### Old English – The Lord's Prayer (Otčenáš)

Fæder ure þu þe eart on heofonum; Si þin nama gehalgod to becume þin rice gewure ðin willa on eoran swa swa on heofonum. urne gedæghwamlican hlaf syle us todæg and forgyf us ure gyltas swa swa we forgyfað urum gyltendum and ne gelæd þu us on costnunge ac alys us of yfele soblice

be thy name hallowed come thy kingdom be-done thy will on earth as in heavens our daily bread give us today and forgive us our sins as we forgive those-who-have-sinned-against-us and not lead thou us into temptation but deliver us from evil. truly.

Father our thou that art in heavens

(Matthew 6:9-13)

#### Middle English – The Canterbury Tales

Whan that aprill with his shoures soote The droghte of march hath perced to the roote, And bathed every veyne in swich licour Of which vertu engendred is the flour: Whan Zephirus eek with his sweete breeth Inspired hath in every holt and heeth The tendre croppes, and the yonge sonne Hath in the ram his half cours yronne, And smale foweles maken melodye, That slepen al the nyght with open ye (so priketh hem nature in hir corages): Thanne longen folk to goon on pilgrimages, And palmeres for to seken straunge strondes, To ferne halwes, kowthe in sondry londes: And specially from every shires ende Of Engelond to Caunterbury they wende, The holy blisful martir for to seke. That hem hath holpen whan that they were seeke.

When April with his showers sweet with fruit The drought of March has pierced unto the root And bathed each vein with liquor that has power To generate therein and sire the flower: When Zephyr also has, with his sweet breath, Quickened again, in every holt and heath, The tender shoots and buds, and the young sun Into the Ram one half his course has run And many little birds make melody That sleep through all the night with open eye (So Nature pricks them on to ramp and rage)-Then do folk long to go on pilgrimage, And palmers to go seeking out strange strands, To distant shrines well known in sundry lands. And specially from every shire's end Of England they to Canterbury wend, The holy blessed martyr there to seek Who helped them when they lay so ill and weal.

(General Prologue, lines 1-18)

### Language Change and Historical Linguistics

Jirka Hana

Charles University, 2011-12-17

#### Overview

- 1 Basics
- 2 English & Czech
  - Development of English
  - Development of Czech
- 3 Language Change
  - Kinds of Language Change
  - Why Do Languages Change?
  - Attitudes Towards Language Change
  - Sound Change
- 4 Language families
- 5 Comparative reconstruction



#### Historical linguistics

#### Historical linguistics studies:

- how languages *change* over time
- how languages are *related*.

#### Main theses

- All languages change over time.
- The change is relatively slow.
- Languages do not change randomly.
- There are many patterns and generalizations we find out when examining the histories of various languages.

### Note about speech and writing

Because devices for recording sounds have only been around for about a century, the vast majority of data used for historical linguistics is textual. This is only a matter of circumstance, however – as discussed before, the *spoken* language is primary; we only analyze the *written* language if we have no other options.

# Two Approaches to the Study of Language

■ **synchronic** – Study of language at one point in time (usually "now" – the modern form of a language).

```
synchronic: From Greek: syn (same, together) + chronos (time)

Cf. synchronize, synonym, symphony, synergy; chronicle, chronology, chronic
```

 diachronic – studies historic development of a language or languages. (compares the language with itself at different stages of its development)

```
diachronic: From Greek: dia (thru, accross) + chronos (time)

Cf. diagonal, diarrhea (thru + flow), diagram, diadem (bound across), dialect (across + speak), dialog (across + speak), diameter (across + measure), diaspora
```

## Development of English

- Old English (OE, 450-1100)
- 2 Middle English (MidE, 1100-1450)
- 3 Early Modern English (1450-1700)
- 4 Modern English (ModE, 1700-present)

### Indo-European to Germanic

- Grimm's law
  - -vcd stop > fricative
  - +vcd stop > -vcd
  - +vcd aspirated stop > fricative (> stop)

## Indo-European to Germanic

#### Grimm's law

```
-vcd stop > fricative
```

- +vcd stop > -vcd
- +vcd aspirated stop > fricative (> stop)

```
father, de: Vater
   pater
p
   pedis, epod (cz: under)
                                 foot, de: Fuss
   tres, tři (cz)
                                  three
   kardia (Greek)
k
                                  heart
h
   lahium
                                  lip
   decem, deset (cz)
                                  ten
   gynē (Greek)
                                  queen
```

#### Germanic to W Germanic

■ Verner's law (roughly):

proto-German	High German		
	V	else	
*p	f	pf	
*t	S	ts	
*k	X	$k (k^x)$	
*d	t	t	

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proto-German	High German		
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*t	S	ts	
*k	X	$k(k^x)$	
*d	t	t	

	English		Modern German
p	open	f	offen
	path		pfad
t	bite		beissen
t	to	ts	zu [tsu]
	ten		zehn [ts]
k	book	X	Buch [x]
k	come	k	kommen
d	ride	t	reiten
	door		Tür

Loss of /x/ (usually written as gh, German preserved it)
en: right [rait] night [naɪt] neighbor [neɪbər] high [haɪ] through [θτu]
de: rechts [rexts] Nacht [naxt] Nachbar [naxbar] hoch [hox] durch [durx]

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- 5 England under Norman (French) rule > about 10K French borrowings

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- England under Norman (French) rule > about 10K French borrowings
- 6 etc.

### Old English Nominals

- All nouns distinguished gender:
   guma 'man' masculine,
   scip 'ship' neuter,
   giefu 'gift' femine, etc.
- All nouns where inflected for case, and number
- Adjective agreed with nouns in case, number and gender

# Old English Adjectives

■ Weak forms – after determiners (articles, possessives, *that*, etc.)

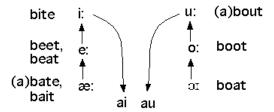
	singular			plural
	masculine	feminine	neuter	all genders
nom	til-a (good)	til-e	til-e	til-an
gen	til-an			til-ra, til-ena
dat	til-an			til-um
acc	til-an		til-e	til-an

■ Strong forms – otherwise

	singular			plural		
	masculine	neuter	feminine	masculine	neuter	feminine
nom sg	til (good)	til	til-u	til-e	til-u	til-e, -a
gen	til-es		til-re	til-ra		
dat	til-um		til-re	til-um		
acc	til-ne	til	til-e	til-e	til-u	til-e, -a

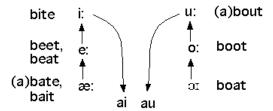
#### Middle English to Early Modern English

The Great Vowel Shift – only [1] and [ε] unaffected.
One vowel "pushed" another to a different place in the vowel chart.



### Middle English to Early Modern English

The Great Vowel Shift – only [ι] and [ε] unaffected.
One vowel "pushed" another to a different place in the vowel chart.



2 Simplification of some initial consonant clusters:

[kn] > [n]: know, knee, knight

[hr] > [r]: hring > ring[wr] > [r]: write, wrist



### Development of Czech

- Old Slavonic
- 2 Proto-Czech (1000-1150)
- 3 1300-1400's
- 4 Humanistic period
- 5 Baroque period
- 6 The National Renaissance

#### Sources

- Old Slavonic no direct sources, reconstructed language
- Old Church Slavonic (staroslověnština)
  Literary language based on the Thessaloniki Slavic dialect, created Saints Cyril and Methodius in 800's.

#### Proto-Czech (1000-1150)

V i V > V: (dobraja > dobrá)

#### Proto-Czech (1000-1150)

- $\blacksquare$  V j V > V: (dobraja > dobrá)
- yers (ъ and ъ; reduced vowels): yer > 0 (odd yers from the end) / e (even yers) okъno > okno but okъnъ > oken

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- nasal vowels disappeared

#### Old Czech (1150-1250)

- No continuous texts, mostly single words or glosses in Latin texts.
- In comparison with modern Czech, Old Czech has: a full system of palatal and hard consonants, dual number, simple past tenses (aorist, imperfect), etc.
  - [a/æ] > [jε] (ĕ) after palatal/palatalized consonants. This led to differentiation between hard and soft paradigms
  - g > h (gora > hora 'mountain')

category		Old Czech	Modern Czech
infinitive		péc-i	péc-t 'bake'
present	1sg	pek-u	peč-u
	1du	peč-evě	_
	1pl	peč-em(e/y)	peč-eme
	:		
imperfect	1sg	peč-iech	_
	1du	peč-iechově	_
	1pl	peč-iechom(e/y)	_
	2pl	peč-iešte	
	:		
aorist s	1sg	peč-ech	_
	1du	peč-echově	_
	1pl	peč-echom	_
	2pl	peč-este	_
	:		
imperative	2sg	pec-i	peč
	2du	pec-ta	_
	2pl	pec-te	peč-te
	:		
verbal noun		peč-enie	peč-ení

#### 1300-1400's

- First longer written texts
- Depalatalization Old Czech had a full system of palatal and hard consonants, most of this is lost
- Difference between *i* and *y* neutralized
- Beginnings of:  $\acute{y} > ej$  ( $b\acute{y}t > bejt$  'to be') and  $\acute{u} > ou$  ( $s\acute{u}d > soud$  'court')
- Beginnings of protetic *v* before initial *o*: *vokno* 'window'
- Simple past tenses disappeared
- Standardization of orthography (probably by Jan Hus), diacritics replaces digraphs. E.g., rz, rrz, rs, rzs, rzss, ... >  $\dot{r}$

### Humanistic period

- Kralická bible and several Czech grammars published
- masculine animacy as today
- Dual number disappears except for certain nouns and agreeing attributes (s dlouhýma rukama 'with long arms', dvě stě '200', ...)

#### Baroque period

- Czech is replaced by German in many situations.
- $\bullet$  e' > i:  $\check{r}\acute{e}ci > \check{r}\acute{i}ci$  'say',  $dobr\acute{e}$   $ml\acute{e}ko > dobr\acute{y}$   $ml\acute{e}ko$  'good milk'
- dual endings used instrumental plural (-ama)

#### The National Renaissance

Creation/resurrection of Literary Czech on the basis of humanistic Czech ignoring 200 years of development and resulting in the split between Literary and Common Czech.

### Kinds of Language Change

#### Languages undergo changes at all linguistic levels:

- phonetic,
- phonemic,
- morphological,
- syntactic,
- semantic,
- pragmatic

#### Phonetic Language Change

- Old English had [y] (as [1], but rounded), it was replaced by [1] or [at]:
  - **■** [pyt] > [pɪt] *pit*,
  - $\blacksquare$  [my:s] > [mis] > [mais] *mice*.
- Old English had [x], Modern English does not [bro:xte] brohte > [brot] brought
- Reduction of yers in Proto-Czech: d = b = b = b 'today'

#### Phonemic Language Change

In Old English [v] and [f] were allophones (variants) of one phoneme. In Modern English they are two distinct phonemes.

# Morphological Language Change

- In OE, nouns had case endings (nominative, genitive, dative, accusative)
- Past tense in Czech:
  - Old Czech: several simple past tenses (aorist, imperfect)
  - Modern Czech: only analytical preterite some forms of aorist are used in the conditional auxiliary (bych)

# Syntactic Language Change

- Question formation in English:
  - OE: all questions could be formed by inverting the subject and the verb.
  - ModE: inversion possible only with auxiliaries, other verbs use do.

#### Semantic & lexical Language Change

- In OE, *girl* referred to young men and women.
- *silly* meant 'blessed':

To whom the angel spoke,
Saying, Be not afraid;
Be glad, poor silly shepherds;
Why are you so dismayed? (A Child This Day Is Born)

■ Czech: *pivo* any drink > beer

# Language Change

Shakespeare's time: What thinkest thou? Modern English: What do you think?

- syntactic change no auxiliary do
- morphological change verb endings
- lexical change *thou* is now obsolete.

# Why Do Languages Change?

- Economy: Speakers tend to use as little energy as possible to reach the goals of communication.
- Analogy: One part of the system (lexicon, morphology, ...) or even a single word or rule is modified to be more like other parts of the system.
- Change of context (society, culture, place)

# Why Do Languages Change?

■ Language split – A language may split into two or more languages if the speakers become separated into two or more groups with little or no contact.

```
Latin > French, Spanish, Catalan, Romanian, ...
English > British, American, Indian, South African, ...
```

#### Why Do Languages Change?

Borrowing between languages in contact (because of trade, etc.) Mostly vocabulary. Less frequently in phonetics, phonology; sometimes also syntax, morphology and semantics.

English borrowed words from many languages (often via other languages), e.g., French (design, court, table), Latin (deficit, sponsor), Scandinavian lgs. (they, law), German (kindergarten, noodle), Spanish (canyon, tornado), Italian (isolate), Greek (comedy, theater), Native American lgs. (chipmunk, kayak), South Asian (sandal), Dutch (cruise), Arabic (algorithm, giraffe, alcohol), Chinese (tea), Russian (czar), Czech (robot, howitzer).

Czech borrowings: English (gól, software), German (flaška, láhev), Russian (samovar), Latin (košile, norma, cirkus, minuta), French (toaleta), Spanish (armáda), Italian (banka), Greek (kytara, symbol), Turkish (jogurt), Arabic (algebra, alkohol), Chinese (čaj), . . . .

#### Attitudes Towards Language Change

People have complained about the deterioration of language forever. There were many attempts to resist language change, defending it against:

- "invasion of barbaric" terms from other languages
- preventing "vulgar speech from corrupting" the language as a whole.

# Attitudes Towards Language Change

Many countries have/had language academies – institutions organized to attempt to regulate, stop, or even reverse language change.

Academies & government

- can force newspapers and book publishers to conform to specific guidelines,
- but they cannot control how people speak, and that's where the language change originates.

**A Sound Change** is a phonological process which has been accepted by all speakers of a language (or dialect).

Sound changes tend to spread from speaker to speaker gradually in a wave-like pattern until they are uniformly used by all speakers in a linguistics community. They do not spontaneously occur everywhere in a language.

#### When:

- **Conditioned** the change happens only in certain phonetic environment
  - e.g. all [s] in front of a vowel change into [ʃ]
- **Unconditioned** the change happens regardless of the phonetic environment
  - e.g. all [s] change into [ʃ]

#### What:

- **Assimilation**: Two sounds become more like each other when they are near or touching.
  - e.g. [wulfas] > [wulvas] ([f] is voiceless, [l] & [v] are voiced)
- **Dissimilation**: Two sounds become less like each other when near or touching.
  - e.g. [fif $\theta$ ] > [fift] fifth ([f] & [ $\theta$ ] are fricatives, [t] is a stop)

- **Deletion**: Sounds are deleted in certain environments. e.g. MidE [knixt] > ModE [nait] *knight* ([k] and [x] deleted)
- **Insertion**: Sounds are inserted in certain environments. e.g.  $[\mathfrak{x}\theta]$  =  $[\mathfrak{x}\theta]$  =
- **Monophthongization**: Diphthongs become monophthongs. e.g. MidE [rɪʊlə] > ModE [rul] *rule*
- **Diphthongization**: Monophthongs become diphthongs e.g. MidE [u] > ModE [av]: [hus] > [havs] *house*, [mavs] *mouse*

#### What:

- **Metathesis**: The order of sounds change.
  - e.g. ask > aks
- Raising/Lowering: The position of the tongue becomes either higher or lower when producing certain sounds.
  - e.g. [metə] > [mit] meat
- **Backing/Fronting**: The position of the tongue becomes either more forward or more back.
  - e.g.  $[pa\theta] > [px\theta] path$

#### Note: Always look at pronunciation not spelling:

- Pronunciation can change without spelling changing
   e.g. English *name* used to be pronounced [na:ma] but spelling
   did not change.
- Spelling can change without pronunciation changing
   Turkish switched it's whole alphabet in 1928 without changing
   pronunciation
   Russian modified it's spelling in 1917 without changing the
   pronunciation

# Language Families

We can classify languages by their origin into a tree similar to family trees.

Most of the European and some Asian languages evolved from a common ancestor called Proto-Indo-European.

# Indo-European

- Slavic: Czech, Russian, Polish, Croatian, Bulgarian, etc.
- Romance/Italic languages Latin and its descendants: Spanish, Portuguese, French, Italian, Romanian, etc.
- Germanic languages: English, German, Dutch, Afrikaans, Yiddish, Norwegian, Swedish, Danish, etc.
- Celtic: Irish, Scots Gaelic, Welsh
- Indo-Iranian: Sanskrit, Hindi, Urdu, Romany (Gypsy), Pashto
- Hellenic: Greek
- etc.

# Language Families

Except Indo-European there are many other language families, for example:

- Sino-Tibetan languages: Mandarin (Chinese), Cantonese (Chinese), Tibetan, Thai
- Uralic languages: Hungarian, Finnish
- Afro-asiatic: Semitic languages (Arabic, Hebrew, Maltese), Somali, Egyptian (Ancient Egypt), etc.

There is about 7000 languages, originating probably in a small number of proto-languages.

For detailed classifications:

- http://www.ethnologue.com
- http://www.krysstal.com/langfams.html

# Comparative reconstruction

How do we know about supposed mother languages if there are usually no speakers of these languages and frequently no texts? We **reconstruct** vanished languages by **comparing** their descendant languages.