**Representing contextual factors in language change:
between frames and constructions**

[preproofs version]

Mirjam Fried, Czech Academy of Sciences, Prague

1. Introduction

It is accepted both within cognitively based approaches to semantic structure (e.g. Fillmore 1982, 1984, 1986, Geeraerts 1992, 1993, Cuyckens, Dirven & Taylor 2003) and within dialogical approaches to language analysis (e.g. Linell 1998) that speakers' expressive needs, together with general cultural understanding and specific contextual clues, participate in negotiating the meaning of a given piece of discourse. The dynamic character of language use also presents this question necessarily as one of variation and change; this dimension has been explored in a particular strand of grammaticalization studies that focus on various aspects of the interaction between codified semantic structure ('lexical meaning'), broad thematic and cultural context, and recurring morphosyntactic patterns as giving shape, collectively, to a newly emerging grammatical structure (e.g. Bybee, Perkins & Pagliuca 1994, Bisang 1998, Hopper 1998, Traugott 2003, 2005, Harris 2003, Wiemer 2004, Wiemer & Bisang 2004).

A question that is yet to be taken up concerns the way(s) in which those complex interactions and their dynamic nature can be systematically captured and further illuminated by applying a particular grammatical model. With this general goal in mind, I will present a small-scale corpus-based case study of a lexico-grammatical change that will illustrate what types of context may enter conventional linguistic patterning. By examining specific aspects of language change, my focus will be on representing a shift in speakers' grammatical knowledge, its relationship to recurring semantic and pragmatic constraints and their gradual reorganization.

On the surface, this seems a straightforward enough goal: in functionally oriented approaches, it is taken as self-evident that linguistic expressions are used in 'context' and that certain aspects of the 'context' may find their way into the grammatical properties of a linguistic expression. The task for a grammarian, then, is to articulate such a connection precisely and explicitly. Upon further reflection, though, it becomes far from clear what exactly we may mean by 'context' and what exactly it is we can or ought to be

explicit about. A glance at the rich literature on pragmatics in general (traditionally a primary domain of addressing contextual issues) and on the connection between pragmatics and grammar suggests that there are several ways in which the notion of context is understood and incorporated in linguistic analysis.

One set of contextual factors revolves around issues of usage, i.e. the broadly conceived pragmatic conditions, including the question of textual distribution, socio-cultural grounding, genres, etc. This understanding of context is traditionally associated with the field of pragmatics and usually has paid little attention to grammatical structure. For grammarians, on the other hand, reference to context has typically meant concerns with managing information flow and the configuration of discourse participants, whether within a clause or within a larger stretch of utterances. Contextual issues are thus discussed in terms of regular correlations between grammatical structure and information structure, the latter articulated in terms of specific discourse roles. More recently, though, the notion of context has also been used to mean the grammatical environment in which a given word or expression occurs, either preferentially or exclusively. This concept of narrowly linguistic 'context' goes back to Fillmore's observations about the combinatorial restrictions on individual lexical items when they enter syntactic phrases and sentences (Fillmore 1982, 1989, Fillmore, Kay & O'Connor 1988) and has been also the cornerstone of Croft's approach to defining grammatical categories (Croft 1991, 2001).

Since the present study takes the grammarian's perspective, the point of departure will be the syntagmatic context. However, it will quickly become apparent that other contextual factors must be worked in as well, echoing Fillmore's early arguments for incorporating discourse-based descriptions in our generalizations about individual lexico-grammatical patterns (Fillmore 1974/1981, Fillmore 1982). I will document and argue that all three types of context enumerated above must be taken into account if we wish to provide an adequate representation of linguistic structure and its changes over time. Following the general strategy proposed by Östman (2005), I will suggest a way of incorporating the general insights found in the extensive research on genres and text typology (Werlich 1976, Biber & Finegan 1989, Swales 1990, Bhatia 1993, Biber 1994, Halmari & Virtanen 2005, Bergs 2005a, among many others). Specifically, Östman's (2005: 130) notion of "discourse pattern" will provide the necessary starting point for formalizing the textually motivated constraints on grammatical structure, as they emerge from the data under discussion. This general approach will lead to more comprehensive conclusions about how the different

types of context may become distributed over different parts of language structure over time.

The main questions motivating this study are thus the following: how do contextual and grammatical factors interact in language variation and change, to what extent may their interaction become conventionalized, and can any general tendencies be detected in the conventionalization process? In answering these questions, the paper also touches on the elusive nature of lexicalization as a distinct diachronic process. While it is not my goal in this study to address the lexicalization puzzle directly, the analysis will lead to some observations about the promise of a constructional approach for illuminating the complexities involved in solving the lexicalization problem.

1.1 Case study

The material for the case study comes from a particular set of expressions in Old Czech (OCz). I will trace the development of the word form *věřící* '(one) believing', which in many ways illustrates the rich semantic and morphosyntactic history of the so-called 'long' present active participles, a special participial form characteristic of Slavic and Baltic languages (with some parallels in German as well). I will refer to this form as 'participial adjective' (PA; cf. also Fried 2003, 2005a), which is misleading in terms of the form's functions, but it reflects its morphologically mixed-category status: an adjectival inflectional CASE/NUMBER/ GENDER suffix is attached to a verbal stem, turning the result into a morphologically non-verbal entity. A preliminary illustration of this morphosemantic structure is in (1). The label *part* stands for 'present active participle', which is formed by the *-NT-* suffix (the *-NT-* label indicates the participle's relationship to its Latin cognate).

(1) $[[V_{root} - theme - NT]_{part} - C/N/G]_{PA}$

$[[\; věř \; - \; í \; - \; c \;]_{part} - \; í \;]_{PA}$ '(the one) believing'

The shift in lexical category places the PA in the gray area between inflection and derivation, which alone poses a challenge for linguistic theory. Moreover, we will see that the functional and categorical status of the C/N/G suffix is distributed between nominal and adjectival properties and, therefore, cannot by itself fix the category for the whole wordform, thus contradicting the received view that participles turn into adjectives (Haspelmath 1996, Schenker 1995: 106 on Slavic, Short 1993: 487 specifically on Czech). As a result, the PA provides a particularly illustrative case for studying the relationship between meaning, form, and context, since the way in which the competition between its verbal, nominal,

and adjectival potential was resolved cannot be adequately described without considering the ways in which this form was used in actual discourse.

To start with, we need to capture the fact that the PA *věřící* developed from a functionally unspecified, fully context-dependent, and morphosemantically transparent form that was part of the regular verbal inflectional paradigm and that occurred in all major syntactic functions (reference, modification, and predication), into primarily an actor noun meaning 'practicing Christian' and marginally a quasi-adjectival modifier with the same meaning, while also maintaining its fully inflectional and compositional status that can be glossed as '[who] believes st. to be true'. Furthermore, the form is simultaneously attested in a number of other interpretations ('believable', 'pious', 'creditor', 'trustworthy', 'authorizing', etc.) that semantically correspond to the polysemous structure of the verb root *věř-* 'believe' and that were present throughout the OCz period. Sweeping generalizations concerning just the wordform itself are thus impossible even on lexical semantic grounds, let alone in its syntactic behavior.

Since the case study focuses on a single word only, it would perhaps be attractive to consider its diachronic development a case of lexicalization (to the extent that there even is any consensus about what we mean by lexicalization processes, cf. recent debates in Wischer 2000, Himmelmann 2004, Traugott 2005, Haas 2005). I will suggest that such a treatment would be too simplistic; it would render the change as essentially random and unrelated to the fact that the same kind of change concerns a whole class of wordforms, not just this one item. Before we can attach any classification to the type of change involved (say, V $\rightarrow$ N or V $\rightarrow$ Adj), 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, context in which the word form is used, and the morphosemantic structure that mediates this relationship. The analysis will demonstrate that specific lexico-pragmatic properties correlate with different functional outcomes that are not predictable simply on the basis of assigning lexical categories in the abstract but, rather, depend to a great extent on different syntagmatic preferences. The development thus will be analyzed along several dimensions: semantic shifts vis-à-vis textual distribution and contextual preferences (in the sense of conditions on usage); role of collocational patterns (syntagmatic context); potential categorial status (N, Adj, V) vis-à-vis syntactic behavior; and chronological order. The result is a complex picture of all the factors that collectively motivate the changes in the form's

4

usage and that must be part of any representation that aspires to be descriptively accurate and to offer an explanatory value.

The examples I use are based on an extensive corpus of excerpts from OCz texts; the corpus contains a wide variety of genres and spans the period of about 250 years.[1] This chronological stretch allows us to see both the synchronic variation for any given generation of speakers and the gradual conventionalization of specific patterns, i.e., the resulting change.

1.2 Theoretical background

Given the central role of syntagmatic context in the present study, it is only natural to carry out the analysis within the theoretical apparatus of Construction Grammar (Fillmore 1988, 1989; Fillmore, Kay & O'Connor 1988; Croft 2001; Fried & Östman 2004) and Frame Semantics (Fillmore 1982, Fillmore & Atkins 1992, Atkins 1994, Atkins et al. 2003, Fillmore et al. 2003, Fried & Östman 2003, Fried 2004, 2005b), which together offer a particularly attractive model for representing lexico-grammatical networks in which the relative stability of grammatical form does not conflict with the relative flexibility of meaning and expressive richness, and vice versa.

Construction Grammar (CxG) does not make a sharp distinction between grammar and lexicon, thus allowing for systematic incorporation of gradient phenomena, such as is inherent in mixed-category morphology. The model's fundamental assumption that the basic unit of grammatical structure is a construction, i.e. a conventional function-form pairing, naturally sets up grammatical constructions as the domain of language change, which is also the view increasingly argued for in grammaticalization research. Finally, both of these features ensure that we can capture the gradualness characteristic of the slow process of losing internal structure and compositional meaning, resulting in new linguistic patterns with non-compositional properties. In fact, it is one of the defining features of grammatical constructions that they are never

---

[1] The genre selection includes historical, biblical, administrative, expository, and didactic texts, legal documents, poetry (both spiritual and secular), popular entertainment, correspondence, drama, instruction manuals, etc. The chronology covers the full OCz period, from the first attestations well before 1300 until the early 1500s. The corpus contains over 1200 tokens of the PA form, which represents more than 240 distinct verb roots. The form *věřící* is commonly attested throughout the OCz period and its relatively high frequency across all kinds of texts can be taken as evidence that the form was well entrenched, including in the genres that are known to reflect spoken language fairly closely.

just the sum of their parts; mixed-category morphology thus constitutes a prime candidate for testing a constructional approach.
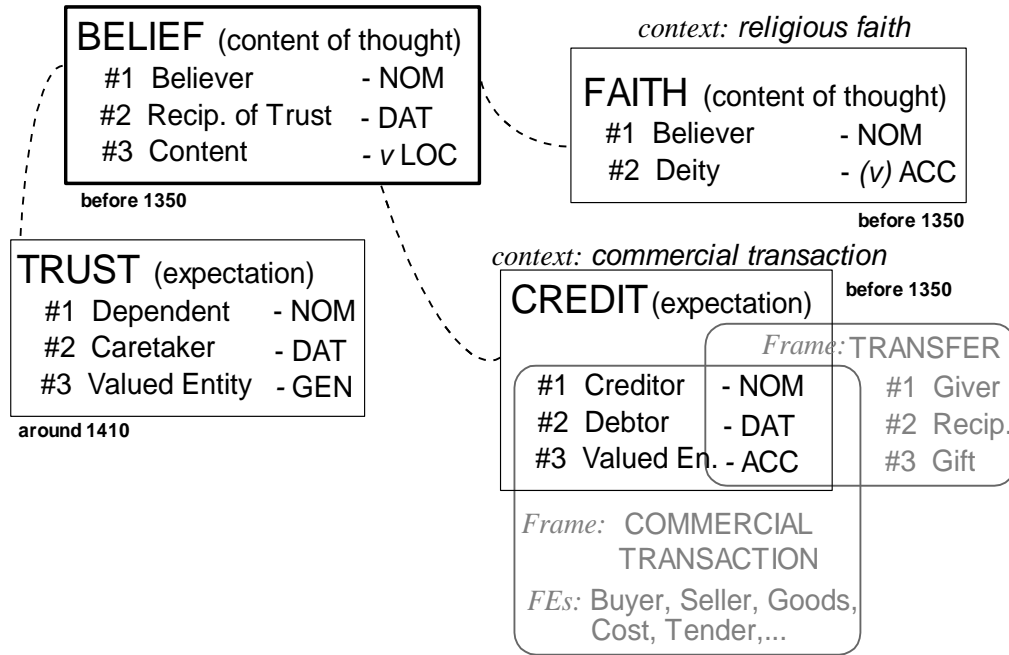
The framework known as Frame Semantics is concerned with the 'semantics of understanding' as the appropriate model of linguistic semantics. Linguistically relevant semantic information is organized and structured in "interpretive frames" (Fillmore 1982: 124), which represent the complete background scene associated with a given linguistic expression: the scene's participants, settings, and any other unique semantic features (collectively referred to as 'frame elements') that are necessary for speakers' native *understanding* of what the lexical item means and how it can be used in context. A single linguistic expression may be (and often is) associated with multiple frames and, conversely, a single frame may be shared by multiple expressions; each such expression, then, represents a particular conceptualization of certain parts of the larger background scene. In the case of predicates, i.e. argument-taking lexemes, the frame also carries information about the conventional expression of the syntactically relevant participants as they manifest themselves in the syntactic organization of sentences. This is a unique feature of Frame Semantics as a lexical semantic model: the built-in connection between lexical meaning of an item and the canonical morphosyntactic expression of its frame elements. The connection, which also plays a prominent role in the present analysis, is expressed in the form of a valence, which thus functions as an explicit link between meaning and form in the domain of argument expression.

The paper is organized as follows. Section 2 introduces the morphosemantic structure of the PA, identifying the (potential) syntactic and semantic contribution of the PA's components. Section 3 is devoted to the details of the diachronic development of the form *věřící*, identifying the factors that were instrumental in the gradual reorganization of the PA's morphosemantic structure due to specific contextual pressures. Section 4 addresses the representational issues concerning the gradual loss of compositionality and proposes ways of capturing contextual effects in frames and constructions. Section 5 offers general conclusions about contextual representation in Construction Grammar and some questions left for future research.

2. Morphosemantic structure of *věřící*

Before we can address the form *věřící* itself, we must consider the semantic structure of the verb root *věř-* from which the PA is derived. For the purposes of this study, it is sufficient to present a brief overview, which is based on a more detailed analysis of the

verb semantics in Fried (2008). The OCz verb *věřiti* 'to believe' is attested in at least four major senses (roughly, BELIEF, FAITH, CREDIT, TRUST); each is associated with a distinct complementation pattern and some senses reflect a particular communicative context (e.g., religious faith, various types of commercial transactions, transfer of legal responsibility). The overall structure is presented in the frame-based semantic network in Diagram 1.

BELIEF (content of thought)
#1 Believer — NOM
#2 Recip. of Trust — DAT
#3 Content — *v* LOC
before 1350

context: religious faith

FAITH (content of thought)
#1 Believer — NOM
#2 Deity — *(v)* ACC
before 1350

TRUST (expectation)
#1 Dependent — NOM
#2 Caretaker — DAT
#3 Valued Entity — GEN
around 1410

context: commercial transaction

CREDIT (expectation) **before 1350**
#1 Creditor — NOM
#2 Debtor — DAT
#3 Valued En. — ACC

Frame: COMMERCIAL TRANSACTION
FEs: Buyer, Seller, Goods, Cost, Tender,...

Frame: TRANSFER
#1 Giver
#2 Recip.
#3 Gift

Diagram 1. (Partial) frame-based semantic network of the OCz verb *věřiti*.

The rectangles represent the frames, each of which corresponds to a distinct sense within the prototype structure. For now, the valence information is represented in a very abbreviated, simplified format: in each frame, the list on the left represents the linguistically required frame elements and the list on the right gives the corresponding morphological expressions as they conventionally occur in active sentences. Maintaining the same indices (#1-3) across the frames is intended to capture the fact that the same set of event participants, common to the shared background scene of believing, takes on different frame-specific roles in the individual senses, each of which corresponds to a distinct conceptualization of holding a belief. (A more precise formalism will be used in section 4, when we try to capture the PA's place in this semantic network.)

In Diagram 1, the conceptually simplest sense is in the frame labeled BELIEF, meaning roughly 'believe that [what somebody says]

is true' (literally, 'believe somebody in some matter'), and as such it can be posited as the prototype sense (indicated by the thick-line rectangle). We also note that this sense requires minimally three participant roles, labeled Believer, Recipient of Trust, and Content. The FAITH sense can be seen as a narrower reading of BELIEF, motivated by the common usage of this verb in the context of religious faith. This sense has only two participants expressed in syntax: a Believer and a Deity; the latter perhaps fuses the Recipient of Trust and the Content elements of the prototype. Both BELIEF and FAITH also share the basic semantic feature of relating to the content of someone's thought.

Of about the same age is also the sense CREDIT, in which the act of believing is cast in the context of a commercial transaction, thus sharing also the semantics (and complementation pattern) with verbs of COMMERCIAL TRANSACTION (buying, selling, paying, etc.) and of TRANSFER (giving, taking) in general; these connections are indicated by the rounded rectangles representing these additional frames, which are inherently unrelated to verbs of believing but overlap with one of the senses. The meaning of this usage is literally 'believe something to somebody', where 'something' is a Valued Entity (as a special interpretation of the Content role in the prototype) and 'somebody' is the buyer (Debtor), corresponding to the Recipient of Trust in the prototype. Idiomatically, the meaning can be glossed as 'sell something to somebody on credit (i.e., on the belief that the buyer will pay later)', illustrated in (2):

(2) {*jal se předivně kupčiti, bera draze na úvěrky...*}
což   kto   jedno chtěl   věřiti
what.ACC who.NOM one   want.PPL.SG.M credit.INF
{*všecko pobral*}
'{he traded in the strangest way, taking [things] on expensive credit},whatever who[ever] wanted to offer on credit {he [=king] took it all}'   [Budyš 63; 1420; social satire][2]

Note that this sense is not about the content of someone's thought, but expresses an expectation with respect to a particular behavior. This semantic feature is shared also by the youngest sense, TRUST, which means 'believe that a (protective) action will be taken' or, more literally, 'believe someone$_i$ with respect to doing$_i$ X'. The TRUST sense is attested only marginally and will not be relevant to the issues discussed in this study since there is no attestation of a corresponding PA. Nor will I be concerned with the BELIEF sense, whose PA did not develop into an actor noun (cf. Fried 2008).

The PA form *věřící* originated within the same semantic structure, as part of the verbal inflectional paradigm. However, it

---

[2] The OCz texts are identified by the abbreviations established in the Old Czech Dictionary (*Staročeský slovník* 1968).

developed differently within individual senses and also added meanings that are not attested with other forms of the verb, including the 'short' participle that forms the PA's stem. It is therefore necessary to examine more closely the morphosemantic structure of the PA itself. In addition to the lexical meaning and the valence structure contributed by the verb root, we have to consider the remaining formatives and their own contribution to the meaning of the PA as a whole.

As already mentioned, the PA is derived from the present active participle (the 'short' form, sometimes also called, misleadingly, 'gerund'), which was used primarily as a non-finite predicate expressing various dependent adverbial clauses, such as is shown in (3); the participle is underlined. (Throughout the paper, I will use curly brackets {} to enclose additional context surrounding the token in question.)

(3) {*přidávám ... múdré a opatrné lidi*}
     věřě   *jim   mimo   všecky   přátely*
     believe.NT.SG.M 3PL.DAT besides all.ACC.PL friend.ACC.PL[3]
     '{I'm sending … [these] wise and cautious people}, because
     I trust them more than any of [my] other friends'
     [ArchČ 15, 551; 1455; correspondence]

The PA's participial stem marks explicitly several verbal categories. Present tense (interpreted as contemporaneousness, as is typical of present-tense depictive secondary predicates, cf. Schultze-Berndt & Himmelmann 2004:102) is a property of the present stem from which the participle is derived (in contrast to a distinct past-tense stem). Active voice or 'orientation' (Haspelmath 1994: 153) is associated with the participial suffix -*c*- itself (in contrast to other types of participles, such as past or passive). Finally, the root brings along a valence and the participle normally expresses, through verbal government, the non-agent arguments in that valence (i.e. those arguments that would not be linked to the subject function in an active sentence). This feature follows the behavior of other non-finite verb forms (infinitive, gerund, active participles) and in (3) is illustrated by the dative *jim* 'to them' (= Recipient of Trust). All of this constitutes the *internal* morphosemantic structure of the PA and represents the PA's verbal potential, predisposing it, at least in principle, toward uses expressing secondary predication, comparable to the short participle in (3). And indeed, such examples are attested, as we shall see shortly.

---

[3] Abbreviations in the glosses: NOM 'nominative', GEN 'genitive', ACC 'accusative', DAT 'dative', INS 'instrumental', M/F/N 'masculine/feminine/neuter', SG/PL 'singular/ plural', PA 'participial adjective', PRES 'present tense', PST 'past', FUT 'future', NT 'pres. active participle, PPL 'past participle', PASS 'passive participle', INF 'infinitive', RF 'reflexive particle', NEG 'negative', AUX 'auxiliary', COND 'conditional'.

The verbal potential conflicts with the *external* C/N/G suffix, which is clearly non-verbal. Its categorial status, however, is open: it is adjectival in its morphological form, but referential in its function; the suffix is etymologically a demonstrative pronoun and its contrastive function was not yet fully neutralized in early OCz (Kurz 1958). The development of the PA reflects these open-ended functional possibilities. Throughout OCz, the PA *věřící* is attested in all three syntactic functions – reference, modification, and predication – that are a priori available and in fact, it is often difficult and sometimes impossible to determine unambiguously the function of a given token. For the purpose of illustration, a straightforward and uncontroversial example of each function is given in (4): an actor noun in (4a), which reinforces the referential potential of the external morphology ('the one believing'); an adnominal modifier in (4b), which capitalizes on the adjectival form of the C/N/G suffix ('which/that believes'); and a predicate heading a non-finite adverbial clause (here in the form of a genitive absolute) in (4c), which builds on the verbal potential of the internal morphology ('[while] not believing') in spite of the external suffix. The relevant phrases are enclosed in brackets <> for easier identification.

(4) a. *Kristus$_i$ Ducha   Svatého   dává   v*
Christ.NOM Spirit.ACC Holy.ACC   gives.PRES.3SG in
nich   < svým$_i$ věřícím>
3PL.LOC   his.DAT.PL believe.PA.DAT.PL
'Christ$_i$ gives in them [=his gifts] the Holy Spirit to <his$_i$ believers>'   [ŠtítVyš 84b2; 1396; religious tract]

   b. *lid   < v buoh   věřící >*
people.NOM.SGM in god.ACC.SG believe.PA.NOM.SG
spasen   byl
save.PASS.SG.M   be.PPL.SG.M
'the people < that believed in God > were saved'
[PasMuzA 488a; mid 14th cent.; legend]

   c. *< ješče jich   nevěřících > ...   vece   jim*
still   3PL.GEN NEG.believe.PA.GEN.PL say.PRES.3SG 3PL.DAT
'< as/because they still don't believe [him] >…, he says to them'   [EvZimn L 24,41, late 14th cent.; biblical]

The fluid functional distribution gradually gave way to the more restricted distribution we know from ModCz, as described in section 1.1. In the rest of the paper, I will examine the contextual details that led to fixing the actor noun status in particular. I will take a close look at how this form was used, in what kinds of context (syntagmatic, pragmatic, semantic), and how the usage affected the functional outcome.

3. Factors in fixing the noun potential of *věřící*

As a syntactic noun, the PA is attested in only two senses of the verb meaning: FAITH and CREDIT. I will turn to the FAITH sense first.

3.1 věřící *in the sense of* FAITH

This PA usage appears early (by 1350 in my corpus), together with the finite forms of the verb, and it is attested in all kinds of texts. It is mostly accompanied by its non-subject argument (i.e., the Deity participant), which always retains the same form it would have in a finite clause: the accusative-marked NP, in older examples as a plain accusative, later on with the preposition *v* 'in'; this is also the diachronic pattern we find with the finite forms. The verbal properties of the PA are thus preserved in terms of its internal syntax and also in its active orientation: the PA's referent is the one who believes.

At the same time, the syntactically verbal character is undermined in several ways. Consider the set of examples in (5):

(5) a. *bieše   anděl   zemský   ...   všech*
         be.PST.3SG   angel.NOM.SG.M earthly.NOM.SG.M   all.GEN.PL
         < v   buoh   věřících >   chvála
           in God.ACC.SG believe.PA.GEN.PL   praise.NOM.SG.F
         '[St. Paul] was an angel on earth…, the praise of all those
          <believing in God>'
          [PasMuzA 303a; late 1300s; legend]

     b. {*Jezukriste, ...jsi…*}
         všech   < v   tě   věřících >   útěcha
         all.GEN.PL in   2SG.ACC believe.PA.GEN.PL   solace.NOM.SG.F
         '{Jesus Christ, you are} … the solace of all those
          <believing in you>'
          [LegKat 65a; late 14th cent.; spiritual poetry]

     c. {*boha jezukrista*ᵢ *jenž všudy*}
         *pomáhá   < v   sě*ᵢ   *věřícím >*
         help.PRES.3SG in   self.ACC believe.PA.DAT.PL
         '{of God Jesus Christᵢ who in all places} helps those
          <believing in himᵢ>'   [OtcB 196b; late 14th cent.; legend]

First off, the syntactically present Deity argument does not provide a highly informative or novel contribution: the referent is always God/Christ, expressed sometimes directly (5a) but most often by a pronoun, either personal (5b) or reflexive (5c), that invariably refers to Christian God or Christ. The pattern suggests pragmatic 'emptying' of the complement, whose presence serves merely as a placeholder in the syntactic valence of the stem, not as an expression

identifying a pragmatically unpredictable participant in the reported event. In fact, there are texts (e.g. VýklŠal from early 15th century, which is a religious tract interpreting the Song of Songs as a simile for proper Christian faith and the love of Christ) in which the bare form *věřící* consistently alternates with the phrase *věřící v Krista* 'believer in Christ', with no detectable difference in meaning or communicative effect. In both this and other texts, the phrase was clearly used as a fixed collocation that was not intended to deliver any novel content. It must also be noted that casting the religious faith in terms of Christian faith in particular is a feature specific to the PA, not carried over from the verb semantics. There the Deity truly can be any object of worship, such as *modly* 'pagan idols' or gods of other religions (cf. Fried 2008), both in OCz and ModCz. The PA thus narrows down the semantic range of the verb root and this is corroborated by the fact that the noun *křesťan* 'Christian' is sometimes used explicitly as this PA's synonym (e.g. HusBlud 293).

The low informativeness of the complement necessarily weakens the verbal potential of the PA, despite the full expression of the root's valence. By mid-15th century, we indeed see the crystallization of the PA's meaning into denoting 'a Christian', i.e. a member of a particular social and religious group rather than the more literal 'one who believes in God/Christ'. Put differently, the compositional meaning provided by the morphosemantic structure is replaced by a more specialized meaning that is not directly predictable from the PA's morphology, including its tense marking: having an identity based on a particular trait (here, Christian faith) obliterates the contemporaneousness that the internal morphology suggests. Moreover, once the atemporal usage based on group-identity is well established, we can expect additional semantic shifts that can only be motivated by their relationship to a semantically true noun, not by any relationship to the verb. And indeed, we find examples such as (6), where the meaning of *věřící* is generalized to refer to church members, both alive and dead. Evidently, group membership is the salient feature here, no just the individually assigned property of believing in something, since the act of believing presupposes a conscious mind, while being counted as a member of a class of individuals need not. Notice that the PA in (6) does not (indeed, cannot) have any complement.

(6) {*žádajíc...spasení duše své a svejch starších a předchůdcích*}
  ...i   <jiných   všech   mrtvých
    also other.GEN.PL.M all.GEN.PL.M   dead.GEN.PL.M
  věřících >   {voltář ke cti svaté Dorotě...založil a nadal}
  believe.PA.GEN.PL
  '{desiring…the salvation of his own soul and [the souls] of his elders and predecessors…} and also of all other deceased

12

members of his congregation,{he founded and endowed an altar to honor Saint Dorothea}'

[ArchČ 9, 243; 1400; admin. record of dedicating a new altar]

However, complete absence of the complement is not always a measure of a non-verbal interpretation of the PA either, as demonstrated by the example in (7). This is one of the functionally ambiguous cases, where the PA can be either interpreted as a fully compositional usage that is externally nominal but preserves all the internally marked verbal categories, including relative tense (as a temporal or conditional circumstantial clause), or it can be interpreted as referring to a member of a particular class of people:

(7) {*Apolonius…nauči jej nasledovati přiebytka věčného a trpělivě hledati božieho milosrdie... řka jemu*}

že   sě   muož   všecko   dokonati
that RF can.PRES.3SG everything.NOM.SG.N complete.INF
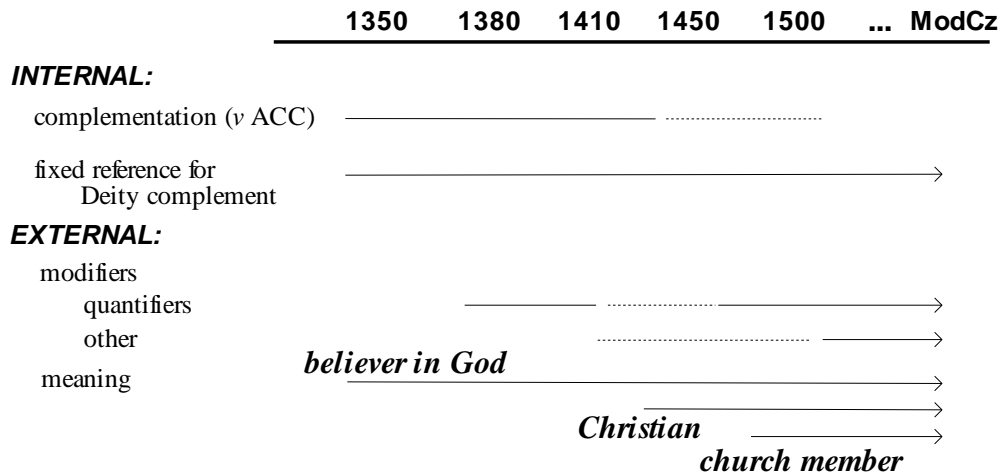
< *věříciemu* >
believe.PA.DAT.SG

'{Apolonius…taught him to aim for the eternal dwelling and patiently seek God's mercy…, telling him} that everything is possible <if one believes/for a believer>'

[OtcB 19a; late 14ᵗʰ cent.; legend]

The example is taken from a popular historical narrative reporting a sequence of events and their consequences for the protagonist. This would support the predicative, event-reporting interpretation, still expressing relative tense, along the lines of 'when/if you have faith, everything is possible', since such usage is generally well-documented in event-reporting narratives (chronicles, exempla, legends, personal stories, etc.). At the same time, the religious framing of this particular narrative – the text is a compendium of the lives of Saints – equally invites the referential interpretation of 'believers [in God]', i.e. people who are defined by this property independently of the events in the immediate context of the story. The potential for ambiguity with respect to the relative strength of the verbal character persists through the first part of the 15th century, and not just as a special feature of this particular PA but as a general feature of OCz PAs (Fried 2003).

What is thus perhaps more important than internal syntax in the shift toward a full noun status is the collocational pattern associated with this PA usage. It is conspicuous that the PA frequently co-occurs with a universal quantifier, such as *všichni* 'all', shown in (5a-b, 6) or *každý* 'every', regardless of complementation. Semantically, this reinforces the generic, class-membership interpretation of *věřící*, at the expense of a temporally restricted reading that applies only at a given moment. Put

13

differently, in these quantified phrases, 'having Christian faith' can easily be understood not as a temporally grounded eventuality ascribed to an individual entity (the non-restrictive relative clause interpretation) but as a classification that is independent of the event expressed by the main predicate. The referential potential is simultaneously strengthened by the external syntax, by giving it the status of a head in a noun phrase. We may futher note that the quantifier slot gradually expands to other types of modifiers, including possessives and adjectives, such as we see in (4a), where the verbal government 'believe(r) in him(self)' is completely replaced by a nominal pattern 'his believer' and the Deity referent is now indicated by the NP-internal possessive modifier.

When we organize the attested patterning chronologically, as in Diagram 2, it becomes evident that the syntagmatic environment, i.e. the collocational preference, plays a significant role in fixing the actor noun status.[4] The external syntax (noun slots and nominal government) together with the external and internal semantics (quantification, predictable valence content) were only gradually, though steadily, followed by internal syntax (complete valence suppression). The arrows indicate persistence into Modern Czech and the dotted lines reflect relatively lower or sporadic incidence of a given feature.

	1350	1380	1410	1450	1500	...	ModCz

INTERNAL:
  complementation (*v* ACC)
  fixed reference for
      Deity complement
EXTERNAL:
  modifiers
      quantifiers
      other
  meaning
          believer in God
          Christian
              church member

Diagram 2. Chronology of the noun *věřící* in the FAITH sense.

To summarize, this PA underwent a shift from a relatively transparent pattern resembling a headless relative clause (predominantly non-restrictive) with a compositional semantic structure, to a full actor noun without any temporal grounding: from '(the) one who believes in God/Christ' to 'Christian/man of the-one-and-only-presupposed-as-culturally-acceptable religion' and eventually to 'church member'. This shift is due to several types of contextual factors. A broad communicative context is relevant and perhaps decisive in interpreting the older examples: as we see in (7), it is possible to interpret the form in an atemporal sense as well as in temporally grounded predicative function, regardless of the externally non-verbal syntax. In other words, nothing in that narrative (and other cases like these) forces a particular inference and instead, it is left to the reader/hearer to work out a plausible understanding. Gradually, though, the usage clearly consolidates the referential potential of the PA suffix, highlighting the actor of the event denoted by the root, rather than the event itself; the latter would be expected in a true participle. And this is facilitated by, or at least correlates with, two contextual factors. One is the low pragmatic and semantic salience of the referent expressed by the non-subject complement, thus futher 'demoting' the verbal properties of the form. The other is the syntagmatic context in which this PA is used: in syntactically nominal slots which increasingly take on overt features of a clear noun phrase structure and semantics.

In section 4, we shall return to the question of how these different contextual factors entered the conventional understanding of the PA in its fixed categorial status.

3.2 věřící *in the sense of* CREDIT

The PA used in the CREDIT sense presents a distinctly different picture, although the differences are consistent with the general tendencies displayed in the FAITH sense as well as in all other cases of PAs that turned into actor nouns. To begin with, the corpus does not contain any examples of CREDIT-based PAs until the early 1400s, even though the corresponding verb was commonly used in this meaning as early as the FAITH sense (mid 1300s). Moreover, the verb occurs in all kinds of genres (poetry, popular stories, legal documents, religious tracts, legends, etc.), while its PA is attested exclusively in administrative and legal texts. This distribution suggests that *věřící* in the CREDIT sense, unlike its FAITH counterpart, developed as a technical term and was not part of the common vocabulary. The oldest example in the corpus is shown in (8) and can be taken as fully representative of this usage.

(8)   {*Pakli bychom toho neučinili… mámy … odtud nikam*
        nevyjéžděti tak dlúho, až}
        bychom < *našim   věřícím   >   svrchupsané*
        COND.1PL our.DAT.PL believe.PA.DAT.PL above.written.ACC.SG.F
        penieze   úplně   zaplatili
        money.ACC.PL entirely   pay.PPL.PL
        '{If we didn't do that… we have no permission … to leave
        this town} until we've paid <our creditors> the above
        mentioned money in full'
        [ArchČ 6,459; 1410; private record of a financial obligation]

Two syntactic features stand out prominently. One concerns the internal syntax of the participial stem: without exception, this PA always appears bare, that is without showing any verbal government for expressing the non-subject arguments (potentially two – the Debtor and the Valued Entity) contained in the root's valence. Related to this fact is the other striking feature, namely, the syntagmatic patterning. With the exception of one token (out of 20 in the corpus), to be commented on shortly, this PA is always accompanied by a possessive modifier, which is to say, it always occurs in a noun phrase. And as is also illustrated in (8), the possessive invariably refers to the first person of either number, which means that the referent of the PA *věřící* is always the speaker's negotiating partner. Thus in pragmatic terms, the possessive modifier actually instantiates one of the valence participants (Debtor), but using purely nominal, rather than verbal syntax, and its referent is highly restricted, as it can only be the speaker; this constraint certainly does not follow from the meaning of the root or from any pragmatic condition associated with its use.

All these features strongly favor nominal interpretation, in which the PA denotes a person that plays a particular role in a commercial transaction; in (8), it is the role of the Creditor, the party that expects a mutually agreed-upon payment from the Debtor-speaker. Such an interpretation is further corroborated by later texts, in which the PA *věřící* is often used (especially in the late 1400s) interchangeably with the morphologically true actor noun, *věřitel* 'creditor' (*-tel* corresponds to the English actor noun suffix *–er*). An illustration is in (9); the noun *věřitel* and its corresponding translation are underlined.

(9)   {*a tak vždy máme vydávati na každý rok <u>věřitelóm</u> našim…,*
        dokudž bychom svrchupsaných zlatých jistinných i s úrokem}
        < *našim   věřícím* >   *svrchupsaným   nedali*
        our.DAT.PL believe.PA.DAT.PL above.written.DAT.PL NEG.give.PPL.PL
        {*a nezaplatili úplně*}
        '{and so we must pay each year to our <u>creditors</u>...until we
        might give and pay in its entirety the above mentioned

principal and interest} <to our above mentioned
creditors_PA>'   [ArchČ 9, 294; 1451; a loan contract]

We could thus summarize that in contrast to the FAITH PA, this usage was from the very beginning dedicated to its potential as an actor noun, which is unambiguously signaled by its syntax, both external and internal: no verbal government, consistently a full NP structure, and consequently we can also infer a weak sense of temporal grounding. On the one hand, it is true that the attested data are mostly records of specific eventualities, in which the roles within a debt-paying transaction are assigned within a particular, sometimes explicitly established time frame. In that sense, the assignation of being a *věřící* need not be taken as indicating an atemporal interpretation that defines a *type* of participant based on general class membership. At the same time, the semantic overlap with the true, atemporal actor noun *věřitel* was clearly salient enough in the minds of the speakers if the forms were so easily used as synonyms. This relationship, together with the syntactic patterning, invites a shift toward an atemporal understanding, with the PA then denoting a conventional role in a particular type of business relations.
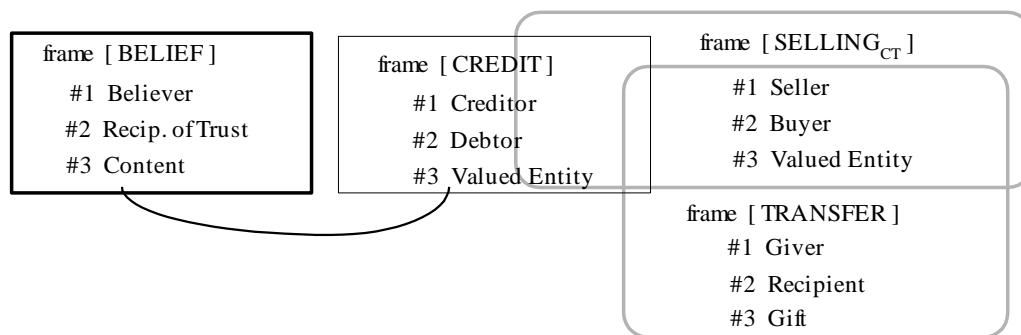
This conclusion is consistent with the one exception to the preferred syntactic pattern just described, certainly so on pragmatic grounds. The one instance of the PA without a modifier is not a record of an actual contract in which the speaker enumerates his or her obligation toward a concrete partner. Instead, the example in (10), chronologically relatively late, comes from a manual for composing contracts and other official documents, where there is no need to be explicit about the remaining participants; it only offers a general advice on what conventionally accepted options a creditor has toward his or her negotiating partner(s). No temporally restricted reading is even possible here, the PA can only be understood as a classificatory label.

(10) *na vuoli   < věřícieho >   jest*
      on will.LOC.SG.F   believe.PA.GEN.SG   AUX.3SG
      {*diel od jednoho spolurukojmí vzieti*}
      'it is [left] to the discretion of <the/a creditor> {to take a
      down payment from one of the guarantors}
      [ProkArs 168; late 1400s; manual for legal writing]

Thus in the CREDIT PA, the only verbal feature left appears to be the PA's active orientation: it is an *actor* noun, after all. This conclusion, however, requires some elaboration; it still remains to be determined what exactly this PA meant, particularly with respect to the general question that frames this study: how can we best capture the PA's conventional meaning and which, if any, interpretations have to be left to broader thematic context, which is to say, to

speakers' understanding of the situation at hand vis-à-vis the morphosemantic structure of the form.

The reason for posing this question are examples such as in (11) below, which present an interesting twist on how the valence of the root may be manipulated in different situational contexts. So far, all the uses have involved the most transparent distribution of roles as it follows from the semantic structure of the verb root organized around the prototype. Recall the relationship between the participants across different senses and particularly the correspondence between BELIEF and CREDIT, the latter also with the overlapping frame of COMMERCIAL TRANSACTION (CT), repeated in Diagram 3. For reasons that will become clear shortly, the CT frame is presented in one of its particular subframes, which can be labeled as SELLING.
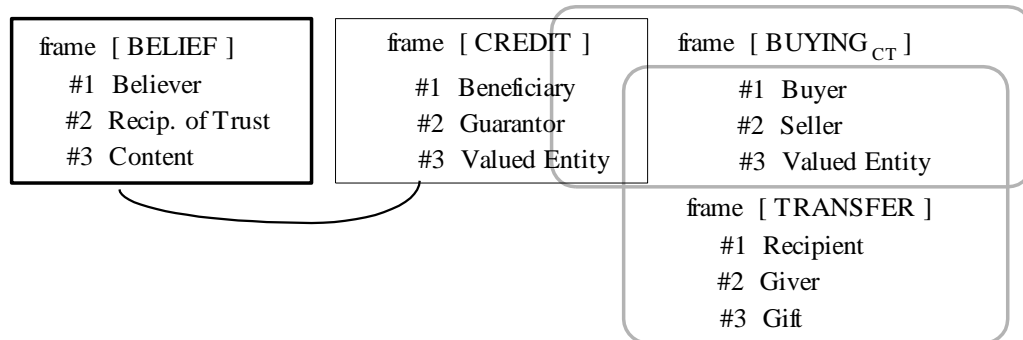
frame [BELIEF]
#1 Believer
#2 Recip. of Trust
#3 Content

frame [CREDIT]
#1 Creditor
#2 Debtor
#3 Valued Entity

frame [SELLING_CT]
#1 Seller
#2 Buyer
#3 Valued Entity

frame [TRANSFER]
#1 Giver
#2 Recipient
#3 Gift

Diagram 3. *věřící* as a trusting seller/lender

The distribution depicted in Diagram 3 is reflected in (8–10). The 'believer' in those examples is a seller or money lender, i.e. the person who believes that the buyer or borrower will pay his/her debt. The contexts all involve paying a debt and the referent of *věřící* is cast in the Creditor role. But the examples in (11) are different; the parentheses in (11a) reflect the actual orthography:

(11) a. {*pakli bychom...zbožie ... v zemské dsky...nemohli vložiti..., tehdy*}
slibujeme ...   < našim věřícím >   (straně
promise.PRES.1PL our   believe.PA.DAT.PL (party.DAT.SG
kupující) ... *napředpsanú   jistinu*
buy.PA.DAT.SG) above.written.ACC.SG.F capital.ACC.SG.F
{*peněz a k tomu třetinu výše*}
' {should we fail to enter the [transfer of the] estate into the land register, we hereby} promise [to pay] <our partner> (the buying party) the abovementioned capital {and one third of its value on top of that}
[ProkArs 156b; late 1400s; legal writing manual]

b. {*Pakli bychom toho všeho neučinili, tehdá* }
< *náš věřící* >   *moci   bude   nám   láti*
  our   believe.PA.NOM.SG can.INF be.FUT.3SG 1PL.DAT rail.INF
'{Should we fail to do all that , then} our trusting [buyer]
will be allowed to rail at us'
[ArchČ 15, 305; 1455; record of the sale of a village]

In (11a) the role of the PA's referent is explicitly identified as 'the buyer', while in (11b) that same role follows from the context: the speaker is the one selling the village and he is laying down the conditions of a successful sale, which includes his writing the deed into the land records. Evidently, the 'believer' need not always be the one who is giving anything on credit (lending money or selling property), but can be also the one who is buying on the belief that the goods (Valued Entity) are truly available or have the promised value. In (11), the distribution of roles thus reflects a shift in perspective from which the transaction is viewed: while in (8-10) the usage takes the perspective of the seller (hence the overlap with the SELLING subframe of the CT scene), in (11) the buyer's perspective is taken, which means a different conceptualization of the CT background frame, namely, BUYING. This switch, in turn, yields a slightly different interpretation of the roles involved in the act of believing: instead of the correspondences in Diagram 3, we get the configuration in Diagram 4.

frame [BELIEF]	frame [CREDIT]	frame [BUYING CT]
#1 Believer	#1 Beneficiary	#1 Buyer
#2 Recip. of Trust	#2 Guarantor	#2 Seller
#3 Content	#3 Valued Entity	#3 Valued Entity

frame [TRANSFER]
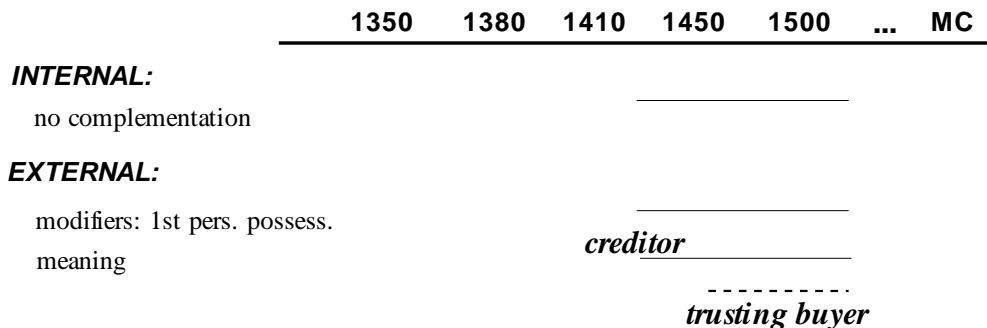 #1 Recipient
  #2 Giver
  #3 Gift

Diagram 4. *věřící* as the a trusting buyer

To be sure, the context in (11) is still a commercial transaction and the issue at hand is to ensure that the buyer and the seller do not cheat each other, but the status of being the one who 'believes' is attached to the Buyer rather than Seller. The meaning of *věřící* in these cases is thus more accurately paraphrased as 'the one who believes [the integrity and honesty of] the Seller', not as 'the one who sells X to the Buyer on credit', as would be expected in an actor noun derived from the CREDIT sense of the verb *věřiti*. The latter interpretation is provided explicitly in (11a), also through the

19

use of the parenthetical clarification *strana kupující* 'the buying party'.

While examples such as (11) are very infrequent and seem to appear only in the later chronological layers of my corpus, they cannot be simply dismissed as errors or an individual peculiarity of a single writer; they come from different sources and it is also significant that the buyer's interpretation is specifically noted in some of them. Instead, the 'fuzziness' only underscores the fluid interaction between different frames that are evoked by a single word and whose activation may not a priori restricted to a specific type of context. It seems that the exact interpretation of the PA in the CREDIT sense was shaped by two different thematic contexts: one involving pure money transfer (as in lending, dowry payments, or any transaction treated simply as a debt of one party toward another), illustrated in (8-10), and the other involving the purchase of a property. At the same time, the fact that an author felt the need to explicate what he means by *věřící* (11a) in a context in which the expected reading could be 'creditor' suggests that particular frames are preferentially evoked in particular contexts (or, that there are certain conventionally expected associations between a type of cultural context and a particular semantic frame) and while such associations can be violated, the unexpected framing may have to be signaled explicitly. It is also important to add that I have not found any attestation of other forms of the verb *věřiti* (finite or non-finite) where its subject would be interpreted as a 'beneficiary/buyer'; it seems to be only the PA form that developed this additional interpretation. A chronological summary is in Diagram 5, where we can see that syntactically, both internally and externally, this PA usage was purely and consistently nominal from the start; note also that it did not survive into ModCz (nor did this verb sense as a whole).

	1350	**1380**	**1410**	**1450**	**1500**	**...**	**MC**

INTERNAL:

no complementation

EXTERNAL:

modifiers: 1st pers. possess.
meaning

creditor

trusting buyer

Diagram 5. Chronology of the noun *věřící* in the CREDIT sense

To conclude, the conventionally expected meaning of *věřící* in the CREDIT sense seems to have been 'one believing in his commercial partner's honesty'. The prototype structure associated with the meaning of the verb root motivates the transparent interpretation of *věřící* as 'trusting seller/lender', i.e. 'creditor', which is indeed found in all kinds of contexts. However, in the context of property buying, as a specific type of transaction, we find, at least marginally, a switch to the perspective of the buyer, yielding the interpretation of *věřící* as 'trusting buyer', in a shift away from the prototypical distribution of the roles maintained by the rest of the verbal paradigm.

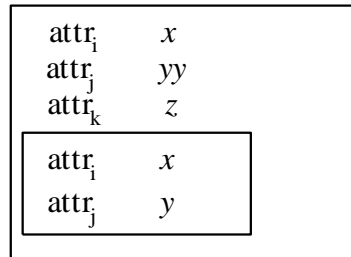## 4. Context and grammar in a network model of language change

The discussion in the preceding sections makes several things evident. First off, it would be an oversimplification and misrepresentation of historical reality if we limited ourselves to noting that the form *věřící* turned (among other things) into actor nouns. At a minimum, it did not turn into such nouns across the full semantic spectrum provided by the meaning of the root. Furthermore, the factors that were instrumental in developing the actor noun conventionalization were not quite uniform across the relevant semantic subdomains (FAITH vs. CREDIT). And finally, a sweeping generalization that does not go beyond the level of lexical categories (a V $\rightarrow$ N change, or even if seen as a Participle $\rightarrow$ N change) misses any kind of insight into the cognitive and communicative mechanisms that are involved in grammatical reorganization and that can advance our understanding of the incremental nature of such changes in general, not just in this particular case.

In order to understand the gradual shift in the conventional interpretations of the form in question, we must first consider the PA's place in the semantic network provided by the root from which the form is derived. Without this connection, we could at best provide a disjointed list of uses without any apparent motivation. Yet, we can see that the different senses and uses of *věřící* form coherent sub-networks within the semantic space associated with the verb. These sub-networks, in turn, represent different clusters of essentially the same syntactic, functional, and pragmatic properties and, crucially, the clustering is not necessarily predictable from anything in the morphosemantic structure *per se*. In fact, the overall shift can be best described as a gradual erosion of compositional structure. This means that the PA goes from being a transparent sum of its parts (with all the attendant flexibility in use and functional

status in larger context, due to the indeterminate nature of the external C/N/G suffix) to a functionally fixed category with a meaning that is no longer fully derivable from the form's morphological make-up.

The task that remains, then, is to capture this shift in a way that properly includes the systematic participation of the relevant contextual factors and that also allows us to make generalizations about the role different types of context played in the process. Diagram 7 shows a frame-semantic/constructional network in which all the semantic, syntactic, and contextual properties can be organized.

First, however, a few notes on the formalism; a slightly simplified notational practice is shown in the generic constructional representation in Diagram 6 (the interested reader is invited to consult Fried & Östman 2004 for all the technical details, none of which are crucial to the concerns of this paper).

$$
\begin{array}{ll}
\text{attr}_i & x \\
\text{attr}_j & yy \\
\text{attr}_k & z \\[4pt]
\hline
\text{attr}_i & x \\
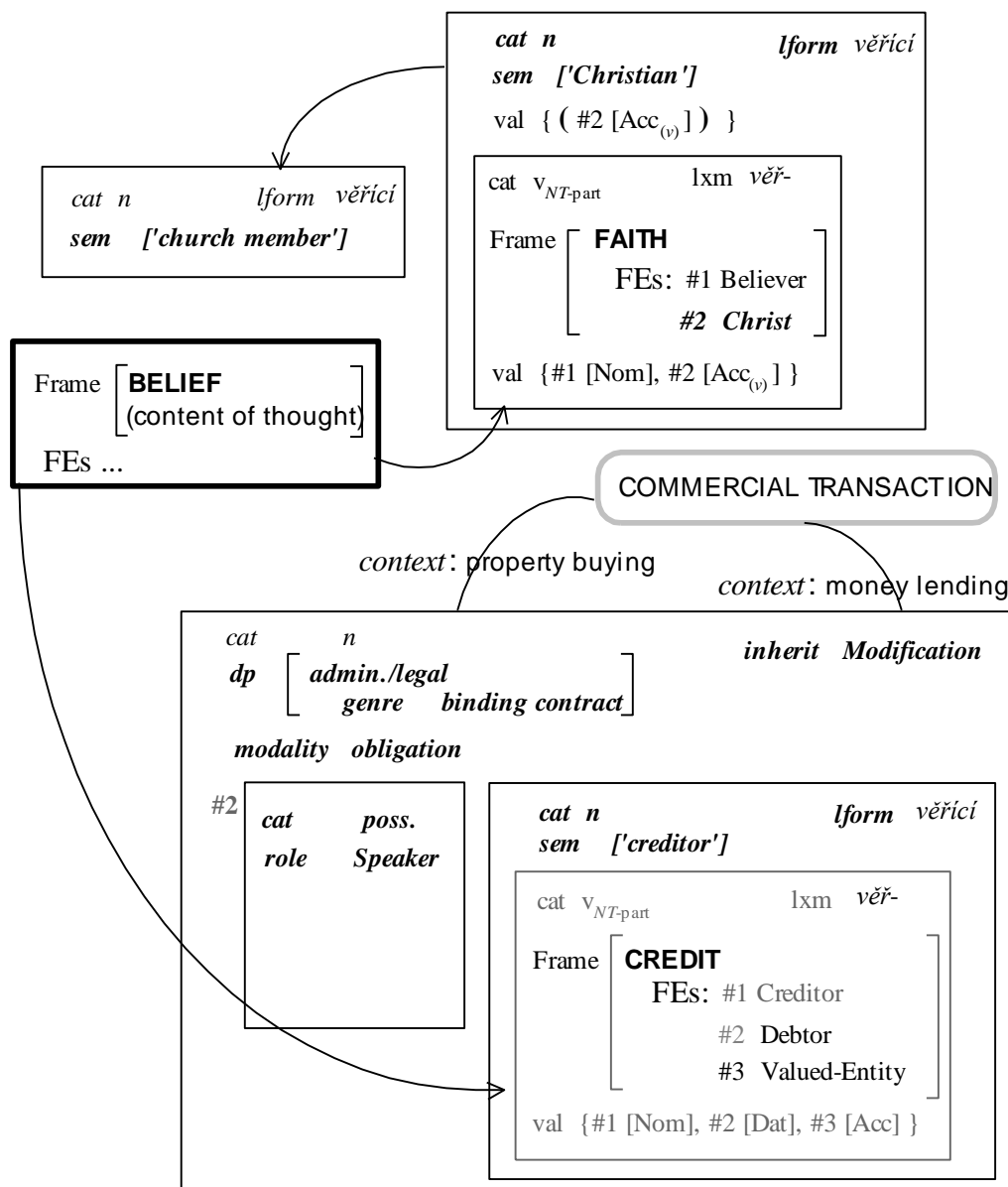\text{attr}_j & y
\end{array}
$$

Diagram 6. CxG formalism in the abstract.

The nested boxes reflect constituent structure, but also allow us to make a principled and systematic distinction between two domains of representation: the 'external' properties of a construction in the outside box (e.g. the C/N/G suffix that forms the PA) and its 'internal', constituent-level properties (e.g. the participial stem) in the inside box. This distinction is essential for capturing the fact that a complex expression (morphological or syntactic) as a whole may have its own idiosyncratic features that do not follow from the internal composition. Individual features are represented as attribute-value pairs, in Diagram 6 labeled only as *attr* followed by a variable (x, y, etc.). Notice that the internal and external levels may share certain attributes (co-indexed) and/or values, but need not share *all* of them; hence the non-compositionality effects.

Turning now to the representations of the PAs, we start by noting that the frames presented in Diagram 1 correspond to those boxes in Diagram 7 that contain the attribute *frame* in them, followed by the name of the appropriate semantic frame (BELIEF, CREDIT, etc.). Notice that most of these frames are now inside other boxes, indicating the fact that the frame information, along with

various other features, is contributed by the PA's stem, which, in turn, is a constituent of another form, namely, the PA itself (labeled as *lform*); this arrangement reflects the hierarchical morphological structure introduced in (1), although the representation in Diagram 7 ignores other structural details that are not crucial to the present purposes. In an example of the external/internal distinction, the features listed at the top of the outer box of the FAITH PA represent the constructional properties of this use of *věřící* that do not simply follow from adding up the properties of its constituent morphemes. (A bit more will have to be said about the representation of the CREDIT PA.) For easier orientation, all the features that are not predictable from the morphosemantic structure of the PA are in italicized boldface.

The attribute-value formalism can be quite elaborate and detailed, but I prefer to simplify the notation somewhat, in the interest of general accessibility. For our purposes, we only need to register several such attributes; some are self-explanatory, such as *cat*(*egory*), *sem*(*antics*), (*discourse*) *role*, *modality*, *val*(*ence*), while others may require a brief commentary: *dp* is an abbreviation for 'discourse pattern', which I use for marking textual/stylistic constraints (to be discussed in more detail shortly), *lform* indicates a specific, physical word-form, while *lxm* stands for 'lexeme'; *FE* stands for 'frame element'.

Diagram content:

cat n   lform věřící
sem ['Christian']
val { (#2 [Acc$_{(v)}$]) }

cat n   lform věřící
sem ['church member']

cat v$_{NT\text{-}part}$ lxm věř-
Frame FAITH
         FEs: #1 Believer
              #2 Christ
val {#1 [Nom], #2 [Acc$_{(v)}$] }

Frame BELIEF
       (content of thought)
FEs ...

COMMERCIAL TRANSACTION

context: property buying

context: money lending

cat   n
dp   admin./legal
      genre   binding contract

inherit Modification

modality obligation

#2   cat   poss.
     role   Speaker

cat n   lform věřící
sem ['creditor']

cat v$_{NT\text{-}part}$ lxm věř-
Frame CREDIT
        FEs: #1 Creditor
             #2 Debtor
             #3 Valued-Entity
val {#1 [Nom], #2 [Dat], #3 [Acc] }

Diagram 7. Frame-semantic/constructional network of OCz *věřící* as a noun.

The picture summarizes our observations about the FAITH and CREDIT PAs, also in relation to the general background frame BELIEF, to which they still belong. The path of the FAITH usage is relatively straightforward. This PA maintained the more or less transparent structure of an inflectional form and only very slowly shifted toward becoming a full-fledged actor noun. In particular, the valence of the root, represented by the *val* statement inside the stem box, remained a property of the PA as well: the *val* statement at the external level specifies that the non-subject dependent can be expressed by the PA,

albeit only optionally, as indicated by the parentheses. The rest of the external properties, however, are idiosyncratic to the PA: its external syntax is unambiguously that of a noun (in spite of the adjectival morphology of the CNG suffix, not explicitly included in Diagram 7) and its meaning is 'Christian', which follows from the narrowing of the referential potential of the FE Deity (recall Diagram 1) to Christ. As the chronological summary in Diagram 2 shows, it took at least two generations of speakers before the internal structure was sufficiently eroded and the atemporal interpretation became fully established and the only one available. It was only when this shift was fully in place that the 'church member' reading could arise, as an extension of the PA, without any direct relationship to the verbal origin. Notice the complete absence of any valence or, for that matter, any other reference to the participial stem in its representation; there is no motivation for positing any derivational link between the two.

As we already mentioned, the crucial factor in the shift appears to be the *syntagmatic* context, i.e. the collocational pattern [Quant + PA] in which this form routinely occurred; the collocational preference itself, though, did not become conventionalized as such, it only facilitated the fixing of the PA's categorial status. On the other hand, the *communicative* context kept reinforcing certain interpretive clues about the meaning of *věřící* that gradually did become part of the PA's conventional meaning. Specific contextual features, namely, promotion of Christian faith, strongly favored a particular interpretation of the PA's referent, which resulted both in the semantic specialization of the PA (Christian faith) as compared to the verb itself (religious faith) and in the PA's functional specialization (identification of group membership based on certain properties), yielding a semantic and syntactic (though not morphological) noun.

In contrast, the case of the CREDIT PA is more involved, its departure from its inflectional origin much more complete and seemingly abrupt. The effects of the *syntagmatic* context were directly and visibly incorporated in the conventional usage from the start. For one thing, the verbal potential was completely suppressed, even beyond the issue of valence expression; this 'fading away' of the internal structure is indicated by the gray color in the diagram: the participial properties of the stem, the valence requirement of the root, and even the conventional configuration of the frame participants associated with the verbal usage clearly lost there significance. At the same time, the PA typically occurs in a modification structure [Poss + PA], i.e., as the head of a phrasal construction that can be generalized as [Modifier + N]. This fact is captured by enclosing the PA together with its possessive modifier

in a larger box, representing them as a single, conventional phrasal unit. The features listed in the left-daughter box express the constraints associated with the modifier and the right-daughter box represents the PA, as the head of the whole Modification construction. This [Poss + PA] unit also carries all the properties of other modification patterns (such as case/number/gender agreement between the constituents, the distributional properties of the whole phrase in sentences, etc.) and this relationship needs to be captured as well, through the *inherit* statement at the external level.

However, we know that other types of contextual factors also played a role and that those must be reflected in the representation as well. First of all, the PA was restricted to a specific *textual/stylistic* context, in Diagram 7 indicated by the *dp* (Östman's 2005 "discourse pattern") attribute: this PA only appears in a formulaic administrative usage and was most likely coined specifically as a 'technical' term. We can think of the notion of discourse patterns as conventional schematizations of the speakers' knowledge about distinct discourse situations, which may impose specific constraints on grammatical patterning. In the case of our [Poss + PA] collocation, the relevant discourse pattern can be conceptualized as a type of legal and administrative discourse, which came in various subtypes (e.g. summonses, sentencing, contracts, testaments, etc.). I label these provisionally as genres but the meaning and use of these categories clearly need additional study. The attributes *dp* and *genre* thus serve to invoke a general frame of understanding of a discourse situation in which this PA naturally fits. Notice also that no such reference is necessary in representing the FAITH PA since its textual distribution remains unconstrained.

Second, the *communicative* context in which this PA was used seems to be restricted to a particular modality: with the one motivated exception shown in (11), the context always involves an expression of obligation with respect to maintaining trust between commercial partners. The modality is often expressed directly by a verb of obligation, such as *mít* 'ought to' in (8-9), but can be also more subtle, as in (11). Again, this restriction is not a property of the verb itself, nor the participial stem but, rather, correlates with the kind of discourse it occurs in (a binding contract).[5]

And finally, full understanding of the conventional meaning of this PA must include reference to *discourse roles*: one of the participants provided by the verb root is necessarily the speaker.

---

[5] The semantically unrestricted distribution of the verb correlates with the fact that it was used in all kinds of genres, not just a particular type of administrative texts. Recall the example in (2), which illustrates the contextually neutral nature of the verb.

This is consistent with the performative flavor of the situation in which this PA was used: declaring contractual obligation between the speaker and his/her contractual partner. All of these context-sensitive features became part of the conventional meaning of the CREDIT PA, turning it into an actor noun distinct from what the verbal paradigm would predict, including the fact that it prototypically occurs only as the head of a modification construction.

The representation also leaves room for the development of the emerging polysemy documented in (11). The possibility of reconfiguring the participant roles indicates that the CREDIT PA's link to the verb's semantic structure had been sufficiently loose by the late 1400s (represented by the gray color for the indices #1-2 in Diagram 7), thereby inviting an alternative perspective, which results in a different hierarchical organization of the roles. At the same time, it is interesting to note that this shift is found always in the same semantic context (property buying). This may mean nothing, of course, since we are dealing with an incomplete record, but it may also be indicative of the tendency toward isomorphism as a powerful motivating force in balancing the tension between the need to express new meanings (polysemy) and maintaining relative clarity through one-to-one mappings. However, we do not have strong evidence for concluding that this marginal, though motivated, expansion ever became a conventionally established distinction. The attestations suggest the *potential* for such a development and our representation captures where and why this kind of 'stretching' of the conventional pattern can occur, but the sporadic record does not justify positing a distinct construction or a frame.

To summarize, once we attempt to formulate explicit generalizations about the relevant empirical observations, at least two broad conclusions become apparent. One concerns the level of descriptive detail. Although on the surface the PA development may seem primarily an issue of morphology (generating a hybrid morphological form within an inflectional paradigm), in reality it involves a number of additional dimensions that have to be integrated in the analysis if we are to arrive at an accurate picture of these forms and the changes in their use and categorial status over time. The frame- and construction-based approach provides useful tools for incorporating all the necessary detail in a principled and systematic way.

Second, the network in Diagram 7 embodies the gradient nature of the distinction between lexicon and grammar. Frames are a tool for structuring lexical meaning (in the sense of speakers' conventional understanding), but an accurate representation of the meaning and usage of a lexeme or its word-forms may involve a lot more than just an inventory of frames or, for that matter, a list of

single words associated with that frame. As we see with the CREDIT PA, certain generalizations about the properties of a single word(form) can easily go beyond the domain of a word and instead take the form of a phrasal construction. This particular construction has fully transparent syntactic structure and yet, in order to articulate the shifts in the speakers' understanding of this PA, we cannot keep the external syntax separate from the semantic and pragmatic constraints, *all* of which incorporate various kinds of contextual clues. That is, the phrasal construction constitutes one segment of the lexico-grammatical network associated with the noun *věřící*, thus blurring the imaginary boundary between grammar and lexicon.

5. Conclusions

The main goal of this study was to examine the ways in which different kinds of contextual information may play a role in the reorganization of specific form-meaning associations, and how this reorganization can be represented by the tools of a synchronic model of language that tries to give a cognitively plausible representation of speakers' linguistic knowledge. I approached the problem from a diachronic perspective, studying the interaction between context and grammar as it is reflected in the incremental accumulation of the features that collectively amount to an observable shift in a form's usage. Overall, the change under investigation can be best described as a gradual conventionalization of a pattern of *understanding*, in which lexical meaning, syntactic function, and communicative function form an integrated whole.

The choice of the OCz PA as illustrative material is motivated by the fact that the PA is a categorially hybrid form that developed in several different directions (functionally and categorially, cf. also Fried 2003 and in press), each direction correlating with a distinct cluster of various contextual factors. The PA's structure and the patterns of its usage speak to many issues – semantic, syntactic, morphological – and pose challenges both for accurate analysis and, perhaps even more so, for finding an adequate way of representing the generalizations that can be made about them.

The way different contextual factors entered the conventional understanding of the PA *věřící* as an actor noun can be summarized as follows. (i) To the extent that *semantic/pragmatic* context (i.e. the cultural grounding of speakers' understanding) gets incorporated into the lexico-grammatical make-up of the PA, it affects the frame structure, i.e. the lexical meaning (cf. the narrowing of the FAITH sense or the emerging split in the CREDIT

sense).   (ii) The *syntagmatic* context indicates structural and functional preferences of the item in question and if incorporated into the conventionalization of an expression, it may give rise either to new grammatical constructions (e.g. the PA itself, as a morphological construction whose internal structure became more opaque) or to a fixed phrasal expression based on an independently existing grammatical construction (cf. the CREDIT PA's modificational pattern). (iii) Finally, the fixing of a form's usage may arise in particular *textual* settings, and such constraints again become part of the constructional specifications (cf. the stylistic restrictions on the CREDIT PA).

The syntagmatic context has turned out to be particularly relevant in shaping the PA's development, whether the patterning became part of the conventional expression (CREDIT) or just facilitated the gradual fixing of the categorial status (FAITH). This observation underscores two things. One is the mutually reinforcing effect of form and meaning/function: neither dimension can be strictly predicted from the other, but each influences the speaker's understanding and interpretation. Related to this is the importance of tracking collocational patterns and dealing with them in a systematic manner, so that we can capture what is stable and predictable about them without having to deny their idiosyncratic properties. The collocations that played a role in the development of the PAs all share regular, productive features with various general syntagmatic patterns (such as the grammatical properties of the abstract modification construction), but they are much less transparent with respect to other types of context: textual, pragmatic, and semantic. These features are unpredictable and must be 'known by speakers outright', i.e., must be specified explicitly in the representation, since they cannot follow automatically from the knowledge of other linguistic patterns (cf. Goldberg's 2002 notion of "surface generalizations", which applies here as well).

In order to establish shifts within the lexico-grammatical network associated with the PA, we have to first study the details of how the network's (potential) members are used in context and what are the factors that contribute to the sharpening of the PA's inherently available but vaguely delimited and initially context-dependent syntactic function. One has to consider the way semantic space is divided between different uses in different contexts, even within the same potential category (in our case, nouns). We have seen that different senses within a polysemy network shape the superficially identical form quite differently. Consequently, the process of incorporating contextual information into grammatical structure requires a network-based model of language that allows multidimensional representations of the interdependencies between

lexical meaning, morphosyntactic structure, and pragmatic constraints both within and across individual constructions.

With respect to the representational potential of CxG vis-à-vis 'context', it is clear that the model is equipped, conceptually, to accommodate the pragmatic and general socio-cultural dimension of grammatical patterns, when needed. What remains to be worked out more carefully, though, is a consistent set of relevant categories and the notational convention for the contextual dimension. The present analysis has taken a rather brute-force approach by simply invoking attributes that were necessary for addressing the data at hand (*dp*, *genre*, *modality*, etc.). It is possible and, perhaps, desirable to treat the contextual issues as a distinctly recognizable layer within constructional representations, along the lines of several recent proposals (Östman 2000, 2005, Fried & Östman 2005, Bergs 2005b) which call for organizing the contextual features and categories into coherent representational domains, akin to the notion of frame as used and applied in Frame Semantics.

Finally, as suggested in the introduction, the analysis has consequences for addressing the grammaticalization/lexicalization dilemma and the PAs provide material for further exploration of this actively debated question. One possibility in addressing the PA's conventionalization patterns is to emphasize the observation that the development may be lexically restricted (different verbs or verb senses predispose their PAs toward different contextual and structural preferences), in which case we could simply approach them one at a time, as independent cases of lexicalization in the sense of turning an inflectional wordform into an independent lexeme. At the same time, all the tokens share the same morphosemantic structure and differ only in selecting which particular subsets of those initially provided features will become highlighted, or obscured, in their use. It thus follows, that the development bears signs of grammaticalization as well, through the generalization of certain semantic features and through the gradual enlisting of the new usage (motivated by various contextual factors) for different syntactic functions, in the sense of Traugott's metonymy-based definition of grammaticalization (Traugott 1992; Traugott & Dasher 2002). The constructional approach seems to offer a way of reconciling the two sides of the problem, minimally by allowing us to frame the distinction and its manifestations as a continuum, rather than a strict opposition.

References:
Atkins, B.T.S. (1994). Analyzing the verbs of seeing: a frame
    semantics approach to corpus lexicography. *BLS* 20, 42–56.

Atkins, Sue, Charles J. Fillmore & Christopher R. Johnson (2003). 'Lexicographic relevance: selecting information from corpus evidence.' *International Journal of Lexicography* 16, 251-280.

Bergs, Alexander (2005a). *Social networks and historical sociolinguistics*. Mouton de Gruyter.

Bergs, Alexander (2005). The future in context: a constructional approach. Paper presented in The 9th International Pragmatics Conference, Riva del Garda, Italy.

Bhatia, Vijay K. (1993). *Analyzing genre: language use in professional settings*. London: Longman.

Biber, Douglas (1994). *Dimensions of register variation*. Cambridge: Cambridge University Press.

Biber, Douglas & Edward Finegan (1989). Drift and the evolution of English style: a history of three genres. *Language* 65: 487-517.

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

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

Croft, William (1991). *Syntactic Categories and Grammatical relations*. Chicago: The University of Chicago Press.

Croft, William (2001). *Radical Construction Grammar. Syntactic theory in typological perspective*. Oxford: Oxford University Press.

Cuyckens, Hubert, René Dirven & John R. Taylor (Eds.) (2003). *Cognitive approaches to lexical semantics*. Berlin: Mouton de Gruyter.

Fillmore, Charles J. (1974/1981). Pragmatics and the description of discourse. In Ch. J. Fillmore, G. Lakoff, & R. Lakoff (Eds.), *Berkeley studies in syntax and semantics* I (Chapter V). Dept. of Linguistics, UC Berkeley. [(1981) In P. Cole (Ed.) *Radical pragmatics* (pp. 143-166). New York: Academic Press.]

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

Fillmore, Charles J. (1984). Frames and the semantics of understanding. *Quaderni di Semantica* 6, 222-254.

Fillmore, Charles J. (1986). U-semantics, second round. *Quaderni di Semantica* 8, 49-58.

Fillmore, Charles J. (1988). The mechanisms of 'Construction Grammar'. *BLS* 14, 35-55.

Fillmore, Charles J. (1989). Grammatical Construction theory and the familiar dichotomies. In R. Dietrich & C.F. Graumann (Eds.), *Language processing in social context*, 17-38. Amsterdam: North-Holland/Elsevier.

Fillmore, Charles J., & B.T.S. Atkins (1992). 'Toward a frame-based lexicon: The semantics of RISK and its neighbors.' In A. Lehrer, & E. Feder Kittay (Eds.), *Frames, Fields, and Contrasts: New Essays in Semantic and Lexical Organization*. Lawrence Erlbaum Associates, 75-102.

Fillmore, Charles J., Paul Kay & Mary Catherine O'Connor (1988). Regularity and idiomaticity in grammatical constructions. *Language*, 64, 501-538.

Fillmore, Charles J., Miriam R.L. Petruck, Josef Ruppenhofer & Abby Wright (2003). 'Framenet in action: The case of attaching.' *International Journal of Lexicography* 16, 297-332.

Fried, Mirjam (2003). Dimensions of syntactic change: evidence from the long *-nt-* participle in Old Czech texts. In R.A. Maguire & A.Timberlake (Eds.), *American Contributions to the 13th International Congress of Slavists in Ljubljana*, 79-92. Slavica.

Fried, Mirjam (2004). Predicate semantics and event construal in Czech case marking. In M. Fried & J-O. Östman (Eds.), *Construction Grammar in a cross-language perspective.* Amsterdam & Philadelphia, PA: John Benjamins. 87-120.

Fried, Mirjam (2005a). The stability of meaning-form associations across time. In P. Nejedlý & M. Vajdlová (Eds.), *Verba et historia*, 77-85. Praha: ÚJČ AV ČR.

Fried, Mirjam (2005b). A frame-based approach to case alternations: The *swarm*-class verbs in Czech. *Cognitive Linguistics* 16/3:475-512.

Fried, Mirjam (In press). Grammaticalization and lexicalization effects in participial morphology: a Construction Grammar approach to language change. In A. Van linden, K. Davidse, & J-Ch. Verstraete (eds.), *Grammaticalization and grammar*. Amsterdam & Philadelphia: John Benjamins.

Fried, Mirjam (2008). A Frame Semantic account of morphosemantic change: the case of Old Czech *věřící*. In D. Divjak & A. Kochanska (Eds.), *Cognitive paths into the Slavic domain,* 283-315. Berlin: Mouton de Gruyter.

Fried, Mirjam & Jan-Ola Östman (2003). The explicit and the implicit in the Suasion Frame. In E. Hajičová, A. Kotěšovcová & Jiří Mírovský (Eds.), *Proceedings of CIL 17,* 1-22, CD-ROM. Prague: Matfyzpress.

Fried, Mirjam & Jan-Ola Östman (2004). Construction Grammar: A thumbnail sketch. In M. Fried & J-O. Östman (Eds.),

Construction Grammar in a cross-language perspective, 11-86.
Amsterdam & Philadelphia, PA: John Benjamins.

Fried, Mirjam & Jan-Ola Östman (2005). Construction Grammar
and spoken language: the case of pragmatic particles. *Journal of
Pragmatics* 37/11: 1752-1778.

Geeraerts, Dirk (1992). The return of hermeneutics to lexical
semantics. In M. Putz (ed.), *Thirty years of linguistic evolution:
studies in honor of René Dirven*, 257-282.

Geeraerts, Dirk (1993). Vagueness's puzzles, polysemy's vagaries.
Cognitive Linguistics 4(3): 223-272.

Goldberg, Adele E. (2002). Surface generalizations: An alternative
to alternations. *Cognitive Linguistics* 13.4: 327-356.

Haas, Florian (2005). The development of English *each other* –
grammaticalization, lexicalisation, or both? Paper presented at
the conference From Ideational to Interpersonal: Perspectives
from Grammaticalization, Leuven, Belgium.

Halmari, Helena & Tuija Virtanen (Eds.) (2005). *Persuasion across
genres*. Amsterdam & Philadelphia: John Benjamins.

Harris, Alice C. (2003). Cross-linguistic perspectives on syntactic
change. In B.D. Joseph & R.D. Janda (Eds.), *The handbook of
historical linguistics*, 529-551. Blackwell.

Haspelmath, Martin (1994). Passive participles across languages. In
B. Fox & P.J. Hopper (Eds.), *Voice: form and function*, 151-177.
Amsterdam: John Benjamins.

Haspelmath, Martin (1996). Word-class-changing inflection and
morphological theory. In G. Booij & J. van Marle (Eds.),
Yearbook of Morphology 1995, 43-66. Kluwer Academic
Publishers.

Himmelmann, Nikolaus P. (2004). Lexicalization and
grammaticization: opposite or orthogonal? In In B. Wiemer &
W. Bisang (Eds.). *What makes grammaticalization*?, 21-42.
Mouton de Gruyter.

Hopper, Paul J. (1998). Emergent grammar. In M. Tomasello (Ed.),
The New Psychology of Language, 155-175. Lawrence Erlbaum
associates.

Kurz, Josef (1958). K otázce doby vzniku slovanských adjectiv složených a
jejich původního významu. In *Studie ze slovanské jazykovědy, sborník
k 70. narozeninám akademika Fr. Trávníčka*, 211-219. Praha: SPN.

Linell, Per (1998). *Approaching dialogue. Talk, interaction and
contexts in dialogical perspectives*. [Impact 3] Amsterdam &
Philadelphia, PA: John Benjamins.

Östman, Jan-Ola (2000). On the outskirts of 'the periphery': Construction
Grammar meets the Postcard Frame. Paper presented at the The 7th
International Pragmatics Conference, Budapest, Hungary.

Schenker, Alexander M. (1995). The *Dawn of Slavic*. Yale University Press.

Schultze-Berndt, Eva & Nikolaus P. Himmelmann (2004). Depictive secondary predicates in crosslinguistic perspective. *Linguistic Typology* 8-1, 59-131.

Short, David (1993). Czech. In B. Comrie & G.G. Corbett (Eds.) *The Slavonic languages*, 455-532. London & New York: Routledge.

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

Swales, John (1990). *Genre analysis: English in academic and research settings*. Cambridge: Cambridge University Press.

Traugott, Elizabeth Closs (1992). From less to more situated in language: The unidirectionality of semantic change. In M. Kefer & J. van der Auwera (Eds.), *Meaning and grammar: Cross-linguistic perspectives*, 497-517.

Traugott, Elizabeth C. (2003). Constructions in grammaticalization. In B.D. Joseph & R.D. Janda (Eds.), *The handbook of historical linguistics*, 624-647. Blackwell.

Traugott, Elizabeth C. (2005). *Bits/shreds* of evidence for the gammaticalization of negative and positive polarity constructions. Paper presented at the XVIIth International Conference on Historical Linguistics, Madison, WI.

Traugott, Elizabeth Closs & Richard B. Dasher (2002). *Regularity in semantic change*. Cambridge University Press.

Wiemer, Björn (2004). The evolution of passives as grammatical constructions in Northern Slavic and Baltic languages. In B. Wiemer & W. Bisang (Eds.). *What makes grammaticalization*?, 271-331. Mouton de Gruyter.

Wiemer, Björn & Walter Bisang (2004). *What makes grammaticalization*? An appraisal of its components and its fringes. In B. Wiemer & W. Bisang (Eds.). *What makes grammaticalization*?, 3-20. Mouton de Gruyter.

Wischer, Ilse (2000). Grammaticalization versus lexicalization: '*Methinks*' there is some confusion. In O. Fischer, A. Rosenbach & D. Stein (Eds.), *In pathways of change: grammaticalization in English*, 355-370. Amsterdam: John Benjamins.