Perfect in Lithuanian: A case study based on data from Facebook comments

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The aim of this paper is to analyse the semantic values of the Lithuanian perfect construction, putting them into a perspective of grammaticalization. The paper is based entirely on the data from a 2-million-word Facebook comments corpus created ad hoc for this study. The quantitative and qualitative analysis of the semantic values of the perfect tokens extracted from the corpus reveals several previously unidentified features of this Lithuanian construction. A large proportion of structures formally corresponding to the perfect should be described as copular constructions with adjectivized participles. This formal coincidence and the ambiguity generated by it in certain cases should not be seen as accidental but rather considered a likely source of the grammaticalization of the Lithuanian perfect, as the influence of its semantic features can be seen in all the perfect's other values. Considering it as a source, it seems that the development of the Lithuanian perfect is going in two separate, but also related directions, each of which is based on a gradual abandonment of one of the two core features of the prototypical Lithuanian perfects—the subject-oriented resultatives. In the case of the transitive resultative perfects, the orientation towards the subject is lost, while in the case of the experientials, it is the resultative meaning that is lost. Of these two values, the experientials are twice as frequent, which shows that the resultative meaning is abandoned more readily than the need to express a state or a quality of the subject. However, the experiential perfects seem to present some formal differences from all the other perfect values, namely, a significantly more frequent auxiliary usage which has so far been considered accidental.

Keywords: perfect, Lithuanian, Facebook, comments, resultative, experiential, subject-oriented, participles, adjectival, grammaticalization

1. Introduction: definitions and the state of the art[1]

The perfect in the languages of the world, and especially the European perfects, have long been a widely studied category in linguistic typology and grammaticalization studies—mainly because of the category's semantic complexity, including the intricate notion of current relevance, and because of its relative instability, which is due to its tendency to develop into a past tense. The latter process has been well documented for some languages (e.g., the development from the Latin periphrastic perfect to a perfective past tense in some of the Romance languages) and extensively described for many of them, starting with Dahl (1985), Bybee & Dahl (1989), and then on to Bybee *et al.* (1994), Heine & Kuteva (2006), contributions by Squartini & Bertinetto, Lindstedt, Dahl & Hedin, Thieroff in Dahl (2000), and Drinka (2017), among others.

Nevertheless, the definitions of the perfect as a gram and the generalizations of perfect semantics vary. The perfect semantics is most frequently associated with the notion of current relevance, stemming from Reichenbach (1947), which is problematic because of its possible vagueness, despite numerous attempts to formalise and define its various instances (Comrie 1976, McCawley 1981, Klein 1992, Kiparsky 2002, Dahl & Hedin 2000). Alternatively, extended-'now' and indefinite-past theories have been proposed (McCoard 1978) and adopted by some, but none of these three is uniformly accepted yet.

A slightly different approach to defining the perfect was adopted in the EUROTYP project (Dahl 2000 on tense and aspect). As Lindstedt writes in the chapter of the volume devoted to the perfect, referring to *The Perfect Questionnaire* employed in the project for data collection, "definitions have not been operationalized—a language possesses a perfect if it has a gram, associated with a verb, that is used in most of the first seven examples—which illustrate different kinds of CR [current relevance] of

past situations—but is *not* used in the following four examples, consisting of short narratives" (Lindstedt 2000, 366). So instead of a metalinguistic definition of what should qualify as an instance of a perfect, a series of constructed sentences are given. Nevertheless, the constructed sentences are still based on the same metalinguistic notion of current relevance.

Probably the most concise and adequate way of identifying perfects cross-linguistically was adopted in the perfect section of the World Atlas of Language Structures (Dryer & Haspelmath 2013) by Velupillai & Dahl (2013). For a gram from a certain language to qualify as a perfect, it needs to have at least these two exact semantic values: the resultative and the experiential. The resultative perfect conveys an event that happened in the past but which has a result that still holds at the reference point, while the experiential perfect conveys an event that has occurred at least once during an interval ending at the reference point. Perfects can also assume other semantic values, but in order not to confuse them with general past tenses, a further negative criterion is added—if a gram has the values mentioned above but can also be used in narrative contexts, it should not be considered a perfect.

The most recent, computationally-oriented and parallel corpus-based studies on the perfect, such as Dahl & Wälchli (2016) or van der Klijs *et al.* (2020), "sidestep the theoretical debate, and abstract away from pre-conceptualized meanings" (van der Klijs *et al.* 2020, 6) by adopting a form-based approach as a starting point. This way a perfect is defined as a construction combining a *have/be* auxiliary and a past participle, and thus includes, for instance, the French *Passé Composé* or the Italian *Passato prossimo*, which would not be considered perfects according to Velupillai & Dahl (2013), as well as according to most other previous current-relevance-based definitions, as these two grams can be freely used in narratives.

According to the definition by Velupillai & Dahl (2013), the Lithuanian *be* and past active participle qualifies as a perfect, as it does satisfy the [+resultative] and [+experiential] but [–narrative] criteria. However, the corpus-based approach taken in this study dictates the necessity to put aside any semantic generalizations and to start from the formal features of the construction.

As in most other European languages, in Lithuanian, too, the perfect is formed from an auxiliary and a participle. Though Lithuanian does have a construction formed with a possessive verb and a participle (Wiemer

2012), this does not qualify as a perfect semantically, as it can only assume resultative meaning and not experiential. Regarding the constructions formed with the copula and the passive participles, see Spraunienė & Brudzyński (2021). The active Lithuanian perfect is formed from the present tense of the verb *būti* 'to be' (the copula), functioning as an auxiliary, and the past active participle of the lexical verb (1). As can be seen from the example, the participle agrees with the subject in number and gender.

(1) *Donatas*   *labai*   *Ingute*   **yra**
     Donatas.NOM.SG.M   very   Ingute.ACC.SG.F   be.PRS.3
     izeid-es,
     offend-PST.PA.SG.M
     [*kad tik jis ir niekas negali laimeti.*][2]
     'Donatas has strongly offended Ingutė, [[by saying] that only he can win, and nobody else.'

The Lithuanian perfect has been discussed in several studies (Sližienė 1964, Servaitė 1985, Servaitė 1988, Geniušienė & Nedjalkov 1988, Sakurai 2016), in some also in comparison to Latvian (Arkadiev & Daugavet 2016, 2021), as well as in the context of Baltic and Slavic languages (Wiemer & Giger 2005, Arkadiev & Wiemer 2020). Lithuanian was not included in the sample of European perfects in the EUROTYP project (Dahl 2000) but is discussed in a recent account of the European periphrastic perfects by Drinka (2017) from the point of view of language contact. However, the only corpus-based studies on the Lithuanian perfect so far have been Arkadiev & Daugavet (2016) and (2021). The sources of data in their studies were questionnaires and the parallel Lithuanian and Latvian corpus (LiLa) which comprises literary fiction and non-fiction translated from one Baltic language to the other, as well as EU documents. This shows that the Lithuanian perfect in less formal language varieties has not been studied at all, and one of the aims of this paper is to fill this gap.

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[2] Here and henceforth, all of the examples are taken from the Facebook comments corpus described in Section II, unless indicated otherwise. Spelling and punctuation have not been edited. Whenever possible, quoting rude language has been avoided, so the comments selected for citing are somewhat biased towards the more politely written ones. Perhaps not incidentally, these are the ones using more standard spelling and punctuation.

2. Data and methodology

Although the present study deals with one language only, my goal is to present typologically-oriented results that could be applied to cross-linguistic comparison. Cross-linguistic comparison of grammatical structures has started off with secondary data sources—mainly descriptions present in grammars of different languages. In Dahl (1985), Bybee & Dahl (1989) and in the EUROTYP project (Dahl 2000) questionnaires were used, as a way to obtain primary data directly from the speaker. However, the language variety of a questionnaire is likely to be somewhat artificial and formal because of the unnatural situation linguistic data extraction takes place in.

Lately, however, and also thanks to the new technologies that allow researchers to process larger amounts of text, there has been a significant shift towards primary data analysis also in typology, not only in descriptive linguistics (see, for example, Kortmann 2003 and Szmrecsanyi & Wälchli 2014). The most convenient source for such studies is morphologically and syntactically annotated parallel corpora. Parallel corpora allow for a direct comparison between linguistic structures, without having to rely on metalinguistic definitions (for example, Dahl 2014, Dahl & Wälchli 2016 on perfects).

In their 2012 article on motion verbs, Wälchli & Cysouw introduce the notion of a doculect, meaning "any documented language variety, be it as raw data (e.g., a sound file), primary data (e.g., a transcribed text or wordlist), or secondary data (e.g., a glossed text or a grammatical description) of whatever size" (Wälchli & Cysouw 2012, 673). The term serves as a "replacement for the notion of language" and is used in order to emphasize that what is studied (or, in typological studies, compared) is merely an empirical sample of language, "rather than assume that any particular sample fully represents a language" (Wälchli & Cysouw 2012, 706). Assuming such a stance, it becomes particularly clear that in a fair amount of literature on perfects in general, and on the Lithuanian perfect in particular, standard, written, and formal doculects are overrepresented, at the expense of spoken, regional and informal doculects. Especially in typology, more often than not researchers are concerned with written standard varieties of European languages, while non-standard and spoken language data is often overlooked, as has been discussed by Kortmann (2003, 2).

A case in point can be the category of perfects, as Miller (2003) points out in his article on perfects and resultatives in non-standard and spoken

English and Russian language data. The author stresses that "[w]here languages have standard written varieties and non-standard spoken varieties typological work usually focuses on the former and ignores the latter" and as a consequence "[c]urrent typologies of tense and aspect are weakened by their neglect of non-standard varieties and spontaneous spoken language." This is because "non-standard varieties of a given language may differ in many (sometimes surprising) respects from the standard variety" and "even the spontaneous spoken language of speakers of standard varieties offers many constructions unrecorded in reference grammars." Miller shows that, based on his data, the English perfect, so often taken as an impeccable example of a standard perfect category, may not be so standard in the spoken language, as some of its uses draw it closer to a past tense, while the spoken varieties of Russian, a language that is often cited as lacking a perfect, do have certain constructions that may qualify as perfects. Thus, studies based exclusively on informal, spoken, or non-standard doculects should be seen as only counterbalancing a disproportionate amount of studies based on standard, formal, and written data.

Another reason to look into less formal and more spontaneous style doculects has to do with the features of the perfect category itself—namely, its grammaticalization tendencies and relative instability. Given the perfect's tendency to change, such styles seem even more interesting to use as data—as shown in detail by Labov (2007, 158) "[o]nly in spontaneous speech will we find the most advanced tokens of linguistic change in progress, and we will need these to establish the direction and path of the change." Moreover, in Labov's terms (2006, 436), grammaticalization can be considered a 'change from below'—it is a very slow process that can stay for a long time below the level of awareness of the speakers, until the very last stage, when a change has already happened. As this type of language change occurs without speakers realizing it, changes from below have a high probability of going to completion (Claes 2015, 2–3), which is also the case with grammaticalization.

However, including less formal and more spontaneous language data into the samples is easier said than done—most high-quality corpora, especially for relatively 'smaller' and relatively less-studied languages, are restricted to standard and written language varieties. Thus, if most typological studies are not focusing on non-standard or spoken language data, this might mainly be due to practical reasons—none or very few spoken, informal, or non-standard language corpora are available, especially if we are looking

for morphologically annotated or syntactically parsed ones. The case of Lithuanian is a perfect example—the only two morphologically annotated corpora, to the best of my knowledge, are DLKT, which is 99.7% composed of literary, journalistic and administrative texts written in standard language, and ltTenTen. The latter is an interesting resource built according to the same method in many different languages, including Lithuanian. The corpus formation is done automatically, excluding duplicated content and spam and including any linguistically valuable material from the web, as long as it's longer than one sentence and shorter than a document of many thousands of words, so as to raise a suspicion that it might not be a standard webpage (Jakubíček *et al.* 2013). However, the content of the genre 'webpages' is so diverse that it is hard to define or describe in some way. If we're looking for informal and spontaneous language, it's impossible to say how much of it, if any, could be found in ltTenTen. The EUROPARL corpus provides some spoken language data of parliamentary speeches but the genre it belongs to can hardly be considered informal or spontaneous.

The narrow choice of resources available shows the necessity for a practical and realistic method of data collection and processing. This has led to the decision to choose a particular type of internet language and to create a specialized corpus for the present analysis—namely, the comments from public news media outlet pages on Facebook (a visual illustration in English is given in Figure 1 below).

Figure 1. Screenshots from the Facebook page of The Guardian with the location of the comments (circled)

The genre of comments on social media is a valuable resource in this context for several reasons. First, and most importantly, it represents a written-language variety that is highly interactive and spontaneous—features that draw it closer to spoken language, as discussed by Crystal (2011, 16–35). Secondly, having in mind the difficulties described in the preceding paragraphs in finding large amounts of data of informal language, comments on social media stand out because they are extremely widespread and readily available in Lithuanian as well as in all other European languages, so as to additionally give the possibility of creating genre-parallel corpora for a possible comparative study as well. Third, the comments from public pages on the most widespread social network, Facebook, are easy to extract and process due to their already being fairly structured and available in a digital format.

Obviously, the private pages and their contents on Facebook can't be used without explicit consent from the owner of the page or the profile, so out of the public pages an interesting possibility, chosen for this study, is to select the main media outlets in the country, which always have their own Facebook pages that are publicly available even to users not registered on the social network. The content of such pages is almost exclusively composed of posts with links to news articles on the official webpage of the news outlet. Under such posts social media users subscribing to the page often leave comments, expressing their views on the subject matter of the article as well as on related (and sometimes also unrelated) issues. These comments can be short and laconic phrases and sentences, little opinion pieces and, more often than not, interactive dialogues and discussions.

The posts in such news outlet pages are often accompanied by a sentence or two summarizing the article. The important distinction here is that such accompanying introductory texts in the post should not be included if the goal is to create a corpus of comments by users, as the post itself contains a text written by a journalist or a social media manager and is very different from the unedited and informal variety used by the commenters.

To summarize, the corpus created from such comments would be a doculect that could be described as having a fair degree of spontaneity and positioned halfway between what has been traditionally considered a dichotomy between speech and writing, although, as pointed out by Crystal (2011, 34), the internet medium should not be identified with either

of the two, and should rather be considered in its own terms. The comments genre is often close to chat or text message language and reflects a contemporary and highly informal language variety.

3. Data extraction process

Having chosen the genre of the data for the corpus, the process of data extraction was the following. First, four of the most popular news outlets in Lithuania were selected (LRT.LT, DELFI.LT, 15MIN, LRYTAS), based on the number of followers of their pages on Facebook, in order to get the most active pages and gather a sufficient amount of data. The extraction was done using *Facepager* software (Jünger & Keyling 2019). Given a link to a page on Facebook, the *Facepager* allows a specified extraction of the particular kind of text (post, comment, or both) or other type of content, accompanied by certain features, such as the number of reactions or responses, date, name of the author and so on. The data is extracted in a structured way, so that each comment can be linked back to the post it was referring to, which can be useful in case some brief comments entering into a dialogue directly with the title of the news article or the comment might otherwise be incomprehensible. As mentioned above, only the comments have been extracted, leaving out the posts, as they represent a rather different language variety. The size of the corpus formed this way was 2 million words. In order to gather the required amount of data, the software started from the newest and 'scrolled' down to get the comments under the posts published in the last 3 years. Given that the extraction was done at the beginning of 2020, the timespan of the data is approximately from 2017 to 2020.

Naturally, such a corpus is just raw text data without any annotation, so the perfect solution here would have been to use a morphological tagger in order to identify perfect constructions. However, the only morphological tagger available for Lithuanian (created by the Centre for Computational Linguistics of Vytautas Magnus University) is not suitable for the language of the comments, as on the internet a slightly different version of Lithuanian orthography is often used. Namely, certain specialised Lithuanian characters of the Latin alphabet —*ą, č, ę, ė, į, š, ų, ū,* and *ž*—are more often than not substituted, respectively, by *a, c, e, e, i,*

s, u, *u,* and *z*.[3] The morphological tagger cannot recognize a text written this way, so the process of identification of the perfects had to be done in a more primitive way—by creating a textual search string, and then by filtering the results manually.

As shown in example (1) from the preceding section, the Lithuanian perfect consists of the auxiliary *būti* (the copula) and a past active participle of the lexical verb. Using the method of data extraction described below, the fact that the auxiliary in Lithuanian perfect constructions (as in most other contexts of copular constructions) is optional is of crucial importance. In his study on the copular constructions in Lithuanian Mikulskas notes that "[e]xcept for clear cases of presentational identification or general statements, the presence or absence of the verbal copula in Lithuanian present tense constructions is not important; most often it is conditioned by reasons related to style or prosody" (Mikulskas 2017, 208). However, although this is generally the case, it is reasonable to expect that in informal language, such as in a Facebook comment, the copula may often be omitted, at least for reasons of brevity. This implies the necessity to identify not only perfects with an auxiliary, but also the ones without it. A decision to create a more limiting search string, low in recall but high in precision, containing two elements—the auxiliary and the participle—would have made the process easier but would have produced a smaller sample, leaving out a significant amount of possibly interesting data.

The latter consideration left only one possibility—namely, to simply identify all past active participles present in the corpus, thus yielding

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[3] In most laptop keyboards, the specialised Lithuanian characters can be found in the upper row of the keyboard, where, when typing in English, the numbers are placed. Because of such (some would say, unfortunate) placement, the user is forced to choose between being able to type the numbers and being able to type the special Lithuanian characters listed above. Generally, a solution is to have two keyboards installed (for example, the Lithuanian one and the English one) and to switch between them when needed. However, this is time-consuming, so many users choose to avoid the Lithuanian upper-row characters altogether, especially in informal contexts. Similar considerations hold for typing with a smartphone—it may, of course, depend on the model of the smarphone and the software; however, more often than not, at least from my own experience, typing with these characters is considerably more time-consuming. Perhaps surprisingly, texts written without these characters are almost always perfectly comprehensible.

a search strategy very high in recall, but low in precision, and then to manually select the ones in perfect constructions, excluding other contexts of participle usage. The solution was to create a search string identifying all words containing the suffixes characteristic of the past active participles, including masculine, feminine, singular and plural, as well as their orthographic 'internet language' versions and two very common orthographic 'mistakes' (Table 1). The search was limited to words at least 4 characters long, in order to avoid the pronouns and other highly frequent words with the same endings, while a few of the participles shorter than 4 characters, such as *ėmę* (take.PST.PA.PL.M) or *ėję* (go.PST.PA.PL.M) were searched for separately. The search yielded 40 000 results, which had to be filtered manually in order to eliminate noise generators.

Table 1. *Past active participle suffixes*

	masculine singular	feminine singular	masculine plural	feminine plural
standard	-ęs *sakęs*	-usi (-us) *sakiusi (sakius)*	-ę *sakę*	-usios *sakiusios*
internet	-es *sakes*		-e *sake*	
orthographic 'mistakes'	-ias *sakias*		-ia *sakia*	

After filtering out the non-participles, 12 000 tokens were identified. However, past active participles in Lithuanian, apart from the perfect, have a rather wide range of other uses. They can be used as attributes in noun phrases, as well as in what Ambrazas (1979) defines as semipredicative usage, where the participle is not part of the main predicate of the sentence; in the past tense of the subjunctive mood; with copula in the past tense to form the pluperfect (which has a range of specific meanings and is outside the scope of this study, but included in the comparative study with Latvian by Arkadiev and Daugavet 2021); as well as in the future resultative with future tense copula and with the past habitual tense copula for a specific resultative. Some other constructions can be

added to this list, such as the evidential.[4] All of these had to be manually eliminated as well to get the final sample, consisting of 2018 perfect constructions from a 2-million-word corpus. This yields a frequency of 1 construction per 991 words in the sample.

4. Semantic values of the perfect constructions in Lithuanian

4.1. Overview

The semantic values of the Lithuanian perfect identified in the data can be categorized into several different groups. Some of them have already been identified by Geniušienė & Nedjalkov (1988), Arkadiev & Daugavet (2016) as subject-oriented resultative perfects, possessive resultative perfects and experiential perfects. Perfects with prototypically transitive verbs, identified by the authors above as 'current relevance' perfects, are here termed 'transitive resultative perfects', in order to avoid the vague concept of current

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[4] Arkadiev & Daugavet (2016, 2) mention that bare past active participles are ambiguous between the perfect and the evidential. Although according to Lithuanian grammars a bare past active participle can in fact acquire an evidential reading, it seems to be rare, at least in the kind of data chosen for this study. Evidentials are widely used, for instance, in news texts, but, possibly also because of their ambiguity with the perfect, the evidential construction with a bare participle tends to be replaced by a structure consisting of a main verb, such as *sako(si)* 'says' or *teigia* 'claims', with a participial complement clause (see Arkadiev 2012 for a detailed description of participial complementation in Lithuanian). Another stucture with a similar function can be formed from the reportative marker *esą* and the participle (see Wiemer 2010 for an analysis of this heterosemic marker and its functions). For example:

A. Veryga **sako** **ne-žinoj-ęs**, [*kad būtų galėjusios dingti apsaugos priemonės.*]
A. Veryga say.PRS.3 NEG-know-PST.PA.SG.M
'A. Veryga says he didn't know [that the protective equipment could have disappeared.]'
(kaunodiena.lt)

Jonas Pinskus **teigia** **ne-turėj-ęs** [*nieko bendra su cigarečių kontrabanda.*]
Jonas Pinskus claim.PRS.3 NEG-have-PST.PA.SG.M
'Jonas Pinskus claims he didn't have [anything to do with the cigarette smuggling.]'
(lrt.lt)

Tokio *snygio* *gegužę* **esą** **ne-buv-ę** *jau*
Such snowfall May.ACC EVD NEG-be-PST.PA.SG.M already
keliolika *metų.*
11–19 year.PL
'Apparently, there hasn't been such a snowfall in May in around 15 years.'
(xxiamzius.lt)

In the data chosen for this study, none of the cases of PAPs functioning as a main predicate in the sentence without an auxiliary seem to have the evidential meaning.

relevance. All of the above are discussed in more detail in the following sections. One more semantic value of the Lithuanian perfect is identified in the present analysis—namely, the cumulative-retrospective perfect, drawing on observations made by Dahl (2020) and Nau, Spraunienė & Žeimantienė (2020).

Apart from the perfect values mentioned above, I argue that a significant proportion of the (omitted) copula with past active participle construction instances do not represent perfects, but rather copular constructions with adjectival participles that could be the non-grammaticalized source of the Lithuanian perfect construction. These copular constructions are closely intertwined with subject-oriented resultative perfects, so that the two groups overlap, and are not easy to distinguish.

In general, the goal of the present analysis is to put the whole range of the semantic values of the Lithuanian perfect in the perspective of grammaticalization, ranging from the least grammaticalized to the most grammaticalized. Figure 2 below shows the proportion of each semantic value in the data analysed.

Figure 2*. Proportions of the different values of the perfect construction in the data*

AdjPAP — adjectival participles in copular constructions
SubjRES — subject-oriented resultative perfects
PossRES — possessive resultative perfects
TrRES — transitive resultative perfects
CumRetr — cumulative-retrospective perfects
EXP — experiential perfects
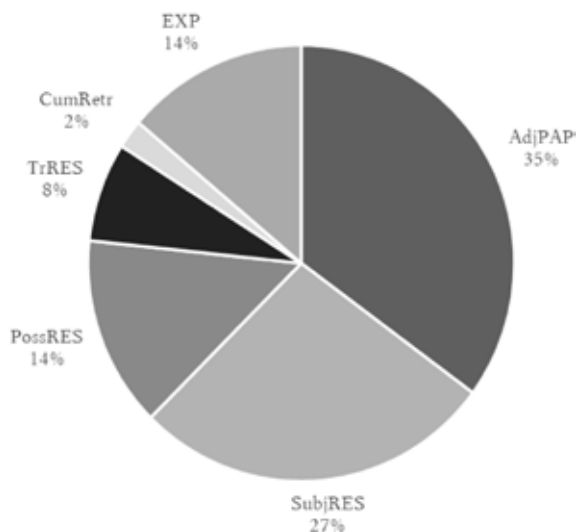
4.2. Adjectival participles in copular constructions and subject-oriented resultatives

The first step of the analysis of the data was to determine what kind of lexical input is used in the Lithuanian perfect. Taking as criteria telicity and transitivity of the verbs, we can see that a very large proportion, 65%, of the instances of copula and past active participle construction are formed with telic intransitive verbs, as in (2) and (3).

(2) *sovietinis*   *mentalitetas*   *dar*   *niekur*
Soviet.NOM.SG.M   mentality.NOM.SG.M   yet   nowhere
nera   ***ding-es***
NEG.be.PRS.3   disappear-PST.PA.PL.M
'The Soviet mentality has not disappeared anywhere yet.'

(3) *veganai*   ***yra***   ***issziuv-e,***   ***perbal-e,***
vegan.PL.M   be.PRS.3   dry_out-PST.PA.PL.M   become_pale-PST.PA.PL.M
[*pajuodusiais paakiaia ir pavandenijusiomis akimis*]
'Vegans are skinny, pale, [with dark under-eye circles and watery eyes.]'

The construction with such lexical input has been defined in Geniušienė & Nedjalkov (1988) and applied by Arkadiev & Daugavet (2016) in their corpus-based study of the Lithuanian and Latvian perfects as a subject-oriented or subjective resultative which conveys a state or a quality of the subject, as opposed to the objective resultative, conveying a state or a quality of the object. This is according to the definition of the subjective resultative by Nedjalkov & Jaxontov (1988, 9), where the orientation towards the subject or the object should be understood as a reference to the actant whose state has changed as a result of the preceding action.

Such definition implies two elements of the resultative meaning—the current state and the preceding action which generated it. However, it seems that in many instances of the (omitted) copula and past active participle construction, such as in (3), the state conveyed by the participle can hardly be related to any preceding action on semantic rather than morphological grounds. There is no doubt about the resultative etymology of the past active participle suffix, which imparts a resultant-state meaning to the participle. According to Ambrazas, the resultant-state meaning of the Lithuanian past active participle comes directly from the old derivational meaning of the suffix *-us* which is itself derived from the

Indo-European perfect participle suffix *-wos. Such examples as *rūgęs pienas* 'sour.PST.PA.SG.M milk' 'soured milk' or *lūžusi koja* 'break.PST.PA.SG.F leg' 'broken leg' with attributive participles made from 'atelic'[5] verbs without any prefix that could express resultativity show that the resultant-state meaning is due precisely to the suffix (Ambrazas 2006, 171). However, resultant-state meaning, characteristic of the past active participle suffix, should be distinguished from the resultative perfect meaning, character-istic of the construction as a whole and focusing not only on the state, but also on the past action that generated the state, too.

Ambrazas also notes that with some prefixed intransitive verbs the meaning of the 'resultant quality' is so strong that almost no con-nection to a prior action can be conceived of—for example, *pasiutęs (*go_wild.PST.PA.SG.M*) šuo* 'rabid dog', *sustiręs* (stiffen.PST.PA.SG.M) *sijonas* 'stiff skirt', *išdykęs* (become_naughty.PST.PA.SG.M) *vaikas* 'naughty child', *apsiblausę (*dim.PST.PA.PL.M*) akys* 'bleary eyes'—in such cases the participles convey permanent qualities that can't be semantically related to any prior action (Ambrazas 1979, 39). Similarly, in (3) and many other examples from the data chosen for this study, the past event that generated the current state or quality can hardly be presupposed.

This is especially obvious with defective verbs lacking some finite past tense forms altogether (4) as well as with verbs whose finite past tense forms are very infrequent (5) or have a different meaning (6), (7). Past tense forms of the verbs used in (4) and (5), *susijo* and *išpruso*, do not have any instance of usage in the Facebook comments corpus of this study, and in the 208-million-word DLKT corpus present only 10 and 14 instances, re-spectively, in the 3rd person, and none in the 1st or 2nd singular or plural. At the same time, the past active participle forms of the same verbs are rather frequent—for instance, there are 23 instances of *susijęs* in the data used for this study, and more than 10 thousand in DLKT.

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[5] The concept of telicity here adopted by Ambrazas is closer to the so-called 'Eastern view'—a verb is considered telic if and only if it entails both the 'T property' and the 'P property', as discussed by Dahl (1981). The verbs cited here— *lūžti* 'to break.IPFV' and *rūgti* 'to sour.IPFV'— could be more precisely termed imperfective. They form an opposition with the perfective prefixed verbs *sulūžti* 'to break.PFV' and *surūgti* 'to sour.PFV'. In other words, the participle suffix can impart the 'P property' to a bare form of an imperfective verb that in itself only has the 'T property'.

(4) *O*   *musu*   *istorija*   *visgi*   ***susij-usi***
CONJ   1PL.GEN   history.NOM.SG.F   nevertheless   relate-PST.PA.SG.F
su   *CCCP*
with   USSR
'Our history is nevertheless related to the USSR.'

(5) *labai*   *negražu*   *kramtyt*   *gumą,*   *kokia*
very   NEG.nice   chew.INF   gum.ACC   how.SG.F
ne-išprus-us
NEG-educate-PST.PA.SG.F
'It's not nice to chew gum, she's so uneducated.'

(6) *Ž.L.*   *kad ir*   ***at-si-lup-es***   *kartais*   *bet*
Ž.L.   even though   PVB-RFL-peel-PST.PA.SG.M   sometimes   but
vstk   *družokas :D*
still   friend.NOM
'Even though Ž.L. is sometimes muddle-headed, he's still a friend.'

(7) *Darbdaviai*   *visada*   ***link-ę***   *nepermokėti :)*
employer.PL.M   always   bend-PST.PA.PL.M   NEG.overpay.INF
'The employers are always inclined not to overpay.'

Regarding (6) and (7), although the past tense forms of these verbs are not rare, the figurative usage is characteristic of the participles, while the past tense forms usually retain the literal meaning—*atsilupo* 'peeled off' and *linko* 'bent'.

In some cases, such as in (3), (8), and (9) the verb itself is compatible with the assumption of a past event, but it is not clear if a past event actually is presupposed as a part of the meaning of the sentence, as these participles are completely lexicalized.

(8) *Kad*   ***pa-si-kėl-ęs,***   *tai*   *taip,*   *menininkai*
that   PVB-RFL-lift-PST.PA.SG.M   PTC   yes   artist.NOM.PL
visi   *keistoki*
all.NOM.PL   strange.NOM.PL
'That he is arrogant [lit. 'lifting himself'], it's true, all artists are rather strange.'

(9) *Šiuolaikiniai*   *tėvai*   *visai*   ***išprotėję,***
modern.NOM.PL.M   parent.NOM.PL.M   totally   go_crazy.PST.PA.PL.M
[*duoda vaikams tokius vardus*]
'Modern parents are totally crazy, [they give such names to their children.]'

(10)   *Bet*   *Ineta*   *matosi*   ***pavarg-usi***...
      but   Ineta.NOM.SG.F   see.PRS.3.RFL   tire-PST.PA.SG.F
      [*nieko issimiegos po kokiu metu...* ♡]
      'But Ineta is obviously tired... [It's all right, she will be able to sleep as long as she wants in a year or so.]'

Thus, it seems that the adjective-like participles from the examples above are subject to the process of adjectivization. Based on the data used for this study, the following features could be considered signs of the adjectivization of the participle, all of which preclude the presupposition of a state resulting from a prior action (the list is not exhaustive):

1. the participle is used very frequently while the past tense of the verb is either extremely rare, or even on the verge of ungrammaticality;

2. the participle has acquired a new meaning that is absent if the verb is used in a past tense or some other form;

3. the participle is a very common lexical element without any synonym in the adjective class.

Given that the resultative perfect should comprise both elements of the resultative meaning —that of the current state, and that of the prior event the state stems from, and given that in the examples such as (3)—(10) above only the former element is present, it seems that such cases should not be considered perfects but rather ascriptive copular constructions with adjectivized participles. The abundance of such cases in Lithuanian has also been noticed by Servaitė (1988, 87), who identifies them as grammatical statives or quasiresultatives, as defined by Nedjalkov and Jaxontov (1988, 13–14). In these constructions the derivational meaning of the suffix is obscured and the participle conveys a state or a quality of the subject, without relating it to any prior event. The participles here are used in a characterizing function—they get to express, not even a state, but a quality, which can be temporary or not, possibly resulting from a previous event or not—in such cases this is irrelevant.

It is important to note that the adjectivization of certain participles, causing the loss of the grammatical resultant-state meaning of the participial suffix, is a separate process from the grammaticalization of the perfect. It affects only some, not all, lexical elements that can be used in the-copula-and-past-active-participle construction. In the data, a significant proportion of all tokens assigned to the category of adjectival participles in

copular constructions, as well as some of the subject-oriented resultative perfects, are instances of the copula and past active participle construction being ambiguous between an analytical verbal phrase and a characterizing usage of the participle in an ascriptive copular construction, even though there are no signs of the adjectivization of the participle.

In (11)—(13), it is not clear if the participles *sušalę, supuvęs, užsisėdėję* do presuppose some vague prior event or if they rather express just a state of the subject. Similar cases of ambiguity have been mentioned and briefly discussed by Ambrazas (2006, 171), who notes that the Lithuanian past active participles used in periphrastic perfect[6] constructions are not clearly differentiated from copular constructions with participles that still retain many traits of their nominal usage (Ambrazas 2006, 172). The fact that in certain cases past active participles can be understood either as adjectival predicates with the copula or as analytical verb forms (verbal phrases) has also been described by Holvoet and Pajėdienė (2004, 134) as well as by Mikulskas (2009, 136). In the latter two studies the example given of such ambiguity is formed with the verb *įsitikinti* 'convince oneself'.

(11) **susal-e**   *visi,*   *net*   *su*   *subom :D*
freeze-PST.PA.PL.M   all.PL.M.NOM   even   with   fur_coat.PL.INS.
'Everybody is freezing, even with fur coats'

(12) *jeigu*   *valstybes*   *valdymas*   **supuv-es**
if   state.SG.GEN   administration.SG.M.NOM   rot-PST.PA.SG.M
[*tai jau nieko nepakeisi*]
'If the state administration is rotten, [nothing can be changed any more.]'

(13) **uzsisedej-e**   *mokytojai*   *klasese*
oversit-PST.PA.PL.M   teacher.PL.M.NOM   classroom.PL.F.LOC
[*tegu grinam ore pabuna i sveikata jiems*]
'The teachers have been staying in the classrooms for too long, [let them stay outside for a while, it will be healthy for them.]'

The verbal interpretation in (15) activates the second element of the perfect meaning—the presupposition of the prior event that generated the current state of the subject, while in (14), the participle could also be translated

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[6] Ambrazas' definition of the periphrastic perfect here is broader, including also the pluperfect formed with the past tense of the verb *būti*.

with 'sure', even though the verbal interpretation, entailing an event of 'being convinced' at some point in the past, can't be excluded either.

(14) **Esu** **įsitikin-ęs,** [*kad esama ir gerų, ir blogų žmonių.*]
     be.PRS.1SG convince-PST.PA.SG.M
     'I am convinced [that there are both good and bad people.]'

(15) *Ne* *kartą* **esu** **įsitikin-ęs,**
     NEG time.SG.ACC be.PRS.1SG convince-PST.PA.SG.M
     [*kad esama ir gerų, ir blogų žmonių.*]
     'More than once I have been convinced [that there are both good and bad people.]'

Arguably, such cases represent the situation of ambiguity characteristic of Stage II in the Overlap Model of grammaticalization of the auxiliaries described by Heine (1993, 48–53). In Heine's terms, the adjectival usage of the participle with the copula would be the source, and the verbal interpretation would be the target in the grammaticalization chain of the Lithuanian perfect. In other words, copular constructions with adjectivized participles in (3)—(10) would represent the source of grammaticalization of the Lithuanian perfect—Stage I. Ambiguous examples in (11)—(13) represent Stage II, while (15), which exemplifies one of the more grammaticalized values of the perfect discussed in further sections, allowing only the verbal representation, would represent Stage III.

Grammaticalization chains have both synchronic and diachronic dimensions. This study deals with synchronic data in which all three stages can be seen. Further research is necessary in order to establish the diachronic data and to verify the claim that the ascriptive copular constructions are in fact the source of grammaticalization of the Lithuanian perfect, and to see if different instances found in the synchronic data do reflect the historic development. In the meantime, synchronically, the following stages can be distinguished, ranging from ascriptive copular constructions with adjectives to subject-oriented resultative perfects:[7]

1. ascriptive copular constructions with adjectives;
2. ascriptive copular constructions with adjectivized past active participles;

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[7] It is understood that the 'stages' here referred to are relative—they "merely represent certain points, perhaps focal points, along the relevant continuum" (Heine 1993, 48).

3. ascriptive copular constructions with non-adjectivized participles, ambiguous between the adjectival and verbal interpretations;

4. subject-oriented resultative perfects, entailing both elements of the meaning—the past event and the resultant state.

It is to be expected that grammaticalized (verbal) and non-grammaticalized (adjectival) instances of the same construction coexist. The question at this point, however, is how to distinguish between such copular constructions with adjectivized participles and subject-oriented resultative perfects, or, in other words, between predicative and characterizing usage of the participles. No clear-cut boundary can be established but there are several important factors that draw a sentence closer to the subject-oriented resultative perfect or to the ascriptive copular construction.

Semantically, the main difference between participles in adjectival predicates and in perfect constructions can be identified by the presence or the absence of the possibility to relate the state of the subject to some prior action or event that generated it. Regarding examples (14) and (15), Mikulskas suggests, in cognitive terms, that an adjectival participle conveys only the final stage of 'gaining certainty', while a verbally interpreted participle conveys all stages of an event (2017, 45). However, this distinction is rather subject to case-by-case interpretation.

Next, as noted by Servaitė (1988, 86–87) and Mikulskas (2017, 45), the verbal interpretation can be triggered by other elements of the sentence, such as the adverbials. This is what happens in (15) with the adverbial *ne kartą* 'more than once'. The verbal interpretation is also generally triggered by the most frequent adverbials in the data—*jau* 'already' and *dar* 'still, not yet', as in (2) and the following examples:

(16) *Ta*   *partija*   ***jau***   ***supuv-us..***
DEM   party.NOM.SG.F   already   rot-PST.PA.SG.F
'That party is already rotten.'

(17) [*daugely šalių tai jau norma, na o*]
tūlas   *lietuvis...*   ***dar***   ***nera***
certain.NOM.SG.M.   Lithuanian.NOM.SG.M   still   NEG.be.PRS.1SG
subrend-es.
mature-PST.PA.SG.M
'[In most countries it is already a norm, while] certain Lithuanians are not mature enough yet.'

The adverbials can also point in the other direction—there is a range of adverbials modifying the participle that trigger the adjectival interpretation. First of all, these are the adverbials and pronouns indicating gradability, such as *labai* 'very', *toks/tokia* 'so, so much', *koks/kokia* 'how, how much', *per daug /pernelyg* 'too much'. Naturally, if something or someone can be assigned a feature that is more or less intensive, it is probably a quality, and not a state resulting from prior action.

(18) *Šimašius* **labai** *jau* **įsitemp-ęs**
Šimašius.NOM.SG.M very PTC tense_up-PST.PA.SG.M
[*nelieskit manęs ir panasiai kas per jautrumas?*]
'Šimašius is very tense, [don't touch me and so on, why so sensitive.]'

(19) *ziauru* *ko* **toks** **nusimin-es**.
cruel.NA why so gloom-PST.PA.SG.M
'It's awful, why are you so gloomy.'

(20) *Dažniausiai* *mokytojai* *per* *jautrūs,*
usually teacher.NOM.PL.M too sensitive.NOM.PL.M
pernelyg **atsidav-ę** *darbui.*
too dedicate-PST.PA.PL.M work.DAT
'The teachers are usually too sensitive, too dedicated to their work.'

Another group of adverbials testifying in favour of the adjectival interpretation are the ones indicating stability and continuity, such as *pastoviai* 'constantly' or *visa laiką* 'all the time', expressing a stable quality. Interestingly, a stable quality can also be conveyed by a different form of the copula—namely, the habitual *būna*:

(21) [*Reikia dar daugiau parduotuvių,*]
juk *visi* **pastoviai** **peralk-ę,**
PTC all.NOM.PL.M constantly starve-PST.PA.PL.M
ištrošk-ę, *pikti,* *nepakantus.*
thirst-PST.PA.PL.M angry.PL.M impatient.PL.M
'[We need even more shops,] as everyone is constantly starving, thirsty, angry, impatient.'

(22) *Vestuvėse* *žmonės* **būna** *labai*
wedding.PL.LOC people.NOM.PL be.HAB.PRS.3 very
pasipuoš-ę.
dress_up-PST.PA.PL.M
'At weddings people are very dressed up.'

Apart from the adverbials, another element of sentential context licencing the adjectival interpretation is the possibility of coordination with adjectives, such as in (20), (21), (23), (24). This factor is not absolute, because it is possible to find more grammaticalized instances of the perfect that due to their morphology and agreement rules can be coordinated with adjectives. However, in most ambiguous cases, the coordination with adjectives draws the construction closer to the adjectival interpretation.

(23)   [*Jeigu bendrakeleivis samoningai seda i auto, zinodamas,*]
kad	*vairuotojas*	***isger-es* /**	***girtas* —**
COMPL	driver.NOM.SG.M	drink-PST.PA.SG.M	drunk.SG.M

[*taip, jis bendrininkas.*]
'[If a passenger consciously gets into the car while knowing] that the driver is tipsy/drunk — [yes, he is an accomplice.]'

(24)   [*Tokios prezidentės tikrai nebeturėsime,*]
visada	***pasitemp-usi,***	*sąžininga,*	*nekonfliktiška,*
always	gather-PST.PA.SG.F	fair.SG.F	NEG.feuding.SG.F
mokanti	*daug*	*kalbų,*	*niekur*
know.PRS.PA.SG.F	a lot	language.GEN.PL	nowhere
nepadarė	*gėdos*	*Lietuvai.*	
NEG.do.PST.3	shame.GEN	Lithuania.DAT	

'[No way will we ever have such a president again—she is always smart, fair, non-feuding, knows many languages, nowhere has she caused embarrassment for Lithuania.'

The broad category of telic intransitive verbs in the data analysed can be divided into more specific lexico-semantic classes. It is important to note that, as all of the examples above demonstrate, the subject of the sentences with the (omitted) copula and the past active participle in the data is almost exclusively animate and agent-like. Thus, in the category of the copular constructions with adjectival participles, the following groups of verbs, describing the subject in some way, are the most numerous:

- Bodily states, sometimes used figuratively, such as in (3), (11), (21) or (23). These verbs do regularly have past tense forms and a past event can in theory be presupposed, but the focus is on the state and often no synonym in the adjective class is available.

- Mental states and character traits, such as in (5), (6), (8), (9), (17), (18), (19) or (24). These seem to be more constant or irreversible states that can be considered qualities.

- Civil and stage-of-life states, with participles *augęs* (+LOC) 'grown up (somewhere)', *gimęs* 'born', *miręs* 'dead', *vedęs* 'married (masculine)', *(iš)tekėjusi* 'married (feminine)', *išsiskyręs* 'divorced', *kilęs (iš)* 'originating (from)' represent a very ambiguous case. There is no doubt that such states are generated by specific past events, but on the other hand, they do not have any alternative whatsoever in the adjective class, are very frequent, and it seems that they are mainly used in order to attribute a feature to the subject, without taking into account a specific past event of birth, marriage, or divorce.

The remaining constructions with participles derived from telic intransitive verbs that do not show signs of adjectivization and that entail a past event that generated the current state expressed by the participle, thus comprising both elements of the resultative perfect meaning, have been assigned to subject-oriented resultative perfects. This is by far the largest group of perfects identified in the data. They also represent the prototypical examples of the Lithuanian perfect. Subject-oriented resultative perfects express a state of a subject, which semantically is usually an agent, together with the past event that generated such state. However, the main element of the meaning, where the focus is located, is the state of subject, not the past event.

The semantic range of verbs in the group of subject-oriented resultative perfects is more varied, compared to copular constructions with adjectivized participles. Although some are still physical or mental change-of-state verbs (25, 26), there are also verbs meaning 'to become' (27) or 'to change' (28), 'to appear' or 'to disappear' (2) as well as reflexive verbs meaning 'to begin' (29) and 'to finish' (30).

(25)   *Tai*   *mes*   **atsibud-e**   [*ir ner uz ka balsuot*]
        PTC   1PL.NOM   wake_up-PST.PA.PL.M
        'Well, we're awake, [and there's no one to vote for.]'

(26)   [*buvusi gana kukli*] —   *mergina*   *greit*
                       girl.NOM.SG.F   quickly
                       isdrasej-usi,....😙🥴
                       become_brave-PST.PA.SG.F
        'The girl that used to be quite modest has quickly become confident.'

(27)   [*Europos pozicijos dar nėra,*]
        nes   *ji*   **yra**   **tap-usi**
        because   3SG.F.NOM   be.PRS.3   become-PST.PA.SG.F

situacijos   *įkaitė.*
situation.GEN   hostage.NOM
'[Europe doesn't have a position yet,] because they have become hostages of the situation.'

(28)   [*Galit komentuoti apie policija gerai, blogai, bet faktas tas,*]
     kad   *policija*   *labai*   **pasikeit-us**   *i*
     COMPL   police.NOM.SG.F   very   change-PST.PA.SG.F   into
     geraja   *puse,* [*nebetie pareigunai , kas buvo pries 10 metu*]
     good.ACC.SG.F.NOM.   side.ACC
     '[You can say anything you want about the police, but the fact is] that the police has changed a lot for the better, [the officers are not the same as 10 years ago.]'

(29)   [*sako su metais proto padaugėja bet čia matosi*]
     marazmas   *žmogui*   **prasidėj-es**
     senility.NOM.SG.M   person.dat.SG.M   begin-PST.PA.SG.M
     '[They say people acquire intelligence with age, but here it's obvious that] for this person senility has begun.'

(30)   [*Ar valanda ar penkios minutės likę,*]
     kol   *darbo*   *laikas*
     until   work.GEN   time.NOM.SG.M
     ne-pasibaig-ęs   [*turi priimti ateinančius*]
     NEG-finish-PST.PA.SG.M
     '[It doesn't matter if there's an hour or five minutes left,] as long as the working hours are not finished, [they have to serve those who are coming.]'

The largest lexical class in the group of subject-oriented resultative perfects in the data is formed with various verbs of motion (31, 32), inhibited motion (33), and changes in spatial configuration in general, also figurative (34).

(31)   [*niekas nenori pirkti net ledines masinos*]
     nes   *ji*   **nuvazev-usi**   *300*   *tukstanciu*
     because   3SG.F.nom   go-PST.PA.SG.F   300   thousand
     o   *ne*   *240*
     CONJ   NEG   240
     '[Nobody wants to buy even a very cool car] because it's been driven 300 thousand km, and not 240.'

(32)   *Nesvarbu,*   *kad*   **issideklarav-es** —   **isvyk-es.**
     NEG.important.NA   COMPL   declare_out-PST.PA.SG.M   leave-PST.PA.SG.M
     [*Elektronine bankininkyste reikia tureti*]

'It doesn't matter, even if you have cancelled your residence or left the country. [You still need to have online access to your bank account.]'

(33) *Bet   deja   dar   atsilik-usi,   užstrig-usi*
     but   alas   still   lag_behind-PST.PA.SG.F   stuck-PST.PA.SG.F
     laike   ta   Lietuva
     time.LOC   DEM   Lithuania.NOM.SG.F
     'But alas, Lithuania is still lagging behind, still stuck in time.'

(34) *O   dar   Bavarija   neisir-us?*
     CONJ   yet   Bavarija.NOM.SG.F   dissolve-PST.PA.SG.F
     'But hasn't *Bavarija* (a music band) dissolved yet?'

The meaning of subject-oriented resultative perfects with movement verbs can be generalized as follows: the subject has (or has not) changed its location in space from point A to point B, and is now located in point B. Participles derived from such verbs necessarily involve a clear past action, namely, the movement (or non-movement, with verbs such as *likti* 'stay, remain').

The orientation towards the subject, characteristic of this group of perfects, can also be understood in a more general sense, not only as the reference to the actant whose state has changed as a result of the preceding action, but also as a tendency to describe the subject in some way, as if based on a preceding action some conclusion could be made about them. This tendency can be due to the influence of the source ascriptive copular construction, and might be especially evident in the kind of data chosen for this study, as expressing judgements about somebody is very common in internet comments.

4.3. Possessive resultative perfects

Possessive resultatives have been defined by Nedjalkov & Jaxontov (1988, 9) as constructions with transitive verbs where "the result of the action affects the underlying subject rather than the immediate patient of the action." For Lithuanian, a possessive resultative perfect has been singled out by Geniušienė & Nedjalkov (1988) and identified by Arkadiev & Daugavet (2016) as a subtype of the subject-oriented resultative.

The lexical input for this class of perfects is telic transitive verbs expressing an event that affects the subject in one way or another. The object of such clauses is usually conceptually related to the subject—for

instance, it may be part of the subject or something in the possession of the subject. Thus, although the verb is transitive and there is an object that can be considered the patient, possessive resultative perfects express a change of state of the subject (agent), while the object (patient) is given a marginal role, whenever present.

Possessive resultative perfects are most frequently formed with verbs that belong to the following semantic groups:

- Verbs conveying the subject's coming into possession of something or losing something:

(35) [*Jam iki sąjudžio kurimo, kaip peėsčiam iki Šanchajaus.*]
visus   *nuopelnus*   **yra**   **pasisąvin-es.**
all.ACC.PL.M   merit.ACC.PL.M   be.PRS.3   appropriate-PST.PA.SG.M
'[For him to establish Sąjūdis would be like walking to Shanghai.]
All his merits are stolen.'

(36) *Fotografai*   *juosteliu*   **prisipirk-e**
photographer.NOM.PL.M   film.GEN.PL.F   buy_plenty-RFL.PST.PA.PL.M
urmu
wholesale.INS
'Photographers have bought plenty of films at wholesale.'

- Verbs describing changes in the looks of the subject, such as getting dressed, putting something on:

(37) *ruda*   *kostiuma*   **apsivilk-ęs**
brown.ACC.SG.M   suit.ACC.SG.M   put_on-PST.PA.SG.M
[*kad nieks nepastebetu kaip meluoja*]
'He has put a brown suit on, [so that nobody would notice when he's lying.]'

(38) *Nesvarbu,*   *kad*   *brilijantais*   **apsikarsci-us,**
NEG.important.NA   COMPL   sparkler.INS.PL.M   hang-RFL.PST.PA.SG.F
[*bet sneket nemoka*]
'Doesn't matter that she has got sparklers on, [but she can't speak [properly]].'

- Verbs conveying subject's movement of body parts or changes in posture, such as lowering one's head, raising one's hand and so on:

(39) *Labai*   *žemai*   **nuleid-usi**   *galvą*
very   low.ADV   lower-PST.PA.SG.F   head.ACC.SG.F
'She has lowered her head very much.'

(40)   *Jau*   *visai*   *smegenis*   ***pašal-e*** 🙁
     already   totally   brain.ACC.PL.F   freeze-PST.PA.PL.M
     'Their brains are totally frozen already (=They are not thinking straight.)'

- Some verbs of acquisition or state of knowledge, such as learning or forgetting something, acquiring a skill:

(41)   *Juk*   *ji*   *išsilavin-usi.*   *Raštinga.*
     PTC   3SG.F.NOM   educate-RFL.PST.PA.SG.F   literate.SG.F
     Baig-usi   *aukštaji.*   ***ivaldži-usi***
     finish-PST.PA.SG.F   high.ACC.SG.M.DEF   master-PST.PA.SG.F
     kompiuterines   *programas.*
     computer.ADJ.ACC.PL.F   program.ACC.PL.F
     'After all, she is educated, literate, she has got higher education, she has mastered computer programs.'

(42)   [*Valdininkai gyvena savo pasaulyje,*]
     o   *apie*   *paprastus*   *žmones*   *jie*
     CONJ   about   simple.ACC.PL.M   people.ACC.PL.M   3PL.M.NOM
     pamirš-ę
     forget-PST.PA.PL.M
     '[The clerks live in their own world,] they have completely forgotten about simple people.'

- Idioms where the object is figurative, so that the whole verb phrase with the object refers to the subject:

(43)   *Tamsta*   *truputeli*   ***nuleid-us***   *gara*
     2SG.NOM   a_bit   let_off-PST.PA.SG.F   steam.ACC
     [*po prezidentes pasisakymo*]
     'You have let off some steam [after the president's speech.]'

(44)   [*Parasė patarejai kalbą, nes pats bijo grybo pripjaut,*]
     nes   *jau*   *taip*   ***yra***   ***prisipjov-ęs***
     because   already   PTC   be.PRS.3   cut_plenty-PST.PA.SG.M
     '[His advisors wrote his speech, because he's afraid to say nonsense, (lit. cut a mushroom)] because he already has said plenty of nonsense.' (lit. has cut enough of a mushroom)

However the most salient group of verbs in this category are the ingestive verbs. The most prototypical examples of these are the verbs meaning 'to eat' and 'to drink', while in data from the Facebook comments corpus many verbs have been identified denoting various modes and ways of consuming psychoactive substances:

(45) *lasiniu*   *mužikelis*   **privalg-ias**
      lard.GEN.PL.M   churl.DIM.NOM.SG.M   eat_plenty-PST.PA.SG.M
      'The churl has eaten a lot of lard.'

(46) *Raimondai*   *nusišneki*   *gal*
      Raimondas.VOC.SG.M   talk_nonsense.PRS.2SG   maybe
      padar-ęs   *gramą?*
      make-PST.PA.SG.M   gram.ACC.SG.M
      'Raimondas, you're talking nonsense, maybe you had a drop too much?'

Sentences with ingestive verbs correspond to what Næss (Næss 2007, 51–84) describes as cases of Affected Agent. According to her, ingestive verbs are not prototypical examples of transitivity, despite being often exemplified as such. Clauses with Affected Agent deviate from the semantic prototype of transitivity, as "the distinctness of the semantic roles of the participants in a two-participant event is a crucial factor in semantic transitivity" (Næss 2007, 51), while clauses with ingestive verbs cannot be considered such. Eating is an action performed for the sole purpose to obtain an effect on the agent, not the patient. The agent volitionally instigates the event but has the additional property of being itself affected by the event (Næss 2007, 53).

Næss shows that as a result, ingestive verbs cross-linguistically often demonstrate 'intransitive behaviour'—they tend to be expressed in formally intransitive clauses. This account can also help to explain why while in the data the proportion of perfects with transitive verbs is relatively small (cf. next section), the category of possessive resultatives is fairly large, thus suggesting that this use of the Lithuanian perfect is more common. The line of development of the Lithuanian perfect can be seen as leading from the basic non-grammaticalized copular constructions with adjectival participles, expressing states and qualities of the agent and almost unrelated to any prior event, towards resultative perfects with transitive verbs where the main element of the meaning is the past event put in place by the agent and affecting mostly the patient. In such a scale the possessive resultative perfects represent 'middle ground'—the clauses are formally transitive but both the initiator of the action and the affected entity is the agent.

A frequent phenomenon in this group is clauses with indefinite object deletion—the object being inferable from the verb:

(47) [*nesvarbu ar slidu, ar tamsu, ar stabdžiai atsisakę,*]
ar	*vairuotojas*	*girtas,*	*ar*
if	driver.NOM.SG.M	drunk.NOM.SG.M	if

      užsimet-ęs,
      PVB.RFL.throw-PST.PA.SG.M
      [*galvos į šonus nepasuks*]
      '[It doesn't matter if it's slippery, or cold, or if the brakes are not working], or if the driver is drunk, or tipsy (lit. 'has thrown [some drink] onto himself')—[he won't take a look around.]'

A similar example has also been given in (23), as an instance of an adjectivized participle in a copular construction. Næss explains that "[i]f one wishes to focus on the effect on the agent, then this effect can be construed as measuring out the event. On such a construal, the agent is cast as the endpoint of the event, and the event is completely described once the agent has been specified —both the initiating entity and the endpoint of the action are included in the description of the event, since they are both the same entity. When the event is construed in this way, reference to the patient is simply superfluous, since the event already has a delimiting argument" (Næss 2007, 57). In fact, in many cases it seems that the object is deleted exactly because it is superfluous and is easily inferred from the verb. The participles derived from transitive verbs with deleted object often seem to be no less adjectivized than the ones formed from telic intransitive verbs, discussed in section 2—they are frequently coordinated with adjectives (47, 48), accompanying adverbials testify in favour of the adjectival interpretation (49, 50), although a past action of consumption of course can always be presupposed, and they do not lack past tense forms.

(48) | *a* | *jie* | *durn-i* | *ar* | ***ne-da-ėd-ę.*** 😠 |
      |-----|-------|----------|------|---------------------|
      | whether | 3PL.M | crazy.PL.M | whether | NEG-PVB-eat-PST.PA.PL.M |
      'Are they [just] crazy or are they starving?'

(49) | *Truputi* | ***pri-lup-es*** |
      |-----------|------------------|
      | slightly | PVB-guzzle-PST.PA.SG.M |
      'He is slightly drunk.'

(50) | *Jis* | *gal* | ***pri-pis-es***[8] | *biške?* |
      |-------|-------|---------------------|----------|
      | 3.SG.M.NOM | maybe | PVB-fuck-PST.PA.SG.M | a bit |
      'Is he a bit wasted, maybe?'

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[8] Rude.

In general, possessive resultative perfects can be described as formally transitive clauses that are still subject-oriented, despite the presence of the patient, which is closely related to the subject or is a part of the subject. A significant proportion of the possessive resultative perfects are clauses with transitive verbs used intransitively, that is, with indefinite-object deletion. The latter participles show signs of lexicalization, similarly to the adjectival participles formed out of telic intransitive verbs in copular constructions. In general, instances of possessive resultative perfects are closely related to the prototypical examples of the Lithuanian perfect—subject-oriented resultative perfects with telic intransitive verbs. Possessive resultative perfects are somewhere in the middle of the continuum of the perfect's grammaticalization from the basic non-grammaticalized copular constructions expressing the subject's qualities towards the loss of a clear affectedness of the agent in other more grammaticalized perfect constructions.

4.4. Transitive resultative perfects

The perfects with prototypically transitive verbs where the subject is entirely distinct from the object and not directly related to it, differently from the possessive resultative perfects, have been labelled by Arkadiev & Daugavet (2016) as 'current relevance perfects'. Constructions with such lexical input can't be said to convey solely the change of state of the agent, as the past action expressed by the participle affects the patient as much as the subject and the focus shifts away from the current state towards the past event itself:

(51) [*Ukrainiečiams nieko nėra neimanoma.*]
Juk   jie   Juodąją   jūrą
PTC   3PL.M.NOM   Black.ACC.SG.F.DEF   sea.ACC.SG.F
iškas-ę   *ir   Karpatų   kalnus*
dig-PST.PA.PL.M   and   Carpathian.GEN.PL.M   mountain.ACC.PL.M
supyl-ę
pour-PST.PA.PL.M
'[For Ukrainians there's nothing impossible.] After all, they have dug out the Black Sea and poured out the Carpathian Mountains.'

(52) *Grąžinkit   pensijas   kurias*
restore.IMP.2PL   pension.ACC.PL.F   REL.ACC.PL.F

per	krizę	*nurėž-ę,*
through	crisis.ACC.SG.F	cut-PST.PA.PL.M

[*nei daug nei mažai - 190 litų į mėnesį 4 metams, štai taip!!!!*]
'Restore the pensions you have cut down during the crisis, [it's not too much and not too little—190 litas a month for 4 years, that's what I say!!!]'

Although such perfects are absolutely grammatical, as the construction in Lithuanian can be formed with any verb, it is obvious from the quantitative analysis that perfects with transitive verbs are not that frequent—they only represent 8% of the total. This can be explained by considering transitive perfects as an extension of the prototypical subject-oriented resultative perfects. The two main distinctive features of the subject-oriented resultative perfects are:

1) the orientation towards the subject—the copula and participle construction necessarily conveys a state of the subject;

2) the resultative meaning, arising from the resultative derivative meaning of the participle suffix and from the telicity of the verb—the construction conveys not just any state or quality of the subject, but one stemming from a prior action or event.

The resultative meaning is not necessarily present in the non-grammaticalized source construction with the verb *to be* functioning as a copula and not yet as an auxiliary, and with the participle used in a characterizing function rather than as a part of a periphrastic verbal construction. Conversely, in the case of perfects with transitive verbs, the resultative meaning is essential while the necessity to convey exclusively the state of the subject has to be rendered marginal, given the distinctness of the object from the subject. The low frequency of the transitive resultative perfects shows that the tendency of the orientation towards the subject is not readily abandoned.

The tendency of the Lithuanian perfect construction to draw focus towards the subject could also explain why almost half of all resultative perfects with transitive verbs in the data have the middle-reflexive marker -*si*-. Such cases of the Lithuanian reflexive marker usage as in (53, 54), have been described by Panov (2020) and termed 'weak autobenefactives'. With weak autobenefactives, the middle-reflexive marker is not obligatory and its omission does not drastically change the meaning of the sentence. It

provides only a weak reference to the subject, indicating that the subject somehow benefits from the action or is affected by it (Panov 2020, 349).

(53) *Kodėl pertraukinėja svečią, kurį*
why interrupt.PRS.3 guest.ACC.SG.M REL.ACC.SG.M
pasikviet-ę *į studiją?*
invite-RFL.PST.PA.SG.M into studio.ACC.SG.F
'Why are they interrupting the guest that they have invited to the studio?'

(54) [*nebegazdinkit tu pensininku kurie*]
katik gave išmanu tele ir
just get.PST.PA.PL.M smart.ACC.SG.M phone.NA and
pasijung-e *fb*
turn_on-RFL.PST.PA.PL.M Facebook
'[Don't scare those pensioners who] have just got smartphones and turned Facebook on.'

Both in (53) and in (54) a non-reflexive version of the verb could also have been used; however, the reflexive verbs sound more natural here, as they enable the retention of at least some orientation towards the subject.

In view of the copular ascriptive constructions, whose function is to ascribe a quality to the subject, as a source of the Lithuanian perfect, resultative perfects with transitive verbs seem the ones most distant from the source model, thus, highly grammaticalized, even when compared to the experiential perfects and the cumulative-retrospective perfect subtype to be discussed further.

4.5. Cumulative-retrospective perfects

Another subtype of the Lithuanian perfect values is the cumulative-retrospective perfect. The double term has been borrowed from Nau, Spraunienė & Žeimantienė (2020) and from Dahl (2020). Nau, Spraunienė & Žeimantienė (2020, 51–55) in their article on the passive in Lithuanian describe a cumulative passive construction, conveying subsumed experience and referring to "actions in the past of the life of a person or a group of persons which are either recurrent or which took a long time", while the iterativity is additionally expressed using such adverbials as *tiek* 'so much', *kiek* 'how much', *kiek daug* 'how much', *tiek kartų* 'so many times':

(55) [*Kur norėtumėte groti, kad klausytojų būtų daugiau?
Labiausiai aišku užsienyje. Nes čia viskas yra tas pats.*]

Visą	*gyvenimą*	*čia*	**gyven-t-a,**	**gro-t-a,**
whole.ACC.SG	life.ACC.SG	here	live-PST.PP-NA	play-PST.PP-NA

ei-t-a	*į*	*koncertus.*
attend-PST.PP-NA	to	concert.ACC.PL

'[Where would you like to play in order to have more listeners? m: Most of all of course we would like to play abroad. Because here everything is the ame.] Here we have lived, played and gone to concerts all our lives.' (Nau, Spraunienė & Žeimantienė 2020, 51–52)

Dahl (2020) has observed a similar value of the Lithuanian perfect in the data from the Lithuanian translations of the Bible, naming these 'retrospective uses' and describing such instances as cases in which "the speaker looks back at the past, generalizing over it or referring in one way or other to events or sets of events that tend to be presupposed rather than asserted" (Dahl 2020):

(56)
Eikite	*pažiūrėti*	*žmogaus,*	*kuris*	*pasakė*
go.IMP.2PL	see.INF	man.GEN.SG	REL.NOM.SG	say.PST.3

man	*viską,*	*ką*	**esu**	**padari-usi**.
1SG.DAT	everything.ACC	REL.ACC	be.PRS.1SG	do-PST.PA.SG.F

'Come, see a man who told me all the things that I have done. (Dahl 2020)

Although not very frequent, such uses can also be found in the Facebook comments data. Differently from the passive cumulative construction, about which Nau, Spraunienė & Žeimantienė (2020, 51–55) note that it is usually formed with atelic intransitive verbs but can also occur with telic and transitive verbs, the cumulative-retrospective perfects are mainly formed with telic transitive verbs. Based on their lexical input they could be assigned to the resultative perfects discussed in the previous section; however, they convey not a past action with its relevant result, but rather a summarized past experience comprised out of multiple occurrences of events.

(57) [*Kas kas, bet Maskva patylėti turi...*]
Kiek	*ji*	*yra*	**nukov-usi**	*ar*
how_much	3SG.F.NOM	be.PRS.3	crush-PST.PA.SG.F	or

nužudži-usi?
kill-PST.PA.SG.F

Pvz:	*Afganistane*	*1989 metais*	*išžudyta*
e.g.:	Afghanistan.LOC	1989 year.PL.INS	kill_off.PST.PP-NA

visa	*šeima,*
all.SG.NOM	family.SG.NOM

[*sustatyti savi komunistai, Čečenijos genocidas...*]
'[More than anyone else, Moscow should stay quiet...] How much have they crushed or killed? For example, in Afghanistan in 1989 a whole family was killed, [their own communists have been put in place, the genocide in Chechnya...]'

(58)　*Ji*　　　　　*fantastiška.*　　　　*Tiek*　　　*žmonių*
　　　 3SG.F.NOM　　 fantastic.NOM.SG.F　 so_much　 people.GEN.PL
　　　 padėj-usi
　　　 help-PST.PA.SG.F
　　　 'She is fantastic. She has helped so many people.'

Thus, differently from experientials, the focus in cumulative-retrospective uses of the perfect is not so much on the 'state of experience' of the subject, but rather on the 'accumulation' of past events that tend to be presupposed. (57) has an exclamative interpretation which highlights the presupposition of the 'accumulation' of events, and the cumulative perfects are followed by the passive cumulative construction in the next sentence of the same comment, thus maintaining the line of cumulative predicates. In (58), the most plausible interpretation is that the second sentence of the comment gives grounds for the writer's opinion on the subject, conveyed in the first sentence. In other words, the presupposed 'accumulation' of events gives rise to the conclusion, namely, to assign a quality (conveyed by the adjective) to the subject.[9]

4.6. Experiential perfects

The experiential reading of the perfect has been defined in the literature as conveying an event that has occurred at least once during an interval ending at reference point. The experiential perfect value is considered the second obligatory meaning in order for a gram to qualify as a perfect by Velupillai & Dahl (2013) and for perfects developing from resultative

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[9] As noted by one of the reviewers of this article, the cumulative-retrospective perfects, conveying multiple events, could be compared to pluractional perfects in Portuguese (European (Squartini & Bertinetto 2000) as well as Brazilian (Cabredo Hofherr & Laca 2011)). In case of this Lithuanian construction, cumulative-retrospective is merely an interpretation that can arise in certain contexts and with certain lexical input, normally accompanied by adverbs or other elements that strengthen the pluractional interpretation. The perfect construction in itself is not pluractional.

constructions, it shows a step forward in the scale of grammaticalization. In Lithuanian, experiential perfects can be clearly distinguished from all other types of perfects due to their lexical input—while all other perfects, and even the ascriptive copular constructions with adjectival participles are formed with telic verbs, if an atelic verb of state or activity appears in its place, the perfect immediately acquires an experiential reading:

(59)   *taip*   *keista,*   **ne-gyven-usi**   *Lietuvoje,*
        so   strange.NA   NEG-live-PST.PA.SG.F   Lithuania.LOC
        o   *taip*   *dzukuoja,*   *saunuole*
        CONJ   so   speak_Dzukian.PRS.3   great_person.NOM
        'It's so strange, she hasn't lived in Lithuania, but she speaks Dzukian so well, she's great.'

(60)   *tik*   *toks*   *klausimas:*
        just   such.NOM   question.NOM
        o   *Zukas*   **yra**   **kariav-es***?*
        CONJ   Zukas.NOM.SG.M   be.PRS.3   be_at_war-PST.PA.SG.M
        'Just a question: has Zukas been at war?'

However, some constructions with telic verbs can also have the experiential reading. This is possible when the direct consequences of the event conveyed by a telic verb are not valid up to the present moment and the subject is no longer in the state generated by it, but rather in the state of having an experience of such an event. It is understood from (61) that the speaker's fingers are not currently frostbitten, but he is rather explaining his experience of such an event.

(61)   *kalnuose*   **esu**   **nušal-es**   *9*
        mountain.LOC.PL   be.PRS.1SG   freeze_off-PST.PA.SG.M   9
        ranku   *pirštus*
        hand.GEN.PL   finger.ACC.PL
        [*Chirurgai gazdino, bet gangrena nepagriebe.*]
        'I have frozen off 9 fingers in the mountains. [The surgeons were scaring me, but there was no gangrene.]'

As can be seen from Figure 2, the experiential perfects in the data are rather frequent, and in particular—significantly more frequent than the resultative perfects with transitive verbs. Confronting the experiential perfects with the prototypical subject-oriented resultative perfects, it is important to note that out of the two core features of the latter, namely,

the orientation towards the subject and the resultative meaning, in order to obtain an experiential reading the latter element has to be abandoned, while the orientation towards the subject stays in focus. Experiential perfects still convey a state of the subject, which can be generalized as 'having certain experience' due to performing a certain action or participating in some event at some point in the past. Naturally, as is usual with perfects, the exact moment of such action is indefinite, and there is nothing to be said about the occasion in which it occurred. The whole focus again is on the state of having certain experience that is being assigned to the subject:

(62) *jaunu*   *zmoniu*   *reikia*   *kurie*
young.GEN.PL   people.GEN.PL   need.PRS   REL.NOM.PL.M
pa-buv-e   ***yra***   *europoje*   *ir*
PVB-be-PST.PA.PL.M   be.PRS.3   Europe.LOC   CONJ
zino   *kas*   *vyksta*
know.PRS.3   what   happen.PRS.3
'We need young people that have been in Europe and know what is happening.'

In this sense, the experiential perfect seems to be less distant from the subject-oriented resultative perfect than the resultative perfect with prototypically transitive verbs. The frequency of the experientials in the data testify in favour of the idea that, in the case of the Lithuanian perfect, the resultative meaning can be abandoned more readily than the orientation towards the subject. This means that even though the Lithuanian perfect is based on a resultative construction, it is not the resultative perfect that is better established and more common, but rather the experiential.

Nevertheless, there are some exceptional features that distinguish the experiential from other perfect values. The first one is limited lexical input. Although it is grammatical to use any atelic verb in the construction, in the data the lexical input is very limited. Instances of only two verbs—*būti* 'to be' and *matyti* 'to see'—form 36% of all experientials. 50% of all experientials are formed with only 7 different verbs (*būti, matyti, gauti* 'to receive', *girdėti* 'to hear', *pasakyti* 'to say', *skaityti* 'to read', *turėti* 'to have'). This is exceptional, compared to other groups discussed so far, where no particular verb can be said to dominate in the lexical input to such an extent, but in the case of experientials, it is probably not that surprising, as these are precisely the verbs most frequently used in order

to convey certain experience of having been somewhere or having seen something:

(63) **Esu**   ir   *Gruodi*   *žaibu*
     be.PRS.1SG   too   December.ACC   lightning.GEN.PL
     mat-es.
     see-PST.PA.SG.M
     'I have seen lightning even in December.'

(64) *Didžioji*   *dauguma*   *lietuvių*
     big.NOM.SG.DEF   majority.NOM   Lithuanian.GEN.PL
     prie   *Baltijos*   *jūros*   **nėra**   **buv-ę**
     by   Baltic.GEN   sea.GEN   NEG.be.PRS.3   be-PST.PA.PL.M
     nes   *ant*   *kuro*   *neturi*
     because   for   fuel.GEN   NEG.have.PRS.3
     'The great majority of Lithuanians haven't been to the Baltic Sea because they can't afford the fuel.'

Most interestingly, there is a formal feature that differentiates the experientials from other perfects—it is the frequent occurrence of the auxiliary. While with other perfect values the auxiliary is either rare (subject-oriented and possessive resultative), or infrequent (transitive resultative and cumulative-retrospective), there is a clear difference in the group of the experientials, where the auxiliary is present in more than 70% of all cases (Figure 3).

Figure 3. *The proportions of each value of the construction with and without the auxiliary*
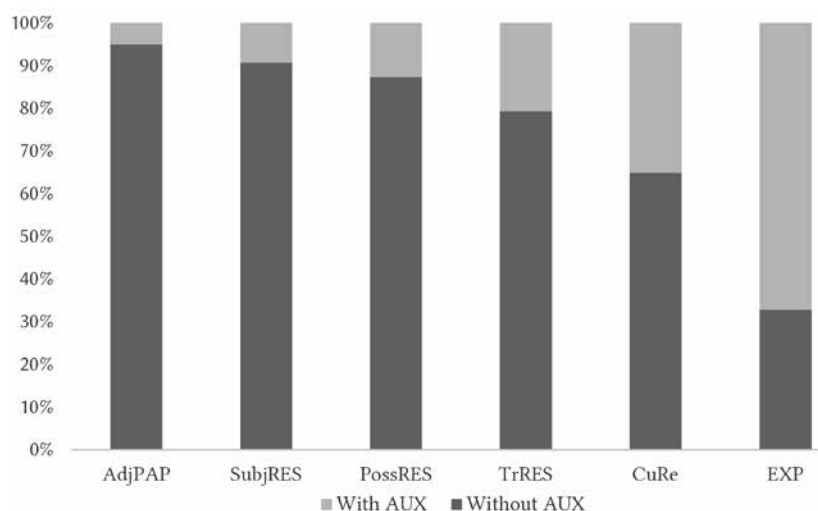
It is possible that such a tendency is especially evident exactly in the kind of data chosen for this study—an informal language variety, as in formal language the copula tends to be used more in general. Although this claim should be checked on a different type of data, it is highly likely that this formal difference of experientials from all other perfect values is an example of a phenomenon that can be identified only thanks to the inclusion of an alternative source of data into grammar studies.

4.7. Auxiliary usage and negation patterns

As already mentioned in the previous section, the omission of the auxiliary does not seem accidental in the data, as it is clearly used more often with the experiential perfects, comparing to all other perfect values. A related tendency has been noted by Mikulskas (2017, 208)—although specifying that in most cases the omission of the copula does not carry any significant meaning and is done for reasons related to prosody and style, he also notes that in certain constructions, namely in the context of syntactic subordination, the absence of the copula may be linked to tense indefiniteness. In the case of the Lithuanian perfect, the time of the past event conveyed by the participles is always indefinite, however experiential perfects, conveying an event that has happened at least once in the period of time ending at the moment of utterance, do have a clearer temporal frame than the other values identified.

It should be noted, however, that the insertion of the copula with adjectivized participles, subject-oriented, possessive resultative, transitive resultative and cumulative-retrospective perfect would in all cases be perfectly grammatical, so the decision to omit it has to be considered a freely available option, not a restriction. But the copula is almost obligatorily omitted in one particular circumstance—namely, if the participle is negated. Generally, the negation can be attached either on the auxiliary (65) or on the participle (66).

(65) *Popiežiaus* **nesat** **ma-t-e** *štoli*😼♂️😼♂️😼♂️
    Pope.GEN   NEG.be.PRS.2PL   see-PST.PA.PL.M   PTC
    'Have you never seen the Pope, or what.'

(66) *Supraskit*   *kaimo*   *Jurgis*
    understand.IMP.2PL   village.GEN   Jurgis.NOM.SG

> *nei*   *karvės,*   *nei*   *arklio*
> NEG   COW.GEN   neg   horse.GEN
> **ne-mat-ęs!**   [*Stumbras išvis retenybė!*😊😁😂]
> NEG-see-PST.PA.SG.M
> 'You need to understand, he's a country cousin, he has never seen a cow or a horse. [A wisent is an absolute rarity!]'

In the data used for this study, the negation on the participle clearly prevails—the participle is negated in 85% of all negation cases, except for the experiential perfects, where the negation on the auxiliary is more common (66%). However, only 8 cases such as (64), of the non-omitted auxiliary with a negated participle have been found. In most of them, the participle seems somewhat adjectivized together with the negation particle:

(67)   *Esu*   **ne-link-usi**   *keršyti.*
       be.PRS.1SG   NEG-incline-PST.PA.SG.F   revenge.INF
       'I am not inclined to revenge.'

The other examples include *neįsigilinęs* (NEG.go_deep.PST.PA.SG.M), *neprigėrę* (NEG.drink_up.PST.PA.PL.M), *neprirūkę* (NEG.smoke_up.PST.PA.PL.M). The meaning of the first one can be translated as 'superficial [about something]' while the latter two—as simply 'not under influence'.

Arkadiev (2015) has written about the choice of place of negation being used in order to overtly distinguish a higher and a lower scope of negation. Following McCawley (1999) and other authors, the higher scope of negation with the perfect is generalized as 'it is not true that situation V has current relevance', while the lower scope—as 'situation not-V has current relevance'. Identifying the negation on the auxiliary as the higher interpretation, and the negation on the participle as lower interpretation, Arkadiev concludes that "the use of the lower negation in the perfect in Lithuanian is mainly employed for the discursive highlighting of the event of not doing something and asserting the relevance of the state arisen from such a 'negative event' at the reference time, in contrast to the higher negation, which serves to merely deny the existence or current relevance of an event in a neutral way" (2015, 7–8).

However, such a distinction is impossible to confirm based on the data used in this study— in the overwhelming majority of cases negation is attached to the participle, and the most plausible explanation would be that it is on the participle not because of the discursive highlighting of the

'not-V' event, but simply because of the preference to omit the auxiliary. Without it, the negation on the participle remains the only choice available. Another factor testifying in favour of such an explanation is the fact that the insertion of the non-negated auxiliary is very uncommon if the negation is already present on the participle—as mentioned above, only 8 such examples have been identified out of the total of 192 constructions with negated participles (4%).

Still, it would be incorrect to deny that the choice of discursive highlighting described by Arkadiev is available to the speaker in the group of experiential perfects, where the proportion of negated auxiliaries and participles is more balanced and negation is also significantly more frequent, compared to other values—41% of all experientials are negated, while with other perfects it is only 10%. In fact, it seems that the higher negation is more frequently employed with the first person (68), maybe in order to suggest a more neutral interpretation of the subject's lacking certain experience, while with the second and third person the lower negation is more common.

(68) *Prisipazinsiu —* **nesu** *jo* **maci-us**.
admit.FUT.1SG NEG.be.PRS.1SG 3.SG.M.GEN see-PST.PA.SG.F

O **girdej-us** *tiek*
CONJ hear-PST.PA.SG.F so_much

atsiliepimu. [*Butinai reikes paziureti.*]
review.GEN.PL

'I admit that I have never seen it. But I have heard so much about it. [I really need to watch it.]'

This could be explained having in mind the type of discourse chosen as the data for this study—expressing various judgements and accusations is very common in Facebook comments when talking about other people, who may be the topic of the article the comments are referring to (69), or in the case of a discussion between the commenters (70).

(69) [*Na ir parašė 48-senutė,o tai 35-jau pusamžis vyras ir moteris? Kas čia tokius straipsmius rašinėja?*]

Gal **ne-mat-ęs** *senų* *žmonių*
maybe NEG-see-PST.PA.SG.M old.GEN people.GEN

ir *nežino* *iki* *kiek*
CONJ NEG.know.PRS.3 until how_much

žmonės *gyvena?*
people.NOM live.PRS.3

'[What nonsense he has written, 48 means a granny, and 35 is already a middle-aged man or woman? Who is writing such articles?] Maybe they haven't seen old people and don't know until what age people live?'

(70) [*drasuoliai jus nuo jusu komentaru bloga...*]
garantuoju   *ne*   *vienas*   **ne-buv-e**
guarantee.PRS.1SG   NEG   one   NEG-be-PST.PA.PL.M
net   *toj*   *kariuominej...*
even   DEM   army.LOC
'[How courageous, your comments make me sick...] I can guarantee none of you has even been to the army..'

Thus, it is not surprising that the lower negation is chosen in such contexts, where the 'not-experience' event can be highlighted as more relevant, in contrast with the sentences in first person where the speaker, of course, does not wish to express a harsh judgement on themselves. Still, it is hard to deny that a similar effect of judgement or accusation can be obtained with the negation on the auxiliary, as well:

(71) [*tu cia kaimas muzike :)*]
[*jei*   **nesi**   *mat-es*   *geresnio :D*
if   NEG.be.PRS.2SG   see-PST.PA.PL.M   better.GEN.SG.M
'[you are the one from a village, churl :)] if you haven't seen a better one :D"[10]

5. Conclusions

The analysis of the doculect chosen for this study, the 2-million-word *Facebook* comments corpus, has shown that the perfect construction in this data is almost always used with an agent-like, animate subject, while the vast majority of the verbal lexical input are telic intransitive or low-transitivity verbs. Such is the most frequent and prototypical instance of the Lithuanian perfect, namely, the subject-oriented resultative perfect that conveys the state of the subject stemming from a prior event. The meaning of subject-oriented resultative is composed of two elements—the current state of the subject and the prior event that generated such a state. Of these two elements, the focus is on the state of the subject, while the

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[10] As suggested by one of the reviewers of this article, (71) might also be a special kind of negated clause with a strong suggestion that the negated content is, in fact, true.

prior event or action that generated it remains backgrounded. The same considerations hold for perfects formed with certain lexical groups of low-transitivity verbs with an Affected Agent (Næss 2007), termed possessive resultative perfects. Although formally transitive, ingestive verbs, verbs of possession, verbs conveying body movements or changes in outward appearance of the subject, when used in a perfect construction, express the state of the subject, not the object, and thus are closer to subject-oriented resultatives rather than to the transitive perfects.

In about half of all constructions consisting of (usually omitted) copula and present active participle based on intransitive verbs or low-transitivity verbs with object deletion, the second meaning element, namely, the past event from which the subject's current state might be viewed as stemming, is lacking. It seems that in many cases no preceding action can be presupposed— although the presupposition of the past event generating current state can sometimes be subject to interpretation, many instances have been found where verbs used in the construction are defective and lack past tense forms altogether. In such cases the participle functions as an adjective and often seems to be rather strongly lexicalized. Such clauses, conveying exclusively the subject's state or even a stable quality that can hardly be related to any preceding action, are frequently accompanied by adverbials that highlight the stability of the state or quality, and are freely coordinated with adjectives. They can also be derived with the habitual form of the copula *būna*, suggesting a constant or repetitive state or quality and, thus, once again denying the possibility of a two-component resultative perfect meaning of past action together with current state. It seems reasonable to claim that these sentences are not instances of the perfect construction but should rather be described as ascriptive copular constructions with adjectivized participles.

The lack of connection to any prior action in such constructions has been already identified or mentioned by Ambrazas (1979), Holvoet & Pajėdienė (2004) and Mikulskas (2009, 2017). However, the informal-language data-based approach taken in this study has shown that copular constructions with adjectivized participles form a significant part of all constructions that formally correspond to the Lithuanian perfect. Therefore, they cannot be relegated to a margin of accidental cases involving only a few lexicalized participles, but rather need to be integrated into the whole picture of the development of the Lithuanian perfect.

It is important to point out that the process of adjectivization of the participles does not coincide with the direction of the development of the Lithuanian perfect construction as a whole. Cross-linguistically, perfects grammaticalize from lexical sources and resultative constructions via the expansion of lexical input and via the acquisition of new perfect values, such as experientials (Dahl 1985, Bybee & Dahl 1989, Bybee, Perkins & Pagliuca 1994, Lindstedt 2000, Squartini & Bertinetto 2000, among others). Such a process can be seen in the Lithuanian perfect as well, while the lexicalization of certain participles is a separate process affecting separate lexical elements. It does not affect all the participles and for the ones that are adjectivized, it is valid not only in the construction with the copula examined here but also in any other context where the participle might be used.

Regarding the frequency of such ascriptive copular constructions in the data analysed here, it seems that such copular constructions are the source from which the Lithuanian perfect grammaticalized in the first place. Although further diachronic data-based research would be necessary to confirm this, it seems plausible that the stages of development can be seen as follows:

1. ascriptive copular constructions with adjectives;

2. ascriptive copular constructions with adjectivized past active participles;

3. ascriptive copular constructions with non-adjectivized participles, ambiguous between the adjectival and verbal interpretations;

4. subject-oriented resultative perfects, entailing both elements of the meaning—the past event and the resultant state.

The hypothesis of the ascriptive copular construction as a source for the perfect would explain the ambiguity that may sometimes arise between the verbal and the adjectival interpretation of the past active participle. Drawing on Heine's Overlap Model (1993, 48–53) such cases represent the point of ambiguity characteristic of Stage ii in the grammaticalization of auxiliaries, where more and less grammaticalized structures that are formally identical coexist in a language synchronically.

Keeping in mind the ascriptive copular constructions as the source of grammaticalization of the Lithuanian perfect, it is not surprising to find that almost all instances of the perfect identified in the data, even the ones with prototypically transitive verbs and experientials, which

are normally considered a 'further step' in the development of a perfect, are still affected by the source construction. The influence of the basic, non-grammaticalized construction can be felt in the persistent orientation of the Lithuanian perfect towards the subject and its state. This is confirmed by the following observations:

- The most frequent value of the Lithuanian perfect is the subject-oriented resultative, followed by the possessive resultative, which is formally transitive but still conveys a state of the subject, not the object.

- Perfects with transitive verbs are infrequent, as they are the most distant from the grammaticalization source. The presence of a clearly distinct object moves the focus away from the subject, as it is no longer possible to say whose state has changed as a consequence of a preceding action – that of the subject or that of the object.

- In more than a half of the already infrequent transitive perfects, the lexical verbs are weak autobenefactives (Panov 2020) containing an optional middle-reflexive marker. Such transitive verbs, expressing a change of state somehow affecting the subject, are a more natural input to the perfect, given its tendency towards subject orientation, even with transitive verbs where the subject and the object are clearly distinct.

- Experiential perfects are significantly more frequent than transitive resultative perfects. Although the Lithuanian perfect is based on a resultative construction, the experiential value is better established than transitive resultative perfects. This is at odds with, for instance, the development of the Romance *have* perfects (Squartini & Bertinetto 2000), where first the resultative meaning is firmly established, and the experiential value is a second, or even a third, step in the development. However, in case of Lithuanian, the experiential value is less distant from the grammaticalization source, as in order to obtain the experiential meaning there is no need to abandon a clear orientation towards the subject.

At the same time, it is important to note that experientials do differ in some ways from all other perfect values. Firstly, it is evident from the data that the auxiliary is much more frequently used with experientials than with any other value. While the proportion of other perfects with an auxiliary is 15%, with experientials it is 70%. It is likely that this observation could only have been made thanks to the particular kind of data chosen

for the study. In formal language the copula might be more frequent in general and less present in informal language for reasons of brevity, so its persistence with experientials in particular can be considered significant.

The experiential perfects also stand out because of the relatively limited and repetitive lexical input. More than a third of all experientials are formed with 2 verbs only—*būti* 'to be' and *matyti* 'to see', while 7 most frequent verbs account for around a half of all experientials. These features mark its distance from the grammaticalization basis in ascriptive copular constructions.

It seems that the development of the Lithuanian perfect is going in two separate but also related directions that diverge but also have some intersection points. Each of these directions corresponds to a gradual abandonment of one of the two semantic features of the prototypical Lithuanian perfect—the subject-oriented resultative. Its semantics are distinguished by:

1. the expression of the subject's state (orientation towards the subject), encoded in the participle by morphological means as well, as the participles agree with the subject in gender and number;

2. resultativeness, encoded in the telicity of the lexical input verbs, so that the whole construction expresses not just any state, but a state that has changed as a consequence of a preceding action.

Arguably, of these two features the first one is stronger. The resultative meaning is absent in copular constructions with adjectivized participles, so its appearance can precisely be considered the point at which the construction becomes a resultative perfect. It is the resultative perfect meaning again that is more easily abandoned with the experiential value, as the development of the perfect progresses.

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Abbreviations

1 — first person, 2 — second person, 3 — third person, ACC — accusative,
ADJ — adjective, ADV — adverb, COMPL — complementizer, CONJ — conjunction,
DAT — dative, DEF — definite, DEM — demonstrative, EVD — evidential,
F — feminine, FUT — future tense, GEN — genitive, HAB — habitual, IMP —
imperative, INF — infinitive, INS — instrumental, INT — interrogative,
IPFV — imperfective, LOC — locative, M — masculine, NA — invariable,
NEG — negation, NOM — nominative, PA — active participle, PFV — perfective,
PL — plural, PP — passive participle, PRS — present tense, PST — past tense,
PTC — particle, PVB — preverb, REL — relative pronoun, RFL — reflexive, SG —
singular, VOC — vocative

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