is probably not the place to enter into this discussion.

A fascinating part of this article is the discussion of the areal and phylogenetic context of GenNeg. In contrast to Lithuanian, modern Standard Latvian has more or less done away with GenNeg, while Latgalian has preserved it. PA suggests that this might be in part due to long-term contact between Lithuanian and Latgalian, on the one hand, and Polish, on the other, while western Latvian dialects (and possibly western Lithuanian dialects as well) were in contact with German. German influence may have also played a role in the abolishment of GenNeg in Czech. Interestingly, PA's discussion implies that GenNeg is a property with low inherent stability (Nichols 2003), and would tend to be lost unless reinforced by areal/contact factors. As PA stresses, however, the issue is hardly a simple one, and data from Slavic dialects would be necessary to say something more comprehensive about the role of contact in the preservation or loss of GenNeg. Outside of Balto-Slavic, the Partitive of Negation, an analogue of GenNeg, is attested in the Finnic languages Estonian and Finnish, where it is obligatory in both local and non-local contexts (for more on the areal and typological context of the Lithuanian GenNeg, see Arkadiev 2017).

PA leverages the areal comparison to articulate two proposed implicational statements about GenNeg. According to the first, "If a language allows at least rare instances of case alternation on the object determined by non-local negation, it allows the same alternation determined by the local negation to the same or a greater extent" (p. 75). PA finds this unsurprising, since the implication

"goes from a larger syntactic domain to a smaller one" (p. 75). On the other hand, he finds unexpected the second implicational statement, according to which "If a language has obligatory rules of case alternation on the object determined by the local negation, it allows the same alternation in at least some embedded contexts, probably as a less rigid rule" (p. 75). I am not sure that this is totally unexpected, since obligatory or categorical rules are often thought to be the result of the grammaticalization of "softer" or violable constraints in larger domains, typically at the discourse level.

PA concludes with several challenges that Lithuanian LDGenNeg poses for current generative syntactic theory. In particular, it poses a challenge for commonly assumed locality constraints on case assignment, especially since it is insensitive to "intervention effects". PA finishes by indicating some possible avenues for developing a theory that could handle these challenges.

Axel Holvoet's (AH) "Argument marking in Baltic and Slavonic pain-verb constructions" deals with the "non-canonical" marking of grammatical relations in the context of verbs denoting pain, including verbs describing pain in a general way, specific types of pain, and "pain-related sensations" (p. 84) like 'itch'. Pain verbs are typically characterized by two arguments, (i) an experiencer and (ii) a body part. AH observes that pain verbs often occur in external possession constructions (EPSs), without the experiencer being a canonical external possessor. According to his reasoning, in external possession constructions, the experience of the possessor is marked by the construction itself, whereas for pain verbs, the experiencer is an argument licensed by the verb. AH shows that pain-verb constructions differ both notionally and grammatically from EPSs in several respects, e.g., the former allow the omission of one of the arguments if it is highly accessible, while the latter does not. Moreover, the case marking of the possessor-experiencer differs from that typically found in EPSs in Slavonic languages, in which the possessor-experiencer may be coded as accusative, which is not the case associated with external possessors.

AH concludes that while pain "may not be a grammatically relevant notion", there are specific features of pain verbs—the "oscillation" between different coding strategies and the "diffuseness" of grammatical relations—that do require that they be treated as a class. Moreover, pain verbs resist analysis in terms of productive patterns that operate elsewhere in the grammar, a fact that AH explains as the result of the confluence of several inherent semantic features of pain verbs.

An interesting part of this article is the discussion of "diffuse grammatical relations" (introduced in §4), which is based on the notion of "canonical

subject". A canonical subject, under this view, seems to entail nominative case marking. I confess that I have never been able to understand the conceptual usefulness of the notion "canonical subject" (or "object"), which probably stems, ultimately, from Keenan's (1976) characterization of the subject as prototypical (a given construction is more or less subject-like to the extent it has more properties from a particular list). While this understanding of subjects has remained influential in some respects, I am unaware of a satisfying response to Dryer's (1997) challenges, which argue that grammatical relations are language-specific and construction-specific, and as such, they are discrete from the point of view of a language system.[3] Under this view, prototypicality (and "canonicity") can only be judged with respect to either Platonic cross-linguistic notions of subject and object, or with respect to one particular privileged construction in a particular language. All in all, it is unclear for whom these grammatical relations are "fuzzy" or "diffuse": for the speakers, for the language system, or for linguists?

But it is not at all rare for the properties of constructions not to converge in ways that linguists might like, as subsequent typologies have abundantly shown. For example, Witzlack-Makarevich (2010) and Bickel (2011) provide ample evidence for ways in which different properties do not pick out the same sets of arguments. For example, in one and the same clause, person indexing might select S/A arguments, while case-marking might pick out only A, as in (2).

(2)   Nepali (Bickel 2011: 400)
    a. *ma*   *ga-ẽ.*
       1SG.NOM   go-1SG.PST
       'I went.'
    b. *mai-le*   *timro ghar*   *dekh-ẽ.*
       1SG-ERG   your   house.NOM   see-1SPST
       'I saw your house.'

As Bickel points out, if different linguistic properties do not converge on picking out an English-like subject, there is no principled way to choose which property is the one that tells us whether a particular argument in a particular language is "really" a subject (cf. Croft's "methodological opportunism"). Furthermore, if the only goal is to properly analyze a given argument as a subject or an object, it is unclear what one does with the interesting observation that Nepali-like situa-

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[3] Dryer (1997) is not the only or first to argue that grammatical relations are construction-specific and language-specific; see, e.g., Witzlack-Makarevich (2010, 26–33) for a survey of earlier literature.

tions are common in the world's languages, but situations in which person-indexing picks out S/P arguments while case picks out S/A arguments are very rare.

In fact, a reader of the articles in this volume might be forgiven for being struck by the extent to which the Baltic languages show how various properties potentially associated with grammatical relations in a Keenan-style view do *not* necessarily converge. In Lithuanian, for example, there is no necessary connection between a predicate having a single argument, on the one hand, and the argument receiving nominative case, on the other, as Holvoet's careful study of pain-verb constructions shows. Nor do verbal agreement and case marking necessarily match. In other words, distinct *argument selectors*[4] are involved, and they pick out different *grammatical relations* (Witzlack-Makarevich 2010, Bickel 2011). Similarly, accusative-marked single arguments of pain predicates can be coordinated with nominative-marked arguments. Holvoet takes such facts as evidence that accusative-marked arguments of pain-verb constructions behave "in some respects as an intransitive subject" (p. 102). But additional examples are rife throughout the volume, as nearly every article shows such mismatches, in which different argument selectors, whether lexical or morphosyntactic, may end up showing different grammatical relations. Of course, the question is, in the end, a matter of theoretical and methodological preferences. However, it does seem that the burden of proof is on linguists who seek to justify the notion "subject" for languages like Lithuanian, Latvian, and Russian.

What does seem to be the case is the following. First, there is very little agreement among Balto-Slavicists as to the proper analysis of single accusative-marked arguments of pain-verb constructions is (for example, Seržant 2014 understands them in Lithuanian as canonical objects because accusative case correlates with genitive of negation, while Holvoet sees them as "accusative-marked least-oblique arguments" (p. 103), and Lavine (see below) sees them as objects of a transitive impersonal construction. I do not see any way for a decision to be reached, beyond personal views about which argument selectors are most "diagnostic" (and of what). Second, Balto-Slavicists are in substantial agreement about the *facts* of the Balto-Slavic pain-verb constructions, and the careful descriptive work of this dedicated group of linguists has shown what they are.

James E. Lavine's (JL) "Variable argument realization in Lithuanian impersonals" treats an argument structure alternation in Lithuanian, namely, between

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[4] '[G]rammatical relations are … equivalence sets of arguments which are treated the same way (i.e. "aligned") by an *argument selector* (any morphosyntactic construction or pattern of marking or rule) under certain conditions' (Witzlack-Makarevich, forthcoming, 4).

the "Transitive Agentive" construction and the "Transitive Impersonal" construction. JL proposes a generative analysis of this alternation (in fact, this is the only article in the volume to adopt a generative approach, with lots of abstract things going on in the semantics and the syntax). Basically, JL aims to give a unified account of "two-place, externally caused verbs and their variable syntactic realizations" (p. 120), which is made possible by proposing a single argument structure for different verb classes, some of which have no overt subjects, and letting each verb have idiosyncratic syntactic (c-selection) properties.

JL starts out from the observation that in the case of "minimally specified, externally caused verbs", Causer arguments can be realized as Agents, Instruments, or non-volitional Causers, although it is not clear if this is a universal claim or a claim just about Lithuanian. In the Transitive Agentive construction (3), the Causer is realized as a nominative-marked NP, which is indexed on the verb, and the Theme argument is realized as an accusative-marked NP, which is not indexed on the verb. On the other hand, in the Transitive Impersonal construction (4), the Agent is not realized as an NP, and the Theme argument is realized as an accusative-marked NP not indexed on the verb.

(3)　Lithuanian Transitive Agentive construction
  tėtis　　　*krato*　　　**bulves**　　　*iš*　　*maišo*
  papa.NOM.SG　shake.PRS.3　potato.ACC.PL　from　sack.GEN.SG
  'Papa is shaking the potatoes out of the sack' (p. 108, ex. 1a)

(4)　Lithuanian Transitive Impersonal construction
  keleivius　　　*smarkiai*　　　*kratė*
  traveler.ACC.PL　strongly　　　jolt.PST.3
  'The travelers were heavily jolted' (p. 108, ex. 1b)

According to JL, this alternation is possible when "the source of causation is not fixed in the lexicon" (p. 108). Furthermore, JL proposes that the "mere presence of external causation (in some languages) … is a sufficient condition for accusative licensing" (p. 108).

In order to understand JL's analysis, we have to work through the theoretical machinery a bit. JL builds on Reinhart (2002) and others, claiming that subjects in sentences like *The storm broke the window* bear a feature [+c], which means that they are caused in such a way that the kind of causation is not specified in the lexicon. Other verbs have an additional feature [+m] that "indicates a particular mental state, which we take to mean volitional human participation".

This accounts for distributions like *Lucie/*the razor/*the heat shaved Max*, because the verb *shave* in English is [+c,+m], so subjects like *the razor* or *the heat* are bad. Basically, JL says that the Transitive Agentive construction is created by adding [+m] to [+c], while the Transitive Impersonal construction is created by specifying [-m]. In the former case, this gives us a sentient Causer, while in the latter, it gives us a Natural Force. To round things out, the Theme argument is [-c,-m]. JL follows Reinhart in assuming that verbs that enter causative alternations—by which labile coding constructions are presumably meant—select [+c], which is why *eat*, *read*, and *murder* do not participate in the English Causative Alternation as P-preserving labile verbs, while *open*, *break*, and *shake* do. As for Lithuanian, JL argues that verbs that select a [+c] argument are those that can enter the alternation that is at the heart of this paper.

JL is now in a position to characterize this alternation. Verbs whose theta grid is [+c], [-c,-m] are underspecified for the [m] feature, so they can allow both [+m] and [-m] arguments; in the former case, the argument is interpreted as an Agent, while in the latter it isn't, and the event is interpreted as involving a Natural Force, resulting in the Transitive Impersonal construction with an overt accusative-marked Theme. In JL's analysis, in examples like (5), the construction is bivalent, transitive, and causative, with no reduction in valency.

(5) *gelia*   *jam*   *kojas*   *(nuo šalčio)*
     sting.PRS.3   3.DAT.SG.M   leg.AC.PL   (from cold.GEN.SG)
     'His legs ache (from the cold)' (p. 111, ex. 8b).

The dative-marked pronoun is an external possessor, which is analyzed as the argument of an applicative head. Despite different surface meanings in the different constructions that participate in the alternation (*gelia* is translated as 'sting' in the Transitive Agentive, but 'ache' in the Transitive Impersonal), JL claims that the examples express the same basic situation and the verb has the same semantics across constructions.

Next, JL adds the notion of "Derived Transitive", which are basically cases in which a stimulus argument is overtly expressed as a nominative-marked NP that is indexed on the verb, as in *šaltis gelia man kojas* [cold.NOM.SG sting.PRS.3 1SG.DAT leg.ACC.PL] 'The cold causes my legs to hurt.' In this construction, the "subject realizes a Natural Force or Source phrase, which I take to originate in the syntax (and argument structure) VP-internally" (p. 114). For JL, the similarity between the Derived Transitive and the Transitive Impersonal constructions is

that both are [+c,-m] for the Causer argument. The difference is that the Transitive Impersonal has no subject at all.

In contrast, verbs like *pykinti* 'nauseate' have [+c,-m] for the Causer argument, which means that they do not allow the Transitive Agentive construction, but do allow the other two. JL proposes that verbs that have similar meanings in different languages have the same theta grid, but can differ in terms of syntax ("c-selection"), so that Lithuanian *pykinti* can occur with a subject, while Russian *tošnit'* 'nauseate' cannot; the difference is just stipulated lexically. As a consequence, the argument structure for a particular verbal predicate can stipulate that a subject must be realized, in which case the Transitive Impersonal will not be allowed, even if it has the [+c], [-c,-m] theta grid. On the other hand, verbs like Lithuanian *skaudėti* 'ache' have the stipulation that they cannot occur with a subject, which rules out both the Transitive Agentive and the Derived Transitive constructions.

JL discusses Transitive Impersonal constructions in Russian, Polish, and Icelandic, saying that "Surely, we do not want to claim that [Russian] *potjanut'* 'pull', *davit'* 'press', *sžimat'* 'squeeze' [and other verbs, EG] are one-place predicates only when they appear as impersonals" (p. 122), proposing that these constructions are not the result of valency-reducing operations. Rather, accusative case on the single overt argument is due to the presence of a covert causer in the argument structure. Evidence is adduced from the intransitive use of *zamorozit'* 'freeze', which does not license accusative case, e.g. *reka zamerzla* [river.NOM.SG.F freeze.PST.SG.F] 'The river froze'. Furthermore, derived intransitives in Lithuanian (marked by the detransitivizer *-si*) do not license accusative case on their single arguments.

Ultimately, the analysis that JL wants to develop is that the Transitive Impersonal is dyadic (two-place) and has a non-Theme argument (a Causer) whose syntactic realization is lexically unspecified, and can include null realizations. JL compares the Lithuanian construction to the "Icelandic Fate construction", analyzing the latter as a type of Transitive Impersonal, in which (i) a verb shows 3SG morphology and (ii) there is a single accusative-marked argument. Based on earlier work by Kjartan Ottósson, according to whom an accusative-marked single argument is possible only when the cause can be interpreted as a natural force, JL takes Transitive Impersonal constructions to involve "variable argument realization", such that a non-Theme argument is realized either as an Agent or Natural Force; in the latter case, it is syntactically unrealized but interpreted in the event structure.

In this view, the facts of Lithuanian fall out naturally from this analysis. Verbs that obligatorily require an agent at the level of argument structure do

not occur in the Transitive Impersonal construction, while verbs that require a causer but not necessarily an agent can occur in the Transitive Impersonal or the Derived Transitive constructions.

I was particularly interested in JL's discussion of the typology of nominatives and accusatives, where it is noted that most formal syntactic theories rule out the analysis of verbs like *skaudėti* 'ache' as predicates with a single accusative-marked argument: nominative is the least marked, and therefore "least costly" case; accusatives have a "mere distinguishability function"; the occurrence of accusative case depends on the prior presence of nominative case or an Agent external argument; and in summary, "'independent accusative' is banned in virtually every framework" (p. 120). However, it has long been known that Greenberg's Universal 38, according to which nominatives are the least marked case, is not universally true. "Marked nominative" or "marked-S" languages, in which the nominative case is not the morphosyntactically least marked case, are well-documented (König 2009, Handschuh 2014, Baker 2015). Accusative case, in these languages, does not depend on the prior presence of an Agent external argument or nominative case in the same clause. For example, in Tennet (Nilo-Saharan) and Walapai (Yuman), accusative occurs on subjects of identity clauses ('I[acc] am the teacher'). Moreover, the "mere distinguishability" account of accusative case has been disputed from numerous angles, both synchronic and diachronic (e.g., Iemmolo 2011). Finally, the idea that one-place predicates with accusative marking on the sole argument are cross-linguistically rare might be revised. At least, they are not rare in ancient Indo-European languages or in many modern ones, as Jóhanna Barðdal and her colleagues have been showing for some time (most recently, Barðdal *et al.* 2018).

JL's analysis of pain verbs differs from that of AH in this volume, in that dative phrases are not analyzed as experiencers, or as arguments at all, but rather as external possessors or applied arguments. Interestingly, JL and AH agree that there is a possessive relationship between the two phrases that co-occur with such predicates. However, while AH argues that the affectedness of the possessor stems directly from the lexical semantics of the verb, JL explicitly disputes this, claiming that it is "a function of its relation to the event". Readers interested in the meaning and grammar of such constructions will certainly find much to chew on in the comparison of these two contributions.

It is perhaps interesting to point out that this article is the clearest representation of the idea that grammatical relations (or the structures from which they are read off) are there to be diagnosed. When different properties do not align (e.g., agreement/indexing, case marking, etc.) in a way that matches one's

expectations, they can be made to align at the cost of unexpressed structural material and shifting what has to be stipulated. In this case, the "problem" of accusative-marked single arguments is solved by making them arguments of two-place predicates, and the problem of cross-linguistic variation in argument realization (e.g., the difference between Russian and Lithuanian for verbs meaning 'nauseate') is solved by proposing a single analysis in the argument structure and shifting the variation to syntax. But as Dryer (1997) points out, it is not clear that there is really a problem to be solved, if one does not adopt the assumptions and goals of particular theoretical frameworks.

"The nominative case in Baltic in a typological perspective", by Ilja Seržant, declares its aim to be an exhaustive description of nominative case in Baltic languages (which it is), but in fact, it also provides an empirical account of subject-hood in Baltic. The main thrust of this account is that nominative case in Baltic is a central coding means associated with the syntactic role of *subject*.

The article begins with a description of the morphology of the nominative, which is areally and phylogenetically atypical in being overtly marked with a dedicated concatenative exponent, at least for nouns, third person pronouns, and other pronominals (for 1st and 2nd person markers, the nominative form is suppletive). The split between "locuphoric" and "allophoric" (Haspelmath 2013) is not an isolated fact of Baltic pronouns, but rather runs throughout Baltic grammar.

Before proceeding to core syntactic roles associated with nominative case, IS surveys nominative marking on time adverbials, which typically occur in the accusative in Baltic. In comparison to accusative time adverbials, nominative time adverbials are limited in their distribution: they tend to occur preverbally or clause-initially, with verbs in the present tense or in the past tense with an imperfective reading.

A fascinating section deals with what IS calls "nominative objects", a prominent feature of eastern Circum-Baltic languages. According to the author, the NOM marked argument is an "object" because it does not control verb agreement and shares numerous properties with accusative arguments, such as genitive of negation, linear order vis-à-vis the verb, and more. It also shares semantic and information-structural properties with other Baltic objects. On the other hand, there are some grammatical corners that point to a more subject-like analysis; for a summary, see the Table 9 on page 155. In short, what characterizes these nominative arguments in Lithuanian and Latvian (with some differences) is a mismatch between case marking, on the one hand, and a battery of additional argument selectors, on the other. This section, all in all, provides a wonderfully

detailed description of grammatical relations in a fairly wide range of Baltic constructions. The differences between Lithuanian and Latvian are spelled out in a clear fashion.

The discussion of NOM-marked subjects is of special interest for typologists, as it is one of the rare studies of the actual function of nominative cases. It is interesting to note that in the *Oxford Handbook of Case* (Malchukov & Spencer 2009), there are numerous articles devoted to the typology of individual cases, but there is no article devoted to "varieties of nominative". IS holds the view that behavioral/syntactic properties are more indicative of subject status than coding properties, and some of them are even diagnostic "tests" for subjecthood. It is very helpful for the non-Balticist to have such a clearly articulated list of properties, as well as a list of properties typically associated with subjects that are irrelevant for Baltic (e.g., raising, reflexivization, conjunction reduction). IS concludes that several behavioral properties entail two coding properties, nominative marking *and* verbal agreement. For this alone, the article is worth reading, as the author identifies a language-specific hierarchy of argument selectors. IS also notes that nominative marking does not straightforwardly correlate with subjecthood, since in his analysis there are non-subject nominatives. Interestingly, IS observes that "The claim that every nominative is also the subject in Lithuanian would deprive the category of *subject* of its sense, because, on this approach, one could do away with subjects and just work with nominatives when describing the grammar" (p. 175). There are of course approaches in which the notion "subject" is not a necessary one, but they would probably consider case marking one argument selector among many possible ones.

In describing the *meaning* of Baltic nominatives (beyond coding NPs in A/S roles), IS points (i) to the especially high correlation between the nominative case and the semantic role of agent, and (ii) to the distinctiveness of Baltic among the European Indo-European languages, in that unlike many other European IE languages, in which the object slot is sensitive to semantic considerations, in Baltic the subject slot is also sensitive to such considerations. IS also observes that in Baltic only nominative marked arguments are compatible with volitionality or control on the part of the referent. Also discussed are the different functions of case marking, on the one hand, and verbal agreement (analyzed here and elsewhere as a "reduced referential device," following Kibrik 2011). Especially interesting is the finely detailed discussion of the correlation between NP type and subjecthood, in which IS proposes the idea that despite their superficial similarities, Baltic nominatives differ substantially from Standard Average European nominatives in a number of ways. In particular,

the Baltic nominative is a dedicated form that is relatively restricted in terms of distribution.

Also relevant to the meaning of Baltic nominatives is information structure. IS shows that nominative time adverbials are associated with discourse prominence or emphasis. IS also adopts the idea that nominative case in Baltic, as in some other languages with overt nominative case, marks the "unexpected association of a low-accessibility marker (= lexical NP referring expression) and the discourse profile of the grammatical role A/S, which is typically associated with highly-accessible referents" (Grossman 2014).

In "Differential Argument Marking with the Latvian debitive: a multifactorial analysis", Ilja Seržant and Jana Taperte (JT) analyze differential argument marking in both synchronic and diachronic perspectives. IS and JT begin from the synchronic description of the debitive construction, which encodes necessity and related meanings. Built of the auxiliary *būt* 'to be' and the non-finite debitive form (marked by the prefix *jā-*), the construction typically assigns dative case to the S/A argument and nominative case to the P (except for 1st and 2nd person pronouns, which are marked by accusative case).

(6)   Standard Latvian
      Kāpēc   *man*   *šī*   *filma*
      why   1SG.DAT   DEM.NOM.SG.F   film.NOM.SG
      ir   *jā-redz?!*
      be.PRS.3SG   DEB-see
      'Why do I have to watch this film?!' (p. 200, ex. 2).

(7)   *Kāpēc*   *man*   *tevi*   *ir*   *jā-redz?!*
      why   1SG.DAT   2SG.ACC   be.PRS.3   DEB-see
      'Why do I have to see you?!' (p. 201, ex. 3).

As an aside, the terminology used ("subject", "object", as well as the authors' particular use of the terms S/A/P) is somewhat confusing and requires careful tracking on the part of the reader, since it is precisely these grammatical roles that undergo changes over time. As such, I will use the semantically-oriented terms *debtor* (rather than "subject", "subject-like" or A/S for the referent on whom the obligation is imposed, and *debtee* (rather than "object", "object-like", "logical object" or P) for undergoer of the action described by the lexical verb in the debitive. In (6), *man* is the debtor (marked by DAT) and *šī filma* is the debtee (marked by NOM). In (7), *man* is the debtor (marked by DAT) and *tevi* is

the debtee (marked by NOM). While these terms are admittedly clumsy, they allow us to trace changes in case marking and grammatical roles for one and the same semantic role.

The authors observe two facts related to the debitive construction in contemporary Latvian. First, ACC marking of the debtee argument is spreading to other NP types, leading to a NOM/ACC alternation. Second, NOM marking of the debtor occasionally replaces DAT, leading to a DAT/NOM alternation. The authors analyze this as a type of *restricted* (i.e., construction-specific) *NP-triggered* (i.e., conditioned by NP-internal properties) Differential Argument Marking.

The study is based on samples of three stages of the language (Old Latvian, Early Modern Latvian, and Contemporary Latvian) and a reconstruction of the original structure. The authors adopt Holvoet's (1998) analysis according to which the original structure of the debitive construction was biclausal, with a main clause possessive construction and a relative clause comprising the relativizer *jā-* and the lexical verb (along the lines of 'I have bread (which) to eat.' The possessor is DAT marked, while the possessee is NOM marked. The predominant linear order has the nominative argument before the debitive, which the authors interpret as pointing to the subject status of the former.

Based on linear order, the presumed syntactic structure of the reconstructed source construction, and rare examples from Old Latvian and folklore texts, the authors propose that NOM must be reconstructed for what developed into the debtee ("object") argument of the debitive construction, including 1st and 2nd person pronouns. In this reconstruction, the possessee is the subject of the original possessive clause.

In Old Latvian, the debtee is consistently NOM marked, with a small handful of rare examples of ACC marked debtees. The same trend is observed for Early Modern Latvian. In the Contemporary Latvian sample, on the other hand, ACC marking becomes obligatory with 1st and 2nd person debtees, and rises in frequency for other NP types in the same role.

Since ACC for the debtee role is still dispreferred (13% average frequency for Contemporary Latvian), and not all NP types are equally affected, the authors set out to identify the conditioning factors for the selection of ACC for the debtee role. Two types of factors are distinguished. The first type ("primary-importance factors"), which inhibit the spread of ACC, are the incipient and gradual nature of the spread, on the one hand, and the influence of prescriptive rules. The secondary-importance factors are either related to properties of the NP (linear order, NP type, animacy, and definiteness) or to properties of the lexical verb (se-

mantic class of the verb, particular lexemes). It turns out that linear order is the strongest predictor of ACC selection, with preverbal position favoring ACC and dispreferring NOM (relative to the baseline average of 13%). In terms of NP types, high accessibility referents are associated with a higher proportion of ACC marking, and low accessibility referents with NOM marking. The authors propose that this provides a neat explanation for the early expansion of ACC to 1st and 2nd person pronouns (which are highly accessible by nature) and for its obligatorification in contemporary Latvian. Animate referents attract ACC marking more than inanimates, based on the comparison of animates and inanimates for each NP type. Definiteness, as it turns out, does not seem to play a role in ACC selection. In terms of semantic classes, only experiencer verbs are a predictor for ACC selection. An examination of individual verbs shows some tendencies as well: (i) verbs associated with official texts favor NOM, while verbs associated with colloquial texts favor ACC; and (ii) verbs associated with animate objects favor ACC, even when they occur with inanimate objects; verbs associated with inanimate objects favor NOM, even when they occur with animate objects.

As observed at the outset, the debtor ("subject-like") argument, which is typically (and prescriptively) DAT marked, may sometimes receive NOM marking in contemporary Latvian. This is not the only change, however. Recall that the authors reconstruct the debtor argument as originating in the possessor argument of a *mihi-est*-type of possessive construction. On the basis of the historical corpora, the authors show that there is a gradual increase in the frequency of impersonal debitive constructions, with the debtor argument non-expressed, and argue that this is the result of the grammaticalization of the originally possessive construction into a modal construction.

NOM marking of the debtor argument is said to be very recent, and is still considered ungrammatical for some speakers. Interestingly, it is limited in its distribution to the S argument of intransitive existential verbs (construed broadly). NOM marked pronouns uniformly occur preverbally, as do DAT marked pronouns in the historically expected construction. On the other hand, while NOM marked nouns tend to occur postverbally, DAT marked nouns show a clear preference for preverbal position. The authors therefore conclude that postverbal position is a predictor of NOM marking, suggesting that postverbal position is itself the result of other factors, such as information structure. Furthermore, NOM marking is strongly associated with inanimate or low-individuation referents, and most of the examples of NOM marked nouns are either abstract nouns or mass nouns with vague reference. Additional factors that might predict NOM marking of the debtor argument are (i) the presence of another dative, such as

an experiencer dative, in the same clause, (ii) questions introduced by *kas* 'what/who', and (iii) avoidance of processing difficulties related to the distinguishability of the two arguments of a monotransitive clause.

In addition to the clear presentation of a large amount of data, the authors give an account of the motivations for the changes (NOM > ACC for the debtee argument and DAT > NOM for the debtor argument). In this account, these changes reflect the gradual loss of the case frame of the debitive construction itself, and the corresponding gradual increase in the imposition of the case frame of the lexical verb. The idea is similar to that proposed in accounts of the development of raising predicates (e.g., Traugott 1997): to the extent that the debitive construction is grammaticalized ("or, rather, syntacticized", p. 250) as a modal construction, it should not license arguments or assign semantic roles. These would be expected to come from the lexical verb.

This article is extremely rich, and in accordance with the first author's usual practice, delivers much more than what the title promises. For example, readers interested in current typological disputes about case-marking might be especially intrigued by the authors' discussion of the role of distinguishability in constraining the appearance of NOM. While early accounts of case marking (e.g. Comrie 1989) tended to emphasize distinguishability, more recent approaches have sought to diminish its role and have advocated other functional motivations; see Witzlack-Makarevich & Seržant (2018, 30–32) for an overview. As such, it is interesting that distinguishability is making a comeback; very recently, Seržant (in press) has convincingly showed that distinguishability (or "discriminatory function" of case) is a *weak universal pressure*, which shows up in language structures but can be overriden by other forces.

"Contexts for the choice of genitive vs. instrumental in contemporary Lithuanian", by Björn Wiemer and Vaiva Žeimantienė (BW & VŽ) is an exhaustive treatment of contexts in which bare genitives (GEN) and bare instrumentals (INS) alternate. This alternation is typically found in constructions where an argument has 'cause' or 'causer' semantics. The authors discuss three main contexts (bold indicates contexts where the GEN and INS alternate): (i) arguments that are neither typical agents or patients in ditransitives, e.g., 'Producers enrich some of their beverages **with vitamin C**'; (ii) anticausatives derived from three-place causatives, e.g., 'the heat filled with anger', and (iii) resultative participles derived from the previous two types, e.g., 'I often awake covered **with sweat**'. The authors propose that the factors conditioning the choice of case marking can largely be explained with reference to Croft's (1991 and subsequent) Causal Chain Model (CCM) and the Actor-Undergoer Hierarcy of Role & Reference

Grammar. However, in order to provide a full account, these two models have to be enriched with additional factors.

In order to establish contexts of alternation, BW & VŽ carefully survey the contexts in which GEN and INS occur, limiting the discussion to argument roles. They describe GEN as primarily associated with an "oblique Actor" function in marked voice constructions, on the one hand, and an indefinite quantity ("pseudo-partitive") function. As for the former, GEN must occur on a deranked/demoted "highest-ranking argument" in marked voice constructions, such as passives. As for the latter, GEN alternates with NOM or ACC in cases where arguments are quantified: in the translation equivalents of '(Some) **guests** have arrived' and 'They have brought (some) **guests**', the bolded arguments are GEN-marked. Relatedly, arguments of verbs prefixed by the preverb *pri-* are also marked by GEN. Outside of these domains, GEN-marked arguments also characterize verbs from several distinct semantic domains, but there are also some verbs whose valency idiosyncratically requires a GEN-marked argument. The genitive also characterizes the arguments of some "deaccusative" verbs, but it is not made clear whether this is a productive alternation.

Instrumental case, on the other hand, characterizes arguments that describe natural forces that cause a change of state, e.g., '(it) covered this church **with sand**'. The cause can be explicitly named, in which case the causer np is NOM-marked. Incidentally, it is interesting to consider this in light of Lavine's contribution to this volume. Like GEN, INS occurs in a number of lexically-specified valency frames, and with "deaccusative" verbs. The authors continue with a highly detailed list of contexts in which INS occurs. They then turn to contexts in which GEN and INS can variably occur, such as adjectives meaning 'rich/abundant in X' and verbs describing emotional experiences. They also note additional selectors, such as the presence of multiple arguments that would be expected to be either GEN- or INS-marked, and coordination.

All in all, there are not many contexts in which GEN and INS alternate. The authors attribute this to the inherent meanings of the cases. However, there are contexts in which the two alternate, and it is here that the authors find systematic constraints on the selection of one case or another. Basically, GEN replaces NOM and ACC if the most agent-like argument is demoted, while INS replaces ACC if the latter is less patient-like or NOM if a causer is not an agent but a natural force. In both cases, GEN and INS are seen as the result of reduced transitivity (in the sense of Hopper & Thompson 1980).

Having settled the descriptive issue of syntagmatic environments in which GEN and INS alternate or don't, the authors then embark on a theoretical expla-

nation. In their view, it is very hard to find objective criteria for deciding what semantic role a given NP enacts in a given clause. Especially difficult to tease apart on ontological grounds are semantic roles associated with causation, such as agent, instrument, means, forces, and the like. They therefore turn to Croft's Causal Chain Model (CCM), in which a "dynamic force relation is established between some more active and some more passive participant" (p. 293). The CCM ranks semantic roles along an axis whose poles are "most agent-like" and "most patient-like", where Force and Agent are most agent-like, Means, Manner and Instrument are intermediate, and Result is most patient-like. In the authors' view, this hierarchy predicts that something less agent-like can be promoted to a privileged syntactic position ("subject") only if something more agent-like is conceptualized as lacking. In terms of grammar, this means that only the highest-ranked argument (HRA) will receive NOM; the HRA can, however, be marked with an oblique case such as GEN or INS. Importantly, it is only arguments corresponding to the more agent-like side of the CCM that participate in the INS-GEN alternation. The rest of the article is devoted to cashing out this idea over a range of construction types, such as Transitive Impersonals, verbs with converse coding of arguments (X covers Y, Y is covered by X), three-place causatives, and more.

Regarding the three main considerations that play a role in the selection of GEN or INS—argument hierarchies, ontological properties, and indefinite quantity—the authors propose a number of generalizations, of which I mention just two: (i) indefinite quantity overrides the other two considerations; (ii) (human) agents and natural forces cannot normally occur in the same clause as causers, but if they do, GEN is assigned to the higher ranking causer, INS to the lower ranking one.

This is an extremely comprehensive contribution, which sets out the facts in a highly lucid way, in great detail, and with clear results. The main finding is a set of language-specific hierarchies that interact to describe a particularly tricky domain of case assignment.

"The directive/locative alternation in Lithuanian and elsewhere", by Natalia M. Zaika (NZ), explores the directive/locative alternation in Baltic, Slavic, and, to a lesser extent, other languages. This alternation is exemplified by (8), in which a prepositional phrase typically associated with motion events alternates with a locative phrase:

(8)   Lithuanian
      padėj-o   *šluot-ą*   {*į*   *kamp-ą*   /*kamp-e*}
      put-PST.3   broom-ACC.SG   in   corner-ACC.SG/corner-LOC.SG
      'He put the broom in the corner' (p. 334, ex. 3).

NZ calls this alternation "Differential Translocation Marking", distinguishing it from Differential Goal Marking or Differential R(ecipient)/Goal Marking as characterized by Kittilä (2008). NZ points out that the above types of differential marking deal with alternations involving different semantic roles, whereas in Differential Translocation Marking, it is difficult to determine whether the semantic role of the argument in the alternating construction is the same or different.

DTM is typically limited to a small number of verbs in each language, usually involving verbs of directed motion, entering, putting, sticking, looking, and throwing. NZ examines a number of "locativity parameters" (in the spirit of Hopper & Thompson's (1980) transitivity parameters) that may correlate with the distribution of directive vs. locative marking across languages. These include, beyond the sociolinguistic parameters of geographical variation and free variation, the following: focus on the goal vs. location of the spatial scene; the dynamic character of motion vs. the endpoint of motion (cf. English *to* vs. *into*); presence vs. absence of contact; whether "extra force" is involved, i.e., whether there is resistance to the trajector's entering; temporal duration; temporary vs. permanent nature of the location; deixis; voice; whether the verb denotes a prototypical activity or not; information structure; animacy effects; and more. On the whole, NZ shows that directive marking is likely to characterize situations in which the meaning involves motion, focuses on the goal, does not entail contact, and may require extra force (among others), while locative marking is characterized by the inverse picture. NZ concludes, like other authors in this volume, that the choice of case (directive or locative) marking is multifactorial.

I was especially interested in NZ's discussion of areal aspects of the alternation, which sets out from the insight that argument structure is not purely a matter of "functional" factors, but may reflect historical events that led to contact-induced change. Based on a small sample of twelve verb meanings from six Baltic, Slavic, and Finno-Ugric languages, NZ observes that languages in close contact tend to pattern together (e.g. Russian and Lithuanian, Latvian and Estonian), and that the occurrence of locative marking with these verbs tends to increase from the northeast to the southwest. On the other hand, semantic factors are also clearly important, as the preference for directive or locative marking (or an alternation) also varies by semantic type (e.g., verbs of directed motion, verbs of putting, etc.).

NZ also examines the occurrence of directive/locative alternations for a variety of subtypes of location, based on a somewhat expanded sample of 8 languages. The picture that emerges shows the Baltic area as distinctive in allowing the

alternation in a very restricted set of types of location, whereas Slavic languages outside the area of interest are much more permissive. The rest of the article is devoted to the pairwise comparisons of the alternation in several languages, with some fine distinctions between the languages emerging.

Kirill Kozhanov's (hence KK) "Verbal prefixation and argument structure in Lithuanian" describes verbal prefixes as argument-structure changing constructions. Specifically, KK proposes that a number of Lithuanian verbal prefixes can be described as *applicative* morphology. KK shows that these prefixes consistently add a new slot to a verb's valency such that an erstwhile adjunct becomes a core argument and is marked by accusative case, e.g., *eiti per* 'to go across NP' > *pereiti* NP^{ACC} 'to cross NP.' In particular, these core arguments meet a battery of language-specific tests for "direct objecthood", i.e., obligatoriness, genitive of negation, promotion to subject in passive constructions, non-occurrence with reflexives, and "second object" (the inability of an applicativized verb to take two direct objects). These applicatives introduce arguments that have specific spatial meanings (landmark, distance), as well as temporal meanings and a range of other derived meanings (e.g., covering, filling, surpassing, elimination, and damage), which KK suggests are derived via metaphor or metonymy from the original spatial meanings.

According to KK, the tests reveal that while nearly all the prefixes examined coerce a shift from PP adjuncts to accusative-marked NPs, not all of the accusative-marked NPs are direct objects (or even arguments) in all contexts. Specifically, accusative-marked NPs that occur with attenuative *pa-* verbs (e.g. 'to cover a small distance by V-ing') are not direct objects at all, while distance arguments of *nu-* and temporal arguments of *pra-* behave like direct objects in some respects and like adjuncts in other respects. KK also shows that the applicative prefixes can also occur when arguments are rearranged, i.e., alternations of accusative and instrumental or genitive arguments, or alternations in which subject and direct object are swapped.

This article is an exemplary piece of synchronic analysis: all notions are carefully defined, the structural description is clear and well-motivated, and it relates a piece of Lithuanian grammar to general linguistic concerns. Importantly, it clearly presents Lithuanian argument selectors, and clearly shows that these argument selectors need not converge. Crucially, case-marking is only one argument selector, and need not entail other "behavioral" selectors, such as promotion to subject under passivization, non-occurrence with reflexives, and so on. Some of the arguments that occur with the applicative prefixes studied here are picked out by all of the selectors, while others are picked out by only

some of them. Interestingly, the selectors appear to apply to the arguments on an alternation-by-alternation basis. For example, in the case of spatial *pra-* all selectors converge, while in the case of temporal *pra-* they do not.

Another interesting question, which KK does not tackle, is whether there is a language-specific hierarchy of (P) argument selectors, such that one selector entails another. Based on the tables presented on pages 375 and 382, it seems that after accusative marking, the genitive of negation is the selector shared by all arguments that occur with applicativized verbs, and the selectors "promotion to subject under passivization" and "obligatoriness" tend to pattern together. Non-occurrence with reflexives and the limitation to a single direct object entail the other selectors, i.e., they occur only when the construction involves an accusative-marked argument that participates in the genitive of negation alternation, is obligatory, and can be promoted to subject under passivization.

"Resultative secondary predicates in the Baltic languages", by Benita Riaubienė (BR), describes the morphosyntax and semantics of resultative secondary predication (RSP) constructions in Lithuanian and Latvian. BR devotes a substantial discussion to the definition of RSPs, ultimately deciding on "an independent word or phrase bearing a descriptive content" (p. 406), which encompasses adjectives, prepositional phrases, and adverbs, but excludes prefixes or verbal particles. As an aside, this seems like a problematic definition, since it refers to "independent word", which is a fairly controversial notion (Haspelmath 2011), and is not helpful to the reader who does not know how words are defined in the languages in question. Moreover, it seems odd to exclude prefixes from the definition of Baltic RSPs, since, as BR notes, they are "usually necessary and seemingly the most important elements in licensing RSP in Baltic languages" (p. 407).

In terms of morphosyntax, both Latvian and Lithuanian allow prepositional phrases as adjuncts in RSP constructions, but differ otherwise: Latvian prefers adjectives while Lithuanian prefers adverbs. It is not clear in what respect Lithuanian items like *raudon-ai* 'redly' in (9) are adverbs, and BR does not tell the reader.

(9) Lithuanian

Jon-as	*nu-dažė*	*mašiną*	*raudon-ai*
Jon-NOM.SG	PRV-paint.PST.3	car.ACC.SG	red-ADV

'John painted the car red' (p. 408, ex. 14).

Interestingly (at least for the reader interested in language contact), Lithuanian patterns like Slavic languages (exemplified by Russian and Croatian), while

Latvian patterns like Finnish and Estonian in the preference for adjectival resultatives, but differs from them in terms of case-marking; in principle, Latvian would be expected to pattern with German, due to historical language contact, but BR points out that German neutralizes the distinction between adjectives and adverbs in secondary predication (e.g., *John wischte den Tisch* **sauber** 'John wiped the table clean').

"On periphrastic causative constructions in Lithuanian and Latvian", by Jurgis Pakerys (JP), is a corpus-based study of periphrastic causative constructions. Periphrastic causative constructions in these languages have been given much less attention than morphological causatives (marked in both languages by -*in*). JP shows that the Baltic periphrastic constructions show biclausal properties; in particular, the causative verb can passivize and can be independently negated.

In Lithuanian, factitive causative constructions typically involve the verb *versti* (or *priversti*) 'make', whose valency frame is NOM-ACC for the causer-causee dyad. Permissive causative constructions typically involve the verb *leisti* 'let', whose valency frame is NOM-DAT. In both constructions, the caused event is typically encoded by an infinitival clause, with some additional marginal possibilities. Other verbs occur marginally in factitive and permissive causative constructions.

In Latvian, on the other hand, the most frequent factitive construction involves the verb *likt* 'make'. Permissive causative constructions typically involve the verb *ļaut* 'let' or a prefixal derivate thereof. Both have NOM-DAT valency frame for causer-causee, and mark the caused event with an infinitival clause or a finite clause. There are a number of minor but potentially interesting differences between Lithuanian and Latvian. For example, *laist*, the Latvian cognate of Lithuanian *leisti*, is used only rarely in permissive causative constructions. Furthermore, only Latvian has an acquisitive causative, constructed with *piedabūt* ('get') and the causee marked by accusative case.

It is not easy to see how this article interacts with the other contributions to the volume, but it does provide a detailed, corpus-based account of the underdescribed periphrastic causative constructions in the two main Baltic languages.

It is challenging to do justice to "Argument realization in Latvian action nominals: a corpus and text based investigation" by Nicole Nau (NN), as it is very long, very rich, and in terms of importance for the description of Latvian, very substantial. It is the first empirical study of actional nominals in Latvian, focusing on -*šana*-nouns, which are deverbal nouns marked with the suffix -*šan*- and which "name the process or state expressed by the base verb" (p. 462). NN is mainly interested in the actual valency of these nominals, i.e. "the actual

occurrence of arguments in noun phrases headed by such a noun in texts" (p. 462). These nouns behave morphosyntactially like other nouns—they have an inherent gender, inflect like nouns, and are modified by adjectives, but they inherit verbal features of negation, aspectual prefixes, reflexive forms, and to an extent, valency (which makes them match the concept of complex event nouns introduced by Grimshaw 1990). Moreover, they can express the full range of meanings described by verbs, and show less semantic idiosyncrasy based on lexicalization than other types of event nominalization in Latvian. In these re-spects, -*šana*-nouns differ from other deverbal nominalizations in Latvian. NN provides a highly detailed description of the (exclusively written) corpora that she used as sources and the methods that she used in selecting and analyzing examples. She also provides ample background on the morphosyntax, seman-tics, and distributional profiles of event nominals in general and -*šana*-nouns in particular, which allows the non-specialist reader to fully appreciate the rest of the discussion.

The bulk of the article is devoted to the realization of S, A, and P arguments in light of Koptjevskaja-Tamm's typology of argument marking in action-nom-inal constructions (e.g., Koptjevskaja-Tamm 1993, 2006). Koptjevskaja-Tamm proposes four main types of argument-marking alignment, with the last divided into two subtypes. The 'Sentential' type has A, S, and P marked as in finite clause. In the 'Possessive-Accusative' type, A/S align with possessors, while P is marked as in finite clauses. In the 'Ergative-Possessive' type, S/P align with possessors, while A is marked obliquely (as in English *by*-phrases). Finally, the 'Nominal' type comprises two subtypes, the 'Double Possessive,' in which all arguments align with possessors, and the 'Possessive Adnominal' type, which is the mirror image of the 'Ergative-Possessive' in having A/S align with posses-sors and P marked obliquely.

Latvian is typically classified as "Double Possessive", since the arguments in Latvian phrases translating 'the discovery of America [P] by Columbus [A]' and 'the return of Columbus [S]' are all genitive-marked noun phrases. However, NN found only 5 examples (out of nearly 7000) in which both A and P are ex-pressed, all in specific styles of written Latvian (e.g., legal texts and editorials). On the other hand, -*šana*-nouns tend to occur with at just one genitive-marked ("genitivized") nominal argument. Interestingly (and unsurprisingly), there is a clear distributional bias as to which arguments are expressed: the S of intran-sitive and the P of transitive base verbs genitivize freely, while A is excluded. Possessive pronouns show a similar, albeit softer distribution: S ('my thinking') and P ('my recommending,' i.e., 'recommending me') occur freely with -*šana*-

nouns, while A is very rare. The expression of A is sometimes marked by a past participle of the verb *veikt* 'carry out,' e.g., 'the search carried out (*veikt-*) by the security police', although NN proposes that such examples could be seen as detransitivized, and the argument expressed as S rather than A.

All in all, these facts show that the classification of Latvian as a Double Possessive language is based on a construction that is not characteristic of Modern Latvian. Rather, Latvian could be classified as Ergative-Possessive, due to the patterning of S/P as opposed to A. Interestingly, while the non-specialist reader might find this persuasive at first glance, NN (and Axel Holvoet, as NN notes) see this as problematic. Their reasoning is as follows. Since Latvian does not express agents in finite passive clauses, one can turn to non-finite passive constructions, where the agent may be expressed and marked with genitive case. However, passive clauses and noun phrases headed by action nominals differ in terms of word order, and there are some rather subtle differences between clauses and action nominals in the distribution of possessive and reflexive pronouns. NN also mentions co-referential deletion, reflexivization, and reciprocalization. While the first does not provide strong evidence for alignment of S/P, the second shows S/A alignment, and the third shows a type of "sentential" alignment. NN concludes that the "common construction, found in all genres, is one with one argument (S or P) that is realized as a pre-head genitive modifier, or as a possessive pronoun". While there are several other constructions in Latvian, they are infrequent, limited in terms of register, or could be analyzed in different ways.

As an aside, I admit that I find NN's reasoning as to the classification of the alignment type to be uncompelling. In my view, NN shows convincingly that there is a very specific "salient discourse profile" (Ariel 2008) of *-šana*-nouns that can easily be characterized as aligning S/P in opposition to A. Moreover, it seems that NN (and Holvoet) would like all properties to converge; however, as pointed out above, there is no reason to expect this, and the arguments of *-šana*-nouns can be ergative in terms of expression, but show other types of alignment for other properties. Of course, such fine-grained accounts are less categorical, but they are highly useful for both language-specific description and for typologies that look at individual properties.

Another interesting contribution of NN's article, although one which she does not highlight, is found in the discussion of oblique arguments and adjuncts in NPs headed by *šana*-nominalizations. Basically, the marking of the NP is inherited from the base verb, and can show either dative or locative case-marking or other adpositional flags. On the other hand, the word order properties "are

completely determined by NP syntax" (p. 503), unlike finite clauses, in which word order is relatively free and determined to a large extent by information structure. I find this to be a fascinating observation, with possibly important typological implications. This is because NN shows that Latvian noun phrases, including nps headed by nominalizations, are more configurational than clauses. Since nominalizations are attested as a (possibly frequent) diachronic source for finite clauses (e.g., Gildea 2008), it is possible that one way that languages acquire configurational clausal syntax is as the result of the reanalysis of nominalizations as finite clauses. Of course, this would have to be explored in a more systematic way.

This article investigates additional issues, such as -*šana*-nominalizations of verbs with dative core arguments, but space limitations do not allow the discussion of this important issue.

Also focusing on nominalizations is Natalia Zaika's "Lithuanian nominalizations and the case marking of their arguments", which, like the article by Nau, is based on usage as reflected in corpora. NZ deals mainly with valency alternations with action and agent nouns. In general, Lithuanian nominalizations typically either inherit the valency of the base verb or genitivize arguments, although there are rare cases in which the argument of a nominalization is marked differently from the corresponding argument of the base verb, and is not genitivized. Genitivized arguments are usually prenominal, while other types of arguments (including inherent genitive case) are usually postnominal.

It is interesting to read NZ's description of Lithuanian in comparison to NN's description of Latvian, as clear differences emerge. First of all, the Latvian event nominalization based on -*um*- are generally simple event nouns, which show much lexicalization and are not particularly "verbal" in their properties, while the Lithuanian cognate construction based on -*im-/ym*- can be complex event nouns, as they have verbal features such as the reflexive marker, polarity, and aspectual marking, and can be modified by adverbials. Another interesting point of comparison is NZ's statement that nominalizations often occur with two overt arguments, which is not the case for Latvian as described by NN.

NZ looks mainly at dative arguments, which in clauses can be preverbal or postverbal; the former tend to encode experiencers and to have some properties associated with subjects, while the latter tend to encode roles like addressee, recipient, or beneficiary. This word order split corresponds to a split in argument realization in noun phrases with action nouns, such that preverbal datives tend to genitivize, while postverbal datives tend to inherit their flagging from the base verb. NZ explains this as a word order restriction, since preverbal datives

in clauses would have to follow nominalizations in noun phrases. NZ argues against a semantic basis for this split. However, this is not entirely persuasive, and might be seen as a reflection of the difference between types of dative core arguments. Similarly questionable is NZ's argument that the rarity of Double Possessive constructions (with both arguments overtly expressed and marked by genitive) is due to syntactic ambiguity: the same string *mano automobili-o perdaž-ym-as* [1SG.POSS car-GEN.SG repaint-ACN-NOM.SG] could be interpreted as 'my repainting the car' or 'the repainting of my car.' While this is certainly plausible, one would like to see some corpus statistics to back up such a claim; in particular, one would like to see how frequent the overt expression of two arguments is.

In the context of Lithuanian noun phrases headed by action nouns, according to NZ, flagging can be inherited from the base verb or can be replaced by the genitive case. NZ proposes that nouns referring to inanimates tend to genitivize more easily. In the case of locative and temporal NPs, NZ observes that genitive-marked nps are less referential than locative-marked ones, giving the opposition (GEN), e.g., *miest-o gyven-im-as* [city-GEN.SG live-ACN-NOM.SG] 'city life' and (LOC) *kalb-a apie pavojing-ą gyven-im-ą miest-e* [speak-PRS.3 about dangerous-ACC.SG.M live-ACN-ACC.SG city-LOC.SG] 'speak about dangerous life in the city' as an example (p. 533, exx. 26–27). Finally, productive action nouns tend to inherit more verbal features than non-productive ones, the latter of which do not occur with the reflexive marker or with adverbs, and which tend to occur with genitivized arguments rather than with flagging inherited from the base verb.

Verbs that show valency alternations in clauses also tend to pass on these valency alternations to their nominalizations, although, unsurprisingly, if one of the constructions that enter into an alternation involves an accusative-marked np, the latter tends to genitivize. Unfortunately, these alternations are described in a somewhat inconsistent way, and the non-specialist reader might find it hard to come away with a clear picture of this particular corner of Lithuanian morphosyntax. For example, on page 534, NZ says that nominalizations can inherit valency alternations from the base verb, while on page 535 she says that "genitivization is preferred with alternating verbs", observing that the verb *kvepėti* 'to smell' can have either a LOC-NOM valency or NOM-INS frame, but the nominalization of this verb overwhelmingly tends to occur with genitive-marked arguments. It is not clear to me how to reconcile all these observations; perhaps it can be done, but not without more effort than this reader was willing to give in this case.

Some action nouns, mainly those derived from verbs of communication, can dativize arguments rather than genitivize them. For example, the verb *padrąsinti*

'to encourage' takes an accusative-marked NP, but its derived action noun can occur with a dative- or genitive-marked argument. NZ does not tell us whether the action noun can also inherit accusative-marking from the base verb.

The second part of the article deals with agent nouns, which cross-linguistically "display fewer verbal features than action nouns" (p. 537). Interestingly for typology, Lithuanian and Latvian agent nouns present counterexamples to this generalization, for which Baker & Vinokurova (2009) have offered an explanation couched in terms of generative syntax. Lithuanian agent nouns can occur with some types of adverbs (but not manner adverbs), they can take complement clauses, mark polarity, and inherit "aspectual-like correlations" from base verbs. Moreover, Lithuanian agent nouns can inherit valency patterns from base verbs, e.g., the agent noun *abejo-toj-* [doubt-AGN-] 'doubter' can occur with an instrumental case-marked argument, which is presumably inherited from the base verb. This is even more common with nominalizations derived from verbs with oblique ("non-core") arguments, especially prepositional phrases.[5]

Especially interesting for usage-based approaches is the observation that more frequent nominalizations tend to occur with genitivized arguments, while less frequent ones tend to inherit the flagging pattern of the base verb, although some nominalizations of medium frequency display an alternation (or possibly variation?).

All in all, this article offers many interesting observations about alternations in argument-marking in noun phrases headed by some types of nominalization, but unfortunately, no clear picture emerges. Nonetheless, the data presented here are of no small usefulness for future typologies of nominalization, thanks to the highly detailed description.

2. Concluding comments

On the whole, this volume is full of delights for readers with diverse interests. While I can't speak to the interests of Balticists, typologists, historical linguists, and contact linguists are likely to find fascinating data and ideas in each chapter. The articles in this volume (and more broadly, in this series) are a substantial contribution to Baltic linguistics, Indo-European linguistics, and general linguistics, in that they present the facts of Baltic languages to a general readership

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[5] Additional languages show comparable properties in agent nominalization constructions, further reducing the universality of Baker & Vinokurova's claim. For example, Ainu (isolate) allows manner adverbs as modifiers, Giziga (Afroasiatic) allows the inheritance of valency frames, and Coptic (Afroasiatic) allows both the inheritance of valency frames and polarity marking.

in a clear fashion. On a personal note, I have a deep appreciation for this endeavor, as I have been occupied with a similar project with respect to Ancient Egyptian-Coptic, a well-described language whose description has been somewhat obscured by an idiosyncratic grammatical tradition and opaque terminology. As such, I am enthusiastic about the "outreach" aspect of this volume and the preceding volumes in the series. I am also enthusiastic about the heavy bias towards corpus-based studies, which tell us not only about categorical rules but also about frequencies and other aspects of usage. The authors of the individual contributions are on the whole very explicit about differences between normative rules, hard-and-fast rules of grammar, and even quite small spaces of variation. It is good to see that examples that are inconvenient for theories are not swept under the rug.

This book is edited with a truly admirable hand by Holvoet and Nau, and the English is of a very high standard. I also did not notice any typos, which is impressive. If I had to name some criticisms, they would be related only to issues of coherence. It would have been good to have more volume-wide agreement in terms of glossing labels and conventions, naming conventions (e.g. Slavic vs. Slavonic) and in terms of consistency in what is capitalized and what is not (individual authors have their own practices in terms of whether and how to distinguish comparative concepts and descriptive categories). It would also have contributed to the coherence of the volume to have volume-wide definitions for comparative concepts (e.g., "argument", "adjunct", "transitivity", "subject"), but this is probably too much to ask of a collection of articles. Finally, it is nice that the edited-volume genre allows writers the space to present data and develop extended arguments, but some of the articles are challenging in their length (at 60-70 pages of dense data and extended argumentation), at least for casual readers interested in a Baltic language (and for reviewers). However, since this reviewer has been guilty of the same sin, it is perhaps better not to criticize.

As hinted at above in the comments on individual articles, the articles in this volume seem to be especially focused on two things. The first is the careful, detailed description of a relatively wide (not not too wide) range of phenomena in Baltic (and Slavic) languages in the domain of argument structure, argument realization, and grammatical relations. The second is the analysis of these language-specific and comparative descriptions in terms of cross-linguistic notions like "subject" and "object". While it is surely not my intention to dispute the interest that the latter endeavor might hold for linguists, I would like to express my doubt about its necessity. The articles are a very substantial contribution to our understanding of these languages and a potentially very substantial

contribution to future typological studies. However, it is not clear what is gained by the attempt to understand how the individual constructions match poorly defined notions like "subject" and "object". It is also not clear what it means to establish "the position of a linguistic unit in syntactic structure wherever coding properties such as case marking, agreement, and position in linear order do not give us enough clues" (Holvoet & Nau, p. 1 in the Introduction). This of course begs the questions: clues to what? Why are these coding properties not important properties in their own right? Why are syntactic properties more important for diagnosing the "true" nature of a given item or construction? What do we learn, in the end, if some subjects are "more canonical" or "less canonical"?

What might an alternative approach to the data presented in this book look like? I return to my comments on Kozhanov's article. The articles in this volume provide wonderfully abundant information about argument selectors in Baltic (and Slavic) languages, their interaction, and the functional motivations that underly their activation. Would it be enough to conduct language-internal, family-internal, and area-internal comparative studies of these selectors, to see what generalizations do or don't emerge? For example, the genitive of negation, as Peter Arkadiev and others show, was originally sensitive to particular semantic conditions in some languages, and either remained so or was lost or syntacticized in others. The vast range of phenomena related to case assignment and case alternations in Baltic and Slavic shows both commonalities and differences, but a clear statement of these facts is nowhere presented and can only be gleaned by careful reading of the diverse articles (and previous literature). This is of course a daunting task, since, as some of the articles show so carefully, the factors involved in case assignment in a particular construction in a particular language can be highly multifactorial. Nonetheless, many of the relevant facts now seem to be known, so it hardly seems impossible. Similarly, thanks to the descriptions of nominalizations in the Baltic languages, it seems possible to state whether and which Baltic grammatical relations are picked out by the diverse nominalization constructions. And the excellent studies of voice-related phenomena in this volume and in the previous volume in the series would surely allow a synthesis of the grammatical relations that Baltic valency-changing constructions (e.g., causative, applicative, and passive constructions) pick out.

Given such syntheses, it might be possible to conduct even deeper investigations into the relationships between the different argument selectors. For example, is it the case that a given selector entails another in a systematic way in a particular language or across languages in this family or this area? If so, are these relations similar or different to what we find in other families and areas

in the languages of the world? One might think of earlier studies that asked whether particular styles of grammatical relations are dependent on phylogenetic and/or areal factors, and how functional pressures or motivations enter the picture. For example, Siewierska & Bakker (2012) investigate grammatical relations in Europe vs. North and Central Asia, and find significant differences between the areas in terms of variability and strength of grammatical relations. Bickel (1999) finds that grammatical relations are largely genetically stable in Indo-European and Sino-Tibetan. Such examples can be easily multiplied.

I would like to close by reiterating my deep appreciation for this volume and for the excellent work done by the authors and editors in presenting the facts of Baltic languages to a general linguistic readership.

Eitan Grossman

The Hebrew University, Department of Linguistics
Mount Scopus, Jerusalem, IL-91905
eitan.grossman@mail.huji.ac.il

Abbreviations

1 — 1st person; 2 — 2nd person; 3 — 3rd person; ACC — accusative; ACN — action nominal; ADV — adverb; AGN — agent nominal; DAT — dative; DEB — debitive; DEM — demonstrative; ERG — ergative; F — feminine; GEN — genitive; INF — infinitive; INS — instrumental; LOC — locative; M — masculine; NEG — negation; NOM — nominative; PL — plural; POSS — possessive; PRS — present; PRV — preverb; PST — past; SG — singular.

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