

Time and Space I

Pavel Caha

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Coding locations

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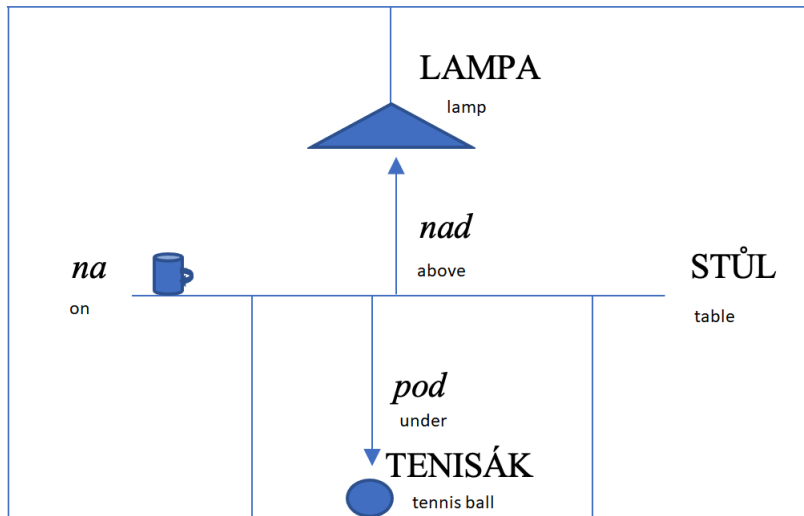
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- (2) Where is Mary? — *Mary* is **in** *her room*.
Figure spatial marker Ground



Czech prepositions

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How to tell locatives and directionals apart

(4) Compatibility with different verbs

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put the coat into wardrobe in wardrobe

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- a. Dej ten kabát vedle bundy
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- ▶ The point: motion can be coded in the spatial marker or in the verb.

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- ▶ start at Ground, search in a particular direction

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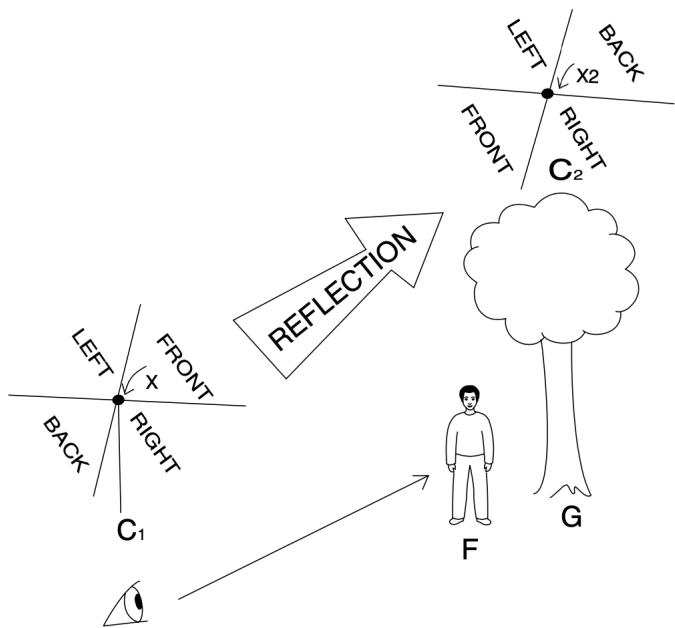
▶ Two basic ways of finding the Figure:

- ▶ start at Ground, search in a particular direction
- ▶ start at Ground, look around in no particular direction, but in the general proximity of the object

Intrinsic frame of reference (in front of the car)



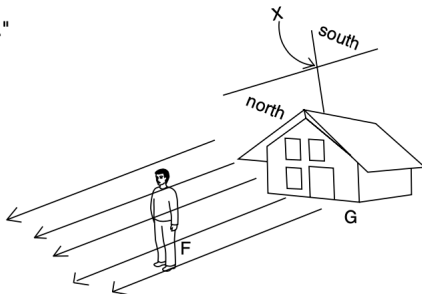
Relative frame of reference



Absolute frame of reference

ABSOLUTE

"He's north of the house."



Rotations

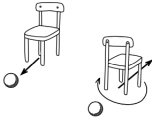
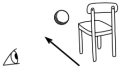

	Rotation of:		
	viewer	ground object	whole array
<p>Intrinsic "ball in front of chair"</p> 	<p>same description?</p> <p>yes</p>	<p>same description?</p> <p>no</p>	<p>same description?</p> <p>yes</p>
<p>Relative "ball to left of chair"</p> 	<p>no</p>	<p>yes</p>	<p>no</p>
<p>Absolute "ball to north of chair"</p> 	<p>yes</p>	<p>yes</p>	<p>no</p>

Figure 2.6. Properties of the frames of reference under rotation

back to Czech

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- ▶ Two basic ways of finding the Figure:
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- ▶ Two basic ways of finding the Figure:
 - ▶ start at Ground, search in a particular direction
 - ▶ start at Ground, look around in no particular direction, but in the general proximity of the object
- ▶ All and only prepositions with the instrumental require us to orient the ground

Interior (in)



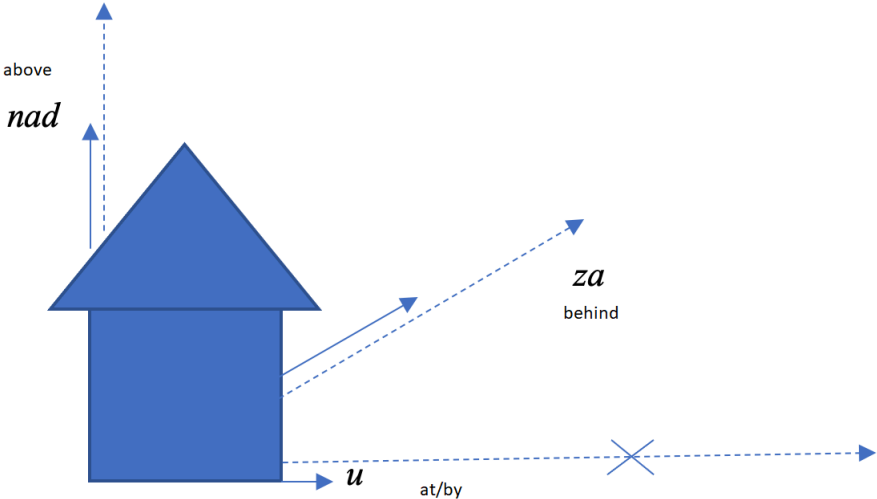
attachment (on)



proximity (u)



projectivity



(10) Case marking the ground

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	in/on/all over	the car
instrumental:	nad/pod/před/za	aut-em
	above/under/in front of/behind	the car

- (11) a. dva metry nad/pod/před/za domem
two meters above/under/in front of/behind house
- b. *dva metry u/v/na hradu
two meters at/in/on castle

(12) Symmetry

a. A je u B

A is at B

b. B je u A

B is at A

(12) Symmetry

a. $A \text{ je } u \text{ B}$

A is at B

b. $B \text{ je } u \text{ A}$

B is at A

(13) Asymmetry

a. $A \text{ je } v \text{ B}$

A is in B

b. $B \text{ je } v \text{ A}$

B is in A

- (12) Symmetry
- a. A je u B
A is at B
 - b. B je u A
B is at A
- (13) Asymmetry
- a. A je v B
A is in B
 - b. B je v A
B is in A
- (14) Asymmetry
- a. A je na B
A is on B
 - b. B je na A
B is on A

- (12) Symmetry
- a. A je u B
A is at B
 - b. B je u A
B is at A

- (13) Asymmetry
- a. A je v B
A is in B
 - b. B je v A
B is in A

- (14) Asymmetry
- a. A je na B
A is on B
 - b. B je na A
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► *u*: Ground is a point (1D)

- (12) Symmetry
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- ▶ *u*: Ground is a point (1D)
- ▶ *na*: Ground has surface (2D)

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- ▶ spatial marker – tells us how to find the figure relative to the ground
- ▶ projective spatial markers: orient the ground according to a set of coordinates, search in a particular direction
- ▶ non-projective spatial markers: interior, surface, proximity