

3 Depictive Grammar: The Linguistic Image

The *Linguistic Image* is a graphical device for depicting the meaning of language. It is a *viewport* on the mental image that underlies what a speaker is saying. It is shown here as a rectangular field in which depictions of mental objects and emotions appear as the speaker encodes them in the stream of speech. The *viewpoint* of the viewport is that of the speaker.

For the hearer, the Linguistic Image depicts the cognitive image that emerges as he or she decodes the Speaker's speech stream and mentally depicts an imitation of the speaker's transmitted image.

In a conversational setting the Linguistic Images of all hearers converge on a composite image made from the speech of all the interlocutors.

The image is depicted as a series of *frames* in real time. Each frame depicts the change from the image's previous state as each morpheme is decoded (Depiction 3.1).



Depiction 3.1. Frames of a Computer-Generated Depiction of
e `jukuř e ^mânřea `viana. 'A woman is hitting a man.'
 (not all frames are shown)

The method of depiction depends on its medium. Ideally, using current technology, a computer program would generate realistic depictions of speech on a video display in real time (Strand and Missimer 2015; v. Depiction 3.1 and Depiction 3.2). Because we cannot show such moving pictures in a static book, we use two-dimensional depictions to represent frames of the moving pictures. Because we need only depict the essentials of an image, we use schematic diagrams, as in Depiction 3.3, to represent the frames.



Depiction 3.2. Realistic Depiction.



Depiction 3.3. Schematic Depiction.

3.1 Morpheme Classes, Depictional Processes, and Schematic Elements

Morphemes fall into classes based on the depictional processes that they trigger as they are decoded. The mapping of morpheme classes to depictional processes and schematic depictions is summarized in Table 39.

Phrasal Type	Syntactic Class	Morpheme Class	Examples	Depiction	Schematic Depiction
Noun Phrase	Nouns	noun stems	<i>ˈlātri, ˈmānša</i>	objects	boxes or icons
		feminine nouns	<i>ˈjuk; ˈgo; ˈvāsa</i>	feminine objects	boxes or icons with ♀
		plural nouns	<i>ˈdāfi; ˈnuatot</i>	plural objects	boxes or icons
		quantifiers	<i>ˈčuk, ˈča; ˈegek; ˈje</i>	quantification	bounding box, icons
		qualifiers	<i>ˈoala; ˈzaña; ...</i>	elaboration of objects	aposition of objects
	Locators	case suffixes	<i>-a, -a˘; -e/o; -ea˘</i>	backgrounding; plurality; fem. sg.	degree of backgrounding; plural; fem.
		pronouns: interlocutor	<i>ˈo˘é; ˈt'ü; im'o; ˈš'o</i>	speaker; hearer	gesture with objects
		pronouns: indefinite	<i>ˈkāa; ˈkora</i>	unknown objects	gesture with objects
		pronouns: imitative	<i>ˈgita</i>	imitation of objects	gesture with objects
		pronouns: deictic	<i>ˈina, ˈi-a, ˈāska</i>	objects at distances	pointing arm
		prepositions	<i>ˈu, ˈü; ˈni, ˈča</i>	direction	pointing arm
		pointer suffixes	<i>-ra; -ña; -ma</i>	places: deictic	moving hand
		postpositions	<i>to; u; ste; vik; meš</i>	places: object-relative	“footprint”
		place names	<i>ˈkombřom</i>	places: named	places as “footprint”
		kinship suffixes	<i>-ša, -as, -añas</i>	kinship ties	connectors
Verb Phrase	Verbs	verb stems	<i>āsa-, bu- ie- via-</i>	changing objects	arrows and boxes
	Verbal Suffixes	modal suffixes	<i>-na, -i, -la; -ti</i>	mode: phase and participant-focus	backgrounds; perspective
		objectifier	<i>-sta</i>	evidentiality	bounding box
		vivid suffixes	<i>-o, -ā</i>	vividness	spotlighting
		feminine suffix	<i>-i</i>	feminine singular	icon: ♀
		gerund suffixes	<i>-˘, -˘ sta; -o˘; -ik</i>	objectified change	bounding box
		destination	<i>-ñ</i>	place: destination	footprint
		concomitant	<i>-m</i>	manner of motion	moving hand
	Locators	subject suffix	<i>-m, -š, -Ø; -miš, -ñ, -ta</i>	links the verbal subject to an object	connector followed by final state of objects
	External	local adverbs	<i>ˈkuu; ˈāni; ˈā-ki</i>	places	icons
		temporal adverbs	<i>ˈku-i; ˈstrak; ˈdus</i>	time	icons
	Modifiers	prepositions	<i>ˈu, ˈü; ˈni, ˈča</i>	direction	pointing hand
		manner adverbs	<i>ˈgek</i>	imitation of action	various imitative
		postpositions	<i>-a˘; -ea˘</i>	conduit of force	arrow through object
		purpose postposition	<i>-na-i˘; -bātea˘</i>	(various)	footprints and arrows
		intensifiers	<i>-ke˘; -(dū)ne</i>	purpose	footprints and arrows
					quantity: intensified
	Particles	negative	<i>ˈnā; ˈnā-i</i>	negatory erasure	waving hand
emphatics		<i>o; de, ...</i>	emotional emphasis	icons	
vocatives		<i>o, ā, e</i>	attention of hearer	icons	
hearer status			hearer's status	icons	
conjunctions		<i>ča; čo˘; ˈnāmo; ...</i>	image transition	(various)	
subordinators		<i>bo, to; kti</i>	embedded viewports	embedded viewports	

Table 39. Mapping of Morpheme Classes to Depictions.

In Table 39 morpheme classes are grouped according to the type of phrase in which they occur. *Noun phrases* introduce, depict, and spatially locate objects in an image. *Verb phrases* depict and temporally locate changes in the objects that appear in an image.

Particles are words that depict the relative status of the Speaker and Hearer, as well as the negation, emphasis, and relationships of phrases.

Schematic elements are introduced in the following overview of depictional processes; details appear in subsequent chapters.

The overall sequence of image production is (§3.2)

1. depiction and placement of objects through noun phrases, followed by
2. depiction of a change in the objects through verb phrases, followed by
3. depiction of whether the Speaker or Hearer is socially dominant.

<ul style="list-style-type: none"> • Object <ul style="list-style-type: none"> ○ perceptual <ul style="list-style-type: none"> ▪ external <ul style="list-style-type: none"> • countable <ul style="list-style-type: none"> ○ plurality <ul style="list-style-type: none"> ▪ singular and plural (default): <i>lâtr'i</i> 'thing' ▪ plural only: <i>dâř'i</i> 'beard hairs' ▪ singular only: <i>'o~č</i> 'I' ○ form <ul style="list-style-type: none"> ▪ unspecified (default): <i>v'oř</i> 'a rock' ▪ animate: <i>kuř'i</i> 'dog' <ul style="list-style-type: none"> • human: <i>mânš'a</i> 'man; person' <ul style="list-style-type: none"> ○ kin: <i>t'ot</i> 'father' ○ name: <i>m'olkon</i> 'Crest-Lord' ○ title; role: <i>qâs'i</i> 'judge' • livestock: <i>g'o</i> 'cow' <ul style="list-style-type: none"> ○ name: <i>l'âçi</i> 'Red' ▪ biotic: <i>kân'o</i> 'tree' ▪ place: <i>k'ombřom</i> 'Kom Community' ▪ time: <i>gâj'âr</i> 'daytime' ▪ ideophonic: <i>çi~</i> 'peep' ▪ etc. • substance: <i>'ov-</i> 'water'; <i>bř'e</i> 'flour'; <i>v'oř</i> 'rock' ▪ internal, proprioceptive: <i>mâš'a</i> 'anger'; <i>d'oř</i> 'fun' ○ conceptual (abstract) <ul style="list-style-type: none"> ▪ morphosyntactically metaphorical: <i>'leavor</i> 'goodness' ▪ irreducible: <i>gâtr'a</i> 'tired one'; <i>-sta</i> '-one' ▪ verbal nouns: <i>p'iala</i> 'drinker'; <i>p'ia~sta</i> 'drinking'

Table 40. Natural Hierarchy of Objects.

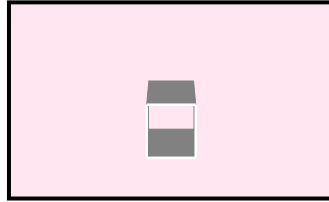
3.1.1 Nouns, Objects, Boxes, and Icons

Objects (§4) fall into natural groups based on their physical or conceptual properties (Table 40; §4.2.2). Such properties determine various grammatical properties of the nouns that represent them.

Additionally, certain external objects are designated as *feminine* (§4.2.4), and countable objects may be *pluralized* (§4.2.3). *Quantifiers* (§4.2.6.1) and *qualifiers* (§4.2.6.3) are specialized objects that specify attributes of other objects.

Boxes represent objects. *Static objects* are colored gray; *active objects* are shown in red.

More iconically realistic depictions may appear for the multiple subclasses of objects described in §4.2.



Depiction 3.4. Static Object.



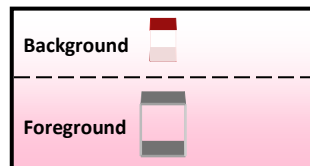
Depiction 3.5. Icon for 'čüt
'sound'.

3.1.2 Locations of Objects: Perspective, Gestures, Places, and Connectors

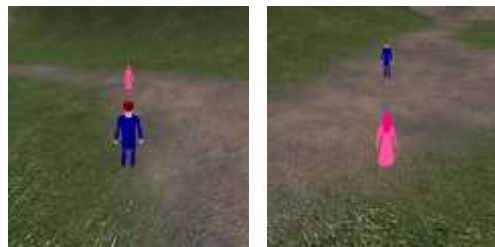
Objects have locations in space and within the linguistic image itself.

3.1.2.1 Location in the Viewport: Perspective

Within the linguistic image objects typically appear in *perspective*, with some objects in the *foreground* and others at specified distances in the *background* of the image.



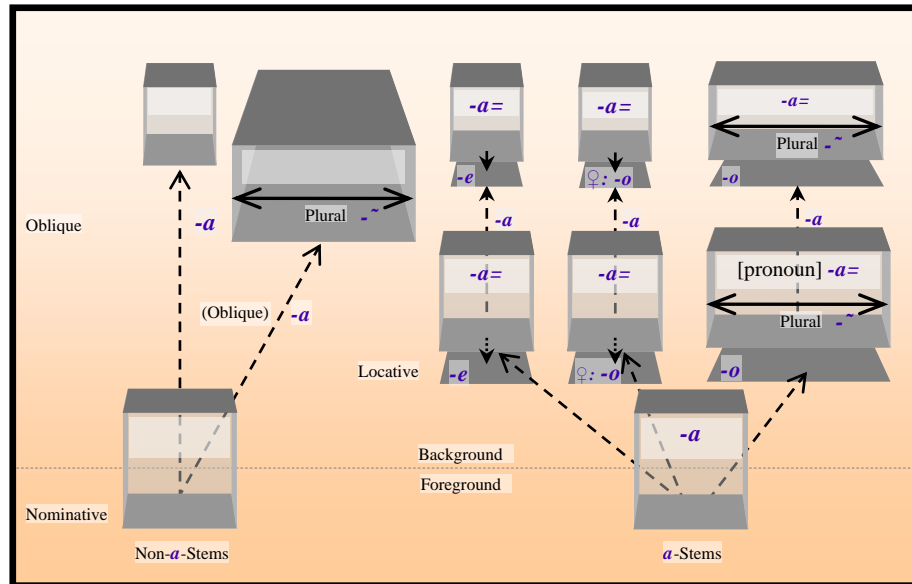
Depiction 3.6. Foreground and
Background.



e ^mânša e `jukuřoa e `jukuř e ^mânšea

Depiction 3.7. Foreground and Background
Objects.

Case suffixes (Depiction 3.8, §4.1.1) on nouns depict up to three degrees of *perspectual distance* that an object may occupy in a viewport. The default degree, depicted by the noun stem without suffix, is closest to the viewer in the *foreground* of the image. Nouns that end in *a* may take a *locative suffix* (default *-e*, feminine singular *-o*), which depicts the *place* that an object occupies. Such places appear in the *close background*. The *oblique-case suffix -a* moves an object to the *far background* of the image.

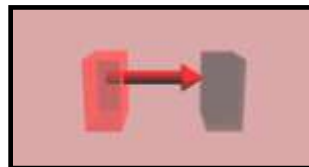


Depiction 3.8. Depiction of Kâmviri Case Suffixes.

When a noun is newly introduced in a discourse, its corresponding object is introduced into the image, in the foreground. If the noun has a case suffix, its object moves into the background.

The plurality of objects is only depicted in the background. No pluralizing suffix exists for nouns in the default, nominative case (§4.1.1), so plurality is not depicted for objects in the foreground.

Multiple objects may stand in the foreground or in the background, appearing side-by-side.



Depiction 3.9. Two-Dimensional Perspective.

Transitive verbs depict interactions between two objects. If interacting objects only appear in the foreground (no case suffixes on the nouns), the image has a flat, two-

dimensional look. Such images depict prototypical or indefinite objects and events, viewed sideways (Depiction 3.9).

Transitive interactions between objects in the foreground and background are viewed in perspective and depict specific or definite objects and events. Objects in the foreground are *subjects* of transitive verbs; they face backward toward their counterpart objects in the background. Conversely, the backgrounded *non-subject* objects face forward toward their counterparts in the foreground.

The direction of transitivity, as specified by a modal suffix on the verb stem and depicted by the Force Arrow (§3.1.3.1), may be from a foreground object to a backgrounded one to depict prospective action, or vice versa to depict past action viewed retrospectively. Retrospective perspective is the basis for the so-called “Split-Ergative” system of past-tense case marking that appears in Kâmviri and most other languages of the region (Depiction 3.10 and Depiction 3.11; §6.3.1.1.1.2).

Behind all objects lies a *modal background*, described below (§3.1.3.2).



Depiction 3.10. Prospective Perspective.



Depiction 3.11. Retrospective Perspective.

3.1.2.2 Location in Space

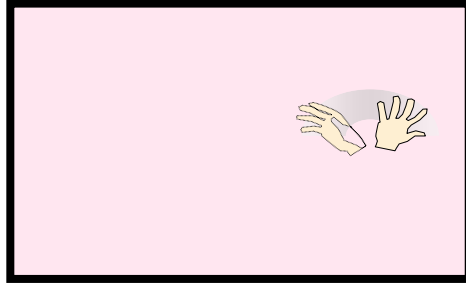
An object’s location in space is defined through *gestures*, *relative locations*, and *connectors* that link it to some known location, or *place*, in space. Places themselves are a class of objects that have inherent locations and that may act as *destinations* for other objects in the image.

3.1.2.2.1 Gesture-Based Morphemes

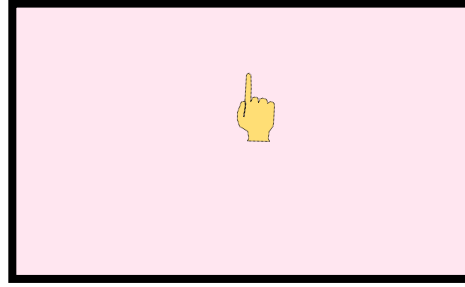
Gesture-based morphemes depict conventional gestures that a speaker uses to indicate objects and model their actions. There are

- interrogative gestures, depicted as a wide-opening, questioning hand,
- imitative gestures, and
- pointing gestures, depicted as a hand pointing to objects in the image.

Morphemes and words of this class include pronouns, adverbs, and prepositions (Table 41, Depiction 3.12 and Depiction 3.13, §5.1.2.1).



Depiction 3.12. Icon for Interrogatives.



Depiction 3.13. Icon for Directional Pointers.

- **Interrogative Gesture:** for objects: *˘kâa* ‘what’, *˘kâça* ‘who’, *˘ketta* ‘which’ *˘çuk* ‘how much’, *˘ça* ‘how many’; for places *˘kora* ‘where; whither’, *˘kuiu* ‘where’; for times: *˘ku-i* ‘when’; for purpose: *˘ke* ‘why’; for manner: *˘kâa kti* ‘how’; *˘kâa sta* ‘how’. The basic interrogative meaning becomes indefinitized with a following, clause-ending *bo* or negated with a following *nâ*.
- **Imitative Gestures:** *˘gi-* for objects: *˘gita* ‘such’; *˘gita sta* ‘such’; for manner: *˘gek* ‘thus’; *˘giĵa ku-* ‘make like this’ = ‘say’; for purpose: *˘giâ~*, *˘ge~* ‘without reason’
- **Pointing Gestures:**
 - Pronouns (point to objects)
 - Interlocutory pointers (“personal pronouns”, with “plural”): *˘o˘c /˘imo – ˘tü /˘šo* ‘I’/‘we’ – ‘thou’/‘you’
 - distance pointers (“3rd Person Pronouns”, with plural and feminine-singular gender):
 - *i-* ‘yonder’, near – far: *˘ina/˘âmnâ – ˘i-a/˘âmki* ‘this’/‘he’/‘she’/‘these’/‘they’ – ‘that’/‘he’/‘she’/‘those’/‘they’
 - *â-* ‘away’, not present: *˘âska* ‘that’
 - alternate pointers: *˘vâra* ‘another’, *˘suara* ‘the other’
 - anaphoric pointers: *˘âmu* ‘him-’/‘her-’/‘it-self’ *˘âmcê~* ‘they themselves’; *˘io* ‘one(self)’
 - directional pointers (point to places)
 - basic:
 - Gravity: sky – earth: *˘u – ˘ü* ‘up’ – ‘down’
 - Elevation: high – low: *˘ça – ˘ni* ‘high(er)’ – ‘low(er)’
 - Container/Barrier: in – out: *˘âta – ˘bâra* ‘in’ – ‘out’
 - pointer extension: *-ua~* ‘way up (high/in)’
 - object-relative
 - general: *pâ-* ‘thither’
 - Speaker-centric: *vâ- – pâ-* ‘hither’ – ‘thither’
 - pointer extensions: *-e* ‘and across’, *-âñu* ‘and up’, *-a* ‘and down’, *-ü* ‘and over; around’
 - Actor-centric: this set of verbally incorporated pointers includes: *â-*, *˘âa-*, *pâ-*, *pi-*, *př-*, *přâ-*, *vâ-*, *vřâ-*, *u-*, *vi-*, *ni-*, *nu-*, *sa-*, *sâ~*-, and *n-*.

Table 41. Gestural Forms.

3.1.2.2.2 Places

Places include an object's place (Depiction 3.30), postpositions (Depiction 3.14 to Depiction 3.19), directed locations (Depiction 3.13), and named places (Depiction 3.31).

3.1.2.2.2.1 Places Relative to an Anchor Object's Place

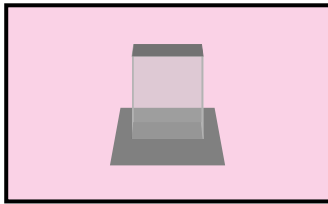
A place may be located relative to an *anchor object's* place.

3.1.2.2.2.1.1 An Anchor Object's Place (-e; -o-a~)

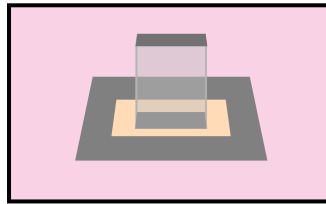
An anchor object's place is depicted by its locative case if it is an *a*-stem noun. For non-*a*-stem nouns an anchor object's place is its "footprint" in the foreground of the image (Depiction 3.8).

3.1.2.2.2.1.2 Postpositions (§5.1.2.2.1.1.1).

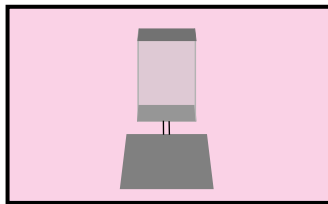
Postpositions depict places located relative to an anchor object's place (Depictions 3.14 to 3.17).



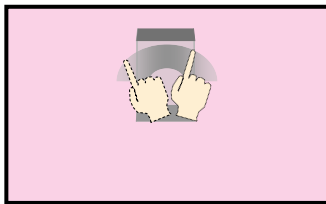
Depiction 3.14. Locator *-to*
'place'; 'to'; 'at'; 'in'.



Depiction 3.15. Locator *-u*
'around'.

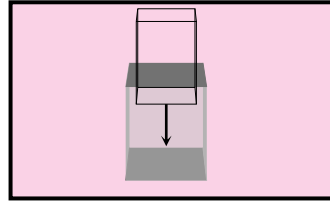


Depiction 3.16. Locator
-meṣ 'with'.

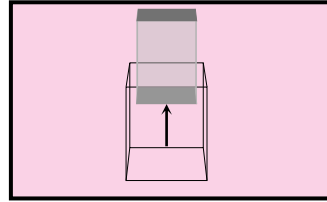


Depiction 3.17. Locator
-nâ-i~ 'without'.

Certain postpositions depict places located relative to or from an anchor place (Depictions 3.18 and 3.19).



Depiction 3.18. Locator
-*ste* 'from'.

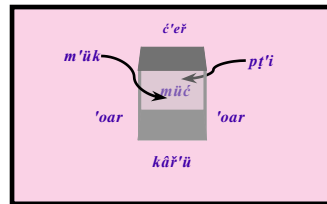


Depiction 3.19. Locator
-*vik* 'up to'.

3.1.2.2.1.3 Conventional Anchor-Object-Relative Places (§5.1.2.2.1.2).

Conventional body parts metaphorically depict an object's three-dimensional surfaces plus its middle (Depiction 3.20):

top *ć'eř* – bottom *kâř'ü*
 front *m'ük* 'face' – back *pt'i*
 side *'oar*
 midst *m'üč*



Depiction 3.20. Object-Relative Surfaces.

The locations of these objects are depicted with the pointer *pâ-*: *pâć'eř* 'on top', *pâk'üř* (irregularly) 'underneath', *pâm'ük* 'in front', *p'oar* 'to the side', *pâm'üč* 'in the midst'. 'Behind' is *pt'ipâar*, ← *pt'i* + *pâ-* + *'oar* "backside."

These conventional locations are "possessed" by an anchor object at its location; e.g., *ĩ pâceř* "my on-top" = 'on top of me; over me'.

Note the following contrasts and usages:

řea 'head vs. *ˆkâřü* 'base':

řea 'head vs. *ć'eř* 'top': *ˆpâřea* 'on the head'; *ˆpâceř* 'on top'; *_to pâceř* 'above; over'

pâ-ˆkâřü → *ˆpâküř* 'at the base/foot; underneath'

'oar (also *'oara*, *-âar*, *-âara*) 'side; way': *ˆâ-ki poar* 'toward there', [direction]-*ň poar* '[direction] that way', [place name] *poar* 'toward [place]'. *'oar* has an alternate form *âar* 'way' that appears with *ˆina* 'this', *ˆi-a* 'that', *ku* 'left', *ˆpâčuř* 'right', and *pt'i* 'back'. The form *pt'ipâar* 'behind', less often *pt'ipâara*, is more usual than the somewhat archaic *pt'i poar*.

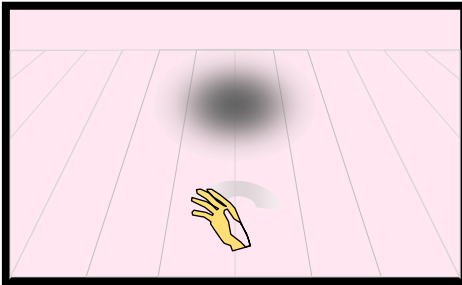
Locations in a line begin with *`nüš* ‘first’ (in *^pânüš* ‘at first; in front’), followed by *`pîpâar* ‘after; following’.

3.1.2.2.2 Directions and Targets

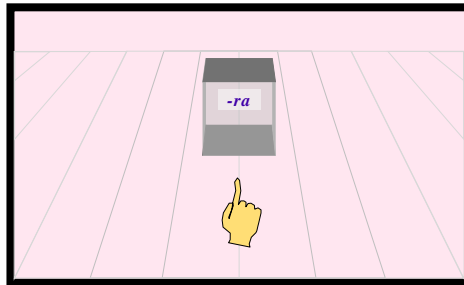
Directional Pointers (§3.1.2.2) represent the Speaker’s pointing hand in schematic images (Depiction 3.13). The hand may point in the direction of verbal motion or to a directional target. Directional targets may be either specific or non-specific places, at either an unspecified (default), close, or far distance. Directional targets include:

- ñ [non-specific place]; ‘[direction] there somewhere’
- ra [specific object]; ‘that [direction] there’
- re [specific place (locative case of -ra)]; ‘[direction] there’
- ru [specific object + *u* ‘around’]; ‘[direction (in/out)]-side’
- ruk_u [nearby specific place]; ‘[direction] there a bit’
- ma [region extending away in the specified direction]; ‘[direction]-wards’
- mak [nearby region extending away in the specified direction]; ‘[direction]-wards a bit’
- pik [distal region]; ‘[direction] there a way’
- pâčũruk [‘at the tip/end’]; ‘[direction]-ermost’

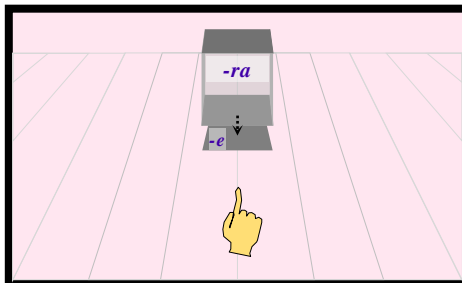
Depictions of these targets appear below:
Locational Shape and Specificity:



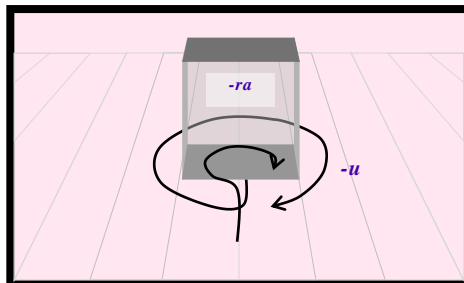
Depiction 3.21. Directional Target *-ñ*.
Non-Delimited Place.



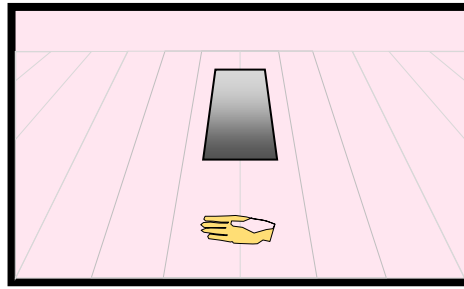
Depiction 3.22. Directional Target *-ra*.
Object (Appositive/Attributive).



Depiction 3.23. Extended Directional
Target *-re*. Delimited Place.

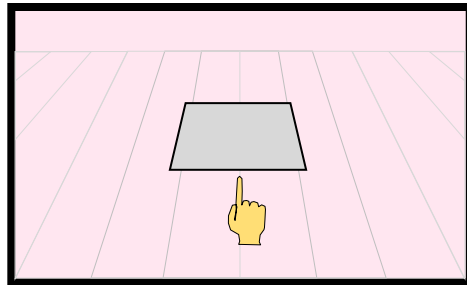


Depiction 3.24. Extended Directional
Target *-ru*. Inside/Outside of a Delimited
Place.

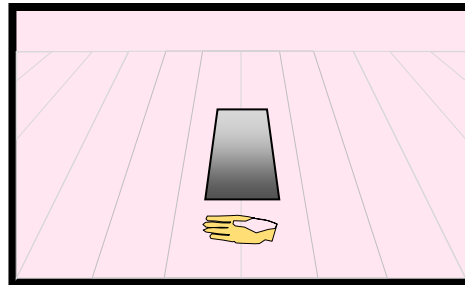


Depiction 3.25. Directional Target *-ma*.
Extensive Place.

Distance:
Proximal:

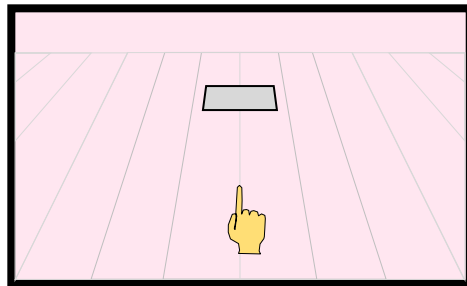


Depiction 3.26. Directional Target *-ruk(u)*.
Proximal Delimited Place.

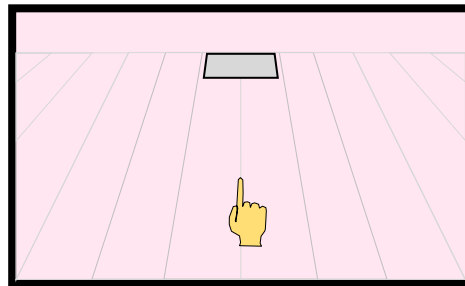


Depiction 3.27. Directional Target *-mak*.
Proximal Extensive Place.

Distal:



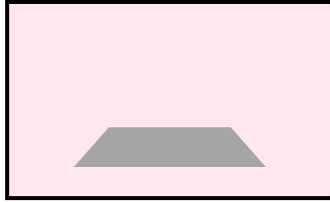
Depiction 3.28. Directional Target *-pik*.
Distal Place.



Depiction 3.29. Directional Target *pâčuřuk*.
Distalmost Place.

3.1.2.2.3 Named Places

Named places are fixed geographic areas (Depiction 3.31).



Depiction 3.30. A Place.



Depiction 3.31. Place Name
'Ūrbřom 'Lower Village' (in
Kâmdesh).

Maps are networks of named places.

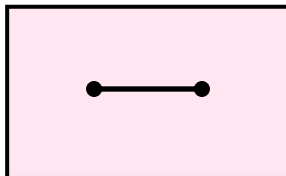
3.1.2.2.3 Connectors

Connectors link objects through apposition and projection (Depiction 3.33 to Depiction 3.34).

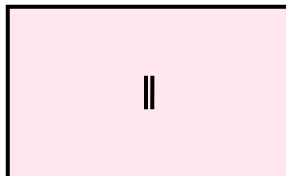
An appositive link places an object in the image on top of and coterminous with an object in the image.

A subtype of apposition shows a genitive or partitive link between objects.

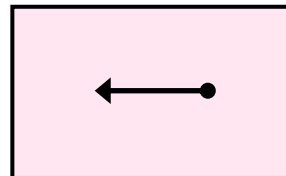
A projective link projects an object in an embedding image into an embedded image.



Depiction 3.32.
Appositive Link.



Depiction 3.33.
Genitive/Partitive Link.



Depiction 3.34.
Projective Link.

3.1.3 Verbs, Changes, Arrows, and Modes

Verbs depict changes in a Linguistic Image. Such depictions include arrows that link interacting objects to show fundamental processes of physics: force, motion, creation (emission) and destruction (consumption). An arrow's length depends on the spatial situation of the objects it links.

Verbs also depict modes of cognition which set the background and perspective on the Linguistic Image during the change.

3.1.3.1 Arrows

The arrows of Depiction 3.35–Depiction 3.38 represent force, motion, emission, and consumption. Details appear in §6.1.5.



Depiction 3.35.
Force Arrow.

Depiction 3.36.
Motion Arrow.

Depiction 3.37.
Emission Arrow.

Depiction 3.38.
Consumption Arrow.

The Force Arrow represents the *transitive force* between an actor object and a goal object, as depicted by a transitive verb. If an actor acts on a goal remotely through another agent or externally on an internal bodily function, an extra degree of length is added to the Force Arrow to represent such *Remote Agency* (traditionally called “causativity,” a term that does not imply external-to-internal action).

3.1.3.2 Modes

Behind all objects in the Linguistic Image lies a *Modal Background*, which shows which basic *cognitive mode* the Speaker is operating in:

- *Prototypical*,
- *Conceptual*,
- *Perceptual/Progressive*,
- *Recollective*, or a
- *blend* of these basic modes.

The basic cognitive modes are depicted by a small number of deictic morphemes and verbal suffixes.



Depiction 3.39.
Prototypical Mode.

Depiction 3.40.
Conceptual Mode
-la.

Depiction 3.41.
Progressive/
Perceptual Mode *-na-*.

Depiction 3.42.
Recollective Mode *-i*,
etc.

Modes are distinguished by the lighting and background color of the **Modal Background**, according to a visual metaphor: the light source emanates from the **Conceptual Future** and shines back into time, so that the light dims as the speaker looks farther back into time. The basic cognitive modes represent zones along the timeline from future to past (Timeline 3.1). The **Conceptual Mode** is depicted with the light source in the background, so that the background gets brighter as the temporal distance from “now” (“futuraity”) increases. Conversely, **Recollective Mode** is depicted with a light source behind the Speaker's viewpoint, which looks backward from “now” into past time, so that the background gets darker as the temporal distance (“pastness”) increases. Current perception itself is its own modal background, semi-realistically in the depictions shown here, as a subject progresses through current time (“now”). **Prototypical Mode** depicts “Immediate” time, but it is depicted here by a neutral pink background.

