

The radial network of a grammatical category — its genesis and dynamic structure

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Abstract

This paper presents an account of the semantic category of the dative case in Czech in the framework of cognitive grammar. A hierarchy of types of variation involved in the structuring of case categories is suggested, as well as appropriate notations for capturing case semantics. All types of case usage, whether traditionally identified as grammatical, semantic or affective, are shown to have a logical, well-motivated role in the structure of the case category. In particular, affective uses of case are demonstrated to be regular, predictable metaphorical extensions of basic case usage. A set of possible universal strategies in the evolution and structure of case categories is posulated in the conclusion.

Introduction

I will focus on the semantics of case in natural languages.¹ Specifically, I will examine the inner workings of a case category, how it is structured and how it develops. My presentation is based factually on the dative case of Czech and theoretically on the framework proposed by Lakoff (1986, 1987), Langacker (1987) and Talmy (1986). This approach is intended as an improvement over and replacement for previous descriptions of case semantics, which have for the most part been of two kinds: 1) encyclopedic (cf. Havránek and Ledická 1960; Mrázek 1964; Šmilauer 1972; Švedová et al. 1982), or 2) feature-based (cf. Jakobson 1936 [1971]; Burston 1977; Kortum 1979). Neither of these two approaches is able to capture the hierarchical relationships that hold among the submeanings of a case for their focus is either too narrow (at the level of individual submeanings only) or too broad (at the level of abstract generalization only) and they lack a device for describing semantic structure. The present approach will provide a more balanced account, considering the details of separate sub-

meanings within the overall structure of the case, thus appropriating the advantages of both previous traditions without being trapped in a framework that allows only one point of view (be it atomistic or abstract) to the exclusion of the other (as has heretofore been the case).

Theoretical considerations

I follow the theoretical framework of cognitive grammar. This theory could be briefly characterized as one that: 1) recognizes semantics as playing a primary role in the organization of all linguistic phenomena, and 2) postulates the same characteristics for linguistic categories as those that have been discovered for other cognitive categories.

The first point might seem trivial until one considers how frequently linguists posit empty categories and "hodgepodge" categories that have a random inventory of members. Both constructs attenuate the role of semantics. One suggests that a linguistic category can be semantically void, and the other that such a category can be a semantic jumble. Few have questioned the role of such categories in the system of a language. If the purpose of language is to communicate meaning, what purpose could elements that are semantically void or confused have in this system? A further question poses even more serious barriers to the acceptance of such categories: can we construct a cognitive model that would explain how human beings store and manipulate vacuous and confused signs? If we cannot, then perhaps we should not postulate the existence of such elements.² In the framework of cognitive grammar meaning is considered the driving force of language, and is therefore sought even in linguistic phenomena which are often considered to be merely grammatical or syntactic. Langacker (1987: 17) has stated that syntactic phenomena are sign vehicles, and that they display semantic properties just like any other set of linguistic forms; for grammar and lexicon form a continuum. Tamy (1986: 1) has expanded on Langacker's assertion, and provided insightful and useful comments on the nature of grammatical meaning. He views lexical and grammatical information as "two subsystems which have distinct functions, ones that are indispensable and complementary". Grammatical, as opposed to lexical, elements are characteristically relativistic, that is they refer to relative rather than absolute values of magnitude, shape, rate, and other properties. Thereby "the grammatical specifications in a sentence ... provide a conceptual framework or, imaginatively, a skeletal structure or scaffolding, for the conceptual material that is lexically specified." Tamy (Tamy 1986: 30) further speculates "that the cognitive function of such classification [of grammatical elements into small, closed classes which are relativistic rather than absolute] lies in

unifying contentful material within a single conceptual system and in rendering it manipulable — i.e., amenable to transmission, storage, and processing — and that its absence would render content an intractable agglomeration". My comments on case will deal with the organizational role it has in the structuring of clausal meaning.

In postulating that linguistic categories have the same characteristics as other cognitive categories, cognitive grammar draws on work done by the psychologist Rosch who found that cognitive categories typically have an internal structure comprised of family relationships to a central prototype. This type of category is termed a "radial category" because of its characteristic shape. The postulation of internal structure for cognitive categories renders the old structuralist slogan "one form, one meaning" practicable. If we recognize "meaning" in this adage as representing a cognitive category (i.e., a system of related uses), then we find that we can indeed relate each morphological form to a single category, although we may find the structure of the category complex. The category of the Czech dative case will serve to illustrate this point.

Notation systems for the semantic category of case

I have adapted from the works of Langacker (1987), Smith (1985, 1987), and Wierzbicka (1980a, b) two forms of notation to caption the types of relationships outlined by Tamy and Langacker. I use a slightly modified version of Langacker's pictorial notation, and, as a check on that system, have further developed a prose notation inspired by the semantic metalanguage proposed by Wierzbicka. Figure 1 presents the notation suggested for what Langacker calls "the canonical event", i.e., the action of a nominative on an accusative. This notation captions the skeletal structure of a conceptualization of the real world setting and the relationships that hold among it and case marked entities.

In this notation case marked entities are represented as circles, verbal

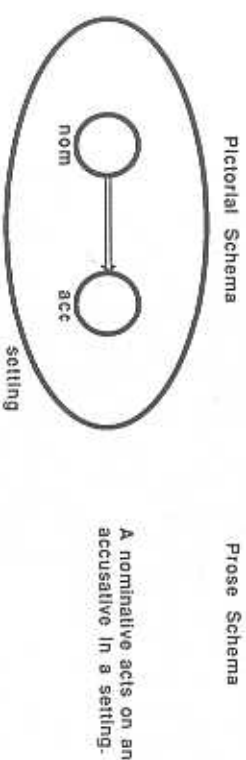


Figure 1. Canonical event

action as a double arrow. It is the position of the nominative and the accusative with respect to each other and to the verbal action that defines their roles in the clause. Here, the nominative is the source of the verbal action and the accusative is its target. Built upon this canonical event, schema 1 (presented in Figure 2) captions the prototypical use of the dative as an indirect object.

In schema 1 we see that the canonical event is interpreted more narrowly in that the action of the nominative entity results in the transferral of the accusative entity. The canonical event is also augmented by the presence of a dative entity, which receives the accusative entity and has an identifying characteristic here named "independent status". In less abstract terms, "independent status" refers to the dative entity's potential agency, its inherent ability to function as a nominative in a further event chain by producing a subsequent action, be it physical, cognitive, or emotional. Thus schema 1 not only captions the indirect object, but also accounts for the fact that the dative entity is typically human (independent status realized as ability to react), thus allowing utterances such as (datives are boldfaced for clarity):

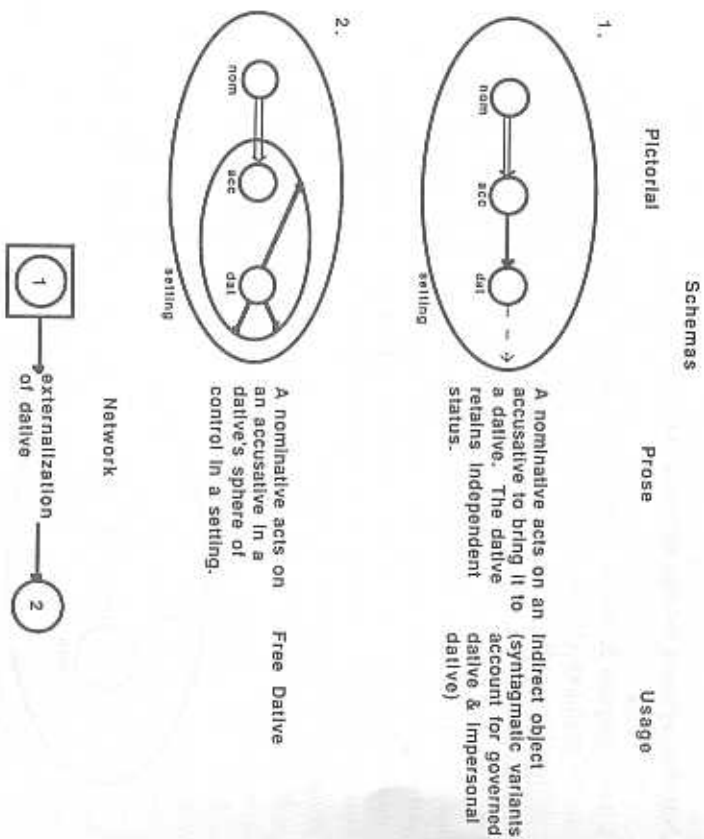


Figure 2. Schemas 1 & 2 and the dative network

- (1) *Dala jsem knihy Janovi*
Gave am-AUX books-ACC Jan-DAT
"I gave the books to Jan."

But not:

- (2) **Dala jsem knihy pokoji*
Gave am-AUX books-ACC room-DAT
"I gave the books to the room."

Yet allowing apparent exceptions to this rule (via metonymic extension) such as:

- (3) *Dala jsem knihy knihovně*
Gave am-AUX books-ACC library-DAT
"I gave the books to the library."

for the library (in particular its personnel) is capable of reacting to the action: accepting the gift, cataloging and shelving the books, etc.

Schema 2 and its relation to schema 1 will be discussed in the analysis below.

Network structure

The indirect object is but one of the many uses of the Czech dative, the prototype central to the network which makes up the semantic category of the dative. Before examining other uses, it would be best to discuss the principles which underly the structure of the network. In a brief article outlining a cognitive approach to case meaning Langacker (1987: 39) states that: "a case category is generally complex, comprising a network of alternate senses connected by relationships of schematicity and semantic extension." This concise description of the relationships that structure case categories is worth further scrutiny, for it contains an essential insight into the structure of case categories. "Schematicity" identifies the abstract way in which the members of a category are united. "Semantic extension", however, refers to specific relationships that hold among schemas in the network. There are two types of relationships which link peripheral schemas to the prototype: the first type is based on topological variations in the schema and the second is based on the target domain of the schema. Each type has two further subtypes, thus yielding the following hierarchical classification of semantic variation observed in case categories:

1. Variations in schema topology

i. *paradigmatic variation* — variation in the portion of the schema that represents the case marked entity

ii. *syntagmatic variation* — variation in the composition of the event chain (removal of participants, replacement of the verb with a copular construction, etc.)

II. Metaphoric extension

- i. *extension to different semantic fields* — through relationships of synonymy, antonymy, or metonymy
- ii. *extension to different domains* — through mapping of relationships onto the domain of subjective perception or the speech-act domain.

I will first give an overview of this system of variation and then explain each type in some detail and give examples.

Topological variations in the event chain follow two axes, the paradigmatic and the syntagmatic, involving variations either in the role of the case-marked entity or in the syntactic environment in which it finds itself, respectively. Paradigmatic variation is instantiated when there is variation in the characteristic mark of the profiled case. The indirect object captioned in schema 1 (Figure 2) has the characteristic mark "retains independent status" (dotted arrow). This mark is altered in the use of the dative captioned by schema 2 (Figure 2), via paradigmatic variation, producing a dative which has externalized its independent status to the point at which it constitutes a sphere of control. The diagram of the network captions only this first kind of variation. All other variations provide different dimensions for extending a given paradigmatic variant, thus adding finer detail to the global structure of the category. Syntagmatic variants are produced by alterations in the length and composition of the event chain with the characteristic mark of the profiled case held constant. Metaphoric extension may project the relationships captioned by a schema onto a different semantic field (frequently making use of relationships of synonymy, antonymy, or metonymy), or may map these relationships onto a different domain, such as the speech-act domain.³ Such mapping is responsible for the production of affective uses of the Czech dative, which will be taken up below.

The four types of variation are presented in the order of their prominence in structuring case categories. Paradigmatic variants account for the basic structure of the network. Syntagmatic variants are local variations on a given paradigmatic variant and, because the syntagmatic variants are frequently syntactically parallel, they often help to build links between the paradigmatic variants. The two types of extension also produce local sub-variants, either of a paradigmatic variant or of one of its syntagmatic variants. Thus the relationships that structure case categories are arranged

hierarchically such that each successive type produces local variations on the results of more basic types of variation.

Analysis

I will proceed to illustrate each type of variation with specific examples.

Paradigmatic variation

In addition to the prototype (the indirect object, schema 1 in Figure 2), the Czech dative network has one paradigmatic variant (schema 2 in Figure 2), termed the free dative.⁴ Here the identifying characteristic of the dative is different, rather than being "independent status", it is a "sphere of control". The relationship between the two paradigmatic variants is one of relative externalization of the dative's potential, which is minimal in the indirect object, but maximal in the free dative. In schema 1 the dative's potential to act as a controlling agent is internal to the dative entity, whereas in schema 2 this characteristic is extended to form a domain which includes the accusative entity. In both variants the dative acts as a controller, either of a further event chain or of a domain including other entities. Clearly there is a natural relationship between the paradigmatic variants of the dative; their co-occurrence in a single case category is not arbitrary. The free dative expresses affectedness (via some relationship to the accusative object which is located in the dative's sphere of control, and therefore most often a possession of the dative). Some examples:

- (4) *Ludmila* *mu* *uvařila kaši*.
Ludmila-NOM him-DAT cooked kasha-ACC.
'Ludmila cooked kasha for him.'

In other words, Ludmila made the kasha available to him in an edible form in his sphere.⁵

- (5) *Litoš* *sevěřela Petrovi* *hrdlo*.
Regret-NOM closed Pet-DAT throat-ACC.
'Regret tightened Pet's throat.'

Here, regret acts on Pet's throat which, because it is inalienably possessed, is necessarily in Pet's sphere of control. Indeed, possession cannot be expressed by the use of the genitive or a possessive in this sentence.

Syntagmatic variation

Once paradigmatic variants are established, further syntagmatic variants can be recognized. The most common kind of syntagmatic variation is

produced by the removal of participants in the event chain (i.e., the removal of the accusative and nominative entities). If we take schema 2 (Figure 2), the free dative, the removal of the accusative will produce intransitive expressions of affectedness via a dative relationship, as in schema 2a (Figure 3).

(6) *Zemřela mu matka.*
Died him-DAT mother-NOM.
'His mother died.'

(7) *Miminko nání pláče v noci.*
Baby-NOM us-DAT cries in night-LOC.
'The baby cries at night (and we are affected by this).'



Figure 3. Schema 2a

Schema 1 also displays this type of syntagmatic variation, as shown in schemas 1a and 1b.

The removal of the accusative from the event chain of schema 1 to produce schema 1a brings the dative into a direct relationship with both the nominative and the verb. This juxtaposition of the nominative's actual agency with the dative's potential for independent action produces a power struggle between the two entities with three possible outcomes:

1) a draw, in which case we have a symmetrical relationship

or the primacy of one or the other of the two entities in a transitive relationship in which case the "winner" is either

2) the dative, in which case the nominative subordinates itself to the dative

or

3) the nominative, in which case the nominative dominates the dative.

All three logical possibilities are indeed realized by Czech dative-governing verbs. Examples include:

- Symmetrical relationships
- odpovídat* 'correspond to'
 - konkurovat* 'compete with'
 - oponovat* 'oppose, object to, argue with'

Schema 1 and its Syntagmatic Variants

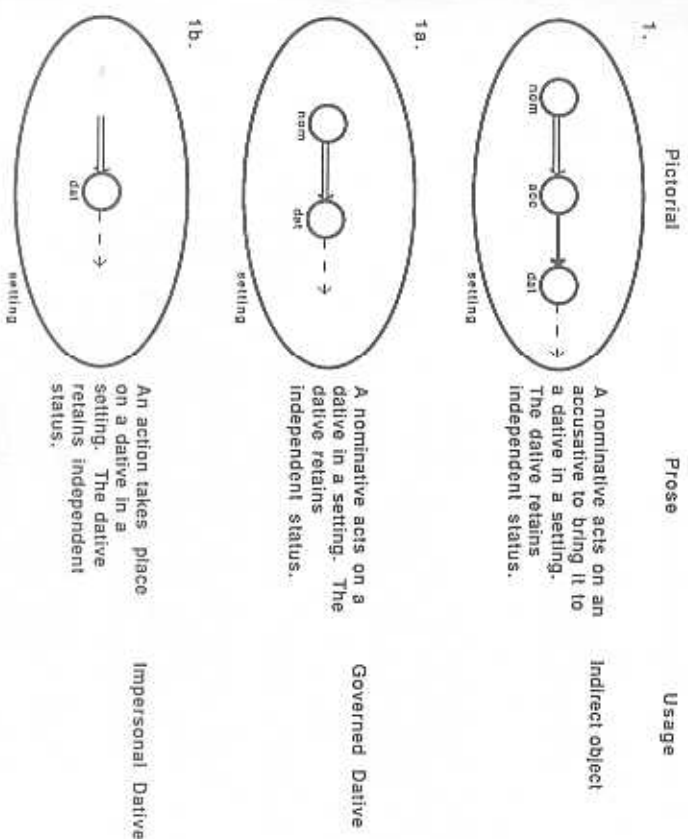
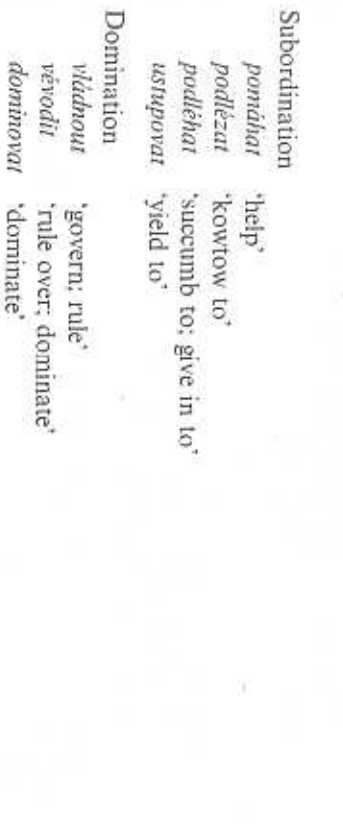


Figure 4. Schema 1 and syntagmatic variants; local subnetwork



These three types account for all true dative-governing verbs in Czech, and this pattern recurs with dative-governing adjectives and prepositions.⁶ The further removal of the nominative from the event chain produces schema 1b, which captions impersonal expressions, such as:

- (8) Už mi svítilo
Already me-DAT flashed
'Now I understand'

and:

- (9) Nemocnému se ulevilo.
Patient-DATREFL-ACC relieved.
'The patient felt relieved.'

Metaphoric extension via synonymy, antonymy, and metonymy

The dative-governing verbs provide evidence of yet another type of variation, that of semantic extension via antonymy. Thus, in addition to verbs of subordination there are dative-governing verbs that mean the opposite, that is, annulment of subordination:

- odolávat* 'resist; stand up to'
vzdorovat 'defy; resist'
odplácet 'repay; retaliate against'

The indirect object, however, gives more examples of this type of variation. The purest kind of indirect object appears in constructions with a verb meaning "give" or a close synonym, such as "send" or "buy (for)", as in:

- (10) Teta ti poslala dárek.
Aunt-NOM you-DAT sent gift-ACC.
'Auntie sent you a gift.'

and:

- (11) Ludmila mu koupila klobouk.
Ludmila-NOM him-DAT bought hat-ACC.
'Ludmila bought him a hat.'

In addition to synonymy, relationships of antonymy are also taken advantage of, thus verbs that denote taking and stealing likewise have dative beneficiaries, as in:

- (12) Ten pán nám vzal hodně peněz.
That man-NOM us-DAT took much money-GEN
'That man took a lot of money from us.'

and:

- (13) Loupežník mi ukradl hodinky.
Thief-NOM me-DAT stole watch-ACC
'The thief stole my watch.'

Both giving and taking can be further related to other verbs in which the object given or taken is in some way incorporated in the lexical meaning of the verb. Here the meaning of the verb metonymically includes the specification of the direct object, and such verbs are therefore extensions of those denoting giving and taking.⁷ Frequently, the object that is given or taken is the subject of the sentence itself, and it either presents itself to or removes itself from the dative entity. I have termed these two types of extension of the indirect object "intransitive giving" and "intransitive taking", respectively. Examples include:

- Intransitive giving
nabíhat 'catch up to, overtake'
oddávat se 'devote self to'
připadat 'fall to (someone's) lot; occur to; seem to'

Intransitive taking

- utíkat* 'run away from'
uprchat 'escape'
scházet 'be missing; lacking'

Objects other than the subject can be metonymically named in the verb as well, in particular, various signals, both verbal and non-verbal, punishment, and money or gifts. In addition, good or evil can be given, in the case of dative-governing verbs of benefit and harm.

Giving of signals

- ličorit* 'flatter'
gratulovat 'congratulate'
tvkat 'say to; speak on informal terms with'

Giving of punishment

- nafackovat* 'slap'
naplácat 'spank'
namlátit 'thrash'

Giving of money or gifts

platit 'pay'

obětovat 'sacrifice'

prispívat 'contribute'

Benefit

vyhovovat 'comply; satisfy, please'

prosňvat 'do (someone) good, benefit'

lahodit 'be pleasant to, please'

Harm

vadit 'hamper, trouble'

škodit 'harm'

hrozit 'threaten'

Like syntagmatic variation, variation via metaphoric extension both produces greater local variety in a part of a network, and serves to link that part of the network to other members. The use of the dative verbs which entail the identification of the direct object (listed under "Giving of signals/punishment/money or gifts" above), while functioning as an extension of the indirect object, also forms a bridge between the indirect object and the governed dative (schema 1a, Figure 4), to which it is syntactically identical. The verbs of benefit and harm form a similar bridge between schemas 1 and 1a and further semantically link both of them to schema 2 (Figure 2) for which the notion of affectedness (be it benefit or harm) is essential to the dative's role within its sphere of control.

Metaphoric extension via mapping

In all of the uses of the dative discussed so far, the speaker uses the dative to record real-world relationships between event-chain participants. If instead the speaker uses the dative to record subjective perception of real-world or speech-act relationships, he in effect maps the relationships that he would otherwise perceive to be true of the real world onto a pragmatic or speech-act domain. It is characteristic of mapped uses of the dative that they are not grammatically obligatory and serve therefore a purely semantic role in the clause.

Subjective mapping of real-world events is most frequently encountered with the use of the Czech dative reflexive clitic pronoun *si*, in the meaning "for one's self". A speaker can insert *si* to subjectively claim the existence of a relationship between the subject of the clause and the action described. By means of this device the speaker implies that the dative referent is acting

self-indulgently, exclusively for his or her own enjoyment, good, or comfort, as in:

(14) *My se tu dreme a oni si*

We-NOM REFL-ACC here toil and he-NOM REFL-DAT

sedí v hospodě!

sits in pub-LOC

'We're toiling away here and he's sitting in a pub (enjoying himself)!'

and:

(15) *Zili si tam jako bohové.*

Lived REFL-DAT there like gods-NOM

'They lived it up there like gods.'

This mapped extension of the dative reflexive is so pervasive in Czech that it has become conventionalized, grammaticized and even lexicalized. Conventional use of *si* is instantiated with verbs that do not take *si* obligatorily, but are almost always accompanied by *si* in certain meanings, whereas grammaticized use is recognized when *si* obligatorily accompanies a verb. Examples are given in the table below.

Conventionalized *si*

číst si 'read (for enjoyment)'

hrát si 'play'

myslet si 'have an opinion, think'

Grammaticalized *si*

odpočnout si 'rest'

zatančit si 'do some dancing (for enjoyment)'

házet si 'play ball (lit: throw for one's own sake)'

The use of the dative reflexive to indicate self-indulgence has been lexicalized in the word *sobeč* 'egotist, selfish person' which is derived from the long-form dative reflexive pronoun *sobě*.

The mapping of case relationships onto the speech-act domain identifies relationships between the speaker, the hearer and the narrated event and typically results in affective uses of case. It is schema 2 (given in Figure 2) and its syntagmatic variants (for example, schema 2a in Figure 3) that lend themselves best to this type of mapping. This is because the personal sphere of the dative is well-suited to the task of grouping participants, be they arguments of a verb or speech-act participants. Logically, the speaker can manipulate the dative sphere to make the following claims:

1) The speaker controls a sphere encompassing

A) the narrated event only

B) the hearer and the narrated event

- 2) The hearer controls a sphere encompassing
 A) the narrated event only
 B) the speaker and the narrated event.

And indeed, all of these logical possibilities are realized in spoken Czech. Not all of these uses are part of the standard literary language; some are rather a peripheral phenomenon (as the hierarchy of types of variation suggests). In order for the message to be correctly understood, the hearer must realize that the speaker is mapping relationships onto the speech-act domain rather than describing perceived real-world relationships. Otherwise, the hearer will attempt to interpret utterances in terms of real-world relationships, sometimes resulting in humorous misunderstandings. All examples of extension via mapping involve the pragmatic enhancement of an otherwise neutral grammatical utterance by means of the insertion of a dative noun phrase. These are clearly peripheral uses of case, for these datives are non-essential semantic "extras" that have no role in completing the argument structure of the clauses to which they are added.

The first type of extension via mapping onto the speech-act domain (1A) is most characteristic of petty officials who often recognize the boundary of the dative sphere also as the acceptable bounds of behavior in the socialist state and use this device to enhance their power. Here are some examples of type 1A mapping:

- (16) *Je to zlé, mladěz nám nečel!*
 Is that-NOM bad-NOM, youth-NOM us-DAT not-read
 "Things are bad, the youth doesn't read on us!" (said by a librarian)
 (Non-mapped interpretation: dative of beneficiary, "to us". This interpretation is ruled out because librarians are necessarily literate and do not need to be read to.)

- (17) *To byste neverli, kolik nám lidí denně rozbijejí aut!*
 That-NOM COND-AUX (you) not-believe, how-many us-DAT people-NOM daily wreck cars-GEN
 "You wouldn't believe how many cars people wreck on us every day!"
 (said by an insurance agent)

(Non-mapped interpretation: dative of possession, "our cars", also illogical given context.)

- (18) *Za vedení podniků musím říct, že máme velké problémy, protože řada zaměstnankyň big problems-ACC because row-NOM female-employees-GEN*

nám přichází do jiného stavu.
 us-DAT arrive to other state-GEN
 'In running our company I must say that we have big problems, because many of the female employees become pregnant on us.' (said by a factory manager)

(Non-mapped interpretation: dative of possession or beneficiary, both of which imply that the factory administration is personally affected. This interpretation would be socially awkward at best.)

- (19) *Ušlechtilá včela na květi, vysunou se nám polhavní orgány*
 us-DAT sexual organs-NOM
 'If a bee alights on the flower, the sexual organs pop out for us.'
 (said by a high school teacher discussing pollination)
 (Non-mapped interpretation: dative of possession, "our sexual organs". This interpretation is both illogical and ridiculous.)

Type 1A mapping frequently appears in complaints as well, where the speaker's pragmatic message can be paraphrased as "there's something in my sphere, and I'm stuck with it!", as in:

- (20) *To je mi pěkný pořádek!*
 That-NOM is me-DAT fine order-NOM
 'That's a fine mess for me!'

Type 1B mapping (in which the speaker claims to have both the hearer and the narrated event in his sphere) is frequently used by policemen in corralling malefactors, as in:

- (21) *Co jste nám tu ukradli?*
 What-ACC are-AUX us-DAT here stole
 'What did you steal here on us?' (said by a policeman catching thieves)
 (22) *Jak nám tu jezdíte?*
 How us-DAT here (you)drive
 'How are you driving here on us?' (said by a policeman chastising a motorist)

Mapping of type 2A (in which the speaker tells the hearer that he [the hearer] has the narrated event in his sphere) is the most frequent of all these types and is used in producing the so-called ethical dative, as in:

- (23) *Nehoj se, ten lukš*
 Not-fear(imper) REFL-ACC, that vacuum-cleaner-NOM

je ti tak hodny!
is you-DAT so nice-NOM

'Don't be afraid, (hey, you know what?) the vacuum cleaner is so nice!' (said to a toddler who was afraid of the vacuum cleaner)

(24) *Ten čaj ti mě zvehl.*

That tea-NOM you-DAT me-ACC picked-up

'(Hey, you know what?) that tea picked me up.'

(25) *"Jo, a na universitě." pokračoval političu*

Yes, and at university-LOC, continued quietly

pán Kéval "tam se *vám dnes seprala*

Mr. Kéval-NOM there REFL-ACC you-DAT today fought

přirodovědecká fakulta s *historičkou.*" (Čapčák)

natural sciences department-NOM with history-INST

'Yes, and at the university,' continued Mr. Kéval quietly, 'they, you know what?' the natural sciences department had a fight with the history department today.'

In all three of these examples we observe that the hearer is not a witness to the event, rather the speaker is asserting that the narrated event is part of the hearer's dative sphere. Here mapping is a device used to capture the hearer's attention, to suggest that the hearer should indeed be interested in what the speaker is saying since it is part of his domain.

If the dative reflexive pronoun rather than a second-person pronoun is used, the speaker not only claims that there is something in the hearer's sphere that he should take notice of, but also presumes to define the boundaries of the hearer's sphere. The pragmatic message sent by the speaker is "I know what's good for you and I'm telling you this for your own good." Also, because the reflexive pronoun will refer very exclusively to the hearer, the place of the speaker outside of the hearer's sphere is emphasized, adding a further pragmatic message that might be paraphrased "leave me out of it". Some examples:

(26) *Hleď si sám sebe!*

Watch(imper) REFL-DAT by-self self-ACC

'Mind your own business!'

(27) *Vystupte si z bezpečnostního pásu!*

Step-out(imper) REFL-DAT from safety zone-GEN

'Step out of the danger zone (for your own good)!'

(28) *Urychlete si nástup do soupravy!*

Speed-up (imper) REFL-DAT boarding-ACC to

rolling-stock-GEN

'Board the train faster (for your own good)!'

These last two examples are subway announcements. Educated Czechs eschew this usage of the dative as aggressive and threatening. Some even claim that it is "ungrammatical", but all admit to hearing such utterances over the loudspeakers in the Prague metro.

Mapping of type 2B involves the speaker placing both himself and the narrated event in the hearer's sphere, and is used to convey sympathy and solidarity with the hearer. Typical examples are uttered by mothers comforting their children, as in:

(29) *Ty zlé děti nám rozbitý hračky, vid'?*

Those mean children-NOM us-Dat broke toys-ACC, see (imper)

'Those mean children broke our toys, did they?'

(30) *Rostou nám zoubky.*

Grow us-DAT teeth-NOM.

'Our teeth are growing (i.e., we're teething).'

I have claimed that extension via mapping is used to enhance rather than complete utterances. The fact that it is only mapped extensions that can be piled into clauses in quantity provides further evidence for this point. Other uses of the dative (realizations of paradigmatic or syntagmatic variants or extensions via synonymy, anonymy and metonymy) can appear just once per clause. It is only in the presence of mapped uses of the dative that we can find two or even three datives in a single clause. Here is an example of the multiple use of datives that becomes possible when dative relationships are mapped onto the speech-act domain:

(31) *Tak si přeštar, holka, pusťta jsem*

So REFL-DAT imagine(imper), girl-VOC, let am-AUX

dcera na hory a ona ti

daughter-ACC to mountains-ACC and she-NOM you-DAT

si mi tam zlomila nohu!

REFL-DAT me-DAT there broke leg-ACC

'Just imagine, my dear, I let my daughter go to the mountains and (hey, you know what?) she broke her leg on me there!'

This example contains three datives: one a dative of possession (*si* 'her own'), and two mapped datives, the first of which is type 2A (an ethical dative: *ti* 'hey, you know what'), and the second of which is type 1A (a complaint: *mi* 'on me').

Conclusion

The foregoing analysis of the Czech dative in the framework of cognitive grammar reveals significant patterns in the semantics of case categories. It

serves as a basis for inferring possible universal strategies in the evolution and structure of case categories in general.⁸ They are as follows:

- A) The semantics of a case category in a natural language represent a single, coherent cognitive category.
- B) The cognitive category of a case has internal structure, determined by the following relationships of variation:
- 1) Variations in schema topology
 - i) paradigmatic
 - ii) syntagmatic
 - II) Metaphoric extension
 - i) via synonymy, antonymy, or metonymy
 - ii) via subjective mapping of perceptions or mapping onto the speech-act domain
 - C) The relationships that structure the network are arranged hierarchically, such that each successive type produces local variations on the results of more basic types of variation. This hierarchy of types of variation determines both synchronic structure and diachronic development. This does not mean that there is a stage-by-stage lock-step type of development that proceeds via successive applications of these types of variation. Rather the claim is only that these are the strategies that are employed, and that when a paradigmatic variant exists it can be further subject to any of these types of variation and extension. In every case the actual realization of these types of variation is simply an option that may or may not be exercised. Also, the synchronic structure of a given category need not mirror its diachronic development; indeed the dynamic forces at work in semantic categories can mask the record of historical development.
 - D) The hierarchy of variants reveals the relative status of category members along the scale ranging from grammatical (syntactic) to purely semantic. Core paradigmatic and syntagmatic variants are more likely to be obligatory and essentially grammatical in meaning. Uses that are less central to the category (and in particular those produced by means of metaphoric extension) are more likely to be largely semantic and non-obligatory. This universal is a realization of the intricate relationship between syntactic and semantic uses of case recognized by Kurylowicz (1960), recast in terms of the cognitive framework.
 - E) Although the overall shape of a case category is quite stable, the internal structure is dynamic and subject to constant adjustment. Case uses may be extended or discarded as the need arises. The development of variants frequently enhances cohesion rather than causing the case category to weaken into an overextended conglomeration of uses, because such variants engender new alliances between members of the network and can reinforce its structure.

F) While case categories play a primary and clearly definable role in the semantics of sentence structure, concepts such as Object and Indirect Object emerge as secondary notions based on typical case usage, but influenced also by lexical meaning and context.

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Notes

1. I would like to thank the journal's three anonymous readers for their insightful and helpful comments, which were used in preparing the final version of this paper. I, of course, assume responsibility for any errors that remain.
2. These remarks do not preclude the existence of zeros or ambiguities. A zero is a value rather than a lack thereof, and likewise ambiguity is meaning that requires further specification, yet has definite properties and cannot be equated with confusion.
3. Note that such metaphorical cross-domain mappings are not suggested here without precedent. Both Fauconnier (1985) and Sweetser (1984) mention this phenomenon.
4. The Czech dative has only these two paradigmatic variants, but this is by no means an upper limit, for the instrumental has four. See Janda (i.p.).
5. The dative construction presented in example 4 can also be rendered using a prepositional phrase, as in:
Ladnita unavila kafi pro nej.
 Ludmila-NOM cooked kasha-ACC for him-ACC
 'Ludmila cooked kasha for him.'
- The semantic relationships between dative constructions and such apparently synonymous prepositional phrases are rather complex and are beyond the scope of this paper. For a discussion, see Janda (i.p.).
6. For a detailed account of dative government and semantic extension of the Czech dative, see Janda (i.p.).
7. This is actually a kind of "converse metonymy", in which the naming of the whole (the verb) necessarily entails the naming of one of its parts (one of its arguments, specifically the understood direct object). I use the word metonymy for lack of a better term.
8. The universal strategies which I propose are based only on a close study of Czech and Russian and are therefore tentative.

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