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Grammaticalization and lexicalization effects in participial morphology: A Construction Grammar approach to language change

Mirjam Fried
Czech Academy of Sciences, Prague

1. Introduction[1]

This article is a small-scale empirical study of a lexico-grammatical change that straddles the derivation/inflection distinction and has consequences for syntactic patterning as well as categoriality. I will analyze the functional shift(s) in a particular participial form in Old Czech and the observed changes will revolve around the interplay between internal morphosemantic structure of a word-form and its grammatical and textual function in larger syntagmatic strings. As a categorial hybrid, the form constitutes a prime example of blurring the boundaries between grammar and lexicon and thus also forces us to pay close attention to the defining features of both grammaticalization and lexicalization, and to the attendant theoretical claims. Through a close analysis of specific semantic, pragmatic, and morphosyntactic features involved in the change, my goal is to identify specific recurring semantic and pragmatic constraints that motivated the gradual reorganization of the relevant grammatical patterns.

Examining the nature of grammaticalization at the level of morphological structure has not been a major preoccupation within grammaticalization studies, even though the initial motivation for developing the idea of grammaticalization was the emergence of inflectional morphology (Lehmann 1995). However, to identify the source of inflectional morphemes is only one part of a much richer problem, which is

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[1] I am very grateful to the researchers in the Staročeské oddělení ÚJČ in Prague, who gave me full access to their Old Czech data archives and to their extensive library of Old Czech texts; this work would have been impossible without it. I also wish to thank two anonymous reviewers for very helpful comments, and I am especially indebted to Elizabeth Traugott for a very close reading of the manuscript and for raising questions that continue to be both inspiring and sobering.

a considerably less well-studied domain and is the focus of the present work: (i) the effect of such a morpheme on the morphosemantic structure of the stem and (ii) the role of context in this interaction, manifested in certain functional changes over time. After all, there is no reason to expect that a shift in the grammatical status of a morphologically complex word-form constitutes an inherently different phenomenon or involves mechanisms distinct from those we observe in changes concerning syntactic strings or morphologically simple words. The crucial parallel between the two domains (syntactic and morphological) and a systematic relationship between them can be easily established within a constructional model of language, which will form the analytic frame of my study. I will address several issues that are relevant to the central theoretical concerns of this volume:

a. the nature of specific partial transitions that led to a larger shift in the form's syntactic and textual function;
b. the extent to which the observed changes (semantic, pragmatic, syntactic) bear the features of grammaticalization, lexicalization, or, perhaps, both;
c. the viability of Construction Grammar for representing systematically the mechanisms and gradualness of change in all its complexity.

In the remainder of this section, I will briefly introduce the data, clarify my assumptions about the features that define grammaticalization and lexicalization processes, and briefly outline the constructional model. In Section 2, I will elaborate on the morphology and general functional range of the Old Czech participial category. This will provide a necessary background for the case-study in Section 3, in which I examine the history of two specific members of the category – the forms *kajúcí* 'repenting' and *žádajúcí* 'requesting, desiring' – as an illustration of the changes characteristic of this participial form. In Section 4, I review the findings with respect to the grammaticalization/lexicalization distinction, showing that the change in question is a type of grammaticalization; I then propose a way in which the gradualness of the change can be illuminated by using Construction Grammar as an analytic tool. Section 5 concludes the paper.

1.1 Data

Slavic and Baltic languages (with some parallels in German) are known for the emergence of the so-called 'long form' participles. Here I concentrate on one of them, namely, the 'long' present active participle as attested in Old Czech (OCz). I refer to this form as 'participial adjective' (PA), which reflects the form's mixed-category status: a morphologically adjectival

inflectional CASE/NUMBER/GENDER (CNG) suffix is attached to a verbal (-*NT*- participial)[2] stem, turning the word-form into a morphologically non-verbal entity. A preliminary illustration of the PA's internal structure is given in (1). The label PART stands for 'present active participle', which is formed by the -*NT*- suffix, in Czech realized as -*c*-.

(1) a. $[[V_{root} - \text{Pres. stem}] - NT]_{PART}$
        '[while/when/if…] V-ing'
     b. $[[[V_{root} - \text{Pres. stem}] - NT]_{PART} - C/N/G]_{PA}$
        '(the one) V-ing'
     c. $[[[kaj - ú] - c]_{PART} - í]_{PA}$
        '(the one) repenting'

The PA has a complex history, both with respect to its opposition with the 'short' form shown in (1a) and with respect to the changes it underwent in its grammatical and textual function. The short form is a true participle, used exclusively as a non-finite predicate expressing a circumstance of the main event. An example is given in (2), where the participle gives a reason for the action expressed by the main clause (the participle is in boldface and its English equivalent italicized).

(2) **žádajíc …** *spasení   duše   své …*
     desire.PART salvation.ACC.SG.N soul.GEN.SG.F his.GEN.SG.F
     voltář   ke cti   svaté
     altar.ACC.SG.M for honor.DAT.SG.F Saint.DAT.SG.F
     Dorotě …   založil a   nadal
     Dorothea.DAT.SG.F founded and   endowed
     '*because he desired* … the salvation of his soul … he founded and endowed an altar to honour Saint Dorothea' (admin. record of dedicating a new altar; 16th cent.; ArchČ 9, 243; T)[3]

The PA was functionally much less distinct: it is attested predominantly as a modifier (3a), somewhat less frequently as an actor noun (3b), but it also appears as a predicate heading non-finite adverbial clauses (3c), in a function comparable to the short form in (2);[4] the PA in (3c) could be easily replaced by the short form. In fact, PA/short form alternations are

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[2] The -*NT*- label is a traditional way of referring to the Indo-European present active participle, based on its reflex in Latin (*ambula-nt*- 'walk-ing').
[3] The cited texts and each example's exact location are identified by the citing conventions established by the Old Czech Dictionary (*Staročeský slovník* 1968). I also indicate whether a text is an original Czech composition (O), a translation (T), or a loose adaptation based on a foreign model (A); the translations and adaptations in this paper all happen to have their source in Latin.
[4] The PA's polyfunctional nature is thus at least partially comparable to the range exhibited by the -*ende* forms in Old English (cf. Kastovsky's (1985) survey).

sometimes found in different manuscripts of the same text (the short form especially as the chronologically later variant), always in the predicative function. But this relationship is not necessarily symmetrical, as will become clear in the analysis. For now we note that replacing the participle *žádajíc* in (2) with the PA *žádající* would result in losing the *because*-clause meaning.[5] On the other hand, the participle could not be substituted for the PA at all in (3a) and (3b).[6]

(3) a. *a   za smrtelneho   muže   **neumierajicieho***
   and for mortal.ADJ.ACC man.ACC   NEG.die.PA.ACC.SG
   krale   zyščeš
   king.ACC find.PRS.2SG
   'and instead of a mortal husband, you will find an *immortal* king' (spiritual poetry; mid 1300s; LegKat 59a; O)

  b. *vítaj   králu   všemohúcí, všěch   **kajúcích***
   welcome king.VOC omnipotent all.GEN.PL repent.PA.GEN.PL
   milujúcí
   love.PA.VOC
   'welcome, omnipotent king, who loves all *penitents*' (prayer; late 1200s; ModlKunh 146b; O)

  c. *když opět s   kerchova   jdieše,   uzřel*
   when again from graveyeard.GEN go.PST.3SG see.PPL.SG.M
   *opět ďábla   s   sebú   **chodiecieho***
   again devil.ACC with self.INS walk.PA.ACC
   'as he was again leaving the graveyard, he saw the devil again *walk* along with him' (popular entertainment; late 1300s/early 1400s; PovOl 250a; A)

The PA has always been part of the inflectional verbal paradigm, at least with respect to its productivity, generality, and compositional meaning (cf. the criteria in Bybee (1985), Bybee et al. (1994), Haspelmath (1996)), as well as its ability to express the root's non-subject arguments in the same form as we find with finite forms. At the same time, like all non-finite forms, it is defective in expressing certain verbal categories and in contrast to all other members of the paradigm (finite or non-finite), it is known to sometimes become conventionalized in a distinctly non-verbal meaning, as we shall see. At issue for us is the fact that the verbal potential associated

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[5] This is partly given by syntax (the PA would end up in a syntactically incompatible slot), but it may also have to do with semantics; the PA/short form alternations seem to be generally limited to truly temporal meanings. The exact nature of these alternations requires additional research.

[6] A further note on presenting the examples: when additional context is helpful for clearer understanding, it will be enclosed in curly brackets {} and left without interlinear glossing, as in (4a). If the context in the original is too elaborate, I will add an explanatory summary only in the English translation, enclosed in parentheses (), as in (4b).

with the *-NT-* stem is clearly in conflict with the contribution of the CNG suffix, which predisposes the PA toward non-verbal behaviour but which does not automatically cancel the verbal potential, as the analysis will show. Because of space limitations, I will be concerned only with the syntactically adnominal distribution shown in (3a) and (3c).

The development shows a shift from a functionally underspecified, context-dependent, and morphologically transparent inflectional word-form that favoured interpretations which profile an event ('profiling' in the sense of Langacker (1985, 1993)), to attributive and referential functions, which profile the event's participants. In syntactic terms, this can be restated as a shift from a relatively autonomous participial clause to a NP-internal modifier or a reduced relative clause. This characterization is consistent with Croft's (2001: 87) approach to identifying the relevant functions (predication and modification) as functional prototypes, and I will assume his classification for sorting out the PA evolution as well. Thus predication is understood as a relational, transitory, ungradable process (prototypically expressed by verbs), while modification is a relational, permanent, and gradable state (prototypically expressed by adjectives).

All the examples are taken from an extensive corpus of authentic data excerpted manually from OCz texts that provide a representative sample of genres (historical, biblical, administrative, expository, and didactic texts, legal documents, spiritual and secular poetry, popular entertainment, correspondence, drama, instruction manuals, etc.) and provenance (original compositions, translations, or loosely adapted Czech versions of foreign material). The corpus spans the full OCz period, from the first PA attestations well before 1300 until the early 1500s. I excerpted about 74 different texts in their entirety, which has yielded more than 55% of the PA tokens in the corpus. The remaining 45% come from about 120 additional texts (about one quarter of them biblical) and were collected more or less at random from the OCz archive at ÚJČ in Prague. The corpus contains more than 1,200 tokens of PAs, which represent over 240 different verb roots. The two PAs in this study come each from a wide variety of texts, with only one translation text shared between them. The examples of *kajúcí* come from 16 different texts (nine of them original Czech compositions, five translations, two adaptations) and the examples of *žádajúcí* come from 14 texts (three originals, nine translations, one adaptation).

1.2 Grammaticalization and lexicalization

Superficially, the PA's development may not resemble any of the standard examples of grammaticalization and instead suggests that the PAs could be quickly dispensed with as a case of lexicalization in the sense of creating

new lexical items. After all, a change in lexical category is supposed to be one of the effects of derivational affixes. On this view, the CNG suffix would be treated as a derivational morpheme, forming adjectives out of verbal stems. Moreover, the form itself does not change in its phonetic shape or bulk. I will show, however, that when we consider the evolution of the PA's *usage* and distribution in texts, together with the fact that the CNG suffix in OCz was functionally less straightforward than its superficial morphology suggests, a simple lexicalization conclusion on any definition becomes difficult to support.

The heart of the problem consists in the "transpositional" nature of the PA form (Haspelmath 1996: 43, reviving a traditional label for word-class-changing inflectional morphology); the PA is a categorial hybrid originating in a verbal inflectional paradigm. The issue essentially comes down to the following question: does transpositional morphology, by virtue of changing the word-class status of its output, necessarily lead to creating new lexical items with a new categorial status (as implied in Haspelmath (1996)), or does it simply open the path for reorganizing certain semantic or pragmatic features in a way that can lead to the grammaticalization of a particular functional or textual role of the form, without severing its link to the inflectional (in our case, verbal) paradigm? In other words, could the PA's evolution be understood as a process that shifts particular patterns of PA usage from 'less' grammaticalized to 'more' grammaticalized? The present analysis points unequivocally in this direction: based on detailed grammatical arguments and some quantitative evidence, I will conclude that the PA's development in the adnominal patterns exhibits changes that are consistent with the essential features of grammaticalization and that the categorial shifts must be treated as the *result* of a grammaticalization process, not as the starting point. Specifically, I will show that the PA's evolution is a special case within a general word-class-forming process in Slavic, whereby certain modificational contexts (roughly, contrastive) acquired special marking on the modifier, which gradually led to forming a morphologically distinct part of speech (adjectives), signalling plain modification in all contexts.

It remains a debated question what exactly constitutes the difference(s) between grammaticalization and lexicalization, or how they may or may not interact in a given linguistic change (e.g. Wischer 2000; Heine 2003). As has been most recently documented in Himmelmann's (2004) and Brinton and Traugott's (2005) review of these notions, they often mean different things to different analysts. For the purposes of this study, I will assume the definition of grammaticalization as formulated by Himmelmann (2004: 33) and echoing directly the conception developed originally in Traugott's work on grammaticalization (Traugott 1982, 2003; Hopper and Traugott 2003): a process of conventionalization that crucially involves the expansion of the semantic-pragmatic usage contexts, host-class expansion, and the broadening of the syntactic context in which a given item

occurs. Two additional conditions, listed in Brinton and Traugott (2005: 108-109), are relevant to the PA material as well: subjectification and typological generality. For lexicalization, I am assuming the definition given in Brinton and Traugott (2005: 96), which gives crucial criterial status to the loss of semantic predictability of the form in question vis-à-vis its internal structure, leading to a new contentful form that has to be learned by speakers outright.

1.3 Constructional approach

The term 'construction' is commonly invoked outside of Construction Grammar and in recent years it has been increasingly appealed to especially in certain strands of grammaticalization research (Bybee et al. 1994; Bisang 1998; Hopper 1998; Traugott 2003; Harris 2003; Wiemer 2004; Wiemer and Bisang 2004). However, with the exception of Traugott's recent work (2008a, b), where constructions are indeed understood in the Construction Grammar sense, this term has usually implied nothing more than the traditional notion of 'syntagmatic string'. It is thus important to be clear about the way the notion of construction is used in this work.

In Construction Grammar (CxG), GRAMMATICAL CONSTRUCTION is a theoretical entity which constitutes the basic unit of analysis and representation: it is defined as a conventional association between form and function that provides a general, multidimensional prototype for licensing well-formed linguistic expressions and that applies to units of any size or internal complexity (morphological units, words, phrases, clauses, turns, etc.). Constructions are also cognitive objects in that they make explicitly formulated generalizations and hypotheses about speakers' linguistic knowledge. In this respect, identifying transitions in linguistic structure (whether they lead to grammaticalization or lexicalization in the end) amounts to making hypotheses about changes in mental representations. Thus one of the goals of this paper is to test the CxG formalism as a way of making more precise generalizations about lexico-grammatical change, with implications for the way we can sharpen our understanding of the cognitive and communicative nature of linguistic structure.

The features that are central to this grammatical model and that will be relevant to the present analysis are summarized below, drawing mostly on the exposition in Fried and Östman (2004). First of all, it is important to stress that CxG makes a distinction between constructions and CONSTRUCTS. Constructions are pieces of grammar, while constructs are actual physical realizations of constructions, i.e. utterance-tokens (words, phrases, sentences) that instantiate constructions in discourse. A construction is thus a generalization over constructs. Maintaining this distinction is relevant in establishing the role of constructions in diachronic shifts: a series of partial

changes in concrete constructs may give rise to a new construction or lead to a reorganization of an existing one, but the changes do not originate in constructions themselves.

Second, CxG makes a systematic distinction between what conventionally identifies a construction as a whole vs. what is characteristic of its constituents. This distinction allows us to articulate systematic generalizations about syntagmatic constraints, while also providing a principled account of the internal structure of linguistic signs in whatever detail may be necessary. In diachronic analyses, this distinction is particularly useful in two ways. (i) It gives us a way to capture the incremental nature of grammatical changes, including the potential mismatches between grammatical patterns and the items (words, morphemes) that fill them. And (ii), it allows us to address, in a systematic manner, the role of context in representing grammatical change (cf. especially Croft's (2000) arguments for this view).

Third, the external/internal contrast is related to another crucial feature of constructions, namely, their non-compositional character: a construction is not just the sum of its parts but has its own idiosyncratic properties, unpredictable from the properties of its constituents. In a diachronic context, this means that constructional analysis provides a way of capturing the shifts between compositional and non-compositional patterns, as the inevitable effect of the constant tension between creating new combinations of units (with transparent composition) and conventionalizing existing combinations in new interpretations (leading to loss of transparent internal structure).

Finally, CxG does not draw a sharp distinction between lexicon and grammar and therefore offers the necessary flexibility in accommodating the fairly pervasive gradience in categorial distinctions. This is particularly relevant in the context of determining the boundaries between grammaticalization and lexicalization, if we wish to move beyond the oversimplifying and overly reductionist approach which assumes that changes resulting in new grammatical entities can be traced to something distinctly non-grammatical, and vice versa.

The PA provides an instructive test case in all these respects. It has a particular meaning at the word level, as a symbolic sign that contributes semantic content to a larger syntactic pattern it occurs in; at the same time, it is internally complex, consisting of a sequence of morphemes attached to a lexical root. This arrangement necessarily raises the question of how the two dimensions are related. Is the meaning and syntactic function of the PA predictable from its morphosemantic structure, or is it non-compositional, and in what ways? The present analysis will show that the PA is indeed best treated as a *morphological* construction that gradually adjusts its internal structure to a particular *syntactic* construction it occurs in. The features that will be crucial in tracing its diachronic development include changes in constraints on (i) word order and linear adjacency, reflecting different

conceptualization possibilities, (ii) the semantic type of the PA's subject referent, (iii) verb semantics, (iv) the syntactic role of the PA's subject in the main clause, and (v) textual distribution.

2. Old Czech participial adjective

The template that licenses the PA has its origin in Common Slavic: the CNG suffix, in Czech realized as *–í* in the nominative singular, developed out of a postposed pronoun, which fused with the 'short' participle, giving rise to the opposition shown in (1). This formation follows exactly the same pattern as 'long' adjectives (*mlad-ý* 'the young one'), which were formed out of 'short' ones (*mlád* 'young'). Slavists are not fully agreed on the exact nature and function of the pronoun. I follow Kurz's (1958) highly plausible analysis of the 'long' adjectives: on the basis of word order and information structure differences, he suggests that the postposed pronoun was a demonstrative and its original function had to do with expressing contrastiveness. The long form appears in contexts that draw attention to the meaning of the adjective in contrast to some other attribute (previously mentioned or presupposed) associated with a given noun. This pragmatic function was gradually lost, as the pronoun grammaticalized into an adjectival CNG suffix, but as we shall see shortly, traces of it are still evident in the OCz PA.

       In CxG terms, the morphosemantic structure in (1b) constitutes a morphological construction with a transparent relationship between the semantic contributions of its constituents (morphemes) and the meaning of the whole construction, which can be glossed as '[who] Vs at the time of the main event'. As a starting point for the present analysis, I will use the formal representation of this construction, shown in Figure 1. The PA constituent structure is indicated by the two inside boxes: a stem of a certain type (*NT-part,* in the left box) co mbines with a particular suffix (the right daughter constituent) and the result is a specific inflectional word-form (the outside box). All the non-structural features are expressed by clusters of attribute-value pairs; most of the abbreviations will be self-explanatory, such as *cat*(*egory*), *sem*(*antics*), *prag*(*matics*), *val*(*ence*), *frame*. The values can be binary, come from a list of possibilities, or they can be left unspecified, as indicated by empty brackets [].

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┌─────────────────────────────────────────────────────────────────────────────┐
│  cat    [ ]                                              lform   [...]         │
│  val {#1 [Agt]}                                                                │
│  prag   [contrastive +]                                                        │
│  ┌──────────────────────────────────────┐  ┌───────────────────────────────┐  │
│  │ cat   v_NT-part.      inherit Verbal  │  │ cat   [ ]           lform [...]│  │
│  │                       Linking         │  │ morph. ┌ adj ┌             ┐ ┐ │  │
│  │ syn      [voice    active]            │  │        │     │ case     [] │ │ │  │
│  │ sem    ┌ [ tense   contemp.]       ┐  │  │        │     │ number   [] │ │ │  │
│  │        │ [ frame  action/process]  │  │  │        │     │ gender   [] │ │ │  │
│  │        │        FE  #1   [anim  +] │  │  │        └     └             ┘ ┘ │  │
│  │        └                           ┘  │  │                               │  │
│  │ val {#1 [Agt], #i [ ]* }              │  │                               │  │
│  └──────────────────────────────────────┘  └───────────────────────────────┘  │
└─────────────────────────────────────────────────────────────────────────────┘
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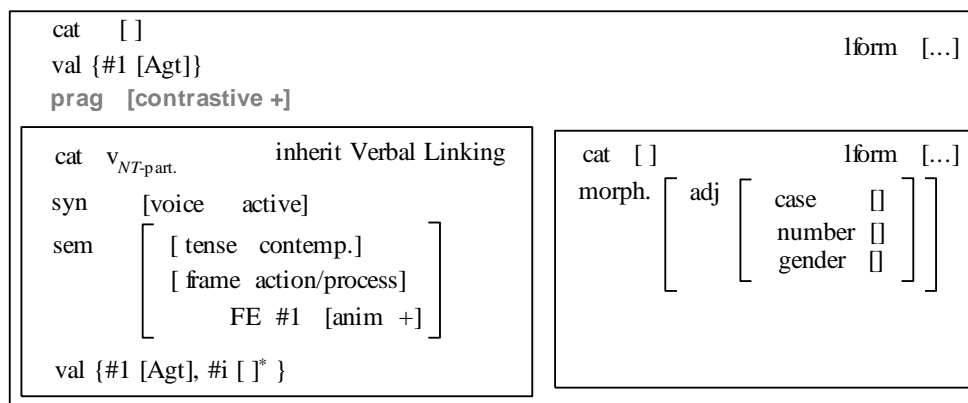
Figure 1. Constructional representation of the categorially undetermined PA

The figure specifies the following properties that are characteristic of the PA form and that correspond to the predicative usage shown in (3c). The stem is of the *-NT-* verbal category, marking tense as contemporaneous with the main event and voice as active. Its root brings along an "interpretive frame" (Fillmore 1982) that contains the knowledge structure associated with the verb's lexical meaning; the *-NT-* stem specifies that the verb is prototypically expected to express an action or process and must contain minimally one participant, labelled *FE* 'frame element', which will prototypically have an animate referent. The root's valence indicates that this event participant plays the agent role; the notation *#i []** says that if the root brings along other arguments (and there may be none), they are unconstrained with respect to their semantic role. However, the *inherit* statement at the top of the stem box says that if such additional arguments are present, they will be marked in the same way as they would be in finite clauses, i.e., by verbal government.

The representation of the CNG suffix is explicit only about the agreement features; its category is open, as indicated by the empty brackets. The *lform* attribute stands for 'lexical form' and indicates that the construction is a word-form of a particular type that of course cannot be spelled out as part of the general template but will always have a specific value (i.e. the actual form, such as *kajúcí*, *žádajúcí*, *chodiecí*, etc.; the three dots are a shorthand for this fact).

Finally, the function of the whole word-form (the outer box) remains open, as indicated by keeping the external category unspecified. This notation says that whatever function the form will serve in a larger pattern, it will have to be motivated by the internal (in this case, verbal) category, since that is the only categorial requirement that is explicitly part of the whole word-form. The only external property that must be stated directly is the fact that the root's valence expects its agent argument to be supplied by some larger syntactic pattern in which the PA can appear; this is indicated

by the PA's own *val(ence)* requirement, stated at the top of the outside box, and it is a property shared with all non-finite verb forms. However, the representation does not say anything about the relative position or syntactic status of the constituent that will instantiate the PA's agent argument; notice in (3) that the position of the PA relative to its subject was not fixed.

The question before us now is this: what in the usage of the PA in specific syntagmatic combinations affected the shape of this morphological construction, and will it help us not only to explain the emergence of the usage exemplified in (3a) vis-à-vis the template in Figure 1, but also to establish that the outcome is, indeed, a case of grammaticalization? As is discussed in Fried (2008), explanations for the shift have been traditionally sought almost exclusively in the form itself, whether giving prominence to the adjectival morphology (in the Slavic linguistics tradition), the loss of internal syntax (Haspelmath 1996), or the transitivity and meaning of the verb root (Hopper and Thompson 1984). I will argue that the development can be fully explained only by considering also the syntagmatic environment in which the PA was used and speakers' reinterpretation of the whole syntagmatic combination.

3. Case-study

This section provides a detailed picture of the distributional shifts, using the example of two particular PAs, *kajúcí* 'repenting' and *žádajúcí* 'requesting, desiring'. Both are formed from active verbs that presuppose animate subjects – the quintessential semantic properties of present active participles in general. Both PAs are sufficiently well attested across the OCz period (21 tokens of adnominal *kajúcí*, 17 of *žádajúcí* in my corpus) and across different texts, which means their usage cannot be simply dismissed as mistakes or individual flourishes of a particular author. Both are attested as syntactic nouns (semantically actor nouns, but I will ignore this aspect here) and in adnominal positions, where they have the potential of elaborating on the subject referent. But they also differ from each other: *žádajúcí* is transitive, while *kajúcí* is intransitive; *žádajúcí* co-existed with an irregularly formed PA, *žádúcí*, while *kajúcí* has no such counterpart (the issue of morphological irregularity is addressed in Fried (2005) and I will not consider its role here). Finally, the root *žád-* was polysemous in OCz, while *kaj-* was not; *žád-* meant either 'request, demand' in the sense of an action in which the subject is actively engaged, or 'desire, long for' in the emotional sense. This polysemy, evidently based on metaphoric transfer, is easy to identify through the pragmatic contexts of the verb's usage and is further corroborated by the corresponding Latin equivalents in translations.

3.1 PAs in an event-profiling (predicative) function

Let us start by examining the excerpts below. The PA's agent, *mě* 'me_{ACC}' (4a), *panen i bab* 'maidens_{GEN} and old women_{GEN}' (4b), *lidu svězckému* 'lay people_{DAT}' (4c), as well as *d'ábla* 'devil_{ACC}' in (3c), is always a constituent of the main clause, and the PA predicates something about that constituent, agreeing with it in case, number, and gender. In (4a), the speaker is describing his current as well as intended acts of repentance and pleads with God to be rewarded for such behaviour; in (4b), the speaker discusses the procedure for dealing with certain women who were serving time at the time of speech, so the reference to their repenting is grounded in a here-and-now setting ('I'm telling you what to do with those women, who're sitting in jail right now doing their penance'); and in (4c), the PA specifies a condition under which the order expressed by the main clause shall be carried out. For easier orientation, the PA with its non-subject arguments will always be enclosed in brackets <> and the PA's agent will be underlined.

(4) a. *{všěho hřiecha sě odpovědám. A viec chci slúžiti s čistý*
        úmyslem. Ech, milý hospodine,}
        rač　　　　*mě*　　*přijěti*　　*<kajúcího ... >*
        choose.IMP.2SG 1SG.ACC accept.INF repent.PA.ACC.SG.M
        '{I'm renouncing all sin. And I want to serve with pure
        motives. Oh, dear Lord,} please accept me [*in my/because*
        I'm] *repenting*' (Lat. variant *paenitentem* 'repenting') (legend;
        late 1300s; OtcB 89b; T)
     b. *zavolal ...*　　　*panen*　　　　*i*　　*bab*
        call.PST.3SG.M maiden.GEN.PL.F and woman.GEN.PL.F
        těch　　　　　　*<kajúcích,>*　*{ješto jsú v tom zavřenie}*
        those.GEN.PL repent.PA.GEN.PL
        '(I'm ordering the village magistrate to) summon those
        repenting maidens and old women, {who are locked up in that
        jail}' (correspondence; 1411; ArchČ 3, 294; O)
     c. *{biskup olomúcký a litomyšlský}* *lidu*
        　　　　　　　　　　　　　　　　　folk.DAT.SG.M
        svězckému,　*<žádajúcímu*　　　*pod*　*obojí*　*zpósobú,>*
        lay.DAT.SG.M demand.PA.DAT.SG.M under both rite[s]
        {dlužni budú ...}
        'for lay people, *when/if they demand* [communion] under both
        rites, {the bishops in Olomouc and Litomyšl will be required
        (to serve it that way)}' (Lat. variant *desiderantem* 'desiring')
        (admin. record; 1435; ArchČ 3, 430; T)

All these examples represent usage we could classify as depictive secondary predicate, fully in keeping with Schultze-Berndt and

Himmelmann's (2004) typology of secondary predicates: the PAs in these examples express an eventuality that is temporally delimited by the main predicate (in the sense of contemporaneousness) and the eventuality can be interpreted either as purely temporal or with shades of other circumstantial readings, such as conditional (4c) or a *because*-clause (4a). On the face of it, the PA in (4b) could be interpreted as a relative clause that simply elaborates on the NP 'those maidens and women', and hence an adnominal modifier restricting the class of referents for the PA's subject. However, the identity of these women is already known from the preceding context and the speaker is just elaborating on their present state. The PA thus must be interpreted as adding a background circumstance in which this subset of women is currently found. Semantically and pragmatically, the PA is in a coordination relation to the main clause, leading to the reading presented in (4b).

We may also note that the word order in all the examples in (4), i.e. the PA following its subject, is consistent with Kurz's (1958) conclusion that the postposing of true adjectives in the 'long' form was originally a signal of a predicative, rather than attributive, usage, reflecting the old contrastive function of the long forms. The example in (4b) is particularly interesting in this respect: the fact that the demonstrative pronoun *těch* 'those' is postposed makes its syntactic status unclear and opens the possibility to analyze it as modifying the PA itself ([NP [*těch* PA]]), rather than the preceding NP ([[NP *těch*] PA]). It is not a stretch to suppose that the PA in (4b), perhaps aided by the demonstrative, is motivated by this vestigial connection to the contrastive function, which comes through quite strongly in (4a). The speaker's plea in (4a) is explicitly justified by the present condition ('now that I am repenting') in contrast to the previous state of sinfulness; it is this change in behaviour that presents the speaker as deserving of God's mercy.

A few additional observations are worth making. First, the PA subjects are all not only animate (as would be expected), but also definite and known, and in the case of (4a) and (4b) also quite specific: the speaker in one, and a group of specific individuals in the other. Moreover, the PA 'requesting' in (4c) is accompanied by a non-subject complement '[service] under both rites', as would also be expected from a transitive verb when expressing a full event as it occurs in real time. All of this will provide a contrast with the patterns that will be addressed in the subsequent sections.

To summarize, these examples show the PA in expressions that profile the secondary event as it unfolds, as a background elaboration on the main event; the verbal properties of the PA are prominently present. The PAs in such uses are functionally roughly equivalent to the short form (the true participle) and in some cases could even be replaced by it, although establishing the conditions of mutual interchangeability still awaits additional research.

3.2 Functionally ambiguous PA tokens

The verbal properties are not always so prominent, though, and we find plenty of cases where the temporal grounding (or another circumstantial reading) is opaque enough to invite multiple interpretations, or where the verbal properties are in conflict with the overall contextual cues. One example is given in (5):

(5) *{mějte mysl k bohu, v dobrotě ... hledajte jeho,}*
     *nebo v   <u>duši</u>   <**žádajúcí**   zlého>*
     for   into soul.ACC.SG.F desire.PA.ACC.SG.F evil.GEN.SG.N
     {nevende duch milosti}
     (i) '{turn your mind toward God, seek him through good life…,
     for the spirit of mercy will not enter} into a soul$_i$ *if/when* it$_i$
     desires evil things'
     (ii) '{…, for the spirit of mercy will not enter} into a soul which
     is *desirous* of evil things' (Lat. variant *malevolam* 'evil-minded')
     (homily; end of 1300s; MatHom 42a; T)

     The PA in (5) still expresses its direct object in the way it was most commonly encoded with this verb's finite forms (genitive). However, the root does not express an action (the prototypical verbal semantics in early PAs), instead suggesting the emotional 'desire' sense, and the pragmatic context supports either functional reading. The excerpt can be read either as applying in general (5-ii), in which case the PA would be understood as marking a property of a habitually straying soul, or as a case of here-and-now given in (5-i): whenever one is having evil desires, one clearly is not graced with God's spirit in that moment. Since it is an admonishment delivered in a homily, the atemporal reading in (5-ii), reinforced by the indefiniteness of the subject referent (a soul, any soul), is quite strongly invited as the intended interpretation.
     A similar uncertainty in reading arises in the example with 'repenting' in (6), but in a somewhat subtler way. In the abstract, complementation should not be an issue here since this PA involves an intransitive root. However, as is documented in detail elsewhere (Fried 2008), intransitive PAs in OCz were commonly expanded syntactically by various circumstantial adjuncts, and this is also the case in (6). The PA is elaborated with the temporal adverbial *již* 'by now', thus suggesting, at least syntactically, a clause-like pattern and hence a potential candidate for an event-profiling interpretation. Notice also that the root here has active semantics, as would be expected in such a usage.

(6) *{hřěšili sú tiem súžením že}*
     *<u>hřiešníky</u>   <již   **kající**>   měli*

sinner.ACC.PL.M already repent.PA.ACC.PL have.PST.PL
sú   za hřiešné
AUX.3PL for sinful.ACC.PL.M
'{they sinned by inflicting injustice in that} they considered as
full of sin [those] sinners who were already *repenting*/who had
already become *repentant*' (expository prose; early 1400s;
HusPost 125a; O)

However, this potential is undermined by the following factors.
First, the PA subject does not refer to a definite or known entity present in
the discourse and the plural, furthermore, strengthens the possibility of less
individuated reference, by denoting a group of people who could be
identified through shared behaviour. Such a reading also seems consistent
with the general context, which contrasts different types of people/sinners,
rather than reporting an ongoing action contemporaneous with the main
verb. And second, this interpretation may very well be aided by the
adverbial complement *již* since its lexical meaning draws attention to
reaching an endpoint, thus suggesting that the PA could be expressing a
resultant state rather than an on-going action.

It must be stressed, though, that we cannot treat *již* simply as an
aspectual marker; OCz verbs were inherently marked as either perfective or
imperfective and aspect thus is a lexically, not syntactically, expressed
category. Moreover, the PAs are formed prototypically from imperfective
stems, consistently with expressing contemporaneousness,[7] and the presence
of *již* does not automatically cancel the imperfective reading of *kající*. The
sinners in (6) are unambiguously understood as being continuously engaged
in acts of repenting. The endpoint suggested by the adverb is evaluated
relative to speech time ('at this point, these sinners have reached the state in
which they keep repenting'), not with respect to the internal temporal
structure of the PA ('at this point, these sinners have completed their
repentance'). Nevertheless, the combination of all these properties (the
semantics of the verb root, the semantic contribution of *již*, and the
expository nature of the text) leads to a functional ambiguity of the PA.

Finally, a different kind of conflict in determining the most likely
interpretation can be found in example (7):

(7) *ukaž   mi   <již   **žádajícímu** ...>   a*
show.IMP.2SG 1SG.DAT already demand/desire.PA.DAT.SG.M and
<k   vidění   svého   chotě
toward seeing.DAT.SG self's.GEN.SG.M husband.GEN.SG.M
*přijíti   **pospiechajícímu**,> {kteraký jest zmilelý tvój}*
come.INF hurry.PA.DAT.SG.M

_____

[7] Out of the 240 distinct stems in the PA corpus, only 16 are clearly perfective, mostly
indicated by prefixation (e.g. *na-pravící* 'PFV-direction.giving', *za-pojící* 'PFV-
drink.offering', *při-plovúcí* 'PFV-hither.floating').

'show me {what kind [of a person] your beloved [i.e. Christ] is},
as I'm now *eager* and in a hurry to come and see my husband [i.e.
Christ]' (Lat. variant *desiderantis* 'desiring') (expository prose;
early 1400s; VýklŠal 98b; T)

The syntagmatic context suggests an interpretation in which the PA
expresses an event contemporaneous with the main predicate, along the
lines 'I'm dying to get to see my [new] husband, please show him to me!'
Since the PA *žádající* is in a coordinate structure with the clearly predicative
PA in the phrase *a k vidění… pospiechajícímu*$_{PA}$ 'and hurrying/running$_{PA}$ to
see', it is possible to understand *žádající* in the same way: 'I'm demanding
that you show me my husband and I'm hurrying to see him'.

At the same time, though, the PA is bare, without any direct object,
which is not possible with a finite form of the verb nor with the true
participle and makes the PA less verb-like. Moreover, the semantic context
sets up a scenario in which it is more plausible to read this PA as expressing
a general property describing the subject referent: as one full of desire
independently of the events described in the rest of the sentence. This
interpretation is facilitated by two factors. As already mentioned, the verb
žádat was polysemous in OCz (between 'demand' and 'desire') and we also
know from other texts that each sense of the verb developed different
functional and syntagmatic preferences for its corresponding PA. In
particular, the PA in the 'desire' sense is overwhelmingly and
unambiguously attested as a description of a salient property of the subject
referent, i.e. as a modifier (Fried 2005). In (7) we have a context in which
either meaning (action vs. emotional state) is equally possible, one
supported by the syntagmatic context (coordination with a predicatively
used PA), the other by the semantic context: the passage that leads up to the
sentence in (7) describes the state of mind in which people feel ready to
engage in 'heavenly love', i.e. in their loving devotion (*žádost*$_N$ 'desire,
longing') to Christ. I will return to the polysemy in Section 3.3.

To summarize, functional ambiguities may arise when various
subsets of the following features co-occur: the full valence of the root is
missing; the context favours a particular reading regardless of the internal
syntax; the inherent semantics of the verb root and/or subject referent is
more compatible with one or the other reading; different senses of
polysemous verb structures have developed specific preferences with
respect to the interpretation of their PAs. We shall see in the subsequent
discussion that other factors played a role as well.

3.3 PAs in a participant-profiling (modification) function

The examples (5)-(7) provide pragmatic contexts that invite an interpretive shift from event-profiling to participant-profiling in the usage of PAs. Such a shift, motivated by the morphosemantic potential of the CNG suffix, means that greater attention is drawn to the referents of the event roles associated with a given verbal root than to the event itself: more weight can thus be given either to the subject referent, or to any of the non-subject referents, including the result of the event. Put differently, interpretations that lead to the more atemporal meanings (and hence, shifted syntactic and textual function) have to do with manipulating the centre of attention within the eventuality expressed by the PA form; this can be generalized as a shift between profiling the agent, the end result of the event, or some other participant.

3.3.1 Habitual meanings
Examples with the strongest focus on the agent of the event expressed by the PA are given in (8). This usage exploits the inherently active orientation of the participial stem, which can easily lead toward a habitual interpretation: the action expressed by the root is framed as strongly associated with its instigator, to the point of interpreting the PA as marking the agent's habitual behaviour by which he can be identified in general.

> (8) a. *jeden lotr sě znamenává každý*
> one thief.NOM.SG.M RF mean.PRS.3SG every.NOM.SG.M
> *člověk <kajúcí, >*
> person.NOM.SG.M repent.PA.NOM.SG
> *{druhý sě znamenává člověk nekajúcí}*
> 'one thief [on the Cross] represents every *repenting/repentant*
> person, {the other thief represents an *unrepentant* person}'
> (expository religious prose; end of 14th cent.; AnsVít 54b; A)
> b. *<žádajúcímu> lidu, {ješto minulé bídy a strasti*
> demand.PA.DAT.SG.M people.DAT.SG.M (...)
> *pamatuje, bezpečenstvie a pokoj zdali by optala}*
> '{in order for our royal mind to provide security and peace}
> for the *anxious* nation {burdened by its memories of past
> hardships} (Lat. variant *desideranti* 'demanding') (legal code;
> end of 14th cent.; MajCar 72; T)

In (8a), the relevant participants are presented in a symbolic context: the '(non-)repenting' people represent the symbolic value of the thieves on the Cross, not any particular referents in discourse. The context alone thus requires a generic, atemporal reading but this is further supported by the universal quantifier *každý* 'every', which only reinforces the habitual

casting of the acts of repenting. In (8b), the referent of the PA's agent is specific (the inhabitants of Bohemia) but the people are presented as being in a permanent state of neediness (i.e. in need of protection from those who had been taking advantage of them for too long) that the speaker (the new king) intends to remedy.

This example is important because it illustrates a further semantic change that is often associated with the habitually interpreted PAs: the habitualness acquires a kind of intensified flavour, thus leading from 'V-ing habitually' to the evaluative 'V-ing habitually to an unusual degree' (thus, 'demanding' > 'anxious' in the 'demand' sense of *žádajúcí*). Perhaps the 'desire' sense reading in the functionally less clear context in (7) can also be understood in an intensified sense: 'desiring' > 'full of desire'.

3.3.2 Resultative meaning

A more dramatic development concerns cases, in which the PA draws attention to the resultant state of the eventuality expressed by the verbal root (9a) or to some broader setting in which that eventuality holds (9b):

(9) a. *{aby oni beze všeho strachu, věk svého života pokojně přeběhnúce,} <**žádajícieho**>*   ode   všech   smrtelných
desire.PA.GEN.SG.N from all.GEN   mortal.GEN.PL
odpočinutie   požievali
rest.ACC.SG.N enjoy.PST.PL
'{so that, having quietly lived out their life, they} [could] enjoy the repose *desired* by all mortals' (expository religious prose; 1508; ChelčSít' 92b; O)

b. *at'   patříme   na tvój   <**kající**>*
so.that look.PRS.1PL on your.ACC.SG.M repent.PA.ACC.SG
život {a následujeme tebe}
life.ACC.SG.M
'so that we can look at your life *full of repentance* {and follow your example}' (Lat. variant *pulchritudinem tuae castitatis* 'beauty of your purity') (expository religious prose; early 1400s; VýklŠal 122a; T)

These readings illustrate a reconfiguration of the valence of the root, whereby the active orientation of the PA stem, marked by the *-c-* suffix, is lost; notice that (9a) even contains an oblique agent phrase normally found with passives (this, however, is not a common occurrence in the corpus). Thus the NP that agrees with the PA is not the PA's subject here, but some other participant in the valence contributed by the verb root: with the transitive root *žád-*, the referent corresponds to the patient role, with the intransitive *kaj-* it is an overall effect of the eventuality expressed by the PA. This change in the morphosemantic structure of the PA leads to a resultative interpretation: 'desiring' > 'desired', 'repenting' > 'full

of/defined by repentance'. Either way, the PA is necessarily interpreted as denoting a property that is conventionally associated with the NP's referent.

The potential for this reversal in voice is not a special or surprising feature of the PA stem nor of Czech grammar; it is well-known that non-finite forms that are not explicitly marked for passive are prone to neutralizing voice distinctions and may allow either interpretation, motivated by contextual clues; this was certainly the case in OCz (Gebauer 1929: 576). For the PAs, one of the strong contextual factors in developing the modification function and also contributing to the voice neutralization was the animacy of the erstwhile subject: inanimate subjects correlated strongly with non-predicative interpretations, whether habitual or resultative. I will return to this issue in Section 3.3.4.

3.3.3 Modal extensions: possibility and purposes/intentions
The dissociation between the erstwhile subject NP and the internal valence structure of the PA motivates additional extensions. One of them is the modal reading of suitability, corresponding to the English *-able* adjectives: the fact that something is done invites naturally an inference that something *can* be done, as shown in (10).

(10) *žádost* *<žádajícého>* *povýšenie {nutít' mě*
  wish.NOM.SG.F desire.PA.GEN.SG.N elevation.GEN.SG.N
  vzhůru vstúpiti}
  '[my] longing for the *desirable* elevation [of my status]
  {compels me to ascend}'' (Lat. variant *desiderabilis* 'desirable')
  (fable; early 1400s; Čtver 75a; T)

As documented in Gebauer (1929), this modal inference was frequently associated with the 'long' *present passive* participle in OCz but appears to have been fairly robust with the PAs as well, as a feature of participial morphology in general, especially in the early texts and only later to be replaced by explicit derivational modal morphology (*-tedlný* '-able') added to the infinitival (not present tense) or nominal stems. The lexical distribution of the modal reading seems unpredictable, though. For example, the modal reading of *žádajúcí* is attested exclusively with the 'desire' sense, never found with the 'demand' sense. It should also be noted that while we often find this extension in translations from Latin, as in (10), we cannot posit a straightforward relation between this PA reading and a Latin model. For one thing, as noted above, the PAs had a motivating alternative in the present passive participle, commonly attested in original Czech texts. For another, the modal PA *neumierající* 'immortal' in (3a) comes from an original Czech composition that is not only older than (10) but also considered the height of OCz literary production in terms of its rich language and sophisticated style. Latin influence may have affected the

frequency of these PAs (especially in various 'technical' genres, such as medical, astrological, etc.), but cannot be considered their direct source.

Finally, in a related meaning, the PA could also be reinterpreted as an expression of intended purposes for which the eventuality denoted by the root is carried out, as is exemplified in (11):

(11) {*o řádu postu sedmi nedělí, kterýž*}
*jest   nazván   čas   <**kající**>*
is   call.PASSP.SG.M   time.NOM.SG.M repent.PA.ACC.SG
'{regarding the instructions for the seven-week fast, which} is called the time *of repentance'* (expository prose; early 1500s; ChelčPost 94b; O)

In such cases, the action is understood as marking general purposes that are conventionally accepted/expected for the targets of the actions (cf. also Michálek 1963); depending on context, this interpretation can have the flavour of personal intentions. Thus in (11), the PA describes a time period as designated/intended for repenting (i.e. *čas kající* is not 'time that repents', as would be suggested by the literal, semantically compositional reading of the PA construction).

*3.3.4 Summary of features in participant-profiling patterns*
The modification uses discussed in the preceding sections exhibit certain patterns of shared grammatical behaviour, listed in (12):

(12) a. The PA tends to be bare, even if the verb's valence normally expects non-subject complements.
b. The PA and its subject are always adjacent, in contrast to the event profiling or ambiguous uses in (4a), (6) and (7).
c. The bare PA gradually settles in the position immediately preceding the subject noun (cf. (8b), (9ab), (10)), rather than following (cf. (8a), (11))
d. The PA is more likely to appear inside a NP ((9), (10)); note that in both examples in (9), it is part of a PP and in (9a) it is also in a coordination with a true adjective.

Recalling the representation of the inflectional PA structure in Figure 1, we can conclude that all of the features in (12) indicate a move toward more restricted syntactic conditions, which clearly correlates with a functional crystallization toward expressing unambiguously a modification relation. The dominant factors are (12b) and (12c): the adjacency of the PA and its subject strengthened their potential for being perceived as a tighter conceptual unit, and the fixing of their relative order in the pattern PA-NP was in keeping with the pervasive tendency in OCz (inherited from Common Slavic) toward establishing the Modifier-Head order as the

unmarked linearization in modification phrases, affecting *all* adnominal modifiers, not just PAs (Vondrák 1908); this is also the neutral order in ModCz. For the bare PAs, the overall modification-to-predication ratio for the PA-NP order in my corpus is approximately 7:1, compared to 3:1 in the NP-PA order. The strength of this function-placement correlation is even more striking when we consider that the total number of tokens is noticeably lower for the prenominal order (81) than the postnominal one (99); overall, only very few prenominal PAs have the predicative reading. Interestingly, the oldest examples of adnominal *žádajúcí* and *kajúcí* have about equal proportion of both orders and the NP-PA order occurs mostly in biblical texts, in which this order lingered on as a genre-specific archaism well after the PA-NP order had become grammaticalized as the only neutral one.[8]

Constituent order within a NP was much more flexible in OCz than it is in ModCz. Consequently, the overwhelming preference for the Modifier-Head order, documented by Vondrák's careful and persuasively argued analysis, indicates that there was a well-entrenched construction that speakers understood as a conventional expression of a modification relation.[9] A formal representation of this construction is given in Figure 2. It has two syntactic daughters whose mutual relationship is represented by the attribute *role*, with the corresponding values in each constituent. The only other structural properties that need to be specified are the case, number, and gender agreement and the relative order: the modifier precedes the head. Categorially, the construction is a NP, expressed as [*cat n*], carried over from its head. However, the category of the modifier is left open because this construction accommodates categorially diverse modifiers (demonstratives, possessives, adjectives, certain numerals, etc.).

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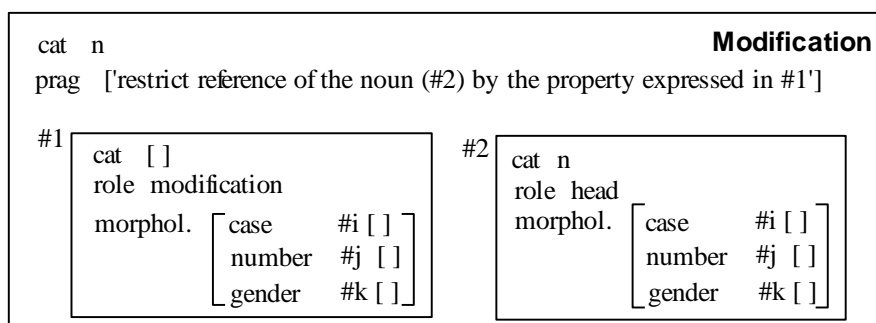
[8] It is not a coincidence that most of the examples in this paper come from around 1400, but this chronological distribution should not be interpreted as evidence that the changes all happened abruptly around that particular time. For one thing, the trend described in this paper can be extrapolated from other PAs in the corpus, including several tokens in one of the oldest texts, cited here in (3b), as well as from the old age of this Slavic form in general. For another, the relative number of texts (and hence, available data) that have survived increases sharply by the late 1300s, which necessarily creates a quantitative asymmetry.

[9] The pattern was evidently in some competition with a few other variants (especially if multiple modifiers were involved, cf. Trávníček 1962: 156), including the postnominal one.

Figure 2. OCz Modification construction

In terms of its internal properties, the construction is characterized by a particular word order, adjacency of the constituents, attributive semantics of the left daughter, and no semantic restrictions on the head noun (such as animacy). The construction as a whole imposes an attributive interpretation, favouring the expression of qualifying, durable, de-individuated properties that hold independently of any specific temporal frame concerning an individual instance. Given all these features, we can now see the points of 'attraction' and potential match between this modificational pattern and the bare PAs preceding their subject NP and how this attraction worked toward systematically minimizing the PAs' event-profiling potential in favour of a participant-profiling function. For one thing, the Modification construction completely neutralized the contrastive traces of the CNG suffix; as already noted, that pragmatic function was originally associated with the postnominal modifier slot and a predicative reading. Moreover, the semantics and pragmatics of the construction necessarily foster erosion of any verbal properties (tense, voice) the modifier might bring along as part of *its* internal features, all of which of course strongly invites a purely attributive interpretation of the PA.

In addition to the structural similarities, there were discernible semantic factors involved in inviting the atemporal interpretations. As already mentioned, the most striking was the semantic accommodation between the PA's subject and the head noun of the Modification construction. Even this small case-study illustrates clearly a shift toward broader semantic options for the PA subjects, which gradually became reanalyzed as simply NPs to which the PA attributes a salient property, presented as independent of the main predication. A general contour of this shift can be captured in terms of animacy: the less restricted Modification construction (no conditions on the semantics of its head) is likely to attract the semantically more restricted PA (expects an animate referent, recall Figure 1). The distribution of animacy across the corpus is summarized in Table 1. The numbers represent PA tokens with animate NPs out of the total number of PA tokens (in parentheses) for a given function, thus giving us the approximate percentages of animate subjects out of all PA subjects. Notice that not only is there a substantial difference between the predication and modification readings, but animacy also appears to be a significant contributor toward creating ambiguities between the two readings.

Table 1. Subject animacy and PA's syntactic functions

	Predication	Modification	Ambiguity
Animate subject	53 (92) = 58%	73 (220) = 33%	24 (56) = 43%

In the case of *kajúcí* and *žádajúcí*, the inclusion of inanimate referents is generally well-attested in the modal and resultative meanings,

whereas the expansion in the habitual readings can be demonstrated only marginally since these PAs' lexical meaning necessarily presupposes human instigators.

However, the data presented in this study are consistent with the general pattern and are valuable in that they offer a subtler picture of the factors that contributed to the expansion. The correlation between the PA's syntactic function and the semantic type of the (subject) NPs found with *kající* 'repenting' is summarized in (13):

(13)

PA function	**NP type**	
event-profiling	pers. pronoun	
(i.e. participle-like)	*panny i*	'maidens & old
	baby	women'
	věřící	'Christian'
	hříšník	'sinner'
functional ambiguity:	*hříšník* (SG & PL)	'sinner(s)'
	lidé	'people'
participant-profiling:	*člověk*	'person'
	pokánník	'penitent'
	život	'life'
	rok	'year'
	čas; den	'time; day'

We cannot, of course, draw any clear dividing lines but we can see that at the micro-level, the relaxing of the semantic conditions cannot be reduced to animacy only (animate > inanimate). The temporally grounded, verb-like uses tend to be not only about humans but about referentially specific entities, while the less strongly temporal and the atemporal uses correlate with relatively less individuated and less specific semantic referents ('person', 'people', indefinite plurals), in addition to being common with inanimate entities, including abstractions. The fact that we find less prototypical tokens of subject referents even with these verbs suggests that the expansion was indeed under way independently of the semantic role of the referent (non-agentive as well as agentive).

Finally, a chronological summary of the two PAs is presented in Figure 3. It shows the distribution and relative frequency of each verb sense and function over time. The dashed lines indicate low incidence, the numbers across the top refer to years by which OCz manuscripts are usually classified chronologically.[10] The arrows indicate that a given usage has survived into Modern Czech. Notice that most of the uses are more or less

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[10] While many of the manuscripts can be dated quite precisely, many others can only be placed within an estimated time period (a decade or more). I follow the practice established by the Old Czech Dictionary (*Staročeský slovník* 1968), which recognizes six chronological layers, each identified by reference to its upper boundary ([up until] 1300, [up until] 1350, and so on).

co-existent, the difference is only in relative frequency and relative survival rate. The PA *kajúcí* appears first predominantly in the event-profiling usage, i.e. as a secondary depictive predicate, and gradually gains in the modification function, expanding also into the purpose interpretations shown in (11). The PA *žádajúcí* is attested first in the 'desire' sense, by far mostly in the resultative and modal readings; these however, did not stay in the language very long and the parentheses in the predicative usage of this sense indicate only extremely marginal occurrence to begin with. The PAs in the 'demand' sense start appearing only later and almost always with the temporally grounded, predicative interpretation. As documented in detail in Fried (2005), the chronological and functional distribution of these two senses has interesting textual correlations (translations vs. original texts) and additional morphological motivations (regular vs. irregular PA formation) but in the limited space of this paper I have to leave these dimensions aside; they are not crucial to our current purposes.[11] What is of imminent interest here is the observation that different verbs or verb senses could take their own path, which brings us back again to the question of grammaticalization vs. lexicalization distinction.
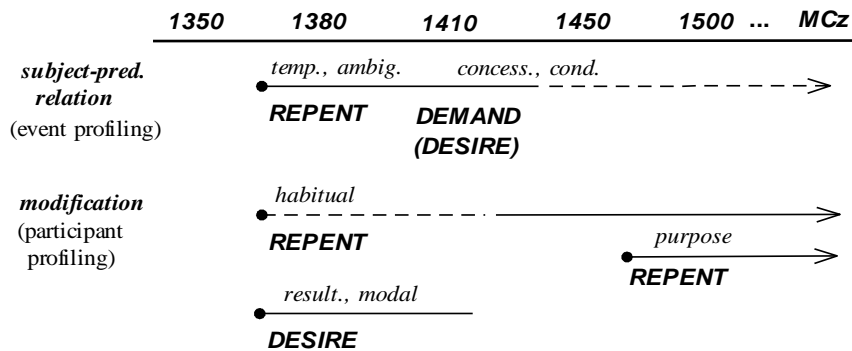

Figure 3. Chronological distribution of *kajúcí* and *žádajúcí* in the corpus.

4. Generalizations about partial changes

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[11] It must be stressed, though, that the sense distribution shown in Figure 3 applies only to the PAs, not to the verb itself. As already noted, the PAs often show different preferences with respect to the available senses of polysemous roots and in this particular case, the development is further complicated by the interaction between the regularly formed PA and its irregularly formed counterpart, which is attested exclusively in the 'desire' sense and from very early on.

4.1 Grammaticalization vs. lexicalization

Let us first summarize the general developmental paths that are evident in
the functional shift toward attributive uses:

a. increasingly greater constraints on the PA's position in the sentence
    (relatively autonomous > adjacent to its subject > preceding its
    subject);
b. expansion into new syntactic contexts (adverbial constituent > inside
    NP, PP, adnominal genitive);[12]
c. semantic expansion of the PA's subject (human, highly individuated,
    definite > less individuated > inanimate > abstract);
d. erosion of the compositional, morphosemantically transparent structure
    of the PA form (i.e., semantic emptying of the active *-NT-* suffix, loss
    of concrete temporal meaning of the present stem);
e. semantic expansion of the class of verb roots found in PAs (active >
    stative, psychological).

The processes listed in (a)-(d) are apparent in the usage of *kajúcí* and
žádajúcí, while (e) is extrapolated from other studies of OCz PAs that cover
a broad enough spectrum of verb classes (Fried 2008). Nevertheless, the
polysemy of the PA *žádajúcí* is consistent with this general tendency as
well: the 'demand' sense (active) correlates with the predicative function
that more closely corresponds to the representation in Figure 1, whereas the
'desire' sense (emotional, non-active) appears overwhelmingly as an
attribute.
        We can see that the shifts are not simply a case of an inflectional
word-form turning into a lexical item (a classic case of lexicalization). The
development does not concern individual items (whether grammatical or
lexical), but a *class* of items that represent a coherent category, and the
change thus does not fit the essentially random nature of lexicalization
processes. Granted, different verbs may offer different paths for
reinterpretation and, as we have seen, different PAs may be compatible with
different semantic extensions. But that would not be enough to defend this
development as a case of lexicalization. The changes in (a)-(e) form a
consistent pattern over time and, together with the category-based nature of
the changes, they bear signs of grammaticalization processes, even though
the shifts are not an issue of a single lexical element turning into a more
grammatical element (a 'classic' case of grammaticalization). Rather, the

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[12] It appears that part of this development was also an expansion in the range of
grammatical functions served by the PA's subject in the main clause, roughly from non-
nominatives toward including nominatives as well. However, more research is needed in
order to substantiate this general impression and to integrate the case marking on the PA's
subject into the overall picture.

material offers evidence in support of the view that grammaticalization cannot be reduced only to the notions of erosion and loss of semantic content. Instead, it may involve a redefinition of a syntactic and textual function in particular communicative contexts, based on pragmatic inferences and metonymic transfer (e.g. Bybee et al. 1994; Bisang 1998; Hopper 1998; Traugott 2003, 2008a; Harris 2003; Wiemer 2004; Wiemer and Bisang 2004); the relevant domain is a grammatical construction, not a single lexical item.

The idea of "retextualization" proposed by Nichols and Timberlake (1991) for certain changes in the use of the Russian instrumental strikes me as particularly apt for capturing the essence of this kind of change. This term was an early attempt to label a change that led to the rise of a new syntactic pattern (rather than a change in lexical material) or, as the authors emphasized, that involved a change in the textual function of the form in question. In an analysis that is theoretically grounded explicitly in the tenets of CxG, we can also classify this change as "constructionalization" (Traugott 2008b), emphasizing the fact that the syntactic and textual dimensions go hand in hand and that the domain is indeed a complex grammatical pattern. In the case of PAs, the syntactic manifestations of such a change are specifically the shifts in (a)-(b). Thus we can say that the OCz PA retextualization/constructionalization involves a sharpening of an inherently available but vaguely delimited and context-dependent range of syntactic functions of a whole class of items, which is a separate issue from what may have happened to individual members of that class. Crucially, the different patterns of usage exhibited by individual tokens resulted *collectively* in a categorial shift for the PA class as a whole. It is also significant that we find extensions from propositional meanings to modal, evaluative ones (something *can* be done, is *desirable* to do, *intended* for doing, is done *to excess*, etc.); shifts toward such meanings are another characteristic observed with certain types of grammaticalization. Finally, the retextualization evolved slowly and involved a number of clearly identifiable partial transitions, both structural, semantic, and pragmatic, that do not represent chronologically neatly ordered stages but, rather, coexistent layers of usage; individual layers only differ with respect to their relative longevity over many generations of speakers.

4.2 Constructional representation of incremental changes

What makes the PA particularly interesting and its analysis complicated is the fact that we have to study its development at two levels simultaneously, as an interaction between the morphosemantic structure of the form itself and the syntactic environment in which it was used. What gets grammaticalized is a complex grammatical pattern, rather than a single

functional or semantic category, and the change applies to all eligible members of the category. In particular, we are dealing with the question of how the shifts in the relative weight of the PA's verbal and nominal aspects interact with specific features of the syntagmatic context, resulting in novel interpretations. And this brings us to CxG and its potential for illuminating, in a systematic and theoretically coherent way, the internal mechanics of complex grammatical change. In this section, I will show that CxG provides useful tools for fleshing out the idea of "promotion" and "demotion" (Hopper and Thompson 1984) of particular features that add up to a change in the meaning and function of a complex word-form. A constructional analysis, in turn, allows us to be more precise in articulating the inner workings of complex grammaticalization processes.

First, let us recall the categorially undetermined and morphosemantically compositional character of the PA as an inflectional form in Figure 1. It consists of a sequence of morphemes, each of which contributes a particular content, and the meaning of the word-form – '[who] Vs at the time of the main event' – is predictable from simple concatenation of those morphemes. Categorially and functionally, the word-form is underspecified and, hence, can (and does) serve all three syntactic functions available to such a form; a particular textual interpretation of, say, *kající* or *žádající*, depends on the concrete construct in which it is used. However, the morphosemantic structure is most transparently compatible with a relatively verb-like (i.e. event-profiling) behaviour, both syntactically and semantically.

The participant-profiling uses represent various degrees of departure from the compositional interpretation. The relatively least shifted is the habitual usage, shown in Figure 4: its most prominent feature might seem the fading away of the tense specification [*tense contemp.*] on the stem and a complete loss of the already vestigial pragmatic function of the CNG suffix (contrastiveness). But given the attestations discussed in Section 3.3.1, even in this relatively subtle shift, we have to register at least three additional factors. One is the tendency toward expressing an intensified meaning ('prone to V-ing' > 'prone to V-ing to an unusually high degree'); this feature becomes part of the semantics of the form as a whole (in the outer box in Figure 4). Another one is the relaxing of the requirement that the stem belong to a particular semantic class (action/process verbs), with the concomitant erosion of the agentive role associated with the PA's subject referent; both of these changes affect the specification of the stem properties (the left-hand daughter). Finally, the habitual usage often suppresses any non-subject arguments of the stem, thus making the inheritance of verbal government less relevant.

None of these properties arise simply by adding up the pieces of the PA's morphosemantic structure; instead, they are idiosyncratic features of the habitual usage, rendering its content overall less compositional than is the case in the purely inflectional form. In Figure 4, the new properties are

printed in boldface, specified at the level of the form as a whole (as 'constructional' semantics). The erosion of the features contributed by the stem (tense, verb semantics, internal syntax) is indicated by the gray colour. Nevertheless, this newly emerging Habitual PA construction remains categorially unsettled, as demonstrated by its still relatively autonomous syntactic behaviour. And finally, it is important to stress that the generalization articulated in Figure 4 is not just a description of a specific lexical item. It represents an abstract grammatical pattern that licenses habitual PA usage based on any semantically eligible verb stem, not just the forms *kající* or *žádající*.
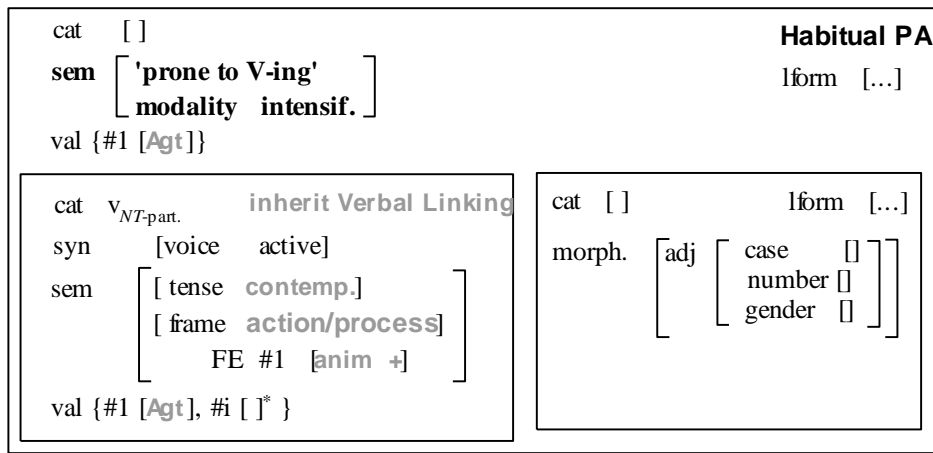

Figure 4. Constructional representation of the Habitual PA

A more significant departure from the inflectional form is shown by the resultative and modal readings, in which the erosion of the verbal properties is almost complete, including the loss of the particular event-role relation between the PA's erstwhile agent and the event expressed by the verb root. Any verbal potential of the *NT*-morphology (i.e. the active orientation of the PA form) is fully neutralized. The PA's verbal origin is thus reflected only in the root meaning (through the frame specification) and any root is eligible as long as its lexical meaning expects at least one syntactically expressed participant. The PA thus can only be interpreted as attributing some characteristic to its adjacent NP, as in any other modification relationship, and this is reflected in the categorial status of the form as a whole: these constructions are as close to real adjectives (functionally and semantically) as a PA can get. A constructional representation is given in Figure 5. Notice again that the external properties (in boldface) are completely unpredictable from the morphosemantic structure and must be specified directly, as newly acquired idiosyncratic constructional features of the PA. Strictly speaking, this figure is only an abbreviation in that it collapses three different meanings into a single list of possibilities (enclosed in the curly brackets in the *sem* statement in the outside box). This is sufficient as a general illustration for the purposes of

this paper; a more accurate representation would, of course, treat each meaning as a separate sub-construction.
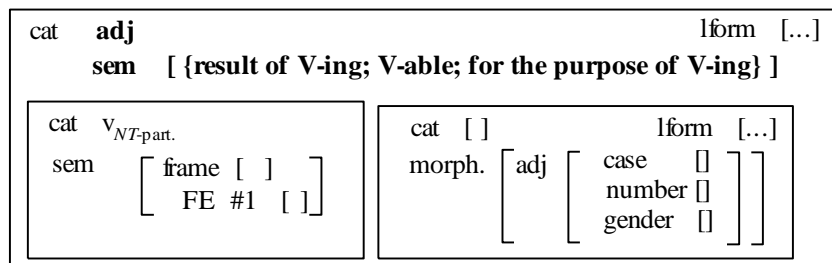
cat **adj**					lform [...]
sem	**[{result of V-ing; V-able; for the purpose of V-ing}]**				
cat v$_{NT\text{-}part.}$ sem $\begin{bmatrix} \text{frame} & [\ ] \\ \text{FE} & \#1 & [\ ] \end{bmatrix}$			cat [ ] morph. $\begin{bmatrix} \text{adj} & \begin{bmatrix} \text{case} & [] \\ \text{number} & [] \\ \text{gender} & [] \end{bmatrix} \end{bmatrix}$		lform [...]

Figure 5. Representation of an adjective-like PA construction

Finally, we must bear in mind that the shifts toward the adjective-like status only follow from the PA's use in a particular syntagmatic string in a particular pragmatic context. The syntactic environment that was conducive to such a reinterpretation was the preposing of the PA, thus activating the conventional understanding associated with the regular Modification construction, which then easily affected the interpretive task in a particular direction. However, the modifier slot in that construction and the overall meaning of the construction provided varying degrees of 'attraction' for different PAs. Consequently, different verb roots show different degrees of internal erosion inside the PA morphological template when combined with the Modification construction. At the same time, various descriptive contexts, ones that favour describing the *attributes* of entities, rather than their *actions* in specific, individuated instances, could reinforce the attraction and push the PAs toward fixing the attributive potential of the form.

5. Conclusions

The focus of this study was the evolution of a special participial form in OCz, examined in the context of one broader question: to what extent can the observed changes advance our general understanding of the way a grammatical shift progresses over time, particularly with respect to the criteria that have been proposed as common manifestations of grammaticalization, in contradistinction to lexicalization? The material – a morphological hybrid that falls into the gray area between inflection and derivation – forces us to be very precise about identifying all the partial transitions that amounted to the overall change.

The analysis has shown that the PA's development cannot be reduced to a simple categorial shift of a derivational kind (say, V > Adj), nor can it be classified simply as a shift from a grammatical item (inflectional verb form) to a lexical item (an adjective), as an instance of lexicalization. The end result might be analyzed as such in certain individual tokens, but it cannot be said of the category as a whole. In order to truly understand the processes that participated in crystallizing the functional and categorial status of the PA over time, we must consider all the relevant details of the gradual (re)shaping of multiple associations between form and function, which in this case show great interdependence between verb meaning, syntagmatic preferences in different contexts, and the morphosemantic structure that mediates this relationship.

The development follows a regular path that clearly bears features of grammaticalization in the pragmatically motivated sense. What we observe is gradual erosion of the PA's verbal potential (through relaxing the semantic conditions associated with the stem) and simultaneously strengthening the attributive potential contributed by the external morphology. This recalibrating of the morphosemantic features opens up a way for a more condensed syntactic structure (namely, an NP-internal modifier) with a more independent syntactic and textual function, sometimes stretching into a new modal interpretation as well (possibility, intentions). We can say that the development involves a reinterpretation of the conceptual relationship between the PA and its subject from one of predication to one of modification (a conceptually tighter, more unitary relation). Put differently, the overall shift is triggered by inferences that are invited in specific PA tokens and specific contexts (grammatical and discourse) but the new interpretations are gradually fixed as a generalized change affecting a whole grammatical category, with the concomitant changes in constructional patterning.

By casting the diachronic changes in terms of the interplay between specific internal and external properties of a complex word-form as well as the interaction between the form and the syntagmatic context in which it is used, we can trace the relevant partial transitions, without losing sight of the overall outcome. Specifically with respect to the PAs, we must conclude that internal structure of words may matter in syntactic change: the internal structure of the PA did not simply disappear when a new suffix was added; instead, the verbal properties linger on and assert themselves in certain contexts in spite of the external nominal features. Formulating precise representations of these processes amounts to capturing specific shifts in how speakers decide to package information and how hearers decide to understand the message (what inferences they feel invited to make). And since all of this is dependent on an intricate interaction of semantic, textual, morphological, and syntagmatic cues, Construction Grammar provides a systematic and theoretically coherent basis for articulating plausible generalizations about such shifts.

References

Bergs, Alexander & Gabriele Diewald (eds). 2008. *Constructions and language change.* Berlin: Mouton de Gruyter.

Bisang, Walter. 1998. Grammaticalization and language contact, constructions, and positions. In *The limits of grammaticalization*, Anna Giacalone Ramat & Paul J. Hopper (eds), 13-58. Amsterdam: John Benjamins.

Bisang, Walter, Nikolaus P. Himmelmann & Björn Wiemer (eds). 2004. *What makes grammaticalization? A look from its fringes and its components.* Berlin: Mouton de Gruyter.

Brinton, Laurel J. & Elizabeth C. Traugott. 2005. *Lexicalization and language change.* Cambridge: Cambridge University Press.

Bybee, Joan L. 1985. *Morphology: A study of the relation between meaning and form.* Amsterdam: John Benjamins.

Bybee, Joan, Revere Perkins & William Pagliuca. 1994. *The evolution of grammar: Tense, aspect, and modality in the languages of the world.* Chicago: Chicago University Press.

Croft, William. 2000. *Explaining language change: An evolutionary approach.* Harlow, Essex: Pearson Education.

Croft, William. 2001. *Radical Construction Grammar.* Oxford: Oxford University Press.

Fillmore, Charles J. 1982. Frame Semantics. In *Linguistics in the Morning Calm*, The Linguistic Society of Korea (eds), 111-137. Seoul: Hanshin Publishing Company.

Fried, Mirjam. 2005. The stability of meaning-form associations across time. In *Verba et historia*, Petr Nejedlý & Miloslava Vajdlová (eds), 77-86. Praha: Ústav pro jazyk český AV ČR.

Fried, Mirjam. 2008. Constructions and constructs: Mapping a shift between predication and attribution. In Bergs & Diewald (eds), 47-79.

Fried, Mirjam & Jan-Ola Östman. 2004. Construction Grammar: A thumbnail sketch. In *Construction Grammar in a cross-language perspective*, Mirjam Fried & Jan-Ola Östman (eds), 11-86. Amsterdam: John Benjamins.

Gebauer, Jan. 1929. *Historická mluvnice jazyka českého IV, Skladba* [Historical grammar of Czech, Syntax]. Praha: Česká akademie věd a umění.

Harris, Alice C. 2003. Cross-linguistic perspectives on syntactic change. In Joseph & Janda (eds), 529-551.

Haspelmath, Martin. 1996. Word-class-changing inflection and morphological theory. In *Yearbook of Morphology* 1995, Geert Booij & Jaap van Marle (eds), 43-66. Dordrecht: Kluwer.

Heine, Bernd. 2003. On degrammaticalization. In *Historical linguistics 2001*, Barry J. Blake & Kate Burridge (eds), 163-179. Amsterdam: John Benjamins.

Himmelmann, Nikolaus P. 2004. Lexicalization and grammaticalization: Opposite or orthogonal? In Bisang et al. (eds), 19-40.

Hopper, Paul J. 1998. Emergent grammar. In *The New Psychology of Language*, Michael Tomasello (ed), 155-176. Mahwah NJ: Erlbaum.

Hopper, Paul J. & Sandra A. Thompson. 1984. The discourse basis for lexical categories in universal grammar. *Language* 60: 703-752.

Hopper, Paul J. & Elizabeth C. Traugott. 2003. *Grammaticalization.* 2nd rev. ed. [1st ed., 1993.] Cambridge: Cambridge University Press.

Joseph, Brian D. & Richard D. Janda (eds). 2003. *The handbook of historical linguistics.* Oxford: Blackwell.

Kastovsky, Dieter. 1985. Deverbal nouns in Old and Modern English: From stem-formation to word-formation. In *Historical semantics – historical word-formation*, Jacek Fisiak (ed), 221-261. Berlin: Mouton de Gruyter.

Kurz, Josef. 1958. K otázce doby vzniku slovanských adjektiv složených a jejich původního významu [On dating the rise of Slavic long adjectives and their original meaning]. In *Studie ze slovanské jazykovědy, sborník k 70. narozeninám akademika Fr. Trávníčka*, 211-219. Praha: SPN.

Langacker, Ronald W. 1985. Observations and speculations on subjectivity. In *Iconicity in syntax*, John Haiman (ed), 109-150. Amsterdam: John Benjamins.

Langacker, Ronald W. 1993. Universals of construal. *Berkeley Linguistic Society* 19: 447-463.

Lehmann, Christian. 1995. *Thoughts on grammaticalization.* 2nd rev. ed. [1st ed., 1982.] Munich & Newcastle: Lincom Europa.

Michálek, Emanuel. 1963. Staročeská adjektiva typu *lácí*, *lajúcí* [Old Czech adjectives of the type *lácí*, *lajúcí*]. *Listy filologické* 86: 127-130.

Nichols, Johanna & Alan Timberlake. 1991. Grammatizalization as retextualization. In *Approaches to Grammaticalization*, vol. 1: *Focus on Theoretical and Methodological Issues*, Elizabeth C. Traugott & Bernd Heine (eds), 129-146. Amsterdam: John Benjamins.

Schultze-Berndt, Eva & Nikolaus P. Himmelmann. 2004. Depictive secondary predicates in crosslinguistic perspective. *Linguistic Typology* 8: 59-131.

Staročeský slovník [Old Czech Dictionary]. 1968. Praha: Academia.

Traugott, Elizabeth C. 1982. From propositional to textual and expressive meanings: some semantic-pragmatic aspects of grammaticalization. In *Perspectives on historical linguistics*, Winfred P. Lehmann & Yakov Malkiel (eds), 245-271. Amsterdam: John Benjamins.

Traugott, Elizabeth C. 2003. Constructions in grammaticalization. In Joseph & Janda (eds), 624-647.

Traugott, Elizabeth C. 2008a. The grammaticalization of NP *of* NP patterns. In Bergs & Diewald (eds), 21-43.

Traugott, Elizabeth C. 2008b. "All that he endeavoured to prove was…": On the emergence of grammatical constructions in dialogic contexts. In *Language in Flux: Dialogue Coordination, Language Variation, Change and Evolution*, Robin Cooper & Ruth Kempson (eds), 143-177. London: Kings College Publications.

Trávníček, František. 1962. *Historická mluvnice česká, Skladba* [Historical grammar of Czech, Syntax]. Praha: SPN.

Vondrák, Václav. 1908. O místě attributivního adjektiva a substantivního genitivu ve větě [On the position of adjectives and adnominal genitives in the sentence]. In *Zbornik u slavu Vatroslava Jagica*, 151-158. Berlin: Weidmannsche Buchhandlung.

Wiemer, Björn. 2004. The evolution of passives as grammatical constructions in Northern Slavic and Baltic languages. In Bisang et al. (eds), 271-331.

Wischer, Ilse. 2000. Grammaticalization versus lexicalization: '*Methinks*' there is some confusion. In *Pathways of change: grammaticalization in English*, Olga Fischer, Anette Rosenbach & Dieter Stein (eds), 355-370. Amsterdam: John Benjamins.

Abbreviations

ACC	accusative	NOM	nominative
ADJ	adjective	PA	participial adjective
AUX	auxiliary	PART	short *NT*-participle
DAT	dative	PASSP	passive participle
F	feminine	PFV	perfective
GEN	genitive	PL	plural
INF	infinitive	PPL	past participle
INS	instrumental	PRS	present
LOC	locative	PST	past
M	masculine	RF	reflexive particle
N	neuter	SG	singular
NEG	negative		