Generics From Imperfectives

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DATA & BASIC THEORETICAL BACKGROUND
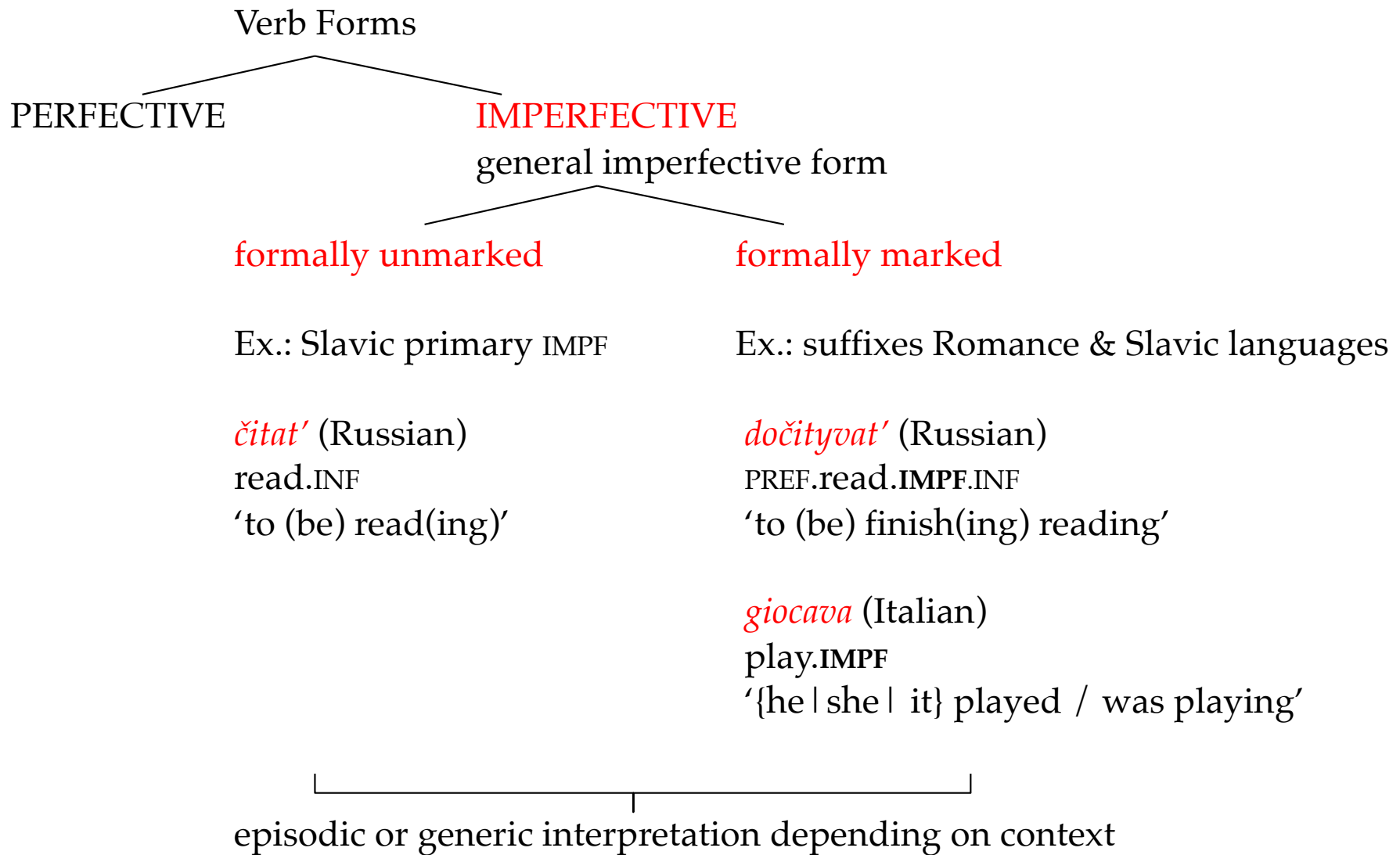
Imperfectives in Generic Statements

Paths of grammaticalization among tense-aspect grams
Bybee & Dahl (1989), Dahl (1995)

(i)   Perfects develop into pasts or perfectives.
(ii) Futures develop out of so-called prospectives or constructions expressing intention, volition, or obligation.
(iii) (Present) progressive markings develop into present or imperfective markings.

- Generics can be expressed by forms which at an earlier stage had progressive meaning only.

- Imperfective forms, formally marked or unmarked for imperfectivity, are commonly used in generic statements, apart from their episodic uses with reference to particular situations: e.g. Slavic and Romance languages.

Imperfective Verbs

Verb Forms

PERFECTIVE   IMPERFECTIVE
                 general imperfective form

formally unmarked   formally marked

Ex.: Slavic primary IMPF   Ex.: suffixes Romance & Slavic languages

čitat' (Russian)   *dočityvat'* (Russian)
read.INF   PREF.read.**IMPF**.INF
'to (be) read(ing)'   'to (be) finish(ing) reading'

                                 giocava (Italian)
                                 play.**IMPF**
                                 '{he|she| it} played / was playing'

episodic or generic interpretation depending on context

Imperfectives in Generic Statements

(1)   Leo giocava ^{**IMPF**}   a golf   Italian

Leo play.**IMPF**   at golf.

'Leo used to play golf.'   Bonomi 1997, p. 485 (ex. 28a)

(2)   a. On vsegda pomogaet ^{**IMPF**}   druz'jam. (no overt marking) Russian

he always   helps   friends

'He always helps his friend.'

b. On daval ^{**IMPF**}   emu spisok—čto   emu nado   pročest'...

he gave.**IMPF**   him list   —what him necessary through.read

'He would give him a list what to read…'   V. Davydov. *Teatr moej mečty*. 2004[1]

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[1] cited in Fortuin&Kamphuis 2015

Main data & Goal

The morpheme *–va-* in Slavic languages, specifically in Czech

- the generic marker on imperfective verbs
- (misleadingly) referred to as an iterative, frequentative or multiplicative marker
- *–va-* is its standard citation form in Czech (see e.g., Dahl 1995), which stands for its various allomorphic forms
- no general agreement whether it is a suffix or an infix

Show that *–va-* is a morpheme that

- is recruited from the imperfective system as witnessed by its passing certain syntactic tests for Slavic imperfectivity (complement of the future AUX and phasal Vs), but
- semantically it split from imperfectivity and delimits a generic subsystem in the Slavic verb system:

    It functions as a dyadic generic quantifier with an epistemic (modal) import which centers on exceptions to the expressed generalization.

- Aspectual operators do not have this character, they tend to be analyzed as monadic operators that relate eventuality times to the reference time, and the possible modality/intensionality concerns this relation.

Overview

IMPF and PFV verbs in Generic Statements

In Slavic languages and Beyond

Formally Marked Genericity in Slavic

- A generic morpheme on imperfective forms that have a generic meaning only

(1) Večer   hrává **IMPF**   šachy.   Czech
     evening play.**GEN** chess
     'In the evening he tends to play chess / he plays chess now and then.'

(2) Księgarnia miewa **IMPF**   tę   książke   na wystawie.   Polish
     bookstore   has.**GEN** this book   on display
     'The bookstore has this book on display now and then.'

(3) V žizni   tak byvaet **IMPF**,   čto ljubov   prixodit vnov'.   Russian
     in life   so   be.**GEN**   that love   comes   again
     'In life it happens that love comes again.'   [lyrics of a pop song by Mohito, 2020]

Formally Marked Genericity

The productivity and usage of this generic morpheme greatly vary in different Slavic languages:

productive

West Slavic languages, especially **Czech** and **Slovak**: the generic morpheme is productive, generic verbs it derives are used in all registers.

West Slavic, Polish may represent an intermediate stage between Czech and Russian; the generic morpheme in Polish might be in the process of becoming unproductive (e.g., Bílý 1986).
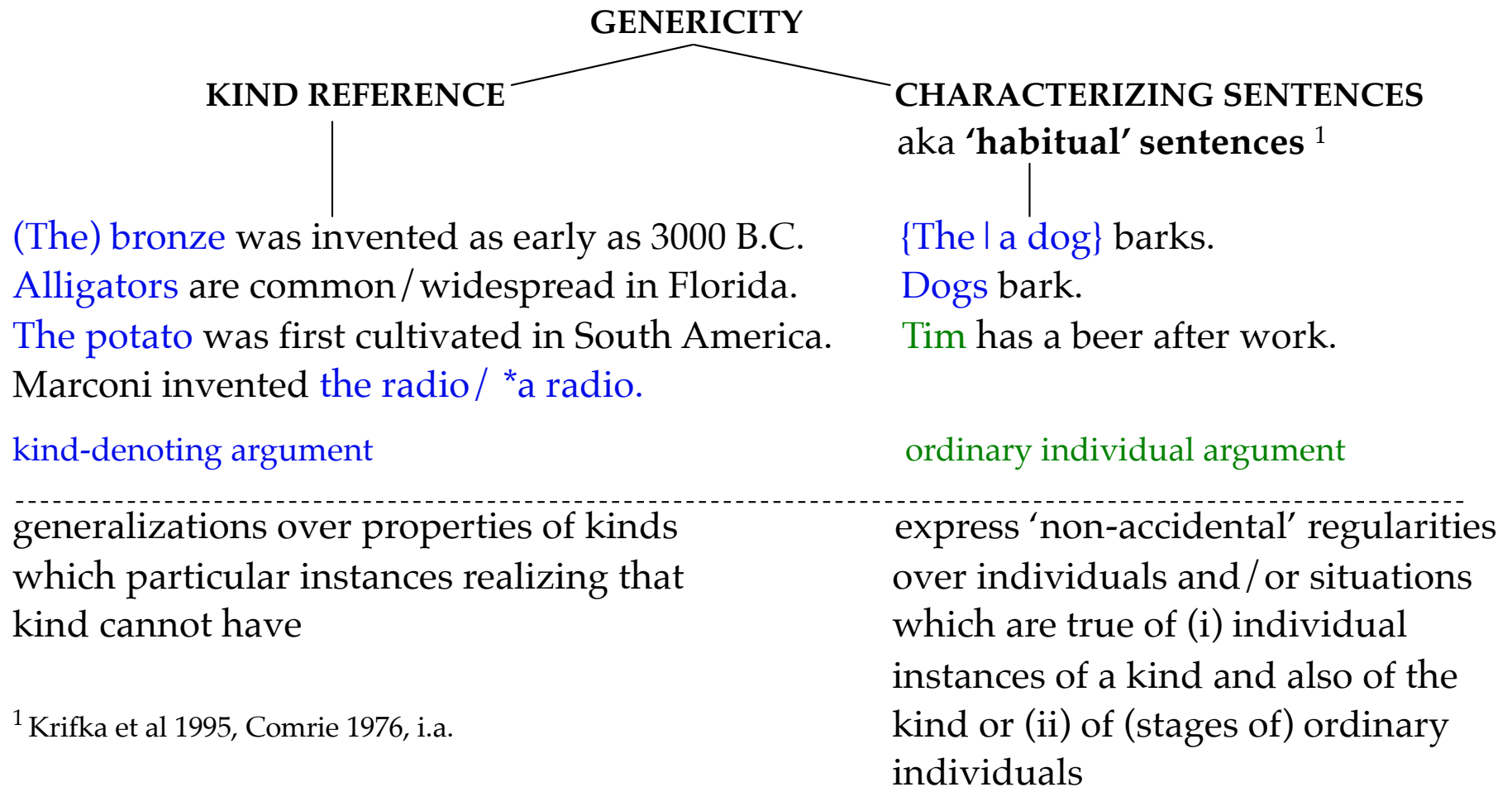
non-productive

East and **South Slavic** languages: the generic marker is significantly less productive than in West Slavic languages, generic forms with this morpheme are often treated as lexicalized combinations, often a part of a fixed expression, taken to belong to a colloquial register (see e.g., Široková 1963, p.62; Comrie 1976, p.27; Kučera 1981; Petr et al 1986, among others); the generic morpheme is still productive in some Northern Russian dialects (Barnetová 1956).

Formally Marked Genericity in Czech

In Czech, the generic morpheme *–va-* marks generalizations that fall under both types of phenomena traditionally distinguished in the genericity literature (see e.g., Krifka et al 1995, and a lot of work leading to and following it):

<div align="center">GENERICITY</div>

KIND REFERENCE	CHARACTERIZING SENTENCES aka **'habitual' sentences** [1]
(The) bronze was invented as early as 3000 B.C. Alligators are common/widespread in Florida. The potato was first cultivated in South America. Marconi invented the radio/ *a radio.	{The | a dog} barks. Dogs bark. Tim has a beer after work.
kind-denoting argument	ordinary individual argument
generalizations over properties of kinds which particular instances realizing that kind cannot have	express 'non-accidental' regularities over individuals and/or situations which are true of (i) individual instances of a kind and also of the kind or (ii) of (stages of) ordinary individuals

[1] Krifka et al 1995, Comrie 1976, i.a.

Formally Marked Genericity in Czech

KIND REFERENCE

(1)   Bedla jedlá   **bývá**[IMPF] *rozšířená*   u lidských sídlišť.   **KIND**
macrolepiota procera   is.**GEN**   widespread   at human dwellings
'The parasol mushroom tends to be *widespread* close to human dwellings.'

     VA [x;] (macrolepiota procera (x); widespread_at_human_dwellings (x))

CHARACTERIZING SENTENCES

(2)   Člověk   se   k stáru   **měnívá** [IMPF]
man   REFL   towards old.age   changes.**GEN**
'A man changes / tends to change as he grows older.'   Karel Čapek, *Ordinary Life*, 1934

(3)   Po práci   si   Tim   **dávává** [IMPF]   pivo.   ORDINARY INDIVIDUAL
after work   REFL   Tim   gives.**GEN**   beer.
'After work, Tim has a beer [i.e., now and then / rarely / often …].'

     VA[x,s] (*x* = **Tim** & x IN s & s after work; x **has_a_beer** IN s)
     'For all appropriate after-work situations *s* such that Tim is in *s*, Tim has a beer in *s*.'
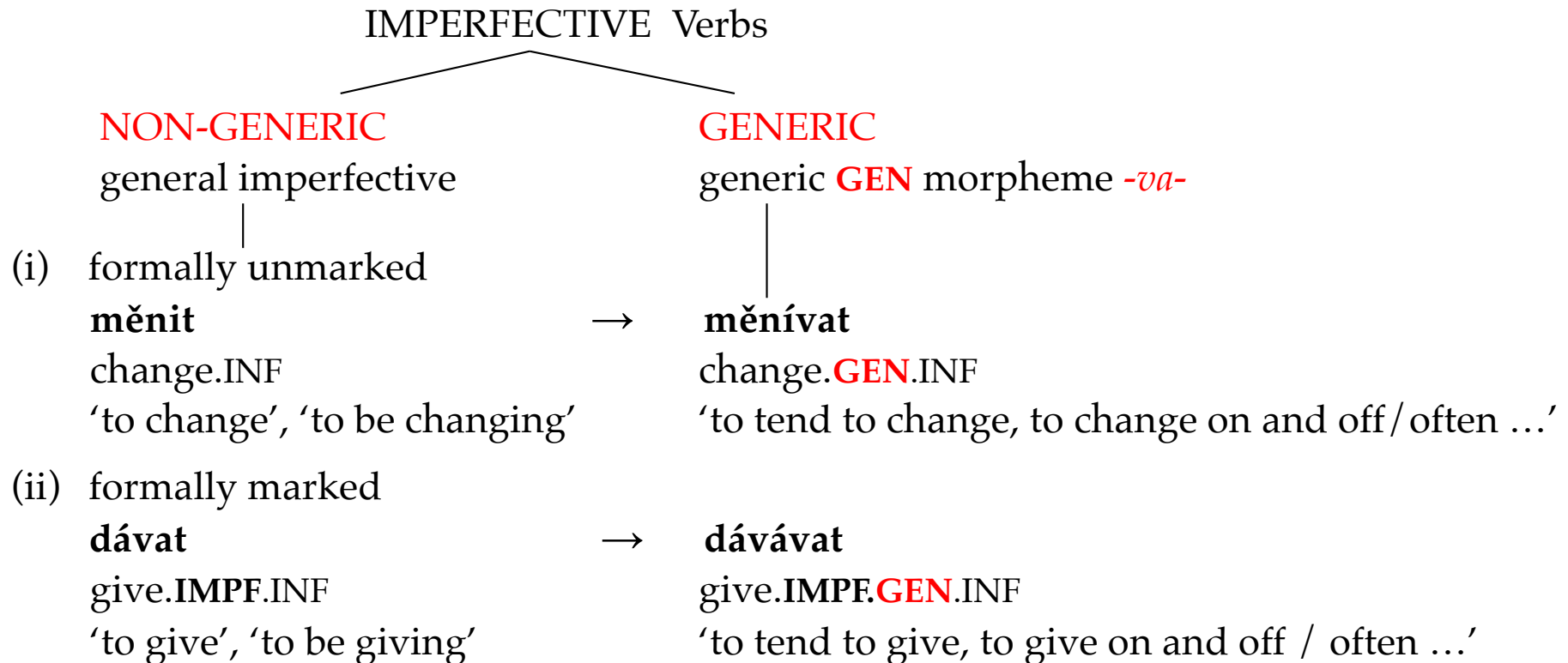
Formally Marked Genericity in Czech

***-va-* compatible with kind reference**

The fact that the generic morpheme *–va-* marks generic verbs that attribute properties to kinds indicates that it is not a merely 'habitual' morpheme constrained to express habits in the narrow sense, i.e., regularities of action of ordinary individuals (e.g., After work, Tim has a beer), but rather behaves like a well-established marker of genericity, and a serious contender for a grammatical marker of genericity.

Formally Marked Genericity in Czech

The generic morpheme splits imperfective verbs into two subdomains

IMPERFECTIVE Verbs

NON-GENERIC
general imperfective

GENERIC
generic **GEN** morpheme *-va-*

(i) formally unmarked
měnit   →   **měnívat**
change.INF   change.**GEN**.INF
'to change', 'to be changing'   'to tend to change, to change on and off/often …'

(ii) formally marked
dávat   →   **dávávat**
give.**IMPF**.INF   give.**IMPF**.**GEN**.INF
'to give', 'to be giving'   'to tend to give, to give on and off / often …'

- Non-generic domain: formally unmarked for genericity, i.e., the general imperfective form, alternates between the episodic and generic meanings of imperfective forms.
- Generic domain: formally marked for genericity with the generic morpheme *–va-*, which eliminates any episodic meanings.

Form-Meaning Relations: Episodic and Generic Ss

- In a number of languages, episodic forms are basic and unambiguously generic forms derived from them (Carlson 1995, p.228).

- Such facts about natural language forms are consistent with the view that episodic truth conditions are basic and generic truth conditions derived from them (Lawler 1973, Carlson 1995), in compliance with the inductive model (Carlson 1995).

- Inherently episodic base Vs are used in episodic sentences denote the type of particular episodic situation which counts as direct evidence for the truth of generic sentences that contain their morphologically related generic counterparts:

(1) *Episodic base for the generalization*

Pavel	hrál **IMPF**	šachy s dědou	včera ve tři hodiny.	episodic
Paul	played	chess with grandpa	yesterday at 3 o'clock	

'Paul was playing chess with grandpa yesterday at 3 o'clock.'

(2) *Generalization*

Pavel	hrával **IMPF**	šachy s dědou.	generic
Paul	played.**GEN**	chess with grandpa	

'Paul used to play / played on and off / tended to play chess with grandpa.'

Formally Marked Genericity in Czech

Productivity: ILPs and Reduplication

- The direct combination of the generic suffix *–va-* with stative verbs, i.e., individual-level verbs, or 'inherently generic' (Chierchia 1995) verbs, is either ungrammatical or such verbs require an episodic construal under which the described state holds with intermittently:

(1) a. myslit (si) 'to think'   → **myslívat (si)** 'to tend to think (on and off)'
     b. patřit   'to belong (to)' → **patřívat**   'to tend to belong (to) (on and off)'
     c. věřit   'to believe'   → **věřívat**   'to tend to believe (on and off)'
     d. mít   'to have'   → **mívat**   'to tend to have (on and off)'

(2) **Mívá** to tam, vídávám to tam (u obchodníka ve výkladu).   Kopečný 1948
     'He tends to have it there, I keep seeing it there (in the store in the shop window).'

- Reduplication is also possible:

(3) a. myslit (si) → myslí**va**t (si)   →   myslí**váva**t (si)
         'to think'   'to tend to think', 'to think on and off'
     b. Také jsem si to kdysi **myslívával**.
         'I also used to think just that a long time ago (from time to time).'

Formally Marked Genericity in Czech

Usage and frequency

- In Czech the morpheme *-va-* is used productively in all styles of speech (Kučera 1981, p.177, Petr 1986, i.a.).

- However, not all verbs may allow the attachment of *–va-* with the same ease, which is due to lexical idiosyncracies of different lexical classes of verbs.

- Kopečný (1948) (among other Czech linguists) observes that generic *-va-*-verbs 'have a relatively low frequency of occurrence' ("poměrně řídká frekvence pravých iterativ").

  Yet, attested examples are not difficult to find.

Formally Marked Genericity in Czech

(1) **Present tense**

   a. Mám na vás malou otázku. Velmi stručně - roky **jídávám** jen čerstvé máslo, ale v jedné relaci v televizi jsem se dozvěděla, že je to pro tělo „jed".

     https://www.magazinzdravi.cz/maslo-nebo-margarin (accessed October 13, 2019)

   b. Papoušek teď **sedává** na značce u křižovatky, kde cyklista vydechl naposledy.

     https://sport.tn.nova.cz/clanek/verny-kamarad-papousek-sedava-na-miste-kde-scarponi-zemrel.html

(2) **Future tense**

A na relé se podařilo sehnat jednoho starého pána (70let), který takové věci ještě umí. díky za něho, ale kdo to **bude dělávat** v budoucnu to ví bůh ...

https://skoda-virt.cz/cz/auta/starsi/9004-orf-lidunka/?gotopost=3597533

(3) Past tense

https://www.facebook.com/praha4/photos/a.486203542593/10156344828517594/?type=1&theater

Formally Marked Genericity in Czech

(4) **Negation**

    a. Ježíš – **neříkávám** Kristus – je mně vzorem a učitelem zbožnosti; …

        https://cs.wikisource.org/wiki/Hovory_s_T._G._Masarykem/Náboženství_Ježíšovo

    b. Ostatně pohádkový německý drak se spíše plazí jako had, český pohádkový drak **mívá** křídla, ale **nelétává**, čínský drak létá (a nemusí být zlý!).

        http://www.antroposof.sk/diela_pc/prokofjev_soucasna_mysteria_michaelova_pc.pdf

(5) **Collocations**

ČT si opravdu **dávává** záležet na programu. Pokud běží něco zajímavého, tak na 2 a pozdě v noci.

https://www.idnes.cz/kultura/film-televize/televizionar-mordparta-monstrum.A170526_141451_filmvideo_spm/diskuse

Formally Marked Genericity in Czech

Two Distinctions in the Verb System

- The main perfective/imperfective distinction
- The subordinate generic/non-generic distinction

Verb Forms

PERFECTIVE   IMPERFECTIVE

                    NON-GENERIC   GENERIC
                    general imperfective   generic morpheme *-va-*

dát   →   dávat (secondary IMPF) →   dávávat
give.INF   give.IMPF.INF   give.IMPF.**GEN**.INF
'to give'   'to give', 'to be giving'   'to tend to give, to give on
                                                  and off / rarely / often, …'

                    měnit (primary IMPF)   →   měnívat
                    change.INF   change.**GEN**.INF
                    'to change', 'to be changing' 'to tend to change, to change
                                                  on and off / often …'
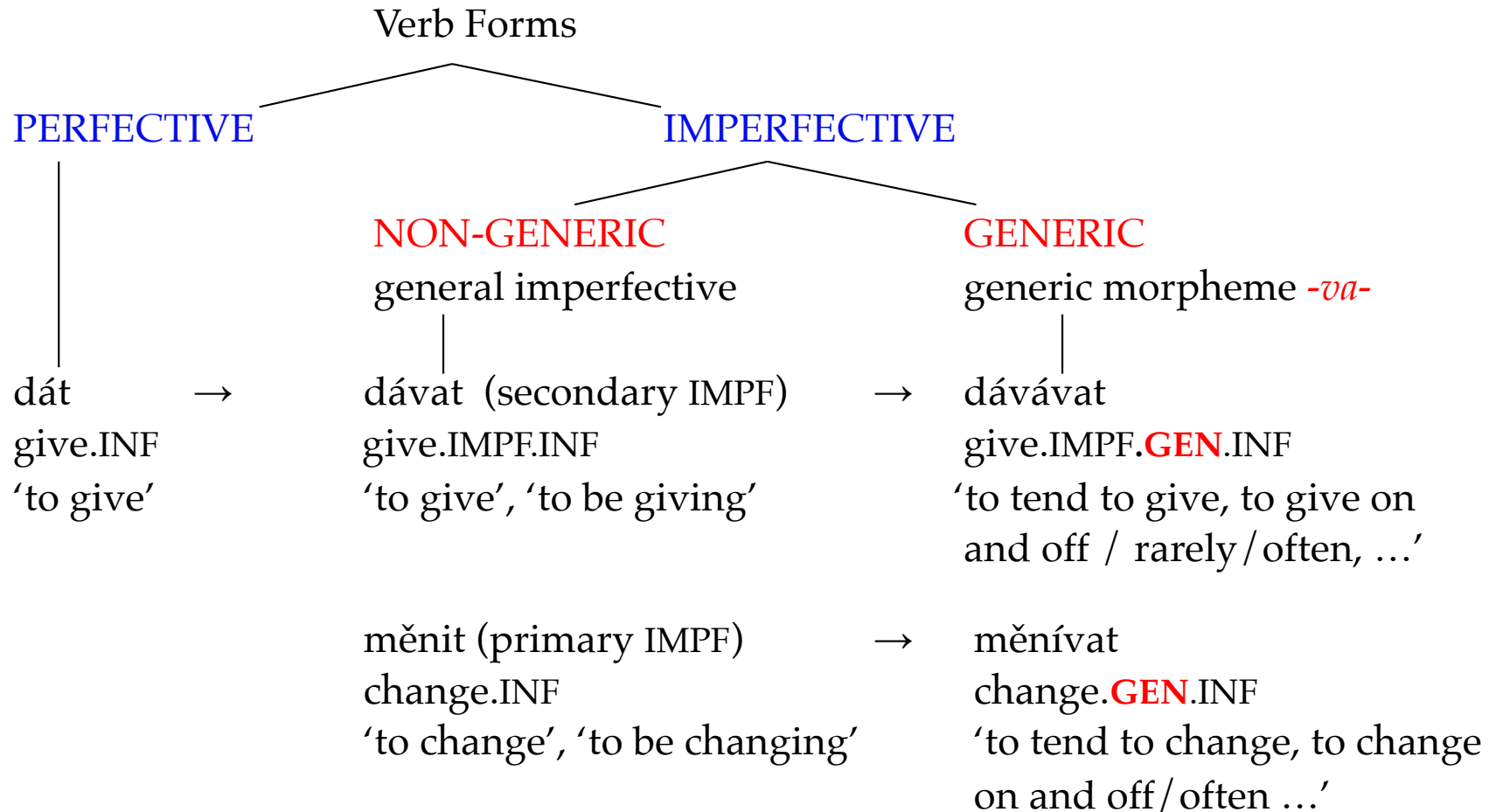
Slavic PFV and IMPFV Verbs in Generic Statements

The use of formally marked generic verbs to express generic statements is not obligatory, unmarked generic verbs, either **imperfective** or **perfective** are also used.

KIND REFERENCE

(1) Bedla jedlá **bývá**^{IMPF} / je^{IMPF} rozšířená u lidských sídlišť. **KIND**
macrolepiota procera is.**GEN** / is widespread at human dwellings
'The parasol mushroom tends to be / is widespread close to human dwellings.'

CHARACTERIZING SENTENCES

(2) Člověk se k stáru **měnívá** ^{IMPF} / mění ^{IMPF} / změní ^{PF} .
man REFL towards old.age changes.**GEN** / changes / PREF.changes
'A man changes / tends to change as he grows older.' Karel Čapek, *Ordinary Life*, 1934

(3) Po práci si Tim **dávává** ^{IMPF} / dává ^{IMPF} / dá ^{PF} pivo. ORDINARY INDIVIDUAL
after work REFL Tim gives.**GEN** / gives.IMPF / gives beer.
'After work, Tim has a beer.'

Slavic PFV and IMPFV Verbs in Generic Statements

Verb Forms

PERFECTIVE   IMPERFECTIVE

NON-GENERIC   GENERIC
general imperfective   generic morpheme *-va-*

formally unmarked   formally marked
                      imperfectivizing suffix
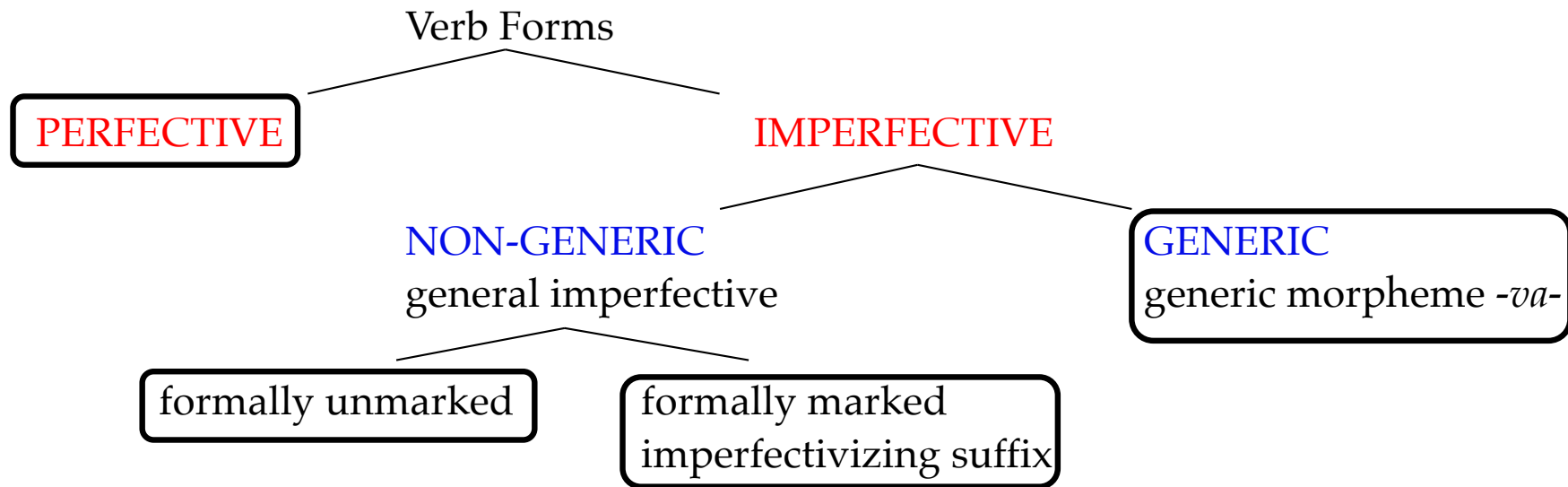
- All 4 forms can be used to express generic statements (pace Comrie 1976, i.a).

- Great differences among different Slavic languages in the frequency with which each form is used generic statements and which type of a generic sentence it (preferably) expresses.

Slavic PFV and IMPFV Verbs in Generic Statements

Verb Forms

PERFECTIVE
(a)

IMPERFECTIVE

NON-GENERIC
general imperfective

GENERIC
formally marked with
generic morpheme *-va-*
(d)

formally unmarked
(b)

formally marked with
imperfectivizing suffix
(c)
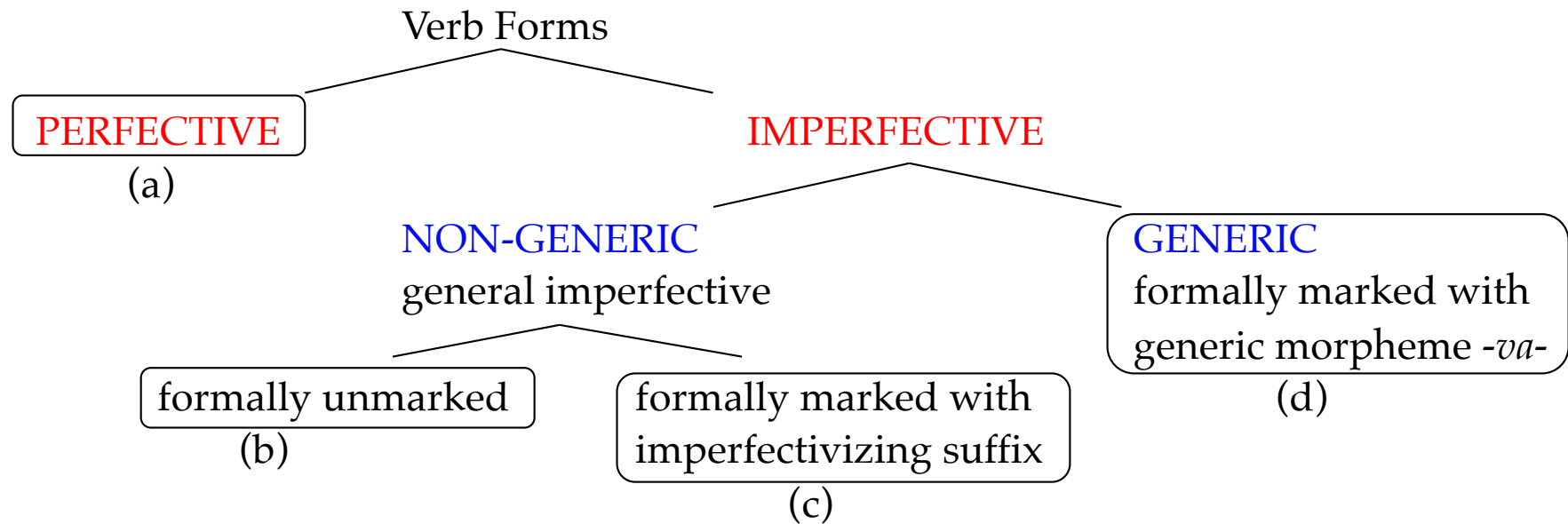
Perfectives in Generic Statements

- Generally, there is no inherent incompatibility between the semantics of perfectivity and the semantics of genericity (see e.g., Filip & Carlson 1997).

- Perfective verbs are used in generic statements in a number of languages, e.g., Romance.

- The use of perfective verbs in generic statements in Slavic languages is not 'deviant' (pace Dahl 1995, also based on Bybee & Dahl 1989).

- In languages with aspectual systems marked and unmarked generic forms can be imperfective and also perfective.

Perfectives in Generic Sentences: Romance languages

(1) Sempre, quando   mi vide ^{PFV}, il custode   aprì ^{PFV}   la porta.   Italian
     always   when   me see.PFV   the janitor   open.PFV the door
     'Always when the janitor saw me, he opened the door.'   Bonomi 1997, p.508

(2) Presque toujours, quand il parla ^{PFV}, il détermina ^{PFV}   le vote du conseil.   French
     almost always   when   he spoke.PFV he determined.PFV the vote of the Board
     'Almost always, when he spoke, he determined the vote of the Board.'

PFV
Italian: passato remoto
French: passé simple

Perfectives in Generic Statements: Slavic

(1) Kdykoli   tam přijdu$^{\mathbf{PFV}}$, nabídnou$^{\mathbf{PFV}}$ mi   slivovici.   Czech
     whenever   therecome   offer   me   plum.brandy
     'Whenever I visit there, they offer me plum brandy.'   Filip & Carlson 1997

(2) Svako jutro   popijem$^{\mathbf{PFV}}$ čašu rakije.   Serbo-Croatian
     every morning drink   glass brandy   Mønnesland 1984, p.62
     'Every morning I drink a glass of brandy.'

(3) Kak tol'ko   vyjdut$^{\mathbf{PFV}}$, ix   srazu   rasxvatyvajut$^{\mathbf{PFV}}$.   Russian
     how only   appear   them   immediately snap.up   Forsyth 1970, p.120
     'As soon as they appear (in the shops), they are immediately snapped up.'

(4) Ja   codziennie   przepalę $^{\mathrm{PFV}}$ 20 papierosów.   Polish
     I   every.day   smoke   20 cigarettes
     'I smoke 20 cigarettes every day.'   Lenga 1976, p.46

Slavic IMPFs and PFs in Generic Statements

- The frequency and functional range with which perfective forms are used in generic statements greatly varies in different Slavic languages:

    - most common in West Slavic (Czech, Slovak)
    - less common in East and South Slavic (see e.g., Forsyth 1970; Fortuin & Kamphuis 2015; Wiemer & Seržant 2017)

- Perfective and imperfective aspect in generic statements (adapted from Fortuin & Kamphuis 2015):

	Western group	Eastern group
Non-past generic contexts	ipf / pf	ipf (pf)
Past generic contexts	ipf / pf	ipf

Czech PFV and IMPFV Verbs in Generic Statements

- To one imperfective stem verb (primary imperfective, or simplex) we have a perfective, secondary imperfective and also generic imperfective counterpart

Verb Forms

PERFECTIVE   IMPERFECTIVE

NON-GENERIC   GENERIC

formally unmarked   formally marked

zaštěkají	štěkají	poštěkávají	štěkávají
PREF.bark.3PL.PRES	bark.3PL.PRES	PREF.bark.**IPFV**.3PL.PRES	bark.**GEN**.3PL.PRES
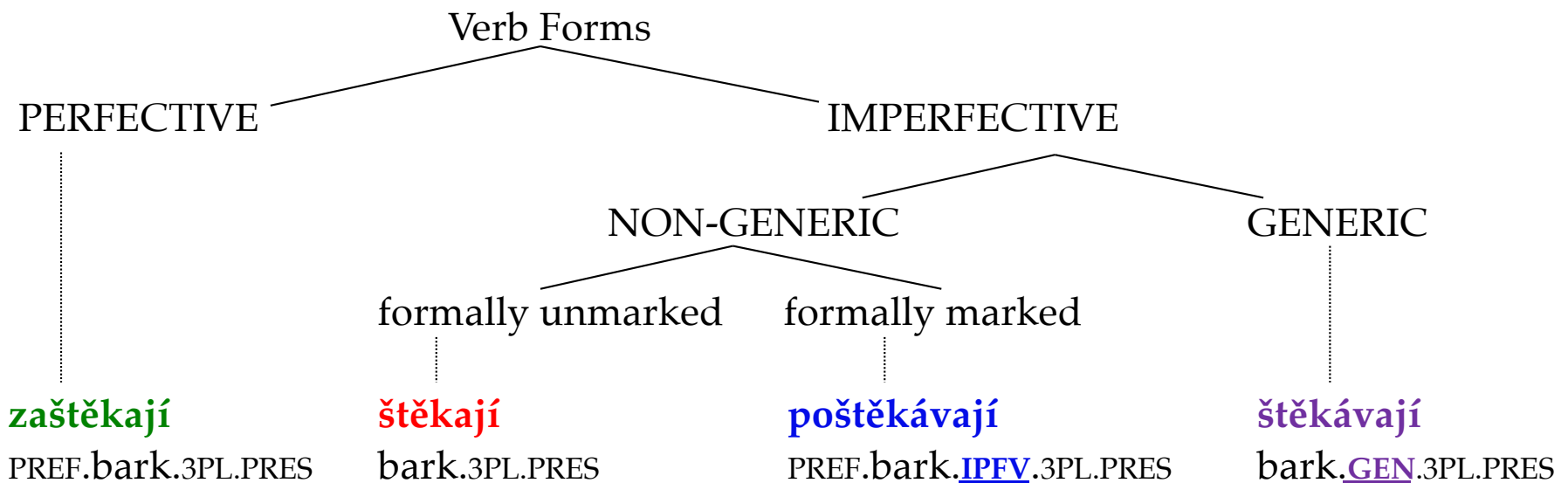
- Generic statements: All 4 forms available

(1)   Psi **štěkají**.   'Dogs bark.' (What sound do dogs make?)

(2)   Psi **zaštěkají** na povel.   'Dogs (will) bark on command.'

(3)   Psi hravě **poštěkávají** na dvorcích.   'Dogs playfully bark in the backyards.'

(4)   Psi **štěkávají** na ty, které neznají.   'Dogs bark at those they don't know.'

Question

How do we motivate the use of formally marked generic forms to express characterizing statements, when such statements can also be expressed by their corresponding unmarked non-generic forms?

Genericity

Genericity: Kind Reference

Agreement on the criteria that delimit 'kind reference':

- The expression of KIND REFERENCE is tied to an argument of a verb, i.e., an NP that directly refers to a kind: a KIND DENOTING NP (or a GENERIC NP).

- contain kind predicates that select for kind denoting terms in one of their argument positions: e.g., *invent, be(come) common/ widespread/extinct.*

- Generalizations over properties of kinds, which particular instances realizing that kind cannot have.

(1) a.   (The) bronze was invented as early as 3000 B.C.   kind-denoting argument
      b.   Alligators are common/widespread in Florida.
      c.   The potato was first cultivated in South America.
      d.   Marconi invented the radio/ *a radio.

Genericity: Delimiting Characterizing Genericity

No general agreement on the positive criteria that delimit all and only **characterizing generic sentences**, aka **'habitual'** sentences (Krifka et al 1995, Comrie 1976, i.a).

Most agree (also following Carlson 1989) that characterizing generic sentences are

- <u>aspectually stative</u>: lack of reference to particular situations (core property)

- <u>intensional</u>: in describing regularities, rather than mere accidental correlations, transcend our immediate experiences of the world; they specify not only what actually obtains at given worlds and times as a matter of some empirical (observed) facts, but also **what is (realistically) possible** (Lawler 1973, Dahl 1975, Carlson 1989, i.a.).

  Some may be TRUE even if there have as yet been **no verifying instances** and will/may never be any in the actual world:

  Mail from Antarctica goes in this box (though no mail has arrived yet).   disposition

- <u>admit exceptions</u>: express generalizations that give rise to defeasible inferences of the kind treated in non-monotonic logics

Exception tolerance

- There are characterizing generic sentences that hold **without exceptions in all the possible situations.**
  Paradigmatic examples: universal generalizations, like universal laws of physics

(1) Every object moves in a straight line unless acted upon by a force.

- **In general,** characterizing generic sentences **allow for exceptions**: TRUE even if there are exceptions to the generalization they express.
  Some examples: non-universal generalizations like (2), and regularities (aka habits) that hold of ordinary individuals (3):

(2) Ravens are black (though a few are white).

    a. Ravens are black.   TRUE   despite the existence of some white ravens
    b. $\forall x[(\textbf{ravens}(x) \rightarrow \textbf{black}(x)]$ FALSE   falsified by white ravens

(3) Tim has a beer after work (though when he works late, he does not).

Different Types and Number of Exceptions

- **Majority satisfaction:** Truth depends on a large percentage of instances satisfying the characterizing property; those that don't are exceptions that we can safely ignore

(1)   a. Ravens are black (though there are some white ravens).   TRUE
       b. Dogs bark (though not all do, Basenjis do not bark).   TRUE

- **Majority satisfaction** is **not sufficient** for the truth of *all* characterizing generics (Leslie 2007, 2008):

(2) Books are paperback.   FALSE

    Fact: The majority of books are paperback, but the salient exceptions are books that have a **positive** alternative property HARDCOVER, and these cannot be ignored.

- **Majority satisfaction** is **not necessary** for the truth of *all* characterizing generics.What is characteristic of a kind need not be prevalent among its members, may be true for only a small fraction of them, but it is something we view as significant in some way, because it is particularly salient to us, noticeable, striking, impressive, harmful and the like.

(3) Lions have a mane (though most do not, only adult male do). salient subkind   TRUE
(4) Mosquitoes carry the West Nile virus (though 99% do not).   dangerous 1%   TRUE

Analytical Puzzles (yet to be solved)

- **Intensionality** and **exception-tolerance** make implausible any attempts to reduce the semantic analysis of all characterizing generics in terms of some quantity-based measure and statistical correlations (however vague or probabilistic they might be). (See Lawler 1973, Carlson 1977, Krifka et al 1995, Pelletier & Asher 1997, Nickel 2013, 2016, 2017, i.a.)

- Some theories of the meaning of generics in semantics, philosophy, AI, computer science and psychology (for summaries see Nickel 2016, 2017; Pelletier & Asher 1997; Krifka et al 1995, i.a.):

  — Relevant Quantification
  — Abstract Objects
  — Prototypes
  — Stereotypes
  — Modal Conditionals
  — Situation Semantics
  — Non-monotonic logic (default reasoning approaches)
  — Probabilistic/Majority-Based
  — Normality-Based Approaches

  Useful insights, but no comprehensive theory: focus on exception-tolerance

Useful insights, but no comprehensive theory

Some theories of the meaning of generics in semantics, philosophy, AI, computer science and psychology (for summaries see Nickel 2016, 2017; Pelletier & Asher 1997; Krifka et al 1995, i.a.):

— Relevant Quantification
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— Probabilistic/Majority-Based
— Normality-Based Approaches

Pelletier & Asher (1997): focus of most of the above theories on the 'extensional consequences', exception-tolerance of generics

Exceptions-Tolerance: The Most Puzzling Feature

EXCEPTION-TOLERANCE is perhaps the most puzzling feature of characterizing generic sentences (Pelletier & Asher 1997, i.a.).

> "Perhaps it is a feature of having finite, fallible minds that makes us often notice regularities that have exceptions, or perhaps it is more a matter of needing to be able to choose regularities quickly in order to get on with other aspects of our survival (…) regularities commonly have exceptions; either ones that are noticed later or ones that we think we can safely ignore (for whatever reason)" (Pelletier & Asher 1997, p. 1129).

- Fundamental question: **How many exceptions can a given characterizing generic sentence tolerate while remaining true?**

- **How do we reason with exceptions?**

  - What is an exception?
  - What is normal, relevant, typical or characteristic?

Generic marker *–va-* in Czech

Stativity of Generic *–va*-Vs

Generic verbs that are formally marked with the marker *–va-* are aspectually stative:

— They lack reference to a specific situation, which is the hallmark property of generic predicates, and stative predicates in general (Krifka et al 1995, p.58, i.a.).

— This property is known as 'non-actuality' or 'atemporality' in Czech Studies

(1) Pavel **hrával**^{IMPF} šachy s dědou ? včera ve tři hodiny.
    Paul play.**GEN**.3SG.PST chess with grandpa ? yesterday at 3 o'clock
    ? 'Paul used to play chess with grandpa yesterday at 3 o'clock.'

- The corresponding episodic base form (2) as well as its formally marked imperfective counterpart (3) can freely be used with reference to specific situations:

(2) Pavel **hrál** ^{IMPF} šachy s dědou včera ve tři hodiny.
    Paul play.3SG.PST chess with grandpa yesterday at 3 o'clock
    'Paul was playing chess with grandpa yesterday at 3 o'clock.'

(3) Zrovna jsem **vyhrávala** ^{IMPF}, když mi vypadl internet.
    right.then AUX PREF.play.**IMPF**.1SG.PST when me.DAT fell.out internet
    'I was winning, when my internet connection dropped.'

Stativity of Generic –*va*-Vs

Generic verbs that are formally marked with the marker –*va*- are aspectually stative:

— They are **incompatible with iterative adverbials** like 'three times'
— which count particular episodes that are not a part of a larger pattern.

(1) Pavel **hrával**^{IMPF} ? třikrát šachy s dědou.
Paul play.**GEN**.3SG.PST ? 3.times chess with grandpa.
? 'Paul used to play / tended to play three times chess with grandpa.'

They are **not iterative** or **multiplicative** verbs. Such labels are misnomers at best, even if they are standardly used in Czech studies (Kopečný 1948; Petr et al 1986; *Encyclopedic Dictionary of Czech* 2002, p.188-9) and also typological studies (Dahl 1995, i.a.).

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while AUX already 3.times PREF.play.**IMPF**.1SG.PST but never AUX NEG.win.1SG.PST
'Although I was already winning three times, I never won.

Generic (GEN) *–va-* versus the imperfectivizing (IMPF) suffix

Criterion	IMPF morpheme	GEN morpheme
aspect of the input form	perfective	imperfective
aspect of the output form	imperfective	imperfective
sanctions episodic interpretation	✓ (modulo context)	✗
sanctions generic interpretation	✓ (modulo context)	+

‘✗’: not available, i.e., either ‘#’ infelicitous or ‘?’ uninterpretable
‘+’ : always enforced
‘✓’ : contextually determined

The imperfective forms marked with the imperfectivizing suffix are 'general imperfective' (Comrie 1976) forms, their interpretations vary from 'on-going' (progressive), general factual, durative, conative, iterative to generic.

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     ? 'Paul used to play chess with grandpa yesterday at 3 o'clock.'

• The corresponding episodic base form (2) as well as its formally marked imperfective counterpart (3) can freely be used with reference to specific situations:

(2) Pavel   **hrál** [IMPF]   šachy s dědou   včera ve tři hodiny.
     Paul   play.3SG.PST   chess with grandpa   yesterday at 3 o'clock
     'Paul was playing chess with grandpa yesterday at 3 o'clock.'

(3) **Zrovna**   jsem   **vyhrávala** [IMPF] ,   když   mi   vypadl internet.
     right.then AUX   PREF.play.**IMPF**.1SG.PST   when   me.DAT   fell.out internet
     'I was winning, when my internet connection dropped.'

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     while AUX already 3.times   PREF.play.**IMPF**.1SG.PST   but never AUX   NEG.win.1SG.PST
     'Although I was already winning three times, I never won.

Next: Two Limiting Cases

	gen imperfective *–va*-Vs	vs	non-gen imperfective Vs with(out) IMPF suffix
• no actualized instances (possibly in all the situations)	✗		√
• TRUE in all the possible situations	✗		√

Intensionality: No Actualized Instances: ✗ *-va-*

- '**Actuality entailment**': The generic *–va-* has an 'actuality entailment' (in non-conditional clauses); it requires the existence of verifying instances in the actual world.
- The same holds for the 'habitual' *be* in AAVE (Green 2000, Collins 2006), Tlingit (Cable, ms), and other languages with similar markers.

(1) Mail from Antarctica goes in this box.

    TRUE even if no mail from A. has yet arrived and may never arrive.

(2) Pošta z Antarktidy   se   dá**IMPF**   / ? dává **IMPF**   do této krabice.
     mail   from Antarctica REFL put.3SG.PRES / ? put.**GEN**.3SG.PRES into this box
     'Mail from Antarctica goes / {?tends to go | ? usually goes} in this box.'

(3) Tento stroj   drtívá **IPFV**   pomeranče.
     this machine crush.**GEN**.3SG.PRES oranges
     'This machine tends to crush oranges …

     (i) …√ and we have used it often since we bought it a year ago.'   realized disposition
     (ii) …✗ but it hasn't been used yet, it is still in its shipping box.'   unrealized disposition

Universal Generalization ✗ *-va-*

- Incompatible with universal generalizations hold without exceptions in all the possible situations

(1) a. Trojuhelník má **IMPF**   / ?mívá **IMPF**   tři strany.
         triangle   have.3SG.PRES   / ?have.GEN.3SG.PRES three sides
         'A/the triangle has three sides' / ? A/the triangle tends to have three sides.'

     b. ∀x[triangle(x) → three_sides(x)]

         true in virtue of a triangle being a planar figure with three sides and internal angles adding up to 180 degrees. (Such categorical ascriptions do not entail conditional statements, unlike disposition ascriptions.)

(2) Voda se   skládá **IMPFV**   / ? skládává **IMPF**   z O a H.
     water REFL   consist.3SG.PRES / ? consist.GEN.3SG.PRES from O and H
     Water consists of oxygen and hydrogen.

Universal Quantifiers ✗ / ? *-va-*

e.g., The direct combination of the generic marker *–va-* with overt universal quantifiers like *každý* 'each/every', *vždy(cky)* 'always', *nikdy* 'never' is odd (uninterpretable).

(1) Každou sobotu Honza   sedí **IMPF** / ?sedává **IMPF**   v hospodě.   Q over situations
each Saturday John   sit.3SG.PRES / ?sit.**GEN**.3SG.PRES in pub
(?) 'Every Saturday John usually sits in a pub.'

(2) Každý Čech   je **IMPF**   / ? bývá **IMPF**   muzikant.   Q over individuals
every Czech   be.3SG.PRES / ? be.**GEN**.3SG.PRES musician
'Every Czech is / ?tends to be a musician.'

- not intended interpretation: quantification over appropriate episodic situations such that in such situations each Czech person acts as a musician

- Motivation (Filip 1994, 2009): *–va-* cannot co-occur with an overt universal quantifier, as that quantifier will bind the situation or individual variable in its scope leaving no other variable for *–va-* to bind (vacuous quantification).

This does not necessarily apply in past tense sentences, because generic past tense verbs may have a remote past meaning only, without having any quant force:

(3) Sedával   vedle ní každou neděli.
sit.**GEN**.3SG.PST   next to her every Sunday.
'He used to sit next to her every Sunday.'

Caveat: Sloppy Universal Quantifiers ✓ *-va-*

Sloppy uses of universal Qs: *každý* 'each/every', *vždy(cky)* 'always', *nikdy* 'never', …

- ✓ *-va-* used for emphasis, to suggest intensification of the strength of the regularity provided that such universal quantifiers lose their customary universal quantificational force (Danaher 2003, p.45),

(1) Mládež ve Vídni se zabývala Hebblem — já jsem **vždycky býval (GEN)** skeptický k takovým   módním proudům.   Čapek 1990, p.57
     'Viennese youth were all reading Hebbel — I was always skeptical about these fashionable influences.'   Čapek 1934, p.82

(2) "Je to divný," pokračovala pak rychlým a věcným šepotem, "jeden šuplík má zamčenej, a **nikdy** ho **nemívá** (**GEN**) zamčenej. A nepasuje mi do něj žádnej klíč."
     "It's strange," she continued in a quick and matter-of-fact whisper, "one of his desk drawers is locked and he never has it locked. And none of my keys fit the lock."
                                   Bělohradská 1992, p. 88, cited in Danaher 2003

- Similar to the combinations of *usually* with *always* and *never* in English:

(3) a. I am **usually always** happy, but today I feel really depressed.
     b. I am **usually never** neurotic about being messy and keeping things tidy,
          but I can't seem to go to sleep if clothes are hanging up to dry in my room.

Not interruptible Individual-Level Properties: X *-va-*

- The input of the generic suffix *-va-* is not defined for individual-level stative predicates: e.g. *be intelligent, know Latin.*

(1) Kdo zná **IMPF** / ? znává **IMPF** latinu, zná již vlastně jazyky románské.
who knows / ? knows.**GEN** Latin knows already in.fact languages romance
'He who knows Latin already in fact knows Romance languages.'

- Such ILPs denote properties that
  - are 'uninterruptible' (Fernals 2000), cannot be construed as holding on and off, with interruptions, and so cannot provide the requisite plurality of 'cases' for the generic marker *-va-* to quantify over
  - hold of individuals over long intervals, and possibly also for their whole life-time, and also at any moment and subintervals of such intervals

Quantificational Properties of the Generic *–va-*

Variable-Binding Properties of the Generic morpheme *–va-*

- The generic *–va-* is not a quantifier that quantifies over situations only (*pace* Dahl 1995). It can bind

  — situation variables,
  — variables provided by singular indefinites and bare plurals,
  — variables provided by kind-denoting definites,
  — more than one variable.

- With respect to its variable-binding properties (Filip 1993, 1994, 2009), *-va-* patterns with

  — the phonologically null GEN operator (see Krifka et al 1995) and
  — overt Q-adverbs, such as *usually, seldom, often* (see e.g., Chierchia 1995, p. 188-192)

Not reducible to the Meaning of a single Q-Adverb

Specifically, the meaning of the generic *–va-* is not reducible to the meaning akin to that of **usually**, or 'most', that quantifies over situations (*pace* Dahl 1995). There are four arguments, at least.

- Argument 1: *–va-* can be used in generic sentences that are **true even if most instances do not satisfy the generically-predicated property**

(1) Za Stalina   ruští generálové   **umírávali** [IMPF]   v mladém věku.
 during Stalin   Russian generals   **died**.**GEN**   in young age
 'In Stalin's times, Russian generals tended to die young.'[1]   Kučera 1981, 1999

  — TRUE even if **most** generals in Stalin's times did not as a matter of fact die young.

  — What tracks the truth of this sentence is that it predicates what we view as an unexpected, appalling or striking property of the kind denoting subject.

   Similarly to what tracks the truth of generic sentences like *Mosquitoes carry the West Nile Virus* (see Krifka et al 1995, Leslie 2008).

[1] The example is taken from Kučera (1981, 1999) who translates it as 'Most generals died young in Stalin's times.' However, this does not seem to be correct, given that factually it is false, and the sentence can be used in a situation in which less than half of the Russian generals died young in Stalin's times.

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- <u>Argument 2</u>: **The addition of *obyčejně* 'usually' or *většina* 'the majority' does not preserve the truth value of the original sentence**, and yields a factually false sentence:

(2) a. Za Stalina   ruští generálové   **umírávali** [IMPF]   v mladém věku.   TRUE
     during Stalin   Russian generals   **died**.**GEN**   in young age
     'In Stalin's times, Russian generals tended to die young.'[1]   Kučera 1981, 1999

    b. Za Stalina   **většina**   ruských generálů   **umírávalo** [IMPF] v mladém věku.   FALSE
     during Stalin   **majority** Russian generals   **died**.**GEN**   in young age
     'In Stalin's times, Russian generals tended to die young.'

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- Argument 3: If –*va*- were "a kind of quantifier over situations with, roughly, the semantics of 'most'" (Dahl 1995, p.421), then we would expect that it should only occur with adverbials like *obvykle* 'usually', *často* 'often', *téměř vždy* 'almost always', and the like.

  Danaher's (2003) corpus study shows that the morpheme –*va*-
  - occurs with the adverb of quantification *obvykle* 'usually' much less often than with other adverbs of quantification.
  - In fact, it is more often used with adverbs like *občas* 'from time to time', *někdy* 'sometimes', *málokdy* 'rarely', *tu a tam* 'here and there', *vzácně* 'rarely'.

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- Argument 4: *–va–* freely occurs with any adverbial of quantification (apart from universal ones), which clearly indicates that it **on its own does not contribute any requirement on the prevalence of the generically predicated property**:

(1) Po večeři Tomáš   [ADVERB]   **kouříval^IMPFV**   doutník.
     after dinner Thomas   [ADVERB]   smoke.**GEN**   cigar
     'After dinner Thomas   [ADVERB]   smoked a cigar.'

The [ADVERB] slot can be filled by e.g., *občas* 'from time to time', *často* 'often', *někdy* 'sometimes', *málokdy* 'rarely', *obvykle* 'usually', *pravidelně* 'regularly', *téměř vždy* 'almost always', *tolikrát* 'so many times', *tu a tam* 'here and there', *většinou* 'for the most part', *vzácně* 'rarely', *zpravidla* 'as a rule', … (see corpus studies of Široková 1963:62, 81 and 1965; Danaher 2003).

Conclusion: The meaning of the suffix *–va–* is not reducible to any single explicit extensional quantifier or quantity expression, a feature it shares with the generic operator GEN.

Exception-Centered Generic Quantifier

-va- : Exceptions that cannot be ignored

Question: 'What is his profession?'

Context: It is common knowledge that having a certain profession (e.g., being a teacher) is a tendentially stable property of an individual holding at an extended interval of one's life, and at any of its moments.

- felicitous answer

(1) Učí **IMPFV**   na střední škole.   Inference:
    teach.3SG.PRES   on middle school   'He is a high-school teacher.'
    'He teaches at high school.'

- odd or misleading answer

(2) **Učívá** **IMPFV**   na střední škole.   Inference:
    teach.**GEN.3SG.PRES**   on middle school   'Some/many/a few situations in which
    'He teaches at high school on and off.'   he works are such that he teaches at HS.

(2) is naturally understood as meaning that he is a temporary or a substitute teacher on and off.

(2) gives rise to speaker-oriented certainty inference that the generically-predicated property of teaching does not 'spread' to all the relevant situations of his professional life, but it holds for only some subset thereof.

Exceptions that cannot be ignored: Certainty Inference

(1) Knihy   **bývají** ^{IMPF}   brožované.   (2) Knihy   jsou ^{IMPF}   brožované.
books   be.GEN.3PL.PRES   paperback   books   be.3PL.PRES   paperback
'Typically/normally, books are paperback.'   'Books are paperback.'

   TRUE   FALSE

Removing the generic marker *–va-* reverses the truth value, because this opens up the possibility for strengthening via implicature that all books are paperback, which is in conflict with common knowledge/facts.

CONTEXT: It is common knowledge among interlocutors that

- paperbacks constitute a subkind of the kind BOOK, not all the books are **paperback**.
- some books, while not paperbacks, have a **positive alternative property**, namely being **hardback**, for instance, and these are pitted as positive counterinstances against paperbacks (Leslie 2007, 2008).
- Counterinstances to the generalization that have positive alternative characterizing property constitute exceptions to the generalization that cannot be safely ignored, which renders the generalization false.

-va- gives rise to speaker-oriented CERTAINTY inference:

Ks [NOT-ALL p] 'the speaker (S) knows (K) that the generic property p does not hold for all relevant instances'.

Exceptions that cannot be ignored: Ignorance Inference

CONTEXT: Saturday afternoon. A is looking for Tom. Tom is not at the pub *U Flekŭ.*

A: Víš, kde je Tom? Je *U Flekŭ?*
   'Do you know where Tom is? Is he in the pub *U Flekŭ?*'

B: B's epistemic state: B is not certain that Tom is at *U Flekŭ* on this particular Saturday.

   No, v sobotu   Tom   { **sedí** ^{IMPF} | **sedává** ^{IMPF} } U Flekŭ.
   well, on Saturday   Tom   { sits | sits.**GEN**   }   at Flekŭ
   'Well, on Saturday Tom { is | tends to be } in the pub *U Flekŭ.*'

Both generic sentences, formally marked and unmarked, are true in this situation.

The generic sentence with the **formally unmarked form** is infelicitous, because it is potentially misleading: it allows for the implicature that Tom is in this pub every Saturday, and so also this Saturday, which conflicts with the facts, including the fact that B's does not know that Tom is in this pub.

Such a strengthening is preempted by the morpheme *-va-* which gives rise to speaker-oriented IGNORANCE inference (in a very simplified form):

¬Ks [ALL p] 'the speaker (S) does not know (K) that the generic property p holds for all relevant instances'.

A Qualifying Perspective

<u>CONTEXT</u>: It is common knowledge among interlocutors that the kind DOG has the characteristic property of barking.

- When we judge the truth of *Dogs bark,* we think we can safely ignore exceptional individuals like members of non-barking dog species (e.g., Basenjis) and dogs that don't bark due to some impediments (see Pelletier & Asher 1997).

- The reason for this might be, as Leslie (2007,2008) argues, that non-barking dogs have no positive alternative property to the property 'bark', they simply fail to bark (*negative counterinstances* to barking dogs), and such exceptional individuals can be ignored for the purpose of the generalization about the whole kind.

<u>Question</u>: What kind of sound do dogs make?

(1) Psi **štěkají** IMPF.(preferred)   (2) Psi **štěkávají** IMPF.   (dispreferred/marked)
     dogs bark   dogs bark.GEN
     'Dogs bark.'   'Dogs tend to bark.'

- The generic sentence formally marked with *–va-* on its own, in this context, sounds odd because it may suggest that the speaker is ignorant about whether the kind DOG has the characteristics of barking, which is at odds with common knowledge.

A Qualifying Perspective

The acceptability if the generic formally marked with *–va-* improves by adding **QUALIFIERS** of the generalization which specify the conditions under which it can be justifiably applied to specific cases.

(1) Psi   **štěkají** [IMPF] - přesně řečeno, psi **štěkávají** [IMPF], tedy ne všichni.
   dogs bark   strictly speaking dogs bark.**GEN**   that.is not all
   'Dogs bark - strictly speaking, dogs tend to bark, that is, not all do.'

(2) Qualifying the situations in which the barking property can be applied to specific cases of dogs

   Psi   **štěkávají** [IMPF] na povel   /   když mají hlad.
   dogs   bark.**GEN**   on command   / when have hunger
   'Dogs tend to bark on command / when they are hungry.'

The use of these qualifiers (*strictly speaking, on command, when they are hungry*) capitalizes on the idea that *Dogs bark* express a 'double generalization' (Pelletier and Asher 1997; Carlson 2008):

- a generalization about **the kind DOG**, with its base (of generalization) constituted by instances of individual dogs to which the property of barking is attributed, and
- a generalization over **individual dogs**, with the base being particular situations of barking by a stage of an individual dog.

A Qualifying Perspective

(1) U každého domu   je **IMPF**   zahrada.
at each house   is   garden
'Next to each house, there is a garden.'

     falsified by a house with no garden next to it

(2) U každého domu   **bývá IMPF**   zahrada.
at each house   **is.GEN**   garden.SG.NOM
It is possible / likely that there is a garden next to each house.'

- not falsified by a house with no garden next to it
- NOT a quantifier over situations and individuals: e.g., not 'In most / some / the majority of situations, and for each house in that situation, there is a garden next to it.'
- Only epistemic (modal) import: Speaker-oriented ignorance inference, *It is possible/likely that …*

Qualifiers

- One useful strategy trying to understand how we reason about regularities with exceptions is to examine the properties of expressions that convey **qualifiers** of the generalization, which specify

  (i) the conditions under which or
  (ii) the degree of certainty with which the generalization can be justifiably applied to specific cases.

  Some examples: *generally, typically, normally, usually, rarely,…* (Q-adverbs); *in the absence of disturbing factors like …, unless prevented by…*(ceteris paribus *clauses*); *according to him, probably, …*(epistemic stance/perspective expressions), *when/if* clauses.

- Qualifiers may reverse the truth value of generics (1), or 'rescue' their acceptability (2)

(1) a. Books are paperbacks.   FALSE
    b. Generally / Typically, books are paperbacks.   TRUE

(2) a. *Un chien est intelligent.   b. De mon point de vue, un chien est intelligent.
     A dog is intelligent.   From my point of view, a dog is intelligent.   Mari 2008

- Intuitively, qualifiers bring to focus the existence of exceptions that we think we should not or cannot safely ignore (for whatever reason)

Proposal (preliminary working idea)

The GEN marker *-va-*

ASSERTION
The generically predicated property does not hold for all the relevant cases or instances (as witnessed by its incompatibility with universal generalizations, with a categorical absence of exceptions)

'ACTUALITY ENTAILMENT'
The generically predicated property has episodic verifying instances in the actual world.

SPEAKER-ORIENTED EPISTEMIC INFERENCES
It gives rise to one of the two types of inferences, depending on context:
(i)   the <u>CERTAINTY</u> inference that the speaker knows that there are exceptions to the generically predicated property, possibly also because it is generally known, or
(ii) the <u>IGNORANCE</u> inference that the speaker is uncertain that the generically predicated property holds for all the relevant cases or instances, and so is not in the position to make the stronger statement that merely allows for exceptions but is also compatible with no exceptions whatsoever.

• The acceptability of generic sentences formally marked with the GEN *-va-* is influenced by facts about the world, and also by a speaker's exception-centered epistemic stance towards non-universal generalizations.
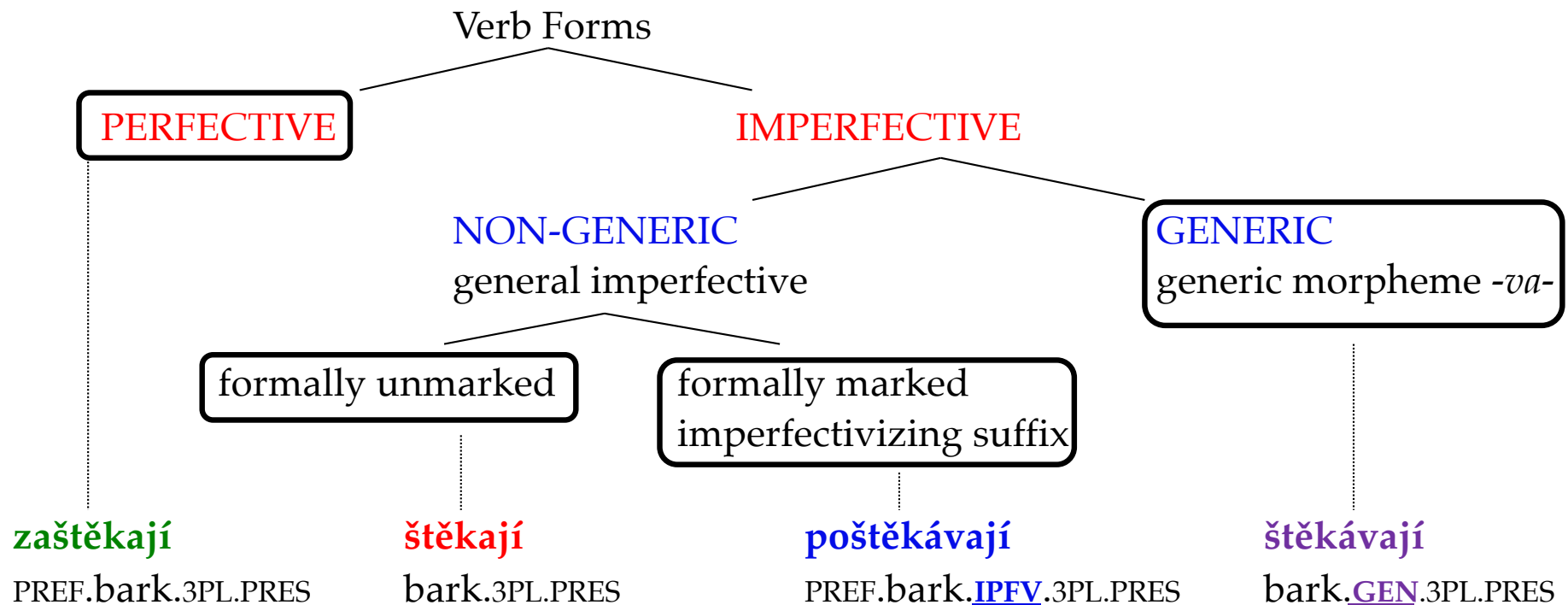
Question (posed at the outset)

How do we motivate the use of formally marked generic forms to express characterizing statements, when such statements can also be expressed by their corresponding unmarked non-generic forms?

Czech PFV and IMPFV Verbs in Generic Statements

Verb Forms

PERFECTIVE   IMPERFECTIVE

NON-GENERIC
general imperfective

GENERIC
generic morpheme *-va-*

formally unmarked

formally marked
imperfectivizing suffix

zaštěkají
PREF.bark.3PL.PRES

štěkají
bark.3PL.PRES

poštěkávají
PREF.bark.**IPFV**.3PL.PRES

štěkávají
bark.**GEN**.3PL.PRES

- Generic statements

(1)   Psi **štěkají**.   'Dogs bark.' (What sound do dogs make?)

(2)   Psi **zaštěkají** na povel.   'Dogs (will) bark on command.'

(3)   Psi hravě **poštěkávají** na dvorcích.   'Dogs playfully bark in the backyards.'

(4)   Psi **štěkávají** na ty, které neznají.   'Dogs bark at those they don't know.'

Perfectives in Generic Statements

- often have a potential character, which is absent in comparable imperfective sentences,
- unlike generic sentences formally marked with *-va-* , they can be and are used for generic statements that describe merely hypothetical regularities.

(For similar examples in Russian see Forsyth 1970, p. 174; also Fortuin&Kamphuis 2015).

(1) Sklo **se** lehce **rozbije^{PFV}**.   disposition
   'Glass breaks easily.'

(2) Jeden šroub **přijde** ^{PFV} do kulatého otvoru   operational instructions
    který je hned pod šroubem.
    'One screw goes into a round opening
    that is below another screw.'

(3) Střelec nikdy **nezmění^{PFV}** barvu pole   rule of a game
     Bishops never change color.

(4)   S poctivostí nejdál **dojdeš^{PFV}**.   moral injunction
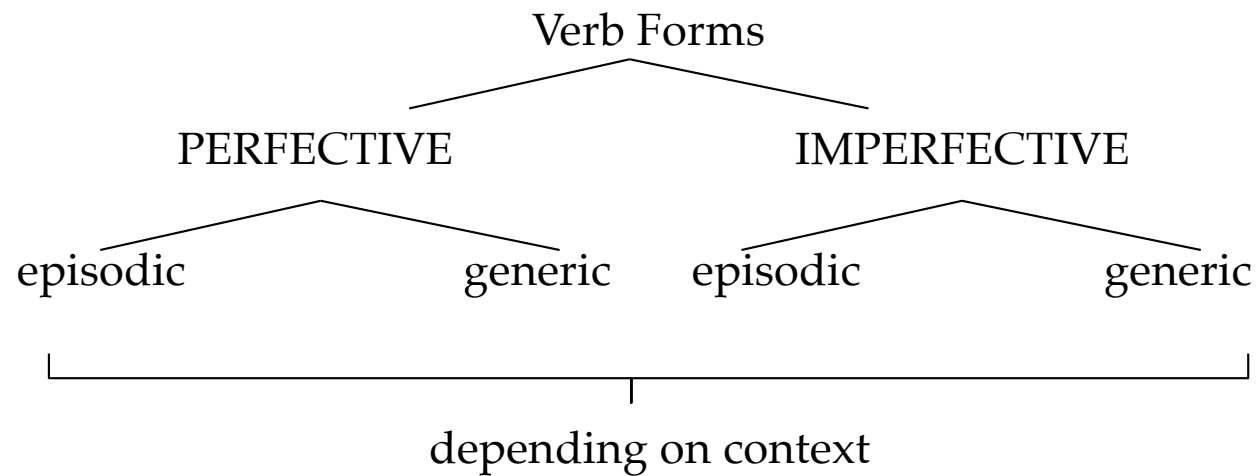   'Honesty is the best policy.'

Conclusions

The generic morpheme –*va*-

- enforces a generic interpretation of a sentence, is **not a marker of tense or aspect** (*pace* Dahl 1995).

- It has a number of formal and semantic properties which preclude its being subsumed under markers of imperfective aspect or tense (pace Dahl 1995)

- contributes meaning components that recur in the analyses of characterizing generic sentences across different languages.

- The distribution of the Czech suffix –*va*- over different types of characterizing generic sentences seems to confirm the view that the particular linguistic form in which characterizing generic statements are expressed determines meaning differences that are hard to reconcile with a uniform analysis of all characterizing generic sentences (see e.g., Pelletier 2009, Boneh & Doron 2013, i.a).

- In a number of typologically diverse languages, there are markers verbs, and also auxiliaries within a verb complex that enforce a generic interpretation of sentences. Dahl (1995) lists the following languages: Arabic (Classical), Akan, Catalan, Czech, Didinga, German, Guarani, Hungarian, Kammu, Limouzi, Montagnais, Sotho, Spanish, Swedish, Swedish Sign Language, Yucatec Maya, Zulu and also. Markers of this type remain largely unexplored.

Aspectual Forms and the Episodic/Generic Distinction

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                              Verb Forms
                    ╱                        ╲
            PERFECTIVE                    IMPERFECTIVE
          ╱            ╲                 ╱              ╲
   episodic          generic      episodic           generic
      └─────────────────────────────────────────────────┘
                              │
                    depending on context
```

pace Comrie 1976

Appendix

Binding of variables provided by indefinites

(2) a. Židle **mívají**^{GEN} čtyři nohy.
         'Chairs tend to have four legs.'

     b. **VA** [x;] (**chairs** (x) ; **have four legs** (x))
         'When a thing has the property of being a chair, it has four legs.'
         'For a given thing *x* such that *x* is a chair, *x* has four legs.'

(3) a. Televizní hlasatel na Nově   nosívá ^{IPFV}kravatu.
          television announcer on Nova   wears.**GEN**   tie
         'The TV announcer on the Nova station only rarely wears a tie.'

     b. **VA** [x;] (**television_announcer_on_Nova** (x); ∃y[**tie**(y) ∧ **wear** (x,y))

Binding of variables provided by kind-denoting definites

-VA- can be attached to kind-denoting predicates, such as *be widespread,* and quantified over individuals of a kind:

(4)   a.   Bedla jedlá   bývá **IMPERF**   rozšířená   u lidských sídlišť.
             macrolepiota procera   is.**GEN**   widespread   at human dwellings
             'The parasol mushroom tends to be widespread close to human dwellings.'
   b.   **VA** [x;] (**macrolepiota procera** (x); **widespread_at_human_dwellings** (x))

Binding of more than one variable

(5) a.   Kočka   **honívá**$^{\text{GEN}}$ myš.
            'A cat tends to chase a mouse.'

     b.   **VA**[s,x,y;] (**cat**(x) $\wedge$ **mouse** (y) $\wedge$ C(x,y,s) ; **chase** (x,y,s))

Selected References

BONEH, NORA, AND EDIT DORON. (2013). Hab and Gen in the Expression of Habituality. In C. Beyssade, A. Mari, and F.D. Prete (Eds.), *Genericity* (pp. 176-191). Oxford: Oxford University Press.

ČAPEK, KAREL. (1934). *President Masaryk Tells His Story*. Trans. D. Round. London: Allen and Unwin.

ČAPEK, KAREL. (1990). *Hovory s T. G. Masarykem*. Prague: Československý spisovatel.

ČAPEK, KAREL. (2000). *Obyčejný Život*. Olomouc: Otakar II.

CARLSON, GREGORY N. (1977). A Unified Analysis of the English Bare Plural. *Linguistics and Philosophy, 1*, 413-456.

CARLSON, GREGORY N. (1982). Generic Terms and Generic Sentences. *Journal of Philosophical Logic, 11*, 145-181.

CARLSON, GREGORY N. (1995). Truth-conditions of generic sentences. In G.N. Carlson and F.J. Pelletier (Eds.), *The Generic Book* (pp.224-237). Chicago: University of Chicago Press.

CARLSON, GREGORY N. (2008). Patterns in the Semantics of Generic Sentences. In J. Guéron & J. Lecarme (Eds.), *Studies in Natural Language and Linguistic Theory, Time and Modality* (Vol. 75, pp. 17–38). Dordrecht: Springer.

CARLSON, GREGORY N., AND FRANCIS J. PELLETIER (Eds.). (1995). *The Generic Book*. Chicago: University of Chicago Press.

CHIERCHIA, GENNARO. (1995). Individual-Level Predicates as Inherent Generics. In G.N. Carlson and F.J. Pelletier (Eds.), *The Generic Book* (pp. 176-223). Chicago: University of Chicago Press.

COMRIE, BERNARD. (1985). *Tense*. Cambridge: Cambridge University Press.

DAHL, ÖSTEN. (1985). *Tense and Aspect Systems*. Oxford: Blackwell.

DAHL, ÖSTEN. (1995). The Marking of the Episodic/Generic Distinction in Tense-Aspect Systems. In G.N. Carlson & F.J. Pelletier (Eds.), *The Generic Book* (pp. 415–425). Chicago: University of Chicago Press.

DANAHER, DAVID S. (2003). *The Semantics and Discourse Function of Habitual-Iterative Verbs in Contemporary Czech*. Munich: Lincom.

FILIP, HANA. (t.a.) Grammaticalization of Generic Markers. A special issue of *Linguistics*, by Nora Boneh and Łukasz Jedrzejowski (Eds.).

FILIP, HANA. (1993). On Genericity: A Case Study in Czech. In *Proceedings of the Nineteenth Meeting of the Berkeley Linguistic Society* (pp. 125-142).

FILIP, HANA. (1994). Quantificational Morphology. In S. Avrutin, S. Franks, and L. Progovac (Eds.), *Formal Approaches to Slavic Linguistics, Vol. II, the MIT Meeting 1993* (Vol. 2, pp. 144-177). Ann Arbor, MI: Slavic Publications.

FILIP, HANA. (2002). "Individual-Level Predicates as Restrictors in Generic Quantification." Linguistics Colloquium. Department of Linguistics, Stanford University, USA.

FILIP, HANA. (2009a). Word-internal and phrasal semantic relations. Invited Talk. Prague Charles University invited talk Charles University, Faculty of Arts, Institute of Czech Language and Theory of Communication, Prague, Czech Republic.

FILIP, HANA. (2009b). Imperfectivity and Genericity: A Non-Reductionist Analysis. In *Workshop on Imperfective Form and Imperfective Meaning*, Yale University.

FILIP, HANA. (2009c). "Habituals and Q-adverbs." Conference on *Genericity: Interpretation and Uses*. École normale supérieure, Paris, France.

FILIP, HANA. (2010). "Two Models for Characterizing Genericity?" Invited talk at the 19th Conference on *Formal Approaches to Slavic Linguistics* (FASL), University of Maryland, USA.

FILIP, HANA. (2012). "Talking generically." Workshop on *Slavic Linguistics*. Organizer: Susan Rothstein, Department of English/Gonda Brain Research Centre, Bar-Ilan University, Ramat Gan, Israel.

FILIP, HANA. (2015). Genericity and Habituality. Invited talk. Department of Linguistics, Higher School of Economics, Moscow, Russian Federation.

FILIP, HANA, AND GREGORY N. CARLSON. (1997). Sui Generis Genericity. In *Proceedings of the Twenty-First Annual Penn Linguistics Colloquium*, University of Pennsylvania, Philadelphia, USA, pp. 91-110.

GREENBERG, YAEL. (2003). *Manifestations of Genericity*. New York: Routledge.

KRIFKA, MANFRED. (2001). Kinds of Kind Reference. Talk given at *Conference on Genericity*, Universität zu Köln.

KRIFKA, MANFRED. (2009). Definitional Generics as Second-Order Predications. Talk given at *Conference on Genericity: Interpretation and Use*, Institut Nicod, Paris.

KRIFKA, MANFRED. 2012. Definitional generics. In Alda Mari, Claire Beyssade & Fabio Del Prete (eds.), Genericity, 372-389. Oxford: Oxford University Press.

KRIFKA, MANFRED, FRANCIS J. PELLETIER, GREGORY N. CARLSON, ALICE TER MEULEN, GENNARO CHIERCHIA, AND GODEHARD LINK. (1995). Genericity: An Introduction. In G.N. Carlson and F.J. Pelletier (Eds.), *the Generic Book* (pp. 1-124). Chicago: University of Chicago Press.

LAWLER, JOHN. (1973). *Studies in English Generics.* (Ph.D. Thesis), University of Michigan.

LESLIE, SARAH-JANE. (2008). Generics: Cognition and Acquisition. *Philosophical Review, 117*(1), 1-47.

PELLETIER, FRANCIS J. (2009). Are All Generics Created Equal? In PELLETIER, F.J. (Ed.) *Kinds, Things and Stuff*. Oxford: Oxford University Press (pp.60-79).

PELLETIER, FRANCIS J., AND NICHOLAS ASHER. (1997). Generics and Defaults. In J. van Benthem and A.T. Meulen (Eds.), *Handbook of Logic and Language* (pp. 1125-1177). Amsterdam: North Holland.

XXX

Show that the morpheme *–va-* in Czech is to be analyzed as a generic operator sui generis:

- Although it is formally imperfective, as it satisfies some syntactic tests for imperfectivity in Slavic languages, semantically it resists any analysis in terms of an aspectual (imperfective) operator.
- It has intensional (modal) and quantificational properties that aspectual operators (perfective, imperfective, progressive, …) do not have, and specifically its analysis cannot be reduced to properties that recur in the analyses of imperfective operators.
- The syntax and semantics of this morpheme directly reflects the semantic generic/episodic distinction in Czech, and by analogy also in other Slavic languages through the uses of the cognate morphemes (pace Dahl 1995).
- Semantically it split from the semantics of imperfectivity

Consequences

- Support for the independently made arguments that genericity, and also 'habituality', is a category that is independent from other categories of the tense-modus-aspect system (Krifka et al 1996; Filip&Carlson 1997; Pelletier&Asher 1997; Nickel 2008, 2016; Pelletier 2009; Carlson 2013, i.a.). Despite affinities between genericity and imperfectivity - the tendency for generics to be expressed by imperfective forms is fairly strong,
- Specifically, genericity and/or 'habituality' cannot be subsumed under imperfective aspect, formally and semantically (pace Comrie 1976, among many others); this makes implausible any semantic analysis that attempts at providing a unified account of both the episodic and generic (or 'habitual') meanings of imperfective forms.